COMMUNICATING NURSING RESEARCH CONFERENCE PROCEEDINGS

VOLUME 46

CREATING A SHARED FUTURE OF NURSING: RESEARCH, PRACTICE, AND EDUCATION

2013

Western Institute of Nursing

go to PG.

WESTERN INSTITUTE OF NURSING

The Western Institute of Nursing (WIN) is the western regional nursing organization that succeeded the Western Council on Higher Education for Nursing (WCHEN). In 1985, following extensive deliberations by special committees, the decision to create an autonomous, self-supporting organization was implemented. At the first meeting of the new organization, nurses from collegiate schools of nursing and health care agencies adopted the bylaws and the new name of the organization, Western Institute of Nursing. The organization moved to Portland, Oregon on July 1, 1996. The Western Institute of Nursing was incorporated on November 3, 1998 in accordance with the Oregon Nonprofit Corporation Act.

WIN exists to bring together a diverse community of nurses in a shared commitment to transcend the boundaries of knowledge development and application to advance the discipline and drive improvements in practice, outcomes, and cost. The organizational structure includes the Membership Assembly, the Board of Governors, committees, and societies.

There are six categories of membership in WIN: agency, individual, student, retired nurse, associate, and honorary. Agency memberships are open to organized nursing education programs and organized nursing practices in one of the states designated by the Board of Governors as being in the western region. Individual membership is open to RNs who support the mission of WIN. Student members must be matriculated in a degree granting program. Retired nurse membership is open to retired nurses who live in, or relocate to, the region following retirement. Associate memberships are open to individual non-nurses who, and to organizations, agencies, and businesses outside the western region which, support the mission of WIN. Honorary memberships include those designated for Emeritus status and those who have made supporting contributions to WIN.

Home ◀ ▶ go to PG.

COMMUNICATING NURSING RESEARCH

Volume 46

CREATING A SHARED FUTURE OF NURSING: RESEARCH, PRACTICE, AND EDUCATION

An annual publication of the Western Institute of Nursing containing the proceedings of the Communicating Nursing Research Conference and WIN Assembly held April 10 - 13, 2013 at the *Disneyland*® Hotel, Anaheim, California.

WESTERN INSTITUTE OF NURSING
SN-4S
3455 SW US VETERANS HOSPITAL ROAD
PORTLAND, OR 97239-2941

An Affirmative Action/Equal Opportunity Employer

Spring 2013

COMMUNICATING NURSING RESEARCH

issues previously published:

Volume 1: The Research Critique
Volume 2: Problem Identification and the Research Design
Volume 3: Methodological Issues in Research
Volume 4: Is the Gap Being Bridged?
Volume 5: The Many Sources of Nursing Knowledge
Volume 6: Collaboration and Competition in Nursing Research
Volume 7: Critical Issues in Access to Data
Volume 8: Nursing Research Priorities: Choice or Chance
Volume 9: Nursing Research in the Bicentennial Year
Volume 10: Optimizing Environments for Health: Nursing's Unique Perspective
Volume 11: New Approaches to Communicating Nursing Research
Volume 12: Credibility in Nursing Science
Volume 13: Directions for the 1980's
Volume 14: Health Policy and Research
Volume 15: Nursing Science in Perspective
Volume 16: The Image of Nursing Research: Issues and Strategies
Volume 17: Advancing Nursing Science: Qualitative and Quantitative Approaches
Volume 18: Influencing the Future of Nursing Research through Power and Politics
Volume 19: The Winds of Change: New Frontiers in Nursing Research
Volume 20: Collaboration in Nursing Research: Advancing the Science of Human Care
Volume 21: Nursing: A Socially Responsible Profession
Volume 22: Choices within Challenges
Volume 23: Nursing Research: Transcending the 20th Century
Volume 24: Partnerships: Putting It All Together
Volume 25: Silver Threads: 25 Years of Nursing Excellence
Volume 26: Scholarship in Practice
Volume 27: Research, Practice, and Education within the Health Care Agenda
Volume 28: Innovation and Collaboration: Responses to Health Care Needs
Volume 29: Advancing Nursing through Research, Practice, and Education
Volume 30: Nursing: Changing the Environment
Volume 31: Quality Research for Quality Practice
Volume 32: Nursing Research: For the Health of Our Nation
Volume 33: Building on a Legacy of Excellence in Nursing Research
Volume 34: Health Care Challenges Beyond 2001: Mapping the Journey for Research and Practice
Volume 35: Health Disparities: Meeting the Challenge
Volume 36: Responding to Societal Imperatives through Discovery and Innovation
Volume 37: Hallmarks of Quality: Generating and Using Knowledge
Volume 38: Looking Ahead: Innovations in Nursing Science, Practice and Education
Volume 39: Building Knowledge for Practice
Volume 40: 50 Years of Advancing Nursing in the West 1957 – 2007

Home ◀ ▶ go to PG.

Volume 41: The Circle of Nursing Knowledge: Education, Practice and Research
Volume 42: Networks in Nursing Science: Creating Our Future
Volume 43: Nursing Science: Informing Practice and Driving Policy
Volume 44: Transitions: Unifying Practice, Education, and Research to Improve Health
Volume 45: Advancing Scientific Innovations in Nursing

The Cumulative Index of the Communicating Nursing Research Conference Proceedings, Volumes 1 to 25, (1968-1992) was published in 1992.

COMMUNICATING NURSING RESEARCH has been published annually by the Western Institute of Nursing. Each volume contains the addresses and abstracts of papers presented at the annual Communicating Nursing Research Conference.

TABLE OF CONTENTS

Home go to PG.

Home ◀ ▶ go to PG.

Home ◀ ▶ go to PG.

Home

go to PG.

Home

go to PG.

Home

go to PG.

Home

◀ ▶ go to PG.

Home

◀ ▶ go to PG.

Home
◀ ▶ go to PG.

Home ◀ ▶ go to PG.

Home
◀ ▶ go to PG.

Home

go to PG.

Home

go to PG.

Home ◀ ▶ go to PG.

FOREWORD

The theme of the 46th Annual Communicating Nursing Research Conference is, "Creating a Shared Future of Nursing: Research, Practice, and Education." In the following pages of these conference proceedings, readers will find the plenary session papers, the abstracts of podium and poster presentations, and the titles of posters submitted through the Research & Information Exchange (R&IE). Those who have consistently read the proceedings will note that this edition is much larger than in the past. A record number of abstracts were submitted for the 2013 conference, and a record number of R&IE posters were submitted.

We are pleased to say that the generation and utilization of new knowledge is alive and well in the Western region! The interface between research, practice, and education is evident when reading the reports of research and practice and educational projects. Nurses from the Western region, and our members from across the United States and around the world, are making a difference in many settings and in many ways.

Paula McNeil, RN, MS
Executive Director
March 2013

Home ◀ ▶ go to PG.

PREFACE

The 46th Annual Communicating Nursing Research Conference, "Creating a Shared Future of Nursing: Research, Practice, and Education," was held April 10-13, 2013 at the Disneyland Hotel in Anaheim, California. Following is a description of the contents of these proceedings.

The plenary sessions focused on creating a shared future of nursing. The keynote address was delivered by **Heather M. Young**, PhD, RN, FAAN, Dean, Betty Irene Moore School of Nursing; Professor, Department of Internal Medicine; Associate Vice Chancellor for Nursing, University of California, Davis, CA. Three State of the Science presentations were made by: **Maureen R. Keefe**, RN, PhD, FAAN, Dean and Endowed Presidential Professor, College of Nursing, University of Utah, Salt Lake City, UT; **Joan L. F. Shaver**, PhD, RN, FAAN, Dean and Professor, College of Nursing, The University of Arizona, Tucson, AZ; and **Marla J. Weston**, PhD, RN, FAAN, Chief Executive Officer, American Nurses Association, Silver Spring, MD.

Three award papers were presented:
Distinguished Research Lectureship Award: Terry A. Badger, PhD, PMHCNS-BC, RN, FAAN, Professor, College of Nursing, The University of Arizona, Tucson, AZ;
Carol A. Lindeman Award for a New Researcher: Gayle J. Kipnis, PhD, RNC-OB, AHN-BC, Assistant Professor, School of Nursing, California State University, Chico, CA; and
Patsy A. Perry Biological Nursing Research Award: Lauren Thorngate, PhD, RN, CCRN, Postdoctoral Research Fellow, Biomedical Informatics and Medical Education, University of Washington, Seattle, WA.

The Western Academy of Nurses panel focused on the emerging science regarding the influence of gender in cardiovascular disease and the application of theories and study findings to gender-specific symptom identification and disease treatment/prevention. Speakers included: **Lynn V. Doering**, RN, DNSc, FAAN, Professor UCLA School of Nursing, Los Angeles, CA; **Holli A. DeVon**, PhD, RN, Associate Professor, University of Illinois at Chicago, Chicago, IL; **JoAnn Eastwood**, PhD, RN, CCNS, ACNP-C, Assistant Professor, UCLA School of Nursing, Los Angeles, CA; and **Christopher Sean Lee**, PhD, RN, Assistant Professor, Oregon Health & Science University, Portland, OR.

The Proceedings include the abstracts of symposium, podium, and poster presentations. Two hundred and thirty-nine papers were presented in podium sessions on a wide variety of topics, including completed research, theoretical papers, and projects. One hundred and twenty-two papers were presented in twenty-four symposia, and one hundred and seventeen papers were organized in twenty-six other concurrent sessions. Four hundred and twenty-eight posters were exhibited in four poster sessions, and represented research, completed or in progress, and projects. A total of one hundred and sixty-six posters were submitted for the Research & Information Exchange by students from member schools and by nurses from member health care agencies.

Awards were given to fourteen WIN individual members and friends during the 2013 conference. Please consult the Table of Contents for the location of the aforementioned papers, the list of awardees honored by WIN, and the name and subject indexes.

Home ◀ ▶ go to PG.

The conference was planned and organized by the WIN Program Committee. The 2013 committee identified speakers and topics to address the ways in which practice, education and research advance scientific innovations in nursing in the Western region. The committee has created a stimulating program. We make special recognition of, and extend our gratitude to the Program Committee members: Lauren Clark, UT, Chair; Judith Berg, AZ/CA; Doris Boutain, WA; Tina DeLapp, AK; Marie Driever, OR/WA; Teresa Goodell, OR; Margo Halm, OR; Anne Marie Kotzer, CO; Martha Lentz, WA; Lori Loan, WA; Marie Lobo, NM; Barbara Mandleco, UT; Jennifer Mensik, ID; Roberta Rehm, CA; Jan Schoultz, HI; Donna Velasquez, AZ; and Charlene Winters, MT.

We extend special appreciation to:
Judi Gibbs, who created the name and subject indexes for the proceedings;
Amy Tomlinson, Graphic Designer; and
Charlotte Woodward, Graphic Designer.

We extend our gratitude to the WIN Executive Director, Paula McNeil, and her staff, Bo Perry, Conference Manager, and Lana Kamerer, Administrative Coordinator, for their work in bringing the Committee's plans to reality. Finally, we thank all the nurse researchers across the West and from other parts of the country and world who submitted papers, and all who participated in the 2013 conference.

Judith A. Berg, PhD, RN, WHNP-BC,
FAAN, FAANP, President
Western Institute of Nursing

Lauren Clark, PhD, RN, FAAN, Chair
WIN Program Committee

Home ◀ ▶ go to PG.

Keynote Presentation

NURSES LEADING CHANGE, ADVANCING HEALTH: OUR CAMPAIGN FOR ACTION

Heather M. Young, PhD, RN, FAAN
Dean, Betty Irene Moore School of Nursing
Professor, Department of Internal Medicine
Associate Vice Chancellor for Nursing
University of California, Davis, CA

Home ◀ ▶ go to PG.

NURSES LEADING CHANGE, ADVANCING HEALTH: OUR CAMPAIGN FOR ACTION

Heather M. Young, PhD, RN, FAAN
Dean, Betty Irene Moore School of Nursing
Professor, Department of Internal Medicine
Associate Vice Chancellor for Nursing
University of California, Davis, CA

For years, as a gerontological nurse, I have been stating that we are facing a silver tsunami as our population ages, with all the implications for our society and for health care delivery. While it provided a compelling statement of significance in numerous grants and manuscripts, the reality of this statement is just beginning to actualize. At the same time, we have begun a rapid journey into the future of health care in the United States, with many stars aligning to create an unprecedented urgency and level of activity around reforming our delivery systems, our education, and the way we do business across many sectors. If you are feeling that the sands beneath your feet are shifting, the winds of change are at gale force, and your comfortable assumptions about your roles and resources are threatened, you are not alone! I cannot imagine a better time for nurses to lead change and advance health. The good news is that for the first time, a concerted national effort is underway to take advantage of the uncertainty and to forge ahead with new solutions that will transform health care and secure rational paths towards improved population health. This paper will underscore the major evolving concurrent trends, then will summarize the goals of the Future of Nursing Campaign, will provide highlights of progress to date, and will conclude with thoughts about future emphases to advance the cause.

Major Evolving Concurrent Trends

Our population is changing. It is not uncommon to have five generations in a family, and there are fewer young people available to provide care and support for older family members. Our population is also growing more diverse, but our health-care system and our practitioners do not reflect the communities we serve. The face of health care is changing too – disabled people are living longer than ever before due to advances in medicine that enable people to survive severe trauma, live with developmental disabilities, and manage complex health conditions for many years. With the aging of the population, chronic diseases are more common. Older adults have two to three chronic conditions that may not require complex care, but certainly require lifestyle adjustments in diet, activity and managing medications, and often have implications for quality of life and symptoms. Childhood obesity is rising at alarming rates, with implications for lifelong health and well-being. Individuals, families, and communities are expecting greater involvement and access to information and care and we have innovative technological solutions that are more affordable to help people manage chronic conditions. Health disparities and issues of access permeate our communities, leaving many individuals and families without the comprehensive care they need. Health happens everywhere and the opportunities to influence behavior and promote self-management abound in the community, in schools, senior centers, retail establishments, social networks, and virtually (Institute for Alternative Futures, 2012).

Home

◀ ▶ go to PG.

Still, our health-care system remains focused on acute and episodic conditions. Our reimbursement favors specialty practice and high-tech procedures over basic health care and community health and favors individual care over increasing the capacity of family caregivers. We spend the most money per capita on health among all industrialized nations, and yet we have the worst outcomes on most health indicators such as mortality and obesity. Despite rapidly growing costs, unacceptable quality failures persist and result in unnecessary loss and suffering for both individuals and families.

Much-needed health care reform is moving rapidly. The Affordable Care Act (ACA) of 2010 is creating gale force winds as regulators, payors, health systems and providers scramble to address issues of access, quality and cost required by its provisions. Health systems are guided by the Triple Aim (Institute for Healthcare Improvement, 2007) – to improve the patient experience of care (including quality and satisfaction) and the health of populations while reducing the per capita cost of health care Multiple parties are responding to the associated changes in reimbursement and incentives, requirements to increase access to health care, the emerging crisis in primary care, and the rapidly shifting landscape. Stakeholders are focusing on value and quality. Innovations in care and systems are required – it will not be a matter of simply cutting costs, but redesigning systems. New habits will have to be honed, including exceptional leadership, flexibility and nimbleness, effective communication and collaboration skills, the ability to form new kinds of coalitions, teams and strategic partnerships, the use of enabling technology, translational research, and a strong commitment to engaging those we serve. The scope of practice of health care professionals will be redefined and reformed to position teams (including community members and unlicensed colleagues) to deliver effective, high value care.

While the ACA does little to address education and research directly, there is no question that sweeping change in health care delivery will precipitate new demands on education, both for retooling health professionals and for addressing projected workforce shortages related to growing demand and shrinking supply. As health care systems move rapidly into new models, education often lags, contributing to a gap between the competencies and skills of graduates and the new demands in practice. We will need more, and better educated, nurses to practice in new ways and in different and more complex settings, with more diverse populations. At the same time, nursing faculty shortages are projected while greater capacity is needed.

Academia moves slowly and is encumbered by many traditions and assumptions that slow our ability to retool and address emerging needs. We must find ways to be more efficient and effective in preparing the next generation to practice, teach, discover, and lead. Content becomes dated, even before graduation, so practices of lifelong learning and mentorship become even more crucial. At the same time, higher education in the United States is facing threats in both funding and the question of relevance as taxpayers, students, and parents scrutinize the value proposition and want to make sure their investments are returned by graduates who can flourish with productive opportunities. Funding for research is constrained, and the grant proposal pool is increasingly competitive over a small pool of available resources. New solutions for access to learning are emerging in education science and technology, with disruptive innovations such as Massive Open On-line Courses (MOOCs) changing assumptions about delivery. The future of higher education hinges on the creation of sustainable models that optimize student-centered learning and reduce costs.

Home ◀ ▶ go to PG.

So much data are available, from genomics and proteomics to clinical health information in the electronic health record to environmental information about neighborhood characteristics and air and water quality. It is imperative to make sense of the complexities through research, turning data into wisdom to guide our actions. Nursing research is crucial, with faster dissemination, to contribute to our knowledge about interventions and their effectiveness based on the characteristics of the individual, the system and the context. Collaboration with other disciplines, such as computer science, engineering, community development and cultural studies is necessary to expand knowledge foundational for our practice. The forces in play are massive, the stakes are high, and our ability to thrive in the future will depend on how well we prepare ourselves, our learners, and our communities for changing circumstances and diverse environments.

The Institute of Medicine *Future of Nursing* Report

The need for creative, committed and talented nurses has never been greater. In 2010, the Institute of Medicine (IOM) released the *Future of Nursing: Advancing Health, Leading Change* report (Institute of Medicine, 2010). The IOM committee included 18 members from various disciplines and was chaired by Donna Shalala, the former Secretary of Health and Human Services. This group reviewed the evidence and concluded that the nation can address the challenges outlined above by maximizing the contributions of nurses, as nurses are vital to the successful transformation of health care. That means preparing nurses/nursing to meet the health care demands of today and tomorrow and to lead many of the innovations we rely on to increase access, improve quality, and contain costs. Nurses with strong clinical and leadership skills can promote wellness, develop new models of care, manage coordination of care, and improve quality and safety in systems. The report provided a set of evidence-based recommendations regarding the Future of Nursing addressing four major goals:

1. **Strengthen Education, Training and Diversity:** Enhance the capacity of nurses to manage increasing numbers of diverse patients with multiple health conditions in a more complex health care system. A more highly educated nursing workforce can lead system improvements and improve quality, accountability, and coordination of care. We must recruit and train the nursing workforce to provide culturally competent care in a variety of settings to more aging and ethnically diverse patients with more chronic illness.

2. **Lead Health Care Change:** Develop more nurse leaders to direct and manage system change, promote prevention, and contain costs. Position nurses on boards and in positions of influence to drive change and policy.

3. **Expand Access:** Eliminate barriers that restrict the ability of advanced practice registered nurses (APRNs), registered nurses (RNs) and all other providers to provide optimal care. Outdated barriers limit fully qualified nurses and others from giving care to those who need it. Laws, regulations and organizational policies that restrict advanced practice registered nurses (APRNs) and other skilled providers from practicing to the full extent of their education and training must change.

4. **Improve Quality and Coordination:** Improve care by promoting interprofessional collaboration and team-based approaches among health care professionals.

Home ◀ ▶ go to PG.

To assure that the *Future of Nursing* recommendations moved forward rapidly, as a joint initiative, AARP and the Robert Wood Johnson Foundation launched the *Campaign for Action (CFA)*, housed at the AARP Center to Champion Nursing in America (CCNA). The CFA has organized 50 state Action Coalitions to mobilize nurses and diverse health care stakeholders to join in the needed transformation. The CFA provides a voice and a vehicle for nurses at all levels to lead/manage system change, in partnership with others.

Since launching the campaign, there have been a number of impressive accomplishments. The following section highlights selected activities and outcomes at the national level and across the western states. This is not an exhaustive, nor a systematic review, but a set of examples to illustrate various emphases and priorities, sampled from reports submitted to the CFA summarizing progress through third quarter 2012.

National Progress on CFA Implementation

The partnership with AARP and the Center to Champion Nursing in America was wise in several respects: leveraging the considerable visibility and clout of the largest consumer organization in the nation and enabling partnerships at both the national level and in each state where AARP has state offices. Because AARP can lobby, while many foundations and educational organizations may only educate, legislative issues identified in the report that align with the goals of AARP can be forwarded by lobbying, contributing testimony and comments on relevant bills, and technical assistance in the form of analysis, comments, letters and testimony at both the federal and state levels. AARP is effective in building coalitions, and through the CCNA, is facilitating engagement of diverse stakeholders including a variety of professional organizations, employers, payors, and business at the national and state levels. Importantly, they are developing strategies and advancing collaboration with groups who have formally stated opposition to the recommendations.

Visibility, Technical Assistance, and Outcomes. An effective campaign relies on awareness and engagement and both are growing rapidly. The *Future of Nursing: Leading Change, Advancing Health* is the most downloaded report and top reason people visit the IOM website. This report and CFA have generated more the 64 million media impressions. The *Campaign for Action* has engaged Action Coalitions (ACs) in all 50 states and is providing tools and technical assistance. CCNA launched a web-site (www.CampaignforAction.org) as a unified online presence creating an informational hub and community portal for stakeholders to engage in the *Campaign for Action*. Here, communications materials and guides (e.g., the DVD *Nurse Leaders in the Boardroom)* are available, in addition to webinars and updates about national and state activities and outcomes. The CFA tracks accomplishments and facilitates sharing of best practices across states and has posted dashboard indicators to measure the campaign's success.

In addition to state action coalitions, several committees enhance the enactment of the campaign. A *Strategic Advisory Committee* provides broad guidance and consultation. The *Diversity Steering Committee* (DSC) disseminates campaign messages into websites and newsletters of minority nursing organizations; connects gender, ethnic and minority nurse associations with AC leaders; and has secured speaking engagements for campaign spokespersons and DSC members for diverse audiences including the National Association of Hispanic Nurses (NAHN), National Black Nurses Association

(NBNA), American Assembly for Men in Nursing (AAMN), and the Health Resources and Services Administration (HRSA). The *Nursing Education Transformation Learning Collaboratives* facilitate sharing promising practices and challenges across action coalitions. Finally, with CCNA facilitation, leaders in nursing education (the American Association of Community Colleges, the Association of Community College Trustees, the American Association of Colleges of Nursing, the National League for Nursing, and the National Organization for Associate Degree Nursing published a joint statement in support of nursing education which sets a new standard for collaboration across educational organizations.

CCNA will host the first *Future of Nursing* National Summit in February 2013 to engage and energize the leaders of the Action Coalitions and to promote establishment of new networks and sharing lessons learned.

Funding. Substantial funding is advancing the effort, at state and national levels. In August 2012 the Robert Wood Johnson Foundation announced nine Academic Progression in Nursing (APIN) Grantees, including five action coalitions in the WIN region: California, Hawaii, Montana, New Mexico, and Washington. For the APIN projects, each AC will work with academic institutions and employers to design and implement strategies that further the IOM recommendations on academic progression. This program is overseen by a tricouncil of the American Organization of Nurse Executive (AONE), the National League for Nursing (NLN) and the American Nurses Association (ANA). RWJF provided $4.3 million over 2 years with anticipated funding for 2 more years. In October 2012, the National Coordinating Center for Interprofessional Education and Collaborative Practice was formed as a partnership among Health Resources and Service Administration (HRSA) and four foundations, the Robert Wood Johnson Foundation, the Josiah H. Macy Foundation, the John A. Hartford Foundation and the Gordon and Betty Moore Foundation. This center will enhance capacity building and increase visibility of high quality, coordinated team-based care and received $8.6 million over 5 years.

Policy. Exciting progress has already occurred in policy, particularly focused on removing barriers to optimal care by Advanced Practice Registered Nurses (APRN). While scope of practice is regulated at the state level, a number of federal efforts are removing barriers. In July 2012, AARP's Public Policy Institute released, "Removing Barriers to Advanced Practice Registered Nurse Care: Home Health and Hospice Service" (Brassard, 2012). This report frames the issues in terms of benefits to consumers, physicians, and the health care system and addresses the IOM report recommendation that APRNs be allowed to certify patients for Medicare payment of home health and hospice services. However, Medicare laws and regulations prohibit APRNs from conducting certification for these services. Allowing APRNs to certify home health and hospice services can potentially decrease costs, expedite treatment by eliminating the need for physician sign-off, and enable patient-centered health care teams to practice more efficiently. AARP is supporting HR 2267 and S227 with many cosponsors.

In addition, CCNA has been addressing Conditions of Participation for payment by the Center for Medicare and Medicaid Services (CMS), encouraging CMS to modify proposed regulation to clearly state qualified health professionals be eligible for clinical privileges, admitting privileges, and medical staff membership with voting privileges and that hospital policies assure the process for making these decisions are transparent,

Home ◀ ▶ go to PG.

objective and timely. CMS already expanded the term "medical staff" to include APRNs and now supports the use of team-based and collaborative care for patients.

The US House recently passed HR2465, the Federal Workers' Compensation Modernization and Improvement Act, to allow APRNs and physician assistants to certify eligibility for federal workers compensation and to diagnose and treat federal employees with job-related traumatic injuries. It is now under consideration by the Senate Government Affairs and Homeland Security Committee.

AARP recently submitted a letter of support to Senator Conrad for his bipartisan Craig Thomas Rural Hospital and Provider Equity Act, or R-HoPE (S1680). This bill aims to improve rural workforce issues and includes a provision that would allow Nurse Practitioners to order home health care services under Medicare. This is of particular importance to the WIN region, home to a large proportion of rural and frontier counties.

A landmark victory occurred in 2012. AARP worked with 13 nursing organizations in a nurse-led coalition that educated lawmakers about the need to support the education of APRNs, akin to the support provided for graduate medical education (GME). In an action that recognizes the role of nurses in primary care, CMS announced funding for five hospital/clinic/nursing school partnerships to participate in a Graduate Nurse Education Demonstration including one in the WIN region (Arizona). This demonstration includes up to $50 million annually over four years covering clinical training of APRNs. Participating hospitals were required to partner with accredited schools of nursing and non-hospital community-based care settings.

A distinguished nurse leader and researcher, Mary Naylor, and her team at the University of Pennsylvania conducted a program of research on transitional care over the past couple of decades, and actively engaged payors and policy makers during the dissemination of the research. Timing is now right for widespread adoption, so AARP promoted her work to policy-makers in collaboration with the American Geriatrics Society and other leading healthcare organizations. In November 2012, CMS announced it will pay physicians and other qualified healthcare providers for coordinating Medicare beneficiaries' care transitions during the 30 days following discharge from hospitals or skilled nursing facilities to their homes or assisted living facilities. The payment includes all non-face-to-face services related to the discharge that are performed by clinical staff and the physician (or other qualified health professional) during the 30 days post discharge as well as a single face-to-face visit that occurs after discharge. Payment for these services is intended to prevent re-hospitalizations and emergency visits and is only to be used for moderate or high complexity patients with multiple co-morbidities, who take multiple medications and who are at high risk of deterioration.

Finally, the Department of Veterans Affairs is working aggressively to implement the IOM recommendations, specifically by addressing removal of scope of practice barriers for APRNs.

Progress on CFA Implementation in the WIN Region

The CFA strategy involves building national, state and local capacity to make change and to enact the recommendations. Starting in 2010, CFA invited applications by states to form Action Coalitions, starting with five pilot states, one in the WIN Region (California). Since then, several waves have occurred and now all 50 states have action coalitions. In the following section, I will highlight major foci and accomplishments across our region to illustrate the diversity of effort and response to local opportunities and challenges. This cross-section provides a mere glimpse of the tremendous work underway across our thirteen states.

Alaska is the newest state to join in the WIN region, forming an official Action Coalition in December 2012. Early efforts involved identifying stakeholders and engaging members. Clearly, Alaska is our leader in addressing issues of access across challenging geography, and has an independent scope of practice for APRNs. Of interprofessional interest, the superior court of Alaska upheld the right of Dental Health Aide Therapists (who receive two years of training post high school) to provide basic restorative and preventive services, including fillings and extractions, despite legal opposition from the American Dental Association. This effort illustrates new models to assure access to underserved populations and portends changes in general health care.

Arizona has made progress on a number of fronts. In policy, the Advanced Practice Committee at the Board of Nursing proposed going forward with sunrise legislation to remove scope of practice barriers and adopt the APRN consensus model. Specifically they propose to remove references to physician collaboration for nurse practitioners (NPs) and certified nurse midwives (CNMs), and to pursue prescriptive authority for clinical nurse specialists (CNS) and certified registered nurse anesthetists (CRNAs). Meanwhile, HB2532 passed, allowing NPs to evaluate mental health patients for court-ordered treatment.

In education, Arizona has implemented 7/10 concurrent enrollment programs and is examining the core competencies model. They have already increased the proportion of BSN graduates in the state from 27% to 32%. The Coalition sponsored an Education/Practice summit in October 2012 convening leaders from education programs and health care facilities to discuss preparing nurses for the future and clinical education. They are preparing a program to recognize forty nurses under the age of forty who have succeeded in breaking ground at the workplace or in the public realm on innovative achievements. They obtained funding by the Hospital and Healthcare Association to analyze the last three years of RN supply data to take into consideration the hiring practices of not only hospitals but of clinics and health centers.

California is a large state with many foci and an emphasis on regional work. In 2009 AB1295 passed, mandating that community colleges and state universities in CA have formal articulation agreements in regard to nurse education progression. AB867 authorized three California State Universities to implement DNP programs. The CA Action Coalition is involved in assuring the law is properly implemented and evaluated to support further development of articulation agreements and DNP programs throughout the state school system. California is among the states with the greatest barriers to practice. In 2012, the legislature enacted minor changes in language to match the APRN Consensus model, and also removed the requirement of 6 month physician supervision of new graduate NPs before they could prescribe any drugs – this was an important advance because this barrier affected hiring of new graduates and resulted in lower salaries. The action coalition has engaged over 600 members focusing in a number of work groups. The California Student Nurses Association and graduate students are active in raising awareness about the campaign and engaging peers. Graduate students at the Betty Irene Moore School of Nursing at UC Davis developed and implemented a state-wide leadership survey, since recognized by the learning collaborative team and now residing on the Future of Nursing website as a model for other states.

Through the APIN grant, 21 schools of nursing have committed to the collaborative model of seamless progress from ADN to BSN. An additional 19 schools are supportive, pending funding. **Colorado** is gaining momentum and is effective in gaining financial support for the campaign. Several strengths include media training for nursing leaders and a focus on overcoming barriers between community college and baccalaureate education using competencies and developing rural residencies. Efforts are successfully engaging education with practice in strategic planning. Colorado is a leader in its focus on diversity, particularly the Hispanic community, developing strategies to diversify both the workforce and nursing faculty. The Hospital Association has a federal grant from the FCC to develop a rural high-capacity broadband network using an expanded telehealth, internet pipeline to support education. The Colorado Center for Nursing Excellence researched and published the report, "Colorado's Nursing Faculty Shortage: What it is and why you should care". The insights developed by this research have helped to inform a statewide dialogue as well as the creation of a Colorado nursing faculty shortage website.

In 2009, Colorado modernized its nurse practice act to allow NPs to practice to the full extent of their education without supervision or restrictive collaboration of physicians. However, the action coalition is addressing problems with the implementation of this law, specifically with state Medicare and Medicaid requirements, reimbursement, hospital privileges and regulations that do not reflect the legislation. CRNAs had a victory in 2012 when the Colorado Court of Appeals upheld a lower-court decision affirming that state law does not require CRNAs to be supervised by a physician, allowing the state to opt out of the federal physician supervision requirement for nurse anesthetists at critical access hospitals and 14 general hospitals in rural areas. This is an important advance as it allows CRNAs to get reimbursed for pain management and anesthesia in rural hospitals, increasing consumer access.

Hawai'i is an APIN state, and their collaborative of 18 health care facilities and 8 nursing programs will test new and innovative ways to electronically connect educators, provide distance based learning, and simulation. Hawai'i has a unique partnership with UHC/AACN to establish a statewide collaboration of public and private nursing programs and health care providers to implement their Nurse Residency Program. Doctoral education will be enhanced with the launch of a new DNP program at UH at Manoa. Legislation in 2010 removed the restrictive collaborative agreement required for APRNs with physicians, but regulatory change has stalled and will be the focus of the action coalition. They are considering an omnibus bill to update regulations across multiple state agencies.

Idaho is emphasizing policy and is led by a nurse who was formerly in the state legislature. Because Idaho is an independent practice state, the barriers take other forms, so the coalition is working on environmental barriers, advancing engagement in designing and implementing new models of care, reimbursement, credentialing and privileging. The Idaho Board of Nursing directed its Deputy Attorney General and staff to review Idaho statutes and rules which exist outside of the Nurse Practice Act that act as barriers to the full utilization of APRN's practice. Legislation was passed to amend the definition of APRN to conform with the consensus model (SB1273), to include APRNs and Physician Assistants as providers with whom individuals may consult in developing advanced directives/living wills and who may sign Physician Orders for Life Sustaining Treatment (POLST) Forms (SB 1294), and to allow the Board of Nursing to use nurse license fees to address nursing workforce issues including workforce data collection efforts (SB1261). Idaho is emphasizing getting nurses appointed to boards and succeeded in getting the Governor to appoint a nurse to the state's task force examining the expansion of Medicaid in response to the Affordable Care Act and to the Workforce Development Council Educational Attainment Task Force.

Montana is making strong contributions around rural and frontier health and diversity. As an APIN state, it is emphasizing work around education and rural residencies. Building on longstanding commitments to the Native American population, they are enhancing the capacity to support students on and off reservation. The Montana Hospital Association has a pilot transition to practice program (Rural Nurse Residency) at several facilities throughout Montana. The action coalition is promoting the program, building awareness of the opportunity around the state. The Montana American Indian Nurse Internship through Benefis Health System helps Indian student graduates to be successful on their NCLEX and provides an internship program designed to provide an acute care perspective at larger Montana hospitals and supporting their rural practice. Montana is a state where NPs may practice to the full extent, so the emphasis is on working on legislation to align with the APRN consensus model, and on being engaged in new health care delivery system models, particularly as they pertain to delivery in this frontier state.

Nevada is a state with barriers to optimal care delivery. The Nevada Advanced Practice Nurses Association is diligently working on submitting legislation to change the title of advanced practitioner of nursing (APN) to advanced practice registered nurse and to allow APNs to work autonomously. The Nevada coalition is emphasizing nurse residency programs for new graduates, and "Healthcare 2020", a transition into practice program is now state-wide. They are exploring nurse residency programs for nurses who change settings. Renown Regional Medical Center has a Graduate Nurse Residency Program which was modeled based on a HRSA funded pilot program that started in 2010. Of the 20 nurse interns who started in the pilot program in 2010 and 2011, the retention rate is 100%. In the education community, discussions are focusing on streamlining articulation between the different levels of nursing and the potential of allowing the community colleges to grant bachelor's degrees. A new DNP program began at UNLV.

New Mexico is an APIN state focused on education and diversity, particularly determining the needs of Latino and Native American nurses. The action coalition is engaging relevant professional stakeholder groups to partner in the effort. The NM Rural Nurse Residency Program opened to 5 rural hospitals. New Mexico allows nurse practitioners to provide healthcare without unnecessary barriers, so is examining insurance issues such as credentialing and reimbursement to remove other forms of barrier to optimal care delivery.

Oregon joined the effort more recently, and is known as a state for health care innovation, historically leading the way in both long term care and Medicaid ambulatory care models. Oregon is the first state with a state-wide Accountable Care

Home ◀ ▶ go to PG.

Organization, and is creating a number of Coordinated Care Organizations (CCOs) in urban and rural areas. The action coalition is highly focused on engaging nurses to participate in this process and to positioning nurses on committees designing the new models of care. Several key positions have been secured on state-appointed committees active in framework design and oversight and on an advisory boards to the major CCO. The experience in Oregon illustrates the importance of nurses volunteering to participate and building relationships to secure positions of influence.

Utah is a leader in getting legislative inclusion of the APRN licensing model and has the first interstate compact arrangement for APRN practice and reciprocity.In 2012, HB190 amended the Nurse Midwife Act to remove the requirement for a written practice and referral plan with a physician. Currently, there is restrictive physician consultation required for prescribing Schedule II and III controlled substances, and efforts are underway to introduce legislation to remove these requirements as well as legislation to remove Psychiatric NP Intern language which restricts practice privileges following graduation. Discussions between Utah Medicaid and APRNs have been focused on expanding reimbursement for all types of APRNs practicing in the state; they are awaiting implementation of the Medicaid Waiver that will address this issue.

On the education front, Utah is working on residencies and is one of the first states to implement the UHC/AACN Nurse residency program. A VA Medical Center and University of Utah Nurse Residency grant was funded. Strengths include their work in simulation for interprofessional learning, with two new courses: Simulation-based Care of the Hospitalized Patient and Simulation based Care of the Ambulatory Patient, involving 300-500 students from all health professions each semester with 40 faculty facilitators trained from all disciplines.

Washington has an emphasis to date on the nursing workforce and strategies around diversity and mentorship. They published an on-line self-assessment for employers to use to examine their job descriptions and policies that may be inhibiting the full practice of RNs and LPNs. Leaders coordinated the third Johnson & Johnson Promise of Nursing for Washington, raising ~$200K for nursing scholarships, graduate fellowships, and nursing school capacity expansion. Nurse educators are leading the work towards the Direct Transfer Agreement between Community Colleges and University Programs to expedite academic progression. All Community Colleges agreed to move nursing programs to Associate of Arts Transfer Degrees (AAST), which will ease transition for students moving to baccalaureate programs.

Wyoming is emphasizing academic progression and is building on the momentum they have created through the Revolutionizing Nursing Education in Wyoming (RENEW) initiative, a Partners in Nursing (PIN) grant from the Robert Wood Johnson Foundation. Based on the model created by the Oregon Consortium for Nursing Education (OCNE), they are developing a shared, competency-based curriculum. All six community college programs and the University of Wyoming have committed to work towards this shared curriculum. They are also addressing residencies, and with pilot funding at Wyoming Medical Center they expanded their nurse residency program to 12 months. The Wyoming Workforce Development Council, the Wyoming Center for Nursing and Health Care Partnerships (WCNHCP) sponsored an awareness campaign about nursing targeting youths, including men and minorities.

Home ◀ ▶ go to PG.

A Look in the Mirror

Ask yourself why you went into nursing and what your greatest aspirations are for nursing. Then ask yourself what you are currently doing to advance that vision. We have a burning platform – the health care system is changing and new alignments are forming daily to enact the sweeping reforms that we need. As the largest professional workforce, we have the opportunity to drive that change. Are we doing so? As I reviewed our progress on the campaign and have been engaged in national and state efforts, I am heartened by the progress, particularly around policy and education. It is clear that a focus on particular issues (e.g., removing barriers, seamless academic progression, and residencies) is yielding results. We have made less progress on advancing innovative models of care and participating visibly in the system redesign. Dissemination of our research into practice is slow. The connections among practice, research and education are not as robust as they could be. We have room for improvement in interprofessional collaboration and leadership. It is hard to look in the mirror, and I state the reflection I see with compassion and commitment to who we are. I see that as a profession, we still have trouble creating a shared vision, we resist change, we want to preserve old structures, and we do not throw our nets widely enough for coalition building. Our behavior at times is more blaming or victim-like than it should be, and we have difficulty asking for money. We are not as active and effective as we need to be to drive the change we want to see. So what should we do?

Our Opportunities

As nurses, we must put health first – the health of the population and the priorities of the people we serve (individuals, families, communities, stakeholders) vs. our needs first. Advocating for nursing must take second seat to advocating, as nurses, for advances in health and health care delivery. We must develop the courage to look at what/where we are now and to challenge assumptions and move towards future models, roles, and priorities. This requires self-reflection, self-knowledge, and a commitment to lifelong learning as nurses and leaders. We must adopt a shared vision for advancing health, and nurture the passion that motivates students to enter the profession and seasoned nurses to engage with energy and leadership. We must speak in one voice, overcoming our differences, and communicate actively with one another to leverage our collective heft.

We must forge interprofessional partnerships and contribute as members of the team to redesign care and education and to conduct research that matters. We must commit to increasing the diversity of our faculty, students, and practice workforce – to reflect the populations we serve, and to assure that our efforts address the needs of our diverse constituents. We must partner in new ways and with new energy across our organizations – across and among universities, health systems, community-based organizations and with the public. We must include resources and partners beyond the usual suspects – disciplines that can advance our work – such as systems engineering, technology, education science, organization behavior, business, and cultural studies. We must hone our competence in leadership, coaching, mentoring, managing change, teamwork, and develop a stronger understanding of the financial and policy aspects of health care systems.

We must work diligently to close the gap between research and practice, and between practice and education. We must commit to educating for the present and the future,

Home ◀ ▶ go to PG.

allowing for role evolution and taking into account the emerging needs of our learners and novel approaches that enhance education. We must focus our research on that which is relevant to improvement of health, learning from practice and the communities we serve. We must ask what we can bring to greater scale among our existing work. We have an obligation to close the unacceptable gap between discovery and widespread adoption. We must collaborate with others to advance health care innovation, leveraging funding opportunities such as Centers for Medicare and Medicaid Innovation (CMMI), Patient Centered Outcomes Research Institute (PCORI) and Clinical Translational Science Awards (CTSAs).

We must balance the pressure of the moment with broader, long-term thinking and engage in thoughtful assessment of the present forces in play and the best contributions each of us can make. We must choose and dedicate our effort to the biggest impact issues – prioritize, focus, and measure our work. We have to pick up the pace and look for disruptive innovations that change the design of what we do. We must demonstrate outcomes in the currency of the beholder, whether it be a community, a recipient of care, a payor, a grant reviewer, a legislator, a policy maker, or an executive.

Because health and health care are issues of national concern, the range of vested interests are broadening beyond the health professions – this forms an opportunity for more robust discussion and inclusion, engaging diverse stakeholders to collectively shape the future of their communities, states and the nation. As nurses, we have a great deal to contribute to that dialogue and we must be there. This means involvement beyond our workplace or zone of comfort – it is leadership in the community, on boards, task forces, commissions. It means actively searching for opportunities, building relationships, and targeting how and where we will have our greatest influence. We must ask what gets in the way of our full engagement and how each of us can lead and help advance each other and the overall the effort. We must get involved with the action coalitions in our states and offer our talent to the effort. Most of all, we must envision our preferred future, join hands, and blaze new trails.

References

Brassard, A. (2012). Removing Barriers to Advanced Practice Registered Nurse Care: Home Health and Hospice Services. Retrieved from http://www.aarp.org/content/dam/aarp/research/public_policy_institute/health/removing-barriers-advanced-practice-registered-nurse-home-health-hospice-insight-july-2012-AARP-ppi-health.pdf

Institute for Alternative Futures. (2012). Health and Health Care in 2032: Report from the RWJF Futures Symposium Retrieved from http://www.altfutures.org/pubs/RWJF/IAF-HealthandHealthCare2032.pdf

Institute for Healthcare Improvement. (2007). The IHI Triple Aim Initiative, from http://www.ihi.org/offerings/Initiatives/TripleAim/Pages/default.aspx

Institute of Medicine. (2010). The Future of Nursing: Leading Change, Advancing Health Retrieved from http://www.iom.edu/Reports/2010/The-Future-of-Nursing-Leading-Change-Advancing-Health.aspx

State of the Science Paper

FUTURE OF NURSING EDUCATION: TRENDS AND INNOVATIONS

Maureen R. Keefe, RN, PhD, FAAN
Dean and Endowed Presidential Professor
College of Nursing
University of Utah
Salt Lake City, UT

Home

◀ ▶ go to PG.

FUTURE OF NURSING EDUCATION: TRENDS AND INNOVATIONS

Maureen R. Keefe, RN, PhD, FAAN
Dean and Endowed Presidential Professor
College of Nursing
University of Utah
Salt Lake City, UT

Introduction

Thank you for inviting me to share some insights and observations about the future of nursing education. I would like to begin by looking at some general trends in higher education as a whole, and then shift our focus to nursing education exploring some of the specific challenges and opportunities for innovation.

The Changing Landscape of Higher Education

First, let's begin within the changing landscape of higher education in the United States in general. What are the trends and forecasts for the future? We have entered what is referred to as the "knowledge economy" or the "information age" (Kasworm, 2011). Higher education has shifted from a service delivery model where instruction is delivered to students, to a learning collaborative where students' learning is the product or outcome (Brown, Pendleton-Jullian, & Adler, 2010). In their influential 1995 *Change* article, Robert Barr and John Tagg described a shift occurring in undergraduate education from an "instruction paradigm" to a "learning paradigm" (Barr & Tagg, 1995).

Mazoue' (2012) describes four converging trends in higher education: 1) the emergence of the learning sciences, 2) the wikification of knowledge, 3) the unbundling of faculty roles, and 4) the migration of learning online. These are drivers of fundamental institutional change in traditional institutions of higher education.

Let's consider in more detail these shifts and trends in higher education in the following four areas: student demographics, faculty composition, finances, and technology.

Students – The student demographic is also changing. The U.S Census Bureau data reflect strong gains in degree attainment for students from ethnic minority groups over the past decade. 30% of the entire U. S. population holds a baccalaureate or higher degree. And if we break that down by ethnic group we see, 50% of Asians, 34% of Hispanics and 20% of African Americans hold a baccalaureate or higher degree. Last year women surpassed men in educational attainment with 31 million women with bachelor's degrees compared to 30 million men (Roller, 2012). Today's students also come with a different set of expectations. They expect to co-create knowledge through reflective engagement and active teaching-learning strategies.

Faculties – Nationally we see diminishing ranks of tenure and tenure track faculty as a percentage of the overall composition of faculties. More than 50% of all faculty have part-time appointments (AAUP). In 1975 adjunct or contingent faculty comprised 43% of the faculty ranks. Today over 75% of the instructional faculty at all colleges are off the tenure track or contingent faculty (Maisto & Street, 2011). Converging trends such as the economic downturn, enrollment growth surges and corporate management models have influenced this new trend of out-sourcing faculty needs to academic temp agencies. These faculty are hired to deliver the course content only, usually without service or scholarship time or access to resources. They are often hired at the last moment with little orientation and are paid hourly or per course flat fee. Most teach basic core courses. These may be part time or full time adjuncts or other non-tenure track faculty.

Education Finances – Next, we must consider the financial climate. Both state and federal support of public higher education has declined. State and local funding for higher education fell to a quarter century low for the third consecutive year in 2012, while enrollments continued to climb. From 2000 to 2009 enrollment tripled. For the past five years college enrollments have increased nationally by 12.5% (11.5 million students), but state and local appropriations have decreased by $1.3 billion (Baum & Ma, 2012; Kelderman, 2012). Federal and state legislators increasingly raise the issue of the cost rather than the benefit of higher education. Accountability, efficiency and faculty productivity are concerns and mantras for policy makers at all levels.

As a consequence, we have shifted the financial burden of higher education to the students and their families. Students are graduating with increasing debt loads. Since 1986 tuition has risen by 500% - over four times the rate of inflation. Tuition revenue directly from students continues to climb and is now considered a major source of funding for the cost of public as well as private higher education. The percentage of total institutional revenue that comes from students and student tuition has increased from 23.2% to 43.3% over the past two decades. The average student graduates with $23,000 in loans and educational debt. This raises questions related to access and social equality, if only students from middle and upper class families can afford college tuition.

These economic dynamics have also led to a shifting profile in the types of organizations offering post secondary education. Public higher education institutions are seeing competition from private and for-profit institutions. As enrollments have grown, the types of organizations offering college education have also grown and diversified. 43% of all post secondary educational programs are now for-profit – awarding various types of certificates and degrees. 10% of all undergraduates are attending for-profit educational programs. Initially focused on associate degree and certificate programs, the corporate entities have grown rapidly from 12 to 19% over the past decade. We now see growth in the number of baccalaureate degrees (from 2 to 6%) and graduate degrees (from 2 to 9%) offered by these for-profit educational organizations as well (Baum & Ma, 2012).

Educational Technologies – Technology has invaded higher education as it has all aspects of the business and service sector. Digital technologies continue to expand at an exponential rate. The internet now reaches into every corner of the globe and two thirds of the world's population (6.5 billion people) now own a cell phone. Advanced technologies, artificial intelligence and virtual reality-based simulations now permeate our learning modalities. The open educational resources movement has created MOOCs which are massive open online courses and MUVEs (multiuser virtual environments) and mash-ups (Yue, 2010). We are now flipping the classroom so students are not only engaged in interactive learning, but are educating each other

(Berrett, 2012). New technologies such as social networking sites, blogs, wikis, and virtual communities can connect people with common interests and expand the notion of inquiry and education (Matkin, 2012; Woodley & Meredith, 2012).

The effects of globalization can be seen in the technology sphere as well as the economics of higher education. Our increased capacity to connect and communicate has brought down traditional state boundaries and national barriers to accessing higher education. Over three million students are now mobile and part of this academic migration trend (Bhandari & Blumenthal, 2010).

These are significant challenges. We are attempting to educate an increasingly diverse body of students with diverse needs and learning styles, while containing the cost of higher education so it is not beyond the reach of a growing percentage of our country's population. As a result, we are seeing the corporatization, globalization and adjunctification of higher education.

Trends and Innovations in Nursing Education

When I look at these changes, challenges and trends in higher education, I am reminded of the drivers of health care reform. And the many cost/quality and value debates that fueled health care reform. These same pressures and issues are increasingly heard within and outside of higher education. How do we contain the costs while insuring quality and access to higher education? Sound familiar? In nursing education, we are sitting at the vortex of these changes in higher education and the equally dynamic and dramatic changes in health care delivery. As these factors and forces converge, our challenge is to think strategically and act creatively to ride the winds of change.

I would like to shift now to focus more specifically on trends and innovations in nursing education paralleling those in higher education in general - beginning with the student, then the faculty, followed by the funding issues, and educational technology in nursing education. I will describe the trends in each of these arenas and provide some specific examples of innovations.

As data sources, I have drawn from the 2012 AACN Annual Report (American Association of Colleges of Nursing, 2012) representing 733 schools with baccalaureate and graduate programs. In addition I have drawn from my 35 years in nursing education and 18 years as Dean of Nursing, first at Medical University of South Carolina and now at the University of Utah.

Nursing Students

Our incoming students are active, tech-savvy consumers that are looking-for increased levels of engagement and participation in their education process. They enjoy creative, contextual learning and are very self-directed; seeking clear expectations and resources in order to prepare themselves for a professional career.

Enrollment trends in nursing reflect the national trends for enrollment growth. Within this general growth trend, we have seen a gradual increase in the number of students graduating with a baccalaureate degree in nursing and in those returning for BS completion following an associate's degree and RN licensure (15.8% increase)

(American Association of Colleges of Nursing, 2012). With approximately 50% of our national nursing workforce prepared at least at the baccalaureate level we still have some significant work to do in this area to meet the recommendations and goals of the IOM Future of Nursing report, specifically an RN workforce in which 80% hold a baccalaureate or higher degree in nursing (Institute of Medicine, 2011). As health care delivery systems begin to prefer or require the BS degree for RNs, they are looking to nursing education systems to expand enrollment in existing baccalaureate programs, convert AD to BS programs or create partnerships for seamless transition from AD to BS programs in order to prepare an applicant pool with stronger educational credentials.

We have also seen gradual changes in the demographic profile of our entering students. Students from ethnically diverse backgrounds have increased, growing to 28% in entry-level baccalaureate programs, 26.6% in masters programs and 24.7% in PhD programs. The percentage of males in nursing education has increased. We have 11.4% males in Bachelor's programs and 9.9% in Masters Programs. In doctoral programs gender trends reveal 6.8% of the total enrollment are males in PhD programs and 9.4% are males in DNP programs (American Association of Colleges of Nursing, 2012).

Concerned for the continued slow growth in our PhD programs and need for future nurse leaders and scientists, the Robert Wood Johnson Foundation (RWJF) has launched a collaborative funding initiative to expand enrollment in these programs. Currently, fewer than 30,000 registered nurses hold doctorate degrees in nursing or in a related field—a number that represents less than 1 percent of the entire nursing workforce. RWJF is creating the Nurse Leaders Collaborative (NLC), a $100 million strategic collaboration to develop a new generation of nurse scientists, educators and transformational leaders (Robert Wood Johnson Foundation, 2012).

We are still challenged to find more efficient pathways to advancing nurses in their educational pursuits. We now have 77 BS to PhD programs and 69 BS to DNP programs. We need to continue to challenge ourselves to find the balance of experiential and academic work to prepare these bright young students who will be our future faculty.

Nursing Faculties

Nursing faculty are rapidly aging. The data and the projections are overwhelming. We must be preparing now for this silver Tsunami that we are all facing in the next five years. And I think we may need to be more innovative and creative in addressing this challenge. The average age of doctorally-prepared faculty by rank is: Professors = 60.1 years, Associate Professors = 57.5 years and Assistant Professors = 51.5 years. Diversifying the faculty ranks is another issue. Only 11.8% of full time faculty are ethnically diverse and only 5.1% are male. Educational preparation trends indicate that 47% of our faculty are doctorally prepared. 34.4% of these hold doctoral degrees in nursing and 12.5% of nursing faculty hold doctoral degrees in related fields (American Association of Colleges of Nursing, 2012).

Beyond the nurse faculty with doctorates in other fields, we are seeing a growth in what are often referred to as "non-nurse" faculty. Now I have difficulty referring to anybody as "non" such as non- physician provider, so I propose we refer to these colleges as our interdisciplinary or interprofessional faculty. Some use these faculty, prepared in other disciplines, to serve only as adjuncts or lecturers. For years schools of nursing have had one token statistician on the faculty roster, usually on the clinical or research track. But increasingly we are seeing a trend for these IP faculty to be appointed to the tenure track. For us we now have tenure track faculty with their doctoral degrees in social worker, clinical psychology, gerontology, health education, health services and human development as well as a statistician on the research track and three other IP faculty on the clinical track.

The United States is facing a national nursing faculty shortage. With over 32,000 faculty in 2006, based on the current rate of retirement, we are projected to have only 9,000 nursing faculty left in the pool in 2026 (National League for Nursing, 2006). As the faculty shortage grows more critical, it will be increasingly important to integrate these IP faculty appropriately while being thoughtful about their teaching contributions as well as their research contributions. Similar discussions revolve around the DNP prepared vs. PhD prepared faculty. Given the variety and depth of educational offerings in most of our programs, it certainly makes sense that there is a place and a need for faculty prepared in both types of programs.

We also will need to creatively think about how we use and maximize our limited faculty resources. What are we having our faculty do that a well prepared staff member could do? Are we using our emeritus faculty and outstanding alumni in new and innovative ways to engage and mentor students? Too often emeritus faculty are given a title and a library card and we don't think about how we might continue to involve them in the teaching mission or keep them connected to the college in more meaningful ways. Is "Emeritus faculty" just a titular title or does it connote the stature of an individual with a distinguished career and continued potential for contribution? This may be one way to harness the silver Tsunami. NEXus, the Nursing Education Xchange created here at WIN, is another creative example of maximizing and creatively sharing our faculty resources. This growing national network of faculty experts develop and offer quality doctoral course offerings, so each program can focus on their strengths, while offering their students the specialization they desire.

While the "adjunctification" of faculty is a national trend for all of higher education, it plays out in some unique ways in nursing education. We utilize adjunct faculty as preceptors, guest lecturers, clinical group leaders and course leads. Sometimes they are paid and some volunteer or they are paid and released by their employer. The trend of increased adjunct faculty is seen in nursing education and in many cases is economically driven and likely to increase. However I suggest that strategically planning for and creating stronger support structures will enhance their contributions and the educational integrity of our nursing programs.

In addition to our impending faculty shortage, or perhaps encapsulated within it, is a tremendous leadership void or gap. There simply are not enough tenured Associate Professors in the pipeline to fill the growing need for Associate Deans, Deans and other academic leaders. We are even having trouble filling some very attractive endowed chair positions in nursing. For this reason we must look to thoughtfully diversifying our faculty. We should also look to our systems of track differentiation and status within the organization. Tenure track faculty members are often advised to avoid leadership positions or any program responsibility at all costs. This advice is based on two assumptions: 1) you won't have time for your scholarship and 2) if you make an administrative decision that the tenured faculty doesn't like they will vote against your tenure. With all the respect for the original justification, intent and concepts such as academic freedom behind tenure, I believe it is time to ask – what is this academic archetype really doing for the individual or the organization? Is it really set up to recognize, value and reward the type of team science and team-based care and teaching that is so critical for our future? And what is the toll on the system and the individual, as exhibited in the stress levels of our pre-tenure faculty? Are there other, even better ways to ensure academic freedom, productivity and job securing than the time and effort we individually and collectively put into our current tenure system. I have known faculty who were so focused on gathering their materials and evidence of worthiness that they lost at least 2-3 semesters of productive, other-directed scholarly contributions.

Do we have some emerging models for moving faculty though their academic careers that allows them to explore administrative opportunities sooner and support their participation in team science and team teaching along the way? Many systems have moved from a mentor-mentee assignment to mentor teams, usually three faculty, with expertise in divergent areas that can create some diversity of ideas and dynamic tension regarding potential career options and pathways. At the University of Utah, College of Nursing we have developed peer mentoring groups with structured monthly meetings, topical threads, guest speakers and interactive discussions. We have a peer mentoring group for pre-tenure faculty (Moving Ahead in my Academic Career (MAC) and for new DNP prepared faculty Supporting your Nursing Academic Progress (SNAP). Both of these groups are facilitated by senior faculty mentors and have proven both cost effective and productive.

Nursing Funding and Finances – As state funding for higher education has decreased, we in nursing have greatly expanded our efforts to partner with healthcare systems to leverage resources. We have set about diversifying our revenues sources through fundraising, clinical contracts and grant writing and entrepreneurship. For many of us, the past round of budget cuts required us to take a hard look at both graduate and undergraduate class size and total enrollment. At the University of Utah, critical questions regarding mission and market needs have driven us to cap the undergraduate class size and reallocate resources to RN completion and graduate programs in nursing.

As students pursue graduate education in nursing they have more choices and opportunities than in the past. We are all in the process of revising or re-envisioning our offerings. What will be offered at the master's level and what doctoral programs are we best positioned to offer or partner with others to offer? At the master's level we now offer three program options: nursing education, informatics and care management. I am reminded of the early functional masters that were offered in the 1980s. Each of these MS program options has a certificate option, as well and we increasingly find that our doctoral students in both our PhD and DNP programs often include a certificate in one of their program of study areas. With the IOM recommendation to double the number of doctorally prepared nurses, we have debated whether that means DNP or PhD and have expanded enrollment in both doctoral programs. We are finding that students can now clearly articulate their career goals and pursue the pathway best suited to them. As mentioned previously, the RWJF has developed a new initiative to encourage and support nurses to pursue the PhD degree. This Nurse Leaders Collaborative, as it is now called, will recruit nurses very early in their career, provide incentives for them to complete their PhD more quickly, and offer ongoing mentoring, leadership development, and research support to develop them as transformational leaders.

These economic forces and trends have blurred the boundaries between public and private schools as well as non-profit & for profit programs. We also have seen a new trend in which some community colleges are offering baccalaureate degrees in nursing. In Utah we have expanded from our longstanding set of nine nursing education program (7 public and 2 private) to over 20 nursing programs endeavoring to capitalize on the level of student interest and nursing program wait lists. Most of these are associate degree, for profit nursing programs.

Public higher education-based nursing programs have become increasingly dependent on private donations and gifts. The push for revenue generation through nursing products and services is evident as we become more involved in technology ventures and business partnerships. We recently have partnered with Sutter Health of California to create a virtual nurse advice center. Through this partnership we are able to provide telephone and EMR linked services that include: appointing and clinic messaging, nurse advice, 24/7 virtual call center, and Hospice on-call services. This has resulted in an excellent learning opportunity for our students who conduct reality based case reviews and follow-up. In addition the partnership pays for graduate student's tuition and has provided us resources to add additional faculty and staff.

Nursing Education Technologies

Nursing education has led the teaching with technology initiative on many campuses. Based on the nature and the needs of our student populations we have developed and pioneered techniques for distance education delivery.

I must confess, I was not convinced that we could deliver quality doctoral education via distance technology at first, but our experience and outcomes in the PhD program have made me a firm believer. This project, initially funded by the National Cancer Institute (NCI), utilizes the University's telehealth bridge to connect individual students and faculty in a synchronous virtual learning community. The quality of platform and enhanced access to digital media and national experts make this a stellar program for preparing nurse scientists in a community of inquiry. These graduates in aging, cancer and end-of-life care are well positioned for team science in a technology rich environment.

Students in this digital era of connectedness and open access come looking for engagement and active learning strategies. We have had the good fortune of partnering with Intermountain Healthcare to create a virtual hospital environment to support our simulation based-learning center. In this environment patient care management scenarios are enacted with live standardized patients as well as computerized mannequins. The electronic medical record and medication dispensing systems are also incorporated into these layered scenarios.

In addition to simulation-based learning in nursing, we see multiuser virtual environments, like Second Life, where students can use a computerized avatar to participate in clinical rounds in a virtual hospital (Codier & Holt, 2012). In an effort to engage our students we have an active collaborative learning where we have been “flipping the classroom” and expanding our use of interactive educational technologies. Artificial intelligence, use of social media, wikis, Facebook and YouTube are all being incorporated by some very innovative nurse educators to create new learning spaces for students. As we explore these new environments and technologies, we must thoughtfully evaluate the outcomes and learning that occurs as well as the cost and right balance of on-ground, synchronous or asynchronous modalities.

Opportunities for Innovation in Nursing Education

The confluent of these forces or “winds of change” builds upon the call for radical change in nursing education laid out by Benner and her colleagues in their 2010 Carnegie Report (Benner, Sutphen, Leonard, & Day, 2010).

I would like to highlight a few of the areas where we have had some success at the University of Utah and a few where I think we are all still challenged to think more creatively. One example of a recent success is our new concept-based curriculum. We designed and implemented this new model with integrated simulation and clinical experiences. This is based on the firm belief that we could not pack anymore “content” into our undergraduate program and began to look for frameworks and concepts that the students would be able to extrapolate and apply across clinical care situations and scenarios. Rather than transmitting more and more knowledge we are helping students to assimilate and apply their knowledge (Hardin & Richardson, 2012).

Another adaptation, or change in response to the demands of health care reform in our region, has been the conversion of our Clinical Nurse Leader program to a Master’s in Care Management. This grew out of a state-wide nursing coalition determined to claim a leadership role in managing the health of populations and to reinforce that the masters prepared nurse with expertise in the needs of chronically ill or other populations is well suited to the call for action on community-based care in our state. In addition to this new specialty track we have renewed our commitment to accelerating the educational advancement of nurses and have created a RN to MS option in nursing education, nursing informatics and the new care management track.

We have been able to move interprofessional education (IPE) in the health professions from a few elective optional events outside the required curriculum to integrated class content, team-based clinical experiences and simulation-based IPE scenarios. On our campus, nursing is leading this initiative and we have developed the IPE scenarios, designed and trained the faculty facilitators from medicine, pharmacy, nursing and health professions and lead the development of two IPE required courses. The potential arenas for IPE are expanding and now include global health as well. The IPEC competencies provide a framework and structure for this work that is highly valued by students and faculty alike. As we have begun to understand the new criteria and required components for many of the HRSA – training grants we realized that this work has positioned us to capitalize on these opportunities and expectations.

Along with these successes we all have some opportunities and some work to do. In addition to team-based care and cultural competency, sustainability, social justice and global health are societal issues that have and must be woven into our curriculum as recurrent threads that provide a framework for understanding and action.

Along with our curriculums, I believe we need to look at our prerequisites. Just as we firmly belief we need to add more content without eliminating anything, we seem to be adding additional prerequisites. I would challenge us to look for the evidence? What data do we have to support the inclusion and addition of various prerequisites? I propose we conduct mini blinded, experiments or pilots to validate some of these assumptions.

Within nursing there is a growing reliance on external assessments and outsourced evaluation. Whether it is the HESI, ATI or EBI, nursing programs are increasing purchasing these products and rely heavily on their reports. This approach has some benefits as well as draw backs which we need to be cognizant of in our decision making. While the work of program and student evaluation is very complex and challenging there is a great deal of it that simply cannot be outsourced. With these systems we trade off customization and flexibility for standardization and comparable data. These survey and assessment products are really nothing more than tools and cannot replace the work of the faculty to clearly articulate the framework, learning objectives and outcomes for the program. Without these, we don't know what to do with the results or what they really mean for our programs and students.

Conclusion

I would like to close with four recommendations for navigating the future based on my observations and emersion experiences in nursing education over the past 35 years.

1. Become more nimble, conduct pilot projects and experiment. Curriculum change is like turning a big cruise ship. It can take two to four years and when implemented the change is no longer innovative.

2. Engage students and the community. Engage them early and often, such as "Dialog with the Dean", Early Assurance programs and RN Residency partnerships.

3. Encourage creativity and innovative discourse among the faculty. Recently we have instituted a small seed grant program to support and encourage faculty creativity and innovation. This intramural funding program is in addition to - and separate from the research pilot funding and seed grants we award. The grants are designed to encourage and cultivate the creative ideas of our faculty. The following is a sampling of the faculty Innovation Grant topics submitted recently: 1) Geriatric Partnership with Middle School, 2) Veteran-centric Curriculum Thread, 3) Research in Simulation Partnership, 4) Interprofessional Education in Ghana – Global health, 5) Multi-media Creation Station, 6) An Electronic Decision Documentation System for Student Academic Misconduct.

4. Renew our commitment to educational research (re-emerging among our doctoral students) where nurse researchers engage in the interdisciplinary field of learning sciences. Studying learning as it happens in real-world situations and how to better facilitate learning in designed environments – in school, online, in the workplace, at home, and in informal environments.

Home ◀ ▶ go to PG.

I have highlighted some of the trends in higher education and nursing education - some successes and a few areas where I think we need to think more creatively. All of us share the goal of preparing students that will "learn to learn", to adapt and be resilient. For these types of graduates, they will continue to seek creative ways to change the health care delivery system and to improve the health of individuals and communities. I close with this quote from C.S. Hollings, a noted ecologist; "wealth and success in the 21st century should be measured not in money or power but rather in the ability to change and adapt" (Brown et al, 2010).

Home ◀ ▶ go to PG.

References

American Association of Colleges of Nursing. (2012). 2012 Annual report: Advancing higher education in nursing. Washington, DC: American Association of Colleges of Nursing.

Barr, R. B., & Tagg, J. (1995). From teaching to learning: A New paradigm for undergraduate education. *Change, 27*(6), 12-25.

Baum, S., & Ma, J. (2012). Trends in college pricing, 2012. *Trends in Higher Education*. New York, New York: College Board Advocacy & Policy Center.

Benner, P., Sutphen, M., Leonard, V., & Day, L. (2010). *Educating nurses: A call for radical transformation*. San Francisco, CA: Jossey-Bass.

Berrett, D. (2012, February 19). How ‘flipping’ the classroom can improve the traditional lecture. *Teaching* Retrieved Janurary 1, 2013, from http://chronicle.com/article/Bleak-Economy-Has-Had/131574/

Bhandari, R. E., & Blumenthal, P. E. (2010). *International students and global mobility in higher education: National trends and new directions. International and development education*. New Yor: Palgrave Macmillan.

Brown, J. S., Pendleton-Jullian, A., & Adler, R. (2010). From engagement to ecotone: Land-grant Universities in the 21st century. *Change: The Magazine of Higher Learning, 42*(6), 8-17.

Codier, E., & Holt, A. (2012). Virtual clinical rounds in a multiuser virtual environment. *Journal of Nursing Education, 51*(10), 595-596.

Hardin, P. K., & Richardson, S. J. (2012). Teaching the concept curricula: Theory and method. *Journal of Nursing Education, 51*(3), 155-159.

Institute of Medicine. (2011). *The future of nursing: Leading change, advancing health*: National Academies Press.

Kasworm, C. (2011). The influence of the knowledge society: Trends in adult higher education. *Journal of Continuing Higher Education, 59*(2), 104-107.

Kelderman, E. (2012, March 16). State and local spending on higher education reached a 25-year low. *Government* Retrieved Janurary 1, 2013, from http://chronicle.com/article/Bleak-Economy-Has-Had/131574/

Maisto, M., & Street, S. (2011). Confronting contingency: Faculty equity and the goals of academic democracy. *Liberal Education, 97*(1), 6-13.

Matkin, G. W. (2012). The Opening of higher education. *Change: The Magazine of Higher Learning, 44*(3), 6-13.

Mazoué, J. G. (2012). The deconstructed campus. *Journal of Computing in Higher Education*, 1-22.

National League for Nursing. (2006). *NLN/Carnegie national survey of nurse educators: Compensation, workload, and teaching practice*. New York: National League for Nursing.

Robert Wood Johnson Foundation. (2012). The nurse leaders collaborative: Developing a new generation of nurse leaders to transform America’s health care system *White paper*. Princeton, New Jersey: Robert Wood Johnson Foundation

Roller, E. (2012, February 23). New census data show minority gains in bachelor’s degree attainment. *Government* Retrieved Janurary 1, 2013, from http://chronicle.com/article/Bleak-Economy-Has-Had/131574/

Woodley, C., & Meredith, C. (2012). Supporting student transition through social media. *American Journal of Distance Education, 26*(2), 86-95.

Yue, K.-B. (2010). Experience on mashup development with end user programming environment. *Journal of Information Systems Education, 21*(1), 111-119.

Home

◀ ▶ go to PG.

State of the Science Paper

BIOBEHAVIORAL NURSING SCIENCE: LANDSCAPES AND HORIZONS - WHERE MIND MEETS BODY

Joan L. F. Shaver, PhD, RN, FAAN
Dean and Professor
College of Nursing
The University of Arizona
Tucson, AZ

Home
◀ ▶ go to PG.

BIOBEHAVIORAL NURSING SCIENCE: LANDSCAPES AND HORIZONS - WHERE MIND MEETS BODY

Joan L. F. Shaver, PhD, RN, FAAN
Dean and Professor
College of Nursing
The University of Arizona
Tucson, AZ

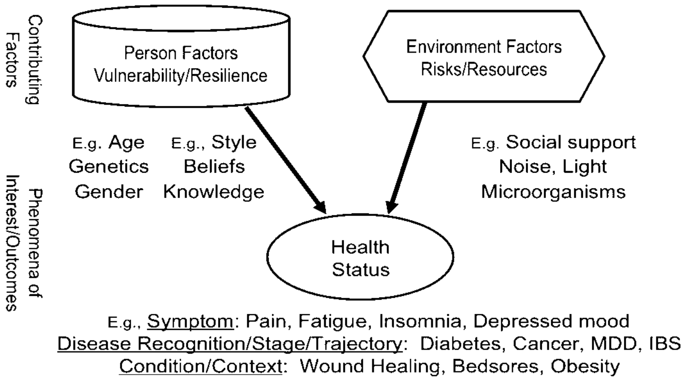
Beyond the dominant bioscience approach of discrete organ system probing and separation of body and mind, currently evident is expanding scientific appreciation for a more integrated systems approach and for the concept that the brain houses a mind that is intricately connected to a complex peripheral soma that 'talks' to it. This has energized the search for integration of behavior and biology knowledge, i.e., biobehavioral science. This dynamic holds salience for nurse scientists, who have readily embraced a human ecology framework for integrating views about 'person' and 'environment'. In this paper, I: 1) outline a biobehavioral human health ecology framework (begun by a group of us at the University of Washington), 2) briefly review two areas of the scientific landscape related to the person and environment interface in relation to health status; 3) mention a few key examples of aligned nurse scientist research, and, 4) comment on the horizon of potential scientific opportunities.

Biobehavioral Human Health Ecology Framework:

In my view, biobehavioral science encompasses understanding how mind elements (cognitive, emotional) interact with bodily (somatic) elements (physicochemical) to drive behaviors (person interactions with environment) and how behaviors influence mental and bodily function.

Using a human health ecology framework with the goal being to explain or predict and in clinical practice to assess health status (outcomes) or phenomena, contributing factors are classed as person factors, those within individuals, making them vulnerable or resilient and that may be non-modifiable, e.g., age or modifiable, e.g., beliefs, style.

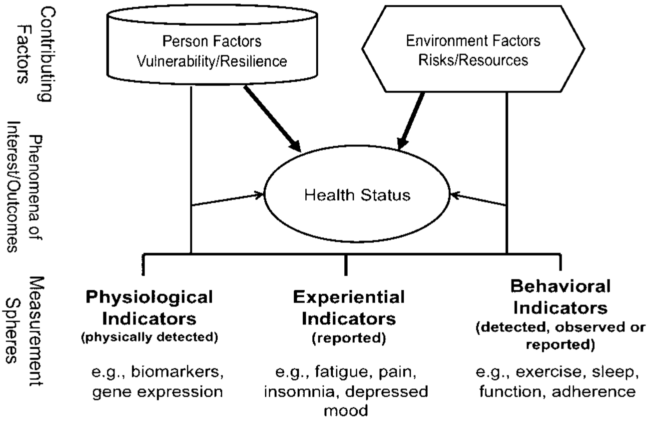
Human Health Ecology Framework



Home
◀ ▶ go to PG.

Also contributing are environment factors, those seen as emanating from outside individuals as negative (risks) or positive (resources). Through either descriptive or interventional research, probed are which factors are most influential in worsening, preserving or promoting health status. Interventions are directed at the personal and/or the environmental contributing factors. Scientific prediction, explanation or amelioration is frequently aimed at symptoms or clusters thereof, and other aspects of disease/condition (threatened or actual) recognition or progression. At the whole person level, health status/outcomes of nursing science interest frequently encompass lifestyle functionality domains, such as eating, sleeping, breathing, or activity/exercise and are studied as phenomena in the context of growing, developing and aging.

Contributing factors and health status (outcomes) are assessed through indicators falling into three main categories: physiological, detected through physical or physicochemical transduction; experiential, assessed through self-report; and behavioral, which can be detected, e.g., activity monitor; observed, e.g., timed walk; or reported, e.g., activity diary.



Systemic Science Landscape: The Person/Environment Interface:

From a health ecology perspective, challenges to human health status emanate from the interface of exposure to environmental stressors (e.g., physical, sociocultural, psychological, spiritual) and inherent or learned/conditioned psychophysiological processing of stressors. In much of nursing science we strive to clarify those person and/or environment factors that predispose to and perpetuate negative (e.g., symptoms, impaired organ system or whole person function) or positive (e.g., growth, resilience, quality of life) indicators of health status/outcomes.

While the conventional biomedical approach has been to focus on organ systems, mostly separately and in the context of a mind body schism, two lines of human health research typify a more systemic, mind/body integration approach; i.e., probing of the emotion-immune and the tissue harm-immune systems. While these lines are mostly studied separately, sufficient overlap of activation indicators is suggestive that they might be viewed as a single 'stressor-immune' system for which the 'stressor' can be emotional, e.g., threat or challenge to integrity (originally seen as activating *the fight* *or flight* response) or physical, e.g., peripheral tissue infection or injury (activating the *host defense response*). Although physical and/or emotional instigators invoke somewhat differentiated systemic changes, both are designed to be protective and many aspects appear core to both. In either, activation is meant to shift physiological state to address a short-term threat/challenge and prepare for more serious or longer range consequences.

Currently a prominently studied dynamic, particularly within the tissue harm-immune perspective, is 'acute phase inflammatory' activation (IA) by innate immune cells. As background, the IA entails production of pro-inflammatory cytokines (PICS), which include IL-1β, IL-1RA, IL-2, IL-4, IL-6, IL-8, IL-10, Tumor Necrosis Factor alpha (TNF α), C-reactive protein (CRP), and Interferon gamma (IFNγ). Cytokines are immune system signaling proteins expressed by various cell types, including monocytes, macrophages, lymphocytes, vascular endothelial cells, smooth muscle cells, adipose tissue, and neurons. Cytokine are broadly and systemically active in the brain and peripheral tissues and act on a select number of receptors in cells that amplify effects by activating a number of genes [1]. Cytokines are quantified by measuring: 1) circulating levels of cytokines in the blood, or 2) 'in vitro' cytokine production upon stimulation of immune cells with lipopolysaccharide (LPS) (bacterial cell wall component that acts as an endotoxin to trigger immune activation). Peripheral cytokine release and afferent nerve activity serve to act centrally to provoke brain cytokine production [2] but also to activate a hallmark of the emotion-immune system activation, the hypothalamus/pituitary/adrenal (HPA) axis. This entails release of corticotrophin releasing hormone (CRH) from the hypothalamus and adrenocorticotrophic hormone (ACTH) from the pituitary, which in turn invokes glucocorticoids (G), i.e., cortisol (humans) or corticosterone (animals) from the adrenal glands. Cytokines (& downstream signaling molecules) influence expression/activity of factors regulating local G bioavailability and G receptor function, thus keeping PICs and inflammatory manifestations within boundaries. The importance of G is seen when an inflammatory challenge is given to adrenalectomized animals or those with blocked G receptors, the outcome being exaggerated peripheral and central inflammatory responses (e.g., elevated PICS). Of note is that brain PICs have been shown to promote release of epinephrine, dopamine and serotonin [3], all neuromodulators of behavior and symptoms, particularly pain, sleep and mood.

Activation of the tissue harm-immune system is observed to drive a variety of protective biological and behavioral changes. Biologically, metabolism shifts toward catabolic status to mobilize energy substrates to sustain immune activation and invoke an elevated body temperature (fever). This includes increased skeletal muscle protein breakdown and liver synthesis of acute phase response proteins (under transcription control of interleukins). Behaviors to conserve energy for healing/recovery become evident as malaise, listlessness, lethargy, disinterest in social interactions, sleepiness, reduced concentration, negative mood and poor appetite; a constellation that has been labeled 'sickness behavior' [4].

Moving farther downstream from systemic IA to the cellular level, emerging evidence pertains that chronic low-grade IA with elevated PICs has profound cellular impact; increasingly studied as biomarkers of oxidative stress (OS). OS is evident in above-normal levels of reactive oxygen species (ROS) and reactive nitrogen species (RNS), indicating an overwhelmed antioxidant cell defense mechanism. The ROS include oxygen ions, free radicals and peroxides that are highly reactive due to the presence of an unpaired electron on oxygen molecules. They impair cellular functions by damaging lipids, deoxyribonucleic acid (DNA), and proteins. The brain is particularly susceptible to OS due to: generating more free radicals than other tissues; having higher concentrations of lipids with unsaturated fatty acids that are targets for lipid peroxidation; and having low to moderate antioxidant mechanisms.

Three cellular OS biomarkers, well documented especially in cancer, depression and cardiovascular conditions, are: 1) serum levels of Isoprostanes (F_2IsoPs) [5], 2) peripheral blood mononuclear cell (PBMC) telomere length (TL) and 3) telomerase activity (TA), an enzyme system that protects against TL shortening [6]. F_2IsoPs are prostaglandin-like compounds formed from peroxidation of the free fatty acid in phospholipids - arachidonic acid. Elevations of F_2IsoPs in human body fluids and tissues have been found in obesity, atherosclerosis, diabetes, cigarette smoking, neurodegenerative conditions and linked to fatigue in fibromyalgia. Telomeres are DNA-protein structures containing repetitive DNA sequences that are found at the ends of chromosomes and shorten with sequential mitotic cell divisions. Telomeres prevent loss of genetic material that would occur with each cell division. Shortened TL has been linked to chronic pain, fatigue, cognitive dysfunction, sleep disturbance and depression. Shortened TL can be hastened in the context of enduring exposure to stressors [6] and has been associated with a variety of stress-related circumstances, including early childhood adversity, obesity, plus low household income and poor diet. Telomerase is an enzyme that adds telomeric sequences to counterbalance those lost during DNA replication [7]. When TL becomes critically short, cell division halts and cell senescence or apoptosis (programmed cell death) is evident. Apoptosis is an endpoint OS outcome and in brain tissue no doubt has an effect on cognitive, perhaps emotional function; changes in which often accompanying a variety of chronic conditions.

Tissue Harm- and Emotion-Immune Activation: Connections?

Without indications of peripheral tissue harm, mentally perceived threats or challenges (stressors) activate some similar components, including PICs. Long known is that emotional arousal elicits HPA axis activation with cortisol augmentation and an autonomic nervous system (ANS) shift toward sympathetic system (SNS) dominance with higher levels of catecholamines, epinephrine, norepinephrine. Evidence pertains that exposure to acute stressors such as exercise or aversive stimuli, e.g., footshock or restraint in animals, activate PICs and their signaling pathways in the periphery and brain tissues [8]. A 2007 meta-analytical review of the PIC responses to acute stressor exposure, IL-6, elevation was substantiated in the 19/30 qualified studies in which it was measured ($r = 0.19$, $p = 0.001$ with NS heterogeneity tests) [9]. Moreover, in humans, elevated PICs have been associated with enduring high stress-related contexts such as low socioeconomic status, chronic work stress, caregiver strain, early life adversity, hostility and social isolation [9].

Assuming two separate mechanisms, further connections between the tissue harm- and emotion-immune systems are inferred from observations that each confers reciprocal sensitivity relative to the other. Egg, rats exposed to inescapable foot shocks compared to those not shocked, showed exaggerated PIC levels upon infectious challenge and prior IL-1- induced ‘sickness behavior’ was associated with post foot-shock exaggerated HPA activation. This has led to speculation is that in the context of an infectious or emotional trigger and a pre-sensitized brain cytokine system, somatic symptoms are amplified [3]. In sum, both peripheral tissue harm and emotional instigators involve immune and other cells and invoke elevated PICs in concert with HPA, afferent neural and ANS activation.

Prolonged Stressor-Immune Activation: The Root of Many Symptoms:
With emotion or tissue harm instigator types, the resulting activation patterns are meant to be episodic and relatively short-lived but can become prolonged. The 'sickness behavior' syndrome is meant to subside with removal of tissue harm, e.g. infection or injury, but in some circumstances can progress to a persistent (chronic) low level of IA (with long range exposure to PICs) and to persistent expression of sickness behaviors/symptoms. Chronic low grade IA has become widely evident across conditions with serious negative impact. It has been documented in conditions ranging from chronic heart failure and progressive neurodegeneration, to obesity, and aging [4]. For example, IL-6 and C reactive protein (CRP) when comparatively high have been shown to have predictive power for later life morbidity and mortality [9].

Similar to tissue harm-immune activation, emotional-immune activation is meant to peak and resolve with removal of the threat or challenge (stressor). However, in some people, contemporary life creates ongoing strain and sustained emotional arousal with persistent up-regulation of physiologic activation, i.e., HPA axis, SNS and presumably systemic IA. For example, as I have previously outlined [10], people displaying psychophysiological insomnia tend to typify being hyperaroused and have been shown to exhibit elevated body metabolism and temperature (although not a fever level), and rather than being withdrawn, are anxious, often hyper vigilant toward their environment. One view is that over time a stress hyper-activated pattern (high cortisol, behaviorally vigilant) can shift to a hypo- activated pattern (low cortisol, behaviorally withdrawn, perhaps a context in which PIC predominance driving fatigue and other neuro-vegetative symptoms. Still at question is whether there is sequential conversion or each profile represents two different person-specific styles, one with a propensity to anxious and the other to anergic manifestations.

These observations of common mechanisms, reciprocal sensitization and conversion from acute to chronic manifestations raise a question of whether to view chronic low grade systemic activation (mostly seen by scientists as part of the tissue harm-immune system) as superimposed on emotion-immune activation profiles (therefore separate) or as part of an overall *stressor-immune* system. In typical biomedical views, symptoms of negative emotional arousal (e.g., depressed or anxious mood states) most often are thought of as co-morbid conditions (exist prior or concurrent) with tissue injury or disease, but it is possible they may be part of or a consequence of a 'distress' syndrome.

One can postulate that systemic *stressor-immune* activation, be it emotional and/or tissue driven could be at the root of conditions with multiple symptoms and symptom clusters as well as multisymptom functional somatic disorders such as fibromyalgia, chronic fatigue syndrome, irritable bowel, irritable bladder, among others. These conditions often exhibit tissue pain hypersensitivity, e.g., skeletal muscle, gut or bladder muscle, linked to central processing alterations; along with deep fatigue, sleep problems, mental clouding and depressed mood [10]. This symptom cluster has become characteristic in many contexts in which peripheral tissue harm or sustained emotional arousal is evident but the patterns of stressor-immune indicators that will clarify person variation in symptom expression, and functional or quality of life consequences will take a lot more scientific investigation to clarify.

Furthermore, dialogue is emerging related to the tissue harm-immune mechanism having an explanatory role in major depressive disorder (MDD). Based on observations that depressive disorder with manifestations of sadness, fatigue, sleep and appetite loss accompanies immune activation in physically ill patients and remits after cytokine cessation [3], e.g., immunotherapy (IFNα) given to non-depressed patients for hepatitis C [11], speculation has it that chronic PIC exposure (chronic sickness behavior) could be at the root of MDD. As well, clinical depression has been associated with increased levels of PICs. However, whether PIC activation is a precursor or manifestation remains in question [12].

In many conditions, including those illustrative of somatization and functional somatic disorders, observed is behavioral pain hypersensitivity, often in the form of increased pain expression in response to pain stimuli (hyperalgesia) and pain with stimuli not normally painful (allodynia). As reviewed by Irwin (2011), increasingly immune mechanisms are thought to underlie such pain experiences. Immune cells, e.g. macrophages, in the vicinity of peripheral nerves and spinal cord immune-like glial cells after trauma produce PICs, with levels paralleling pain perception. Moreover, injection of PICs on or into peripheral nerves intensifies pain perception and several basic science observations indicate other ‘sickness behaviors’ to co-exist with pain sensitivity. These observations of peripheral IA coupled with brain cytokine sensitization are expanding insights into the biobehavioral basis of hyperalgesia and neuropathic pain [3].

Also commonly manifested with pain, fatigue and depressed mood are sleep changes and the linkages to immune function, like pain, are being explored [3]. For example, sleep loss, studied either through partial sleep deprivation or naturalistically in chronic insomnia, is associated with PIC elevations, interestingly with exaggerated levels in females versus males. Cytokines are seen to play a role in homeostatic sleep regulation. A hallmark of ‘sickness behavior’ is sleepiness and in dosing animals with select PICs non-rapid eye movement sleep (NREM) is induced during a normal wake time with the extent linked to genetic variations. From much more limited human studies, while endotoxin induces more NREM stage 2, in contrast, injection of PIC IL-6 or IFNα leads to reduction of slow wave sleep (NREM stages 3 & 4) and REM sleep.

Study of *Stressor-Immune* System Components by Nurse Scientists:
In concert with a human health ecology framework emphasizing the person-environment interface, knowledge about the emotional- and tissue harm-immune systems and the potential for chronic IA is a solid fit. Moreover, such knowledge will advance biobehavioral explanations for phenomena of particular interest in nursing science: 1) circumstances of multiple symptoms or symptom clusters (i.e., pain, fatigue, psychological distress, sleep disturbance, and mental clouding); and 2) functional somatic disorders (e.g., fibromyalgia, irritable bowel syndrome, multiple chemical sensitivity). A few examples of nurse scientists with aligned research follows.

Disorders of multiple symptoms and symptom clusters**:** For nurse scientists, clusters of symptoms have been most robustly studied by those interested in cancer care. In 2001 Dodd and Miaskowski, who have illustrious careers spent immersed in cancer symptom science, introduced into the nursing literature the idea of symptom clusters [13]. The term symptom cluster usually refers to the concurrent reporting of two to three or more symptoms for which there is evidence that they are related to each other. Among other forms, ‘relationship’ may take the form of correlation, temporal patterning, common effect on outcomes and a common underlying mechanism. As mentioned by Barsevick (2006), Gift and Given and their teams have created symptom cluster knowledge in the lung cancer patients and elders with cancer [14]. In 2004, along with K. Lee and spurred by a collaboration with B. Given's team, Dodd and Miaskowski published a paper on the "Occurrence of symptom clusters" [15]. Searching the cancer literature at that time, they could find only a handful of studies that considered concurrent symptoms; in only two papers was depression included and they could find none related to children or adolescents, by stage of cancer, or across the continuum of cancer care (presentation, treatment, survivorship, or palliative care). They only could find two studies that they classified as addressing a symptom cluster; one by Gaston-Johansson included symptoms of pain, fatigue, and depression in women with breast cancer and one that included fatigue, anxiety, and depression in Hodgkin's Disease. In 2007 Hockenberry and Hooke outlined the extent of studies related to symptom clusters in children [16]. In children and adolescent with cancer, Hockenberry and her team have continued to document the impact that the cluster of fatigue, sleep disturbance and pain have on childhood performance and behavior. Interestingly, although the cancer may have dissipated, the exposure to medical cancer therapies in children appears to have lasting effects as seen in higher than normative reporting of symptoms in adult survivors. In a 2010 paper, Finnegan and colleagues pointed out that although the majority of studies have addressed singular symptoms, in two studies of adult childhood cancer (ACC) survivors the same five cardinal symptoms (pain, fatigue, sleep disturbance, psychological distress, and mental clouding) clustered together and which had synergistic effects on reducing quality of life outcomes [17]. Using a sophisticated latent mixture modeling approach, the Finnegan team showed in even a small sample (N = 100) of ACC survivors that symptoms cluster severity and underlying person and environment factors contribute to subgroup delineations that could inform assessment/interventions.

Suffice to say that the majority of these studies represent a more behavioral than biobehavioral approach. Although shedding light on cross-symptom links, person/environment contributors and functional consequences, few nurse investigators have pursued the underlying biological basis. An exception is Miaskowski, who in publications has disclosed deficits in our frameworks for studying symptoms/symptom clusters and looked at biologic and genetic pathways for predicting pain and fatigue [18]. Another exception is Ki Moore, also now working with Hockenberry, who has a robust program looking at biomarkers of systemic IA and cellular OS as a consequence of chemotherapy received by children with leukemia. Her team has shown the detrimental effects of low grade IA and OS to cognitive performance and function in school [19] and working with an interprofessional team has designed a protective cognitive intervention.

Functional Somatic Disorders**:** Conditions also of interest to nurse scientists and characterized by clusters of multiple symptoms are functional somatic disorders as yet that have no clear pathology. Select examples of nurse scientists and their research programs follow.

For more than three decades, Heitkemper and her team have pursued in women knowledge related to irritable bowel syndrome (IBS), a chronic gastrointestinal (GI) functional disorder characterized by symptoms of altered bowel function (constipation, diarrhea) and associated GI pain, with severity ranging from mild to severe/disabling. This team questions the evidence for stress is an isolated initiator of IBS but have shown that emotional stressors trigger or exacerbate symptoms in approximately 75–80% of people with IBS, who also report more chronic stress and exhibit HPA axis and ANS alterations. From a biobehavioral perspective, Heitkemper and colleagues are rigorously pursing factors to explain IBS sub-types defined mainly by the predominance of constipation or diarrhea and differences in stressor-immune function; from observations made both in daytime and at night during the sleep period. In a recent paper, they revealed that women with IBS (compared to healthy control women) exhibited nighttime cortisol elevations and sleep disturbance when exposed as a stressor to the anticipation of a public-speaking task the next day [20]. Using proteomics, i.e., global analysis of cellular proteins with mass spectrometry (MS)-based techniques, image analysis, reverse-phase protein array, amino acid sequencing, and/or bio-informatics, to identify and quantify a large number of proteins, this team has done some preliminary work to explore urinary protein links to particular symptom patterns in IBS. In a proteomics perspective paper this team referred to a urine biomarker network that has linked genomic profiles from 127 diseases to 577 proteins detectable in urine. They note that the majority (more than 80%) are associated with more than one clinical condition and certainly with infectious conditions. Pertinent to the topic herein of systemic IA, they also raised the question of whether urinary proteins found to predict biomedical conditions (so far very few investigations) were specific to a disease/condition or indicative of a more generalized processes [21].

In my team's program of research with sleep disturbances, ultimately led by C. Landis, we studied women with fibromyalgia (FM), a disorder of unrelenting pain (musculoskeletal) that can in its most severe forms be disabling, accompanied by nonrestorative sleep, intense fatigue, psychological distress and depressed mood among other symptoms. More than half of women who have FM meet criteria for other functional somatic disorders such as chronic fatigue syndrome (CFS) (chronic fatigue and muscle and multiple joint pain without swelling or redness) and IBS, implying underlying systemic commonalities. We showed that compared to controls, women with FM had lower pain thresholds, more psychological distress, higher depression scores, and poorer subjective and objective sleep quality. Although not pursued with more contemporary markers, in a very small sample, women with FM tended to have fewer natural killer (NK) cells ($p< .009$) and more NK cells that expressed the IL-2 receptor ($p< .04$) [22].

K. Jones has a program of research embedded with a strong inter-professional team studying fibromyalgia (FM). She participates with OMERACT (Outcome Measures in Rheumatology), an independent initiative of international health professionals interested in outcome measures in rheumatology, especially outcome measures in a number of musculoskeletal conditions. Much of her work has been focused on impacting functional outcomes and core symptoms with testing of exercise [23] and mind/movement therapies such as Tai Chi and yoga of awareness. With colleagues she has shown postural deficits in people with FM and synthesized evidence related to common pathways underlying the pain hypersensitivity across functional somatic disorders. Originally a member of this team, R. Ross now at the University of Arizona is pursuing evidence underpinning FM manifestations that incorporates tissue harm- and emotional-immune indicators, including cellular oxidative stress, rarely having been assessed in FM [24].

Home ◀ ▶ go to PG.

The Horizon:

A biobehavioral focus on systemic (person or environment) contributors to health status vulnerability/resilience stands to uncover new knowledge, especially in the realm of symptom science where many nurse scientists are active. Needed are studies that merge symptom expression and measurement of function (physical or mental) or quality of life with measurement of the 'stressor-immune' system indicators, i.e., HPA axis, SNS, systemic inflammatory and cellular oxidative stress. This will require forming partnerships across nurse or other scientists for breadth of expertise. One could envision studies which could allow us to:

1. link patterns of *stressor-immune* indicators to:
    a. each other;
    b. symptom patterns or clusters, e.g., pain, depressed mood, insomnia, cognitive clouding, or other manifestations;
    c. lifestyle behaviors, e.g., eating behaviors, sleep/wake, exercise;
    d. disease/condition risk, recognition or trajectories.

Based on this foundation,

2. define sub-groups within disease/condition categories or across disease/conditions;
3. test and monitor targeted and/or tailored interventions.

Summary:

Closely fitting a health ecology (person/environment) framework for understanding human health, the landscape of biobehavioral science shows growing attention being paid to the protective immune system. Although the tissue harm- versus emotion-immune activation is studied separately, close connections can be argued, suggestive of an overall *stressor-immune* system with mind and body linkages. Each shows common activation indicators related to the HPA axis, SNS, systemic inflammation and cellular oxidative stress. Multiple manifestations of acute or chronic activation could underpin the myriad of symptoms seen to be invoked by tissue harm and emotional instigators. Evident are several aligned exemplars of nurse scientist-led research programs related to multiple symptom science in the context of major medical disease and functional somatic disorders. Suggested is that more impetus should be given to shifting from purely behavioral to biobehavioral approaches. On the horizon, generating knowledge of the *stressor-immune* system within a human health ecology framework using emerging cross disease/condition mass measurement technologies, both biological and behavioral, holds much potential for creating novel insights into what influences health beyond the conventional and dominant biomedical approach to studying separate diseases.

References (abbreviated in the text due to space, others available upon request):

1. Dantzer, R., *Cytokine, sickness behavior, and depression.* Immunol Allergy Clin North Am, 2009. 29(2): p. 247-64.
2. Dimsdale, J.E. and R. Dantzer, *A biological substrate for somatoform disorders: importance of pathophysiology.* Psychosom Med, 2007. 69(9): p. 850-4.
3. Irwin, M.R., *Inflammation at the intersection of behavior and somatic symptoms.* Psychiatr Clin North Am, 2011. 34(3): p. 605-20.
4. Dantzer, R. and K.W. Kelley, *Twenty years of research on cytokine-induced sickness behavior.* Brain Behav Immun, 2007. 21(2): p. 153-60.
5. Morrow, D.A., *The isoprostanes: Their quantification as an index of oxidant stress in vivo.* Drug Metabolism Reviews, 2000. 32: p. 377-85.
6. Haussmann, M.F. and N.M. Marchetto, *Telomeres: Linking stress and survival, ecology and evolution.* Current Zoology, 2010. 56(6): p. 714-727.
7. Grieder, C.W., *Telomere length regulation.* Annual Review of Biochemistry, 1996. 65(337-65).
8. Irwin, M.R. and A.H. Miller, *Depressive disorders and immunity: 20 years of progress and discovery.* Brain Behav Immun, 2007. 21(4): p. 374-83.
9. Steptoe, A., M. Hamer, and Y. Chida, *The effects of acute psychological stress on circulating inflammatory factors in humans: a review and meta-analysis.* Brain Behav Immun, 2007. 21(7): p. 901-12.
10. Shaver, J.L., *Sleep Disturbed by Chronic Pain in Fibromyalgia, Irritable Bowel, and Chronic Pelvic Pain Syndromes.* Sleep Medicine Clinics, 2008. 3(47-60).
11. Dantzer, R., et al., *Inflammation-associated depression: from serotonin to kynurenine.* Psychoneuroendocrinology, 2011. 36(3): p. 426-36.
12. Dantzer, R., *Depression and inflammation: an intricate relationship.* Biol Psychiatry, 2012. 71(1): p. 4-5.
13. Dodd, M.J., C. Miaskowski, and S.M. Paul, *Symptom clusters and their effect on the functional status of patients with cancer.* Oncol Nurs Forum, 2001. 28(3): p. 465-70.
14. Barsevick, A.M., et al., *Symptom cluster research: conceptual, design, measurement, and analysis issues.* J Pain Symptom Manage, 2006. 31(1): p. 85-95.
15. Dodd, M.J., Miaskowski, C., Lee, K.A., *Occurrence of Symptom Clusters.* Journal of the National Cancer Institute Monographs, 2004. 32: p. 76-8.
16. Hockenberry, M., Hooke M.C., *Sympom Clusters in Children with Cancer.* Seminars in Oncology Nursing, 2007. 23(2): p. 152-57.
17. Finnegan, L., et al., *The symptom cluster experience profile framework.* Oncol Nurs Forum, 2010. 37(6): p. E377-86.
18. Miaskowski, C. and B.E. Aouizerat, *Biomarkers: symptoms, survivorship, and quality of life.* Semin Oncol Nurs, 2012. 28(2): p. 129-38.
19. Moore, I.M., Miketova, P., Hockenberry, M., Krull, K., Pasvogel, A., Carey, M., Kaemingk, K., *Methotrexate-induced alterations in beta-oxidation correlate with cognitive abilities in children with acute lymphoblastic leukemia.* Biol Res Nurs, 2008. 9(4): p. 311-9.
20. Heitkemper, M.M., Cain, K. C., Deechakawan, W., Poppe, A., Jun, S. E., Burr, R. L., Jarrett, M. E., *Anticipation of public speaking and sleep and the hypothalamic-pituitary-adrenal axis in women with irritable bowel syndrome.* Neurogastroenterol Motil, 2012. 24(7): p. 626-31, e270-1.
21. Voss, J., Goo, Y.A., Cain, K., Woods, N., Jarrett, M., Smith, L., Shulman, R., Heitkemper, M., *Searching for the Noninvasive Biomarker Holy Grail: Are Urine Proteomics the Answer?* Biological Research for Nursing, 2011. 13(3): p. 235-42.

Home ◀ ▶ go to PG.

22. Landis, C.A., Lentz, M. J. Tsuji, J., Buchwald, D., Shaver, J. L., *Pain, psychological variables, sleep quality, and natural killer cell activity in midlife women with and without fibromyalgia.* Brain Behav Immun, 2004. 18(4): p. 304-13.
23. Jones, K.D. and G.L. Liptan, *Exercise interventions in fibromyalgia: clinical applications from the evidence.* Rheum Dis Clin North Am, 2009. 35(2): p. 373-91.
24. Ross, R.L., Jones, K. D., Bennett, R. M., Ward, R. L., Druker, B. J., Wood, L. J., *Preliminary Evidence of Increased Pain and Elevated Cytokines in Fibromyalgia Patients with Defective Growth Hormone Response to Exercise.* Open Immunol J, 2010. 3: p. 9-18.

Home ◀ ▶ go to PG.

State of the Science Paper

CREATING NURSING'S FUTURE: TRANSLATING RESEARCH INTO EVIDENCE-BASED POLICY

Marla J. Weston, PhD, RN, FAAN
Chief Executive Officer, American Nurses Association
Silver Spring, MD

Kathleen M. White, PhD, RN, NEW-BC, FAAN
Johns Hopkins School of Nursing
Baltimore, MD

Cheryl A. Peterson, MSN, RN
Nursing Practice & Policy, American Nurses Association
Silver Spring, MD

CREATING NURSING'S FUTURE: TRANSLATING RESEARCH INTO EVIDENCE-BASED POLICY

Marla J. Weston, PhD, RN, FAAN
Chief Executive Officer, American Nurses Association
Silver Spring, MD

Kathleen M. White, PhD, RN, NEW-BC, FAAN
Johns Hopkins School of Nursing
Baltimore, MD

Cheryl A. Peterson, MSN, RN
Nursing Practice & Policy, American Nurses Association
Silver Spring, MD

Introduction

A confluence of events including the Institute of Medicine (IOM) issuing *The Future of Nursing: Leading Change, Advancing Health* (IOM, 2011), passage of the Patient Protection and Affordable Care Act (ACA), and stronger research within nursing and advocacy efforts on the part of organized nursing make this a very exciting time to be a nurse. The profession is well-positioned to be a leading voice for positive change within our health care system, driving toward higher quality and more efficient, affordable health care delivery which will make a difference in the lives of our patients, their families and communities.

While the intersection between research, practice, and policy has always been important, the current events generate an environment where fully embracing the translation of research into creating evidence-based policy can expand the sphere of influence of the nursing profession within the world of practice and policy. This paper speaks to how the confluence of these events has contributed to an environment that supports nursing research, the ongoing need for effective collaboration between research and practice, and the concept of "policy entrepreneurs" who influence the adoption of new ideas into policy.

Leading into the Future

As professionals we are called to be leaders. Findings from the Robert Wood Johnson Foundation/Gallup survey, *Nursing Leadership from Bedside to Boardroom: Opinion Leaders' Perceptions* (2010), suggest that the participating health care industry, insurance, faculty, corporate and government opinion leaders are looking to nurses to have more influence, particularly in the areas of reducing medical errors and improving patient safety (90%), increasing the quality of care (89%), and preventing wellness and expanding preventive healthcare in the local community (86%). Also high on this list of areas where nursing should exercise influence are:

- Improving healthcare efficiency and reducing costs (84%),
- Helping coordinate patients through the healthcare delivery system (83%),
- Helping the healthcare system adapt to an aging population (83%), and
- Increasing access to care, including primary care (74%).

Informing this call to leadership, are nursing's foundational documents. Both the *Code of Ethics for Nurses with Interpretive Statement* (American Nurses Association, 2001) and *Nursing: Scope and Standards of Practice* (American Nurses Association, 2010) speak to nurses as leaders integrating research and evidence into practice to provide nursing services that are safe, effective and financially responsible. Provision 7 of the Code specifically notes that the nurse participates in the advancement of the profession through contributions to practice, education, administration and knowledge development, including involvement in nursing and health care policy development. Nurses must seek to lead and influence across the many levels of policy making including professional, institutional, and governmental and across many levels of communities to include regional, state, national and international levels. In other words, nurses should conceptualize impacting policy at its most broad level. For example, evidence can also be used to develop practice guidelines or position statements generated by professional associations or specialty groups, policies of an employer or institution, or legislative or regulatory guidelines.

Context Matters: Timely, Relevant and Responsive

Research and policy are often most successful when driven by a clear understanding of the context in which the activity is undertaken. An environmental perspective can frame the questions researched, drive funding in support of research or demonstration projects to further inform policy and practice, and delineate the messages that are used to successfully advocate for policy change.

Both the *Future of Nursing* report (IOM, 2011) and the ACA provide excellent examples of the intersection of research, practice and policy. The close proximity of both events served and continues to serve as a catalyst influencing research, practice, and policy. The *Future of Nursing* report includes a clear articulation of both the research that supports practice, but also highlights best practices that are leading the evolution of care delivery in nursing. Movement toward implementation of four recommendations is of particular relevance to strengthening the intersection among these three arenas. These particular *Future of Nursing* report recommendations speak to the need to prepare nurses to lead through advanced education and/or professional development, to create the opportunities for collaboration and leadership, and to establish the infrastructure for data collection.

- **Recommendation 2** speaks to the need to expand opportunities for nurses to lead and diffuse collaborative improvement efforts.
- **Recommendation 5** reflects the need to double the number of nurses with a doctorate by 2020 to impact research, practice, and policy.
- **Recommendation 7** links to recommendation 2 as it recognizes that we need to prepare nurses to lead change to advance health.
- **Recommendation 8** recognizes the need for infrastructure for both the collection and analysis of interprofessional health care data.

Similarly, passage of the ACA created a significant opportunity for nurses while also demonstrating how legislation and the subsequent regulatory process can drive changes in practice through the study and promotion of cost effective models of delivery of care, identification of new and evolving roles, and redirecting reimbursement and funding. The ACA provides direction for future research and a framework for translating research into practice and policy, particularly as nursing looks to support achievement of the triple aim of better individual health, better population health, and lower costs. Through collaboration and partnership, nursing can build on our successes and take advantage of opportunities that will result in improved delivery of nursing services to patients and families and a profession empowered to lead for positive change.

Making the Difference: Research Impacting Policy

One significant policy shift that has been amplified both in the *Future of Nursing* report (IOM, 2011) and with the passage of the ACA is the movement toward primary care as a means for delivering services more cost effectively to more people. Consequently, the role of advanced practice registered nurses (APRNs) and their capacity to step into this primary care space and delivery quality care has been highlighted. Thirty percent of patients in traditional Medicare received one or more services from an APRN and over 100,000 APRNs directly billed Medicare for $2.4 billion in approved charges for services in 2011 (McMenamin, 2013). The National Governors Association's recent paper (2012), *The Role of Nurse Practitioners in Meeting Increasing Demand for Primary Care,* notes that nurse practitioners can "perform many primary care services as well as physicians do and achieve equal or higher patient satisfaction rates among their patients." This acknowledgement of the value of using APRNs in primary care is a clear marker of a successful shift in policy as a result of a partnership among research, practice and policy.

In today's complex health care environment, many have identified the added value of collaboration in the health care setting, including improved patient outcomes, reduced length of stay, cost savings, increased job satisfaction and retention, and improved teamwork. While numerous studies have demonstrated the positive outcomes associated with team-based care, both the *Future of Nursing* report and the ACA have renewed emphasis on the role of interprofessional teams in delivering patient care. Gardner (2005) states, "the focus on benefits of collaboration would lead one to think that collaboration is a favorite approach to providing patient care, leading organizations, educating future health professionals, and conducting health care research." Unfortunately, this is not the case; and, as a result of this lack of collaboration, patients don't benefit optimally from the translation of advances in health care into everyday practice and policies. To effectively inform policy decisions, more research is needed to delineate the relationship between team-based behaviors and patient outcomes, interventions that effectively improve interprofessional collaboration and impact of reimbursement approaches for enhancing team-based care. Of particular interest, are studies that look at the delivery of team-based care with each member functioning to their fullest scope and allowing for attribution and accountability to the appropriate team members.

While the second *Future of Nursing* report (IOM, 2011) recommendation suggests the importance of expanding opportunities for nurses to collaborate in order to conduct research and redesign and improve practice environments, the ACA is providing an opportunity to do just that. One significant provision (Section 3021) within the ACA establishes the Center for Medicare and Medicaid Innovations (CMMI). This center was created for the express purpose of testing innovative payment and service delivery models to reduce expenditures while preserving or enhancing quality of care. CMMI's Health Care Innovation Projects serves as a platform to test delivery models that

Home ◀ ▶ go to PG.

include nurses and may be led by nurses (CMS, 2011, Health care innovation award project profiles). Examples of the types of projects funded include:

- Christus St. Michael Health System - Reducing readmissions from nursing home facilities with the integrated nurse training and mobile device harm reduction program.
- Developmental Disabilities Health Services – Expanding and testing a nurse practitioner-led health home model for individuals with developmental disabilities.
- Emory University (Center for Critical Care) – Rapid development and deployment of non-physician providers in critical care.
- Johns Hopkins School of Nursing – CAPABLE for frail dually eligible older adults: achieving the triple aim by improving functional ability at home.
- Memorial Hospital of Laramie County DBA Cheyenne Regional – Wyoming: A frontier state's strategic partnership for transforming care delivery.

The ACA also created another venue to test models of care through the Community-based Care Transitions Program (CCTP). The CCTP tests models for improving care transitions from the hospital to other settings and reducing readmissions for high-risk Medicare beneficiaries. The goals of the CCTP are to improve transitions of beneficiaries from the inpatient hospital setting to other care settings, to improve quality of care, to reduce readmissions for high risk beneficiaries, and to document measurable savings to the Medicare program (CMS, 2013). This new program was a result of the translation of evidence from research on the contributions of advanced practice registered nurses in assisting older adults make a transition from inpatient hospital patient to successfully managing their care at home (Naylor, 2004).

Another example of the impact of evidence in policy is the implementation of standardized reporting and pay for performance. Both clinicians and hospitals will be affected by pay for reporting (added reimbursement for providing data to a central registry) and pay for performance (increased or decreased reimbursement based upon measured quality outcomes). One highly visible example of this is the current emphasis on hospital acquired conditions (HACs) and readmissions. HACs, as defined by the Center for Medicare and Medicaid Services (CMS), are conditions that are (a) high cost or high volume or both, (b) result in the assignment of a case to a DRG that has a higher payment when present as a secondary diagnosis, and (c) could reasonably have been prevented through the application of evidence-based guidelines (CMS, 2011, Hospital acquired conditions). The third condition for a HAC, the requirement that it could reasonably be prevented though use of evidence-based guidelines, is an everyday example of the translation of evidence into practice policy with the goal of preventing these conditions. Accurate data collection and reporting coupled with evidence-based practice policies take on an important focus for nurses and health care organizations today because they are driving payment for quality care based on the evidence. Research informs both valid and reliable measures that can be used in payment schemes and research coupled with practice are demonstrating the impact of and evaluating the effectiveness of guidelines and interventions to prevent the development of HACs.

Translating Research into Evidence-Based Policy

Evidence-based policy reflects the assumption that research is used to inform the development of rules or legislation at the institutional and public policy levels.

Home ◀ ▶ go to PG.

Unfortunately, the reality is that research is often not applied or only weakly applied to policy-making decisions for a variety of reasons. First, evidence-based policy requires both that researchers disseminate their findings in a format that policy makers find usable and, second, that policy makers seek relevant findings to guide their decisions (Young & Mendizabal, 2009; Weiss et al., 2008).

Nurses have two strategies for creating a future where nursing research is increasingly incorporated into policy development. The first involves collaborating to produce the research and the second involves engaging in activities to ensure their research is disseminated for policy development.

Collaboration Makes the Difference: Research, Practice and Policy

While healthcare often thinks of collaboration in relationship to patient care, the example of HACs demonstrates that collaboration between researchers and practitioners is equally important and valuable. Nurses at all levels of practice, regardless of setting, are contributing to practice improvement efforts, but often do not see these efforts as translating evidence into practice policy. Through collaborative relationships, nursing has the opportunity to increase demonstration or implementation research, the real-world testing of interventions that have been generated in controlled research settings. These collaborations could produce more relevant and usable knowledge faster to reduce the gap between research and practice policy.

With two types of doctoral degrees in nursing—one research focused and the other practice focused—the opportunity exists for collaboration in the identification of relevant practice problems (high risk, high cost, high volume, negative outcomes), conducting research to produce new knowledge/interventions, and implementation of the new knowledge into practice to improve outcomes, create an evidence-based practice and be responsive and timely to policy makers. Successful collaboration efforts require the involvement of the practice partner in the front end planning of the research. To design research that will be used by policy makers, the research proposal should declare a strong understanding of and discussion of the practice and policy context and planning for the evaluation and dissemination of the results to that practice and policy setting. Again, the key to translation of research results has to do with the timeliness, relevance and responsiveness of the research to current issues of concern.

However, the big question is *how* to grow and sustain collaborative partnerships. Gardner (2005) describes ten lessons in collaboration—two interrelated lessons that are particularly useful for this discussion. The first is to appreciate that collaboration often occurs spontaneously, such as the conversation in the hallway or at a community meeting about a patient or practice issue of concern. As an issue or problem is discussed, mutual discovery and synergy develop and a shared commitment to action can result. The second lesson is that these collaborative interactions are not automatic and that the interactions must be nurtured, with respect to each person's contributions and concerns, so that the different perspectives can be merged into a fully functioning and collaborating team. Nurses can foster collaborative work to translate evidence into policy by ensuring they are engaging in activities that increase the opportunities for interaction with colleagues who can complement and support their skillset. Further, the translation of evidence into policy requires that a clear action plan for translation of the research be a part of the development of the research proposal.

Making the Pitch: Disseminating the Evidence

The literature abounds with many models that can guide translation efforts. These models vary in strategy by the type of evidence used, the settings and context, the dissemination strategies, and the target audiences. Grimshaw et al. (2012) suggest a range of interventions aimed at healthcare professionals, consumers, and more importantly to this discussion, factors important to research use by policy makers. The relative importance of knowledge translation to different target audiences will vary by the type of research and appropriate endpoints of knowledge translation may vary across different stakeholder groups.

Lavis (2003) suggests five key determinants to guide translation of evidence to policy makers:

- What evidence should be translated to decision makers (the message)?
- Who should translate the evidence (the messenger)?
- To whom should the evidence be translated (the target audience)?
- What format should be used to translate the new evidence (process and support system)?
- How will the translation of this new evidence be evaluated (evaluation)?

Similarly, Jacobson et al. (2003) discussed five key domains for researchers and planners to consider as they plan a translation; user group, issue, research, research-user relationship and dissemination strategy. Their work details a series of specific questions to guide the planning. For example, she proposes that understanding the user group requires an understanding of the group's context, attitudes toward research, experience with change or translation and how they make decisions. Translation of evidence to policy means knowing your audience and understanding that context matters. Identifying and knowing the stakeholders who need to be involved in the translation, both those with something to gain and something to lose, is critical to the planning.

A more detailed description of the steps for enacting policy change have been delineated as (a) define a clear, overarching policy objective, (b) map the policy context, (c) identify the key influential stakeholders, (d) develop a theory of change, (e) develop a strategy, (f) ensure the engagement team has the competencies required to operationalize the strategy, (g) establish an action plan, and (h) develop a monitoring and learning system (Young & Mendizabal, 2009). While this listing of steps appears linear, in reality the steps may be consolidated or simultaneously performed.

Whatever method is used, dissemination of evidence into policy requires that the message is clear to decision makers. As a result, dissemination of evidence into policy is hampered by fragmented studies, or research that produces inconsistent and conflicting findings, or research that addresses local, practical problems considered pertinent to one organization or practice setting without regard for generalizability or contribution to public policy (Weiss et al., 2008). This lack of systematic development of knowledge in a specific area through a program of research addressing substantive questions delimits the impact of the work.

Translating research into policy requires first that nurse scientists synthesize their research into usable information in a readable format for policy makers. Up-to-date systematic reviews or other syntheses of research findings facilitate communicating

Home ◀ ▶ go to PG.

evidence to inform policy makers. A systematic review identifies, selects, appraises and synthesizes existing research on a specific topic. In addition, white papers or position statements can summarize the known evidence in a format that conveys a perspective or suggested solution.

In an ideal world, when a policy issue arises, policy makers could find the research they need encapsulated in a review. But in reality, it is more likely that a review hasn't yet been created. Accumulating a sufficient body of evidence takes time as does comprehending the research.

As a result, the degree to which research is used to inform policy is also affected by the pressures facing policy makers. Frequently research is not available or not described in a way that resonates with the issues facing policy makers. While policy-makers are looking for practical evidence to make reasonable decisions with a clear message, researchers communicate their findings articulating the theoretical foundation, caveats, and limitation (Young & Mendizabal, 2009). The short-term, sound-bite, constituent-focused nature of political work is often in direct conflict with the long-term, nuanced perspective of researchers.

Moving to the Next Level: Policy Entrepreneurs

Nurses can advance their ability to translate evidence into practice by studying and applying the concept of policy entrepreneurship. *Policy entrepreneurs* are individuals who generate, introduce, translate, and help implement new ideas into policy changes (Roberts and King, 1991). They are willing, similar to their business counterparts, to invest time, energy, reputation, and resources to affect significant change. The impact of policy entrepreneurs can be as diverse as influencing language, procedure, regulation, or legislations. They can work inside the system in appointed or elected positions, or outside the system as individuals, interest groups, or think tank research organizations. Further, policy entrepreneurship can occur in a variety of settings at the organizational, professional, or governmental level. Nurse scientists who can be classified as policy entrepreneurs have sufficient research background and credentials to understand the culture and methods for conducting research while also understanding how to communicate with and influence policy development (Lomas, 2000).

Mintrom and Norman (2009) suggest that the ability of policy entrepreneurs to promote significant change has been associated with four elements:

1. Social acuity including being well-versed in and well-connected through policy networks as well as having the skill to perceptively understand and engage others from the perspective of their ideas, motives, and concerns.
2. Defining problems which require coupling social acuity with skills in conflict management and negotiation to present a problem in a way that garners attention and action.
3. Build teams including working effectively to create mutual support and coalitions with groups and individuals with diverse knowledge and skills.
4. Leading by example to reduce the perception of risk of taking action by demonstrating the workability of policy proposals.

Home ◀ ▶ go to PG.

Conclusion

To influence decisions related to the delivery of quality patient care, filling the gap between research and its application to policy is crucial for the nursing profession. Nurses are familiar with using evidence to influence the development of clinical practice policies within an organization. Expanding this concept to applying evidence to policy development can strengthen the contribution of the profession to the changing and challenging issues of healthcare.

A strong health care system is dependent upon maximizing the knowledge and expertise of nurses. As was articulated in the *Future of Nursing* report (IOM, 2011), opportunities should be expanded for nurses to lead and collaborate in conducting and disseminating research and successful practices to redesign and improve healthcare delivery.

There is a substantial, if incomplete, evidence base to guide knowledge translation activities targeting healthcare professionals and consumers. The evidence base on different knowledge translation approaches targeting healthcare policy makers is much weaker, but a profusion of innovative approaches warrant further evaluation.

Understanding the current state of the science and practices associated with effective policy entrepreneurship can facilitate translating nursing research into evidence-based policy.

Home ◀ ▶ go to PG.

References

American Nurses Association. (2001*). Code of ethics for nurses with interpretive statements.* Silver Spring, MD: Nursesbooks.org.

American Nurses Association. (2010). *Nursing: Scope and standards of practice (2nd ed.).* Silver Spring, MD: Nursesbooks.org.

Center for Medicare and Medicaid Services. (2012). Health care innovation award project profiles. Retrieved January 31, 2013 from http://innovation.cms.gov/Files/x/HCIA-Project-Profiles.pdf.

Center for Medicare and Medicaid Services. (2012). Hospital acquired conditions. Retrieved January 31, 2013 from http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Hospital-Acquired_Conditions.html.

Center for Medicare and Medicaid Services. (2013). Community-based Care Transitions Program. Retrieved January 31, 2013 from http://innovation.cms.gov/initiatives/CCTP/index.html.

Gardner, D. (2005). Ten lessons in collaboration. *OJIN: The Online Journal of Issues in Nursing*, 10(1).

Grimshaw, J. M., Eccles, M. P., Lavis, J. N., Hill, S. J., & Squires, J. E. (2012) Knowledge translation of research findings. *Implementation Science*, 7(50). Retrieved February 3, 2012 from http://www.implementationscience.com/content/7/1/50.

Institute of Medicine. (2011). *Future of nursing: Leading change, advancing health.* Washington, D.C.: The National Academies Press.

Jacobson, N., Butterill, D., & Goering, P. (2003). Development of a framework for knowledge translation: Understanding user context. *Journal of Health Services Research & Policy*, 8(2), 94-99.

Lavis, J. N., Robertson, D., Woodside, J. M., Mcleod, C. B., & Abelson, J. (2003). How can research organizations more effectively transfer research knowledge to decision makers? *Milbank Quarterly, 81*(2), 221-248.

Lomas, J. (2000). Connecting research and policy. *Printemps,* Spring, 40-44.

McMenamin, P. APRNs serve 30% of Medicare fee-for-service beneficiaries. Retrieved January 19, 2013 from http://www.ananursespace.org/ananursespace/blogsmain/blogviewer?BlogKey=9632c2fa-6fc3-4a1b-93ad-343cd90058f1.

Mintrom, M. and Norman, P. (2009). Policy entrepreneurship and policy change. *The Policy Studies Journal,* 37(4), 649-667.

National Governors Association. (2012). *The role of nurse practitioners in meeting increasing demand for primary care.* Retrieved January 19, 2013 from http://www.nga.org/files/live/sites/NGA/files/pdf/1212NursePractitionersPaper.pdf

Home ◀ ▶ go to PG.

Naylor MD (2004). *Transitional care for older adults: a cost-effective model*. LDI Issue Brief. 9(6):1-4.

Roberts, N. and King, P. (1991). Policy entrepreneurs: Their activity structure and function in the policy process. *Journal of public Administration Research and Theory* 1: 147-175.

Robert Wood Johnson Foundation. (2010). *Nursing leadership from bedside to boardroom:*
Opinion leaders' perceptions. Retrieved January 19, 2013 from http://www.rwjf.org/en/research-publications/find-rwjf-research/2010/01/nursing-leadership-from-bedside-to-boardroom.html.

Weiss, C., Murphy-Graham, E., Petrosino, A., & Gandhi, A. (2008). The fairy godmother - and her warts: Making the dreams of evidence-based policy come true. *American Journal of Evaluation, 29* (1), 29-47.

Volden, C., & Wiseman, A., E. (2011). Breaking gridlock: The determinants of health policy change in congress. *Journal of Health Politics, Policy, and Law,* 36(2), 227-264.

Young, J., & Mendizabal, E. (2009). *Helping researchers become policy entrepreneurs.* London, UK: Overseas Development Institute. Retrieved January 19, 2013 from http://www.odi.org.uk/publications/1127-become-policy-entrepreneur-roma.

Home ◀ ▶ go to PG.

Distinguished Research Lectureship Award Paper

PSYCHOLOGICAL DISTRESS, DYADIC INTERDEPENDENCE, AND CANCER SURVIVORSHIP

Terry A. Badger, PhD, PMHCNS-BC, RN, FAAN
Professor
College of Nursing
The University of Arizona
Tucson, AZ

Home

◀ ▶ go to PG.

PSYCHOLOGICAL DISTRESS, DYADIC INTERDEPENDENCE, AND CANCER SURVIVORSHIP

Terry A. Badger, PhD, PMHCNS-BC, RN, FAAN
Professor
College of Nursing
The University of Arizona
Tucson, AZ

It is an honor to present the 2013 Distinguished Research Lectureship. I am privileged to be among those who have given this Lectureship before me, and I thank many of those previous lecturers who have supported and influenced my work. I wish to thank my nominators, Joan Shaver and Anne Rosenfeld, and the WIN Board of Governors for this honor. I also wish to thank my many colleagues at The University of Arizona, past and present, for their support, assistance and many kindnesses throughout the ups and downs of my research career. Last but not least, to paraphrase Dr. Seuss[1], "I tell myself Duckie, I am really quite lucky because I have been able to do the research I do. I am very thankful, a whole heaping bunch, to the WIN members who attended this right after lunch."

Over my career I have been interested in depression (psychological distress) and chronic illness (cancer), the interdependence between patient's quality of life (QOL) and intimate partner's or family member's QOL, and the treatment of psychological distress using alternative delivery methods. My interest in working with the larger family system of those with chronic illness stems from my work as a psychiatric-consultation liaison advanced practice nurse with veterans with depression and many different types of chronic illnesses. My clinical practice included leading psychotherapy groups for veterans with chronic illnesses and their families.

I became interested in focusing on cancer survivors while collaborating with Carrie Jo Braden and Merle Mishel in the early 90's. At that time, depression was being recognized as an important public health problem. The World Health Organization[2] stated that depression was one of the leading causes of disability and a major contributor to global burden of disease worldwide. The National Institutes of Mental Health, who gave me my first funding, made depression assessment, recognition and treatment a national priority through it D/ART and other funding mechanisms. Across studies[3,4] rates of distress in cancer survivors have been reported between 29% to 43%, depending on cancer type and severity. In my studies with breast and prostate cancer survivors, rates of depression (≥ 16 on CES-D[5] depression scale) ranged from 24%-49% and for anxiety (≥ 40 on STAI anxiety scale[6]) ranged from 20% to 33%. Highest rates were for Latinas with breast cancer.

I recognized early in my career that the interpersonal context was critical to prevent or recover from any type of chronic illness, whether psychiatric or physical. I was influenced by interpersonal theorists Harry Stack Sullivan[7], Hildegard Peplau[8], and dyadic cancer researchers Laurel Northouse[9], and Sharon Manne.[10] My work deviates from other researchers who focus on intimate partner dyads (e.g., Drs. Northouse and Lewis) in that I chose to include the various types of social network members that cancer survivors rely upon during their illnesses. I had two reasons for that choice:

1) there were already exceptional scientists focusing on spousal dyads[11-13], and 2) my clinical experience supported that there were large numbers of single and married survivors who selected others to support them through their cancer journey. Thus, the dyad in my research is the survivor and anyone the survivor designates to participate with them in the intervention, and I use the generic term ’supportive partner’ (SP) or ‘partner’ to designate that person. I also use the term *psychological distress* somewhat interchangeably with *depression*, especially since the larger oncology community has embraced the term psychological distress as less stigmatizing than depression.[14]

Family System Theory and Stress Process Model

My dissertation and then my subsequent program of research has included both a family systems perspective, specifically recognizing interpersonal processes [7,8,15,16] and a stress-health outcomes perspective, an adaptation of the stress process model.[17] The idea that people’s cancer-related emotional experiences also affect their families and networks can be understood from using the systems theory concepts of *interdependence* and *mutual influence*. Moving from the macroscopic systems theory level to perspectives of greater specificity, there are at least two major lines of theorizing that explain the similarity, concordance, and interdependence of emotional experiences between people with cancer and their significant others. The first perspective is based on the experience of *shared stressors.*[18] Close members of the social network typically also experience the attendant worry, disruption of daily routines, need for time away from work, financial burdens, etc. that often accompany cancer diagnosis and treatment[19]. As both members of the dyad adjust to these stressors, they often go through the same emotional experiences.

A second and related line of theorizing specifies shared affect as a function of *emotional contagion*. This concept has been discussed in the psychology literature for awhile, but is new applied in oncology patients. The emotional contagion effect has considerable explanatory power in terms of understanding why there would be interdependence in affect and quality of life (QOL) indicators among breast cancer patients and their partners.[20] According to the emotional contagion hypothesis, people “catch” the emotional states of those with whom they interact through largely unconscious interpersonal processes. Emotional contagion theorists observe that people will mimic and synchronize their nonverbal behaviors with those of the people around them. This similarity in behavior is theorized to provide feedback that generates the same emotional experience as those people whose behaviors are being observed and matched.

In the later 1990’s, I began my collaboration with Dr. Chris Segrin, Professor in the Department of Communications at The University of Arizona to explore interpersonal interactions, interpersonal relationships and depression in cancer survivors and their SPs. Chris has expertise in interpersonal processes and with the Actor-Partner Interdependent Model, which is a statistical method for examining dyadic data. I also began collaborations with Paula Meek, currently at the University of Colorado and a symptom management expert, and Dr. Ana Maria Lopez, medical oncologist and Associate Dean of the Multicultural programs at the University of Arizona Medical Center.

Our understanding and assessment of factors that influence QOL[21,22] (psychological, physical, social and spiritual well-being) for dyads adjusting to cancer was informed by the stress process model.[17] I would like to acknowledge Drs. Barbara and Charles Givens, along with their research team in Michigan, who has conducted extensive research using the stress process model. Most elements of the stress process model have applicability for predicting QOL and other health outcomes experienced by both members of the dyad. Briefly, the model proposes that psychosocial resources (e.g., social support, knowledge, self-efficacy) moderate the relationship between context of care and primary stress variables to influence health outcomes.

In our model, we adapted the context of care and primary stressors from Pearlin's model[23-25] in to a contextual characteristics category. These are the survivors' and SPs' demographic, socioeconomic, cultural and socio-ecological characteristics[26-28] that may influence intervention benefit and outcomes. Pearlin [17], among others [29,30], observed that characteristics such as age or ethnicity show where people stand with a social strata that have unequal distributions of rewards, opportunities and responsibilities-factors of particular importance in individuals of non-dominate cultures. For example, in our study of Latinas and their SPs, several contextual characteristics were especially relevant. Many of the Hispanic women had lower educational levels and fewer available economic or health care resources (e.g., lower income and lack of insurance) than did our Anglo women; this lack of resources contributed to lower QOL.

The type of the relationship between survivor and SP is an important determinant of context. Relationships that have different levels of obligation, commitment, reciprocity, voluntariness, have considerably different potentials to create stressors and impact QOL. The closer the relationship between survivor and social network member, the greater the strain experienced by the social network member. Intimate partners experience the highest level of strain, followed by children, other relatives, friends, and neighbors.[31] Cantor [32] explains a very predictable pattern of preferences for support among people in need, starting with kin (i.e., intimate partners, children, siblings) and then moving to informal support networks (i.e., friends and neighbors), and then finally formal organizations.[31-33]

There are some notable variations in patterns of support as a function of ethnicity.[34] Among Latinos kin-based support networks are denser than those of whites, but at the same time Latinos report having fewer friends available to provide care than whites do.[33,35] In our studies, this pattern was seen by many of our single and married Latinas choosing female relatives to participate in the studies with them. This was in contrast to white, non-Hispanic participants who chose spouses if married or if single, chose friends more than Hispanic women did.

Additional contextual characteristics that have a powerful effect on QOL include illness characteristics such as disease stage and treatment regime, symptom distress, and difficulties with symptom management. Dyads confronting more severe illness characteristics are likely to have lower QOL.[36] We found similar results in our studies. And also found that the psychosocial resource social support moderated the relationship between contextual characteristics such as more severe stage of disease and QOL health outcomes.[37] In men with more advanced disease, social support was associated with improvements in depression. In the next section, I want to discuss social support results in more depth.

Home ◀ ▶ go to PG.

Social Support

There are two interpersonal processes especially relevant to this research, social support and emotional contagion. Social support is a multifaceted behavior (emotional, instrumental and informational dimensions) that has received intensive attention in the context of coping, recovery, and QOL for people with cancer. Because I use a stress process model in my research, I use the *buffering model* of social support which holds that social support can effectively interfere with, or buffer, the psychological processes that connect stress to poor health. For example, social support can help people to appraise potentially stressful events as less stressful, inhibit maladaptive responses to stressful events, and facilitate beneficial counter-responses to stressful events, thereby leading to better health and well-being.[38]

Social Support and Quality of Life in Breast and Prostate Cancer Survivors & Their Partners

Our research team has been testing the effectiveness of a psychosocial intervention to improve the quality of life (QOL) of cancer patients and their partners[39-42]. In our research with breast cancer survivors, we examined social support, relationship satisfaction, and several QOL indicators (e.g., symptoms of depression, negative affect, positive affect) in a sample of 96 dyads. The typical woman with breast cancer was white, married, in her mid-50's, had some college and was employed and most (74%) designated their spouses to participate with them. However, about 26% of women who were not married chose adult daughter (17%), other family member (4%), and friends (3%). All participants completed the Index of Socially Supportive Behaviors (ISSB)[43], the Relationship Assessment Scale[44], and several QOL measures (depression, negative affect, positive affect) at Time 1 (T1), before the intervention started, and then again at 6 weeks (T2) and 10 weeks (T3) from the baseline assessment The results show that relationship satisfaction was negatively associated with negative affect at T1 ($r=-.20$, $p<.05$) and depression at T2 ($r=.22$, $p<.05$), and it was positively associated with positive affect at T1 ($r=-.21$, $p<.05$)[45]. The social support received by women with breast cancer was significantly related to higher relationship satisfaction at time 1, $r = .33$, $p < .01$, and time 2, $r = .22$, $p < .05$, but not time 3, $r = .14$, *ns*.

It is evident from past research that not all socially supportive behaviors, or behaviors intended to be socially supportive, have the same effect on people coping with serious illness. Manne[46] and her colleagues found that patients with the lowest distress were those whose partners responded to their self-disclosures with humor or with a self-disclosure of their own. In contrast, women with the highest levels of distress had partners who responded to their self-disclosures with proposed solutions. These results suggest that women with breast cancer might benefit from socially supportive behaviors that reflect intimacy, emotional connection, and at times, light-heartedness rather than advice and proposed solutions.

Using a factor analytic approach, we developed two subscales from the ISSB to reflect these two aspects of social support: 1) Advice, which consisted of 4 items focused on advice and proposed solutions to problems ($\alpha = .75$) and 2) Acceptance, which consisted of 10 items focused on acceptance, agreement, positive emotional connection and humor ($\alpha = .9$). The advice subscale demonstrated no association with relationship satisfaction, but it was in many cases associated with *higher* psychological distress[45]. In contrast, the acceptance subscale was uniformly associated with higher relationship satisfaction for women with breast cancer. Although Acceptance was generally unrelated to the negative indicators of psychological QOL (i.e., symptoms of depression and negative affect) Acceptance was more consistently associated with greater positive affect among the women. In general, women with breast cancer were happier to the extent that their intimate partners and family members provided social supportive behaviors that showed acceptance, agreement, positive emotional connection and humor.

To predict changes in the quality of life indicators over time in this same sample, we used hierarchical multiple regression analyses that treated the T3 QOL indicator as the dependent variable, with the corresponding T1 QOL indicator entered on the first step and the social support variables (advice, acceptance) on the second. Neither variable was predictive of changes over time in depression, negative affect, or positive affect. However, women who received more of the acceptance support at time 1 had reported levels of relationship satisfaction that increased from time 1 to time 3 ($\beta = .17$, $p < .05$). However, the advice support at time 1 was unrelated to changes in their relationship satisfaction over the 12-week T1-T3 interval ($\beta = .02$, *ns*).

We also investigated the mental health of 63 male partners (primarily husbands) of these same women.[47] At baseline, 33% of men reported significant depressive symptoms ($\geq$ 16 on CES-D depression scale). Tests of concurrent associations indicated that men who received more social support had higher levels of positive affect, as would be expected. Longitudinal analyses showed that T1 social support significantly predicted lower perceptions of stress and higher levels of positive affect at T3, controlling for T1 stress and positive affect, respectively. There was also a marginal trend suggestive of lower symptoms of depression at T3, controlling for T1 depression, as a function of higher social support at T1. These results indicate that male partners of breast cancer patients benefit from social support in terms of lessening their perceptions of stress and perhaps symptoms of depression, and increasing their positive affect as these men adjust to this stressor.

To explore the possibility that partners' social support networks provide greater support to the extent that the men experienced distress, we conducted a series of regression analyses predicting changes in *social support* over time, using T1 indicators of distress. Results showed that men's depression, negative affect, and perceptions of stress at T1 significantly predicting increases in social support provided to them. These additional findings explain why social support might be negatively correlated with men's distress concurrently, but beneficial to their mental health over time. To the extent that the men are distressed at any point in time, their social networks appear to provide increased social support, and in the long run, this support is beneficial to their well-being.

In another study with 71 prostate cancer survivors[40], we examined the benefit of social support for male vs. female cancer survivors. By this time we were suspecting that what we might be seeing was a gender rather than a role (survivor vs. partner) effect as reported by Hagedoorn and colleagues.[48] The average prostate cancer survivor in this study was 69 years old, and 60% have stage III or IV prostate cancer indicating an advanced disease state. We measured social support from both family and friends with the Perceived Social Support scales[49] and several indicators of physical, psychological, and social QOL. These included symptom distress, prostate cancer specific problems, fatigue, perceived stress, positive and negative affect, depression, and anxiety. The results are clearly suggestive of manifold benefits from friends and family social support on these patients' quality of life indicators, with particularly strong associations with lower depression (r=-.35, r=-.49, p<.001), perceived stress (r=-.33, r=-.43, p<.001), and anxiety (r=-.39, r=-.46, p<.001).

In summary, social support can be highly beneficial to people who are adjusting to cancer and its treatment. My own research with breast and prostate cancer survivors and their partners illustrates a number of beneficial correlates of social support for the psychological, physical, and relational well-being of survivors and their partners. More needs to be explored about gender differences in social support as well as timing of specific types of emotional support must be examined so that we can determine when types of social support are beneficial or not. In the next section, I will discuss emotional contagion.

Emotional Contagion in Dyads Adjusting to Cancer

The second interpersonal process relevant to my research is emotional contagion. Research that has assessed the affective state of both cancer survivors and their spouses or intimate partners strongly suggests that they experience many of the same emotions (e.g., [11,48]). What is more, the affective state of one partner can have a direct effect on the affective state of the other. For instance, physical distress experienced by women with breast cancer is associated not only with their own emotional distress but with that of their husbands as well.[50] Husbands of breast cancer patients report that helping their wives manage the emotional impact of the illness is one of the greatest difficulties they face, and the depth of the wives' adjustment problems tends to be positively correlated with those of their husbands. In one investigation of people with breast or prostate cancer and their spouses, the intradyadic correlation for psychological distress was $r = .48$ for male patients and $r = .44$ for female patients.[51] In another sample comprised of breast, colorectal, and lung cancer patients and their spouses, intradyadic correlations for psychological distress for three waves of assessment over 6 months were $r = .27$, .32, and .37, all of which were statistically significant.[52]

A recent meta-analysis of 43 studies of couples coping with cancer, with a combined sample of over 7000, revealed an association between patient and partner distress of $r = .29$.[48] This meta-analysis also revealed that patients and partners exhibited indistinguishable levels of psychological distress. However, Hagedoorn et al. found that women reported higher psychological distress, regardless of whether they were patient or partner, than men did. The ultimate conclusion of this synthesis of the research literature is that gender is a more discriminating factor in the experience of distress than one's role in the dyad, i.e., patient or partner.

Concurrent and Longitudinal Associations in the Affective States of Breast and Prostate Cancer Survivors and Their Partners

We have used the Actor-Partner Interdependence Model (APIM) [53,54] to examine the interdependence in emotional experiences of breast and prostate cancer survivors and their partners, and to examine how these experiences predict QOL over time. These analyses treat the dyad as the unit of analysis and use participants' scores on various independent variables (e.g., T1 depression) to predict both their own (actor effect) and their partner's (partner effect) scores on the dependent variable (e.g., T3 depression) after taking into account the dyad's interdependence on the independent variable. In other words, actor effects are estimated while controlling for partner effects and partner effects are estimated while controlling for actor effects.

Here are some results from our research team from men with prostate cancer and partners.[55] In all models of psychological distress, there were powerful actor effects as would be expected (e.g., depression score at T1 would predict depression score at T2). Of more relevance are the partner effects. There is a statistically significant partner effect from partners' T2 psychological QOL to survivors' T3 psychological QOL for depression ($\beta = .34$, $p < .001$), anxiety ($\beta = .29$, $p < .001$), and positive affect ($\beta = .19$, $p < .001$). The overall pattern is remarkably consistent: The better partners' psychological QOL was at T2, the better survivors' QOL was at T3, or, the worse partners' psychological QOL was at T2, the worse survivors' QOL was at T3. Partner effects emanating from survivor to partner were comparatively rare and only apparent during the T1-T2 interval. Specifically, the more anxious survivors were at T1, the more anxious their partners were at T2 ($\beta = .32$, $p < .01$), and the more fatigued survivors were at T1, the more fatigued their partners were at T2 ($\beta = .18$, $p < .05$). There were otherwise no significant partner effects from survivor to partner.

To further deconstruct the dyadic effects, we formally tested for dyadic mediation associated with each psychological QOL variable. Specifically we tested whether the T1→T3 effect for one person's QOL was mediated by the other person's T2 QOL. Partner T2 psychological QOL mediated the T1→T3 effect for survivor depression and anxiety. Estimates of the magnitude of these mediation effects are $R^2 = .18$ in both cases. Stated differently, partner T2 depression or anxiety explains 18% of the T1→T3 variance in survivor depression or anxiety. The APIMs depicted in Segrin, Badger & Harrington[55] , and which will be shown in the presentation, depict the direction of these effects as positive, indicating an increase in survivor distress as a function of increased partner distress. The remaining indirect effects for survivor T1→T3 distress were not significant, although the associated effect sizes were in the $R^2 = .06 - .10$ range. In contrast, none of the partner T1→T3 distress effects were significantly mediated by survivor T2 distress. Further, a comparison of R^2 effect sizes for the mediation effects shows that all of the partner mediation effects of changes in survivor distress are larger in magnitude than the corresponding mediation effects for survivor distress on changes in partner distress. Simply put, partner distress accounts for more variance in changes in survivor distress over time than vice versa.

To determine if the findings were influenced by the nature of the dyads (i.e., spousal/significant other vs. nonspousal) all models were re-analyzed using just the data from the spousal dyads. The results were virtually identical to those analyzed with all partners included. Emotional contagion was found to operate within cancer dyads, regardless of the relationship of the SP. The findings from this investigation demonstrate longer reaching emotional contagion effects under stringent conditions (i.e., controlling for initial dyadic interdependence in psychological QOL and controlling for prior psychological QOL in both the self and the partner) than has been previously documented. Prostate cancer survivors in this investigation showed evidence of emotional contagion from their partners as long as two months from the assessment of affect in the partner.

Similar findings were found related to interdependence of Latinas with breast cancer and their SPs' emotional states.[56] On the various measures of psychological distress (e.g., depression, anxiety, negative affect, positive affect, and perceived stress) there were no significant differences between survivors and SPs. The means indicate that before the interventions started survivors and their SPs had indistinguishable levels of psychological distress. On the two measure of physical distress, it was clear that survivors scored substantially higher. For fatigue, this difference was not quite statistically significant (p = .06), but for symptom distress survivors clearly scored higher than their supportive partners (p < .001).

Interdependence within the dyad was tested through bivariate regression analyses using supportive partners' slopes to predict survivors' slopes (obtained through individual. Growth curve analyses). A positive regression coefficient implies that survivors' and partners' slopes have the same direction and that there is a linear association between the two slopes, whereas a negative coefficient indicates that the two slopes have a different direction. The regression results showed that survivors and SPs were clearly on a similar trajectory of psychological distress over the 4-month course of the investigation. Specifically, the intradyadic associations, indexed by standardized regression coefficients, for survivors' and their supportive partners' slopes were $\beta = .34, p < .01$ for symptoms of depression, $\beta = .27, p < .05$ for anxiety, $\beta = .38, p < .001$ for perceived stress, $\beta = .29, p < .01$ for negative affect, and $\beta = .23, p < .05$ for positive affect. Survivors and supportive partners were on comparable trajectories in terms of their psychological distress. However, this was not the case for indicators of physical distress. The intradyadic association was $\beta = -.05$, *ns* for fatigue slopes and $\beta = .06$, *ns* for symptom distress slopes.

Because 45% of the dyads were composed of a Latina with breast cancer and her spouse or significant other, and 55% were composed of Latinas and non-spousal supportive partners, post-hoc tests were conducted to determine if the relationship between the survivor and supportive partner was associated with the degree of dyadic interdependence. Statistically, we tested whether the relationship variable (spouse/ significant other vs. all others) moderated the association between supportive partners' and survivors' slopes on each of the psychological and physical distress outcome variables using multiple regression procedures[57] and once again we could detect an interaction effect as small as $R^2\Delta = .06$ with power = .80. The results of these analyses indicated that type of relationship between the survivor and supportive partner did not interact with any of the partner distress slopes to predict survivor distress slopes (all $\Delta R^2 = .00 - .04$, *ns*). It is therefore apparent that the intradyadic associations in slopes were not substantially influenced by the nature of the relationship between survivor and partner.

In sum, our research on the transmission of affective states within dyads documents emotional contagion effects. However, the bulk of the evidence points to transmission from partner to survivor, rather than vice versa. We interpret this as additional evidence for the importance of a partner in facilitating or complicating cancer survivors' adjustment and recovery. In the next section, I will discuss psychosocial treatment and telephone delivery.

Treatments and Alternative Delivery Methods

Substantial evidence exists about the effectiveness of psychosocial interventions to improve cancer patients and their family members' psychological adjustment and health related QOL[19,58] . In a recent meta-analysis of interventions with family caregivers of cancer patients, Northouse[58] found that most interventions had small to medium effects, and significantly reduced caregiver burden, ability to cope, increased their self-efficacy and improved aspects of their quality of life. The interventions reviewed were psycho-educational (57%), skills training (26%), or counseling (17%). Dose of the intervention averaged 7.5 hours, with the number of sessions/contacts 6.7. Average duration of the interventions was 7.8 weeks. Although a majority of the interventions reviewed were delivered face-to-face (68%), telephone delivery accounted for about one-fifth of the interventions. [41].

In the past five years, there have been increased reports of effectiveness of telephone interventions, e.g., Hammond et al.[59]. Although face to face (FTF) intervention delivery is considered the gold standard, Mohr and colleagues[60] published findings from a randomized trial of telephone vs. face-to-face cognitive behavioral therapy that indicated close to equivalent improvement in depression post treatment, lower attrition and improved adherence for counseling delivered by telephone. Typical attrition for interventions delivered FTF is about three times higher than attrition for telephone interventions; which was one reason we selected the telephone as a delivery method. Telephone delivery removes many of the access barriers to receiving psychosocial care. We found similar telephone adherence and attrition rates.[39,41] In fact, when we tested a Skype delivered intervention to simulate a more FTF interaction, our adherence and attrition rates also simulated FTF adherence and attrition. We also found that the interventions were effective in improving QOL, with no additional benefit for the Skype treatment group in QOL improvement.

In several studies[41,61], I have two 8 week telephone interventions with breast and prostate cancer survivors and their SPs: 1) Telephone interpersonal counseling (TIP-C) and 2) telephone health education (THE). In both interventions, survivors received eight 30 minute sessions over 8 weeks delivered over the telephone; SPs received four 30 minute sessions over the same 8 week period. Both interventions had manuals, and were delivered by interventionists trained in the intervention for which they were responsible. These interventions were monitored to maintain intervention fidelity.

The counseling intervention (TIP-C) was developed from standard interpersonal psychotherapy[62], an evidence-based effective treatment for depression in primary care[63,64], combined with cancer education, and modified for telephone delivery. The intervention addressed 1) mood and affect management, 2) emotional expression, 3) interpersonal communication and relationships, 4) social support, and 5) cancer information. The TIP-C focuses on enhancing emotional support both through the direct effects of the interaction with the interventionist and mobilizing the survivors' naturally occurring support. The TIP-C targets social support, and explains how life events and the social environment affect mood, the influence of mood on social functioning, and provides normalization of participants' experiences and reactions to cancer. The TIP-C is designed to improve the quality of the relationships between survivors and other key players in the cancer experience (e.g., SPs, health care team).

The health education (THE) intervention was designed with adult educational techniques. Standardized educational materials were sent to the participants in Spanish or English before the first session, and these materials were reviewed over the telephone. THE focuses on 1) normal breast and prostate health and breast cancer, routine tests for the diagnosis and prevention and associated terminology, 2) treatment, side effects of treatment and strategies to combat these side effects, 3) lifestyle interventions such as nutrition and physical activity, and 4) referrals and resources. The sessions help participants take a more active role in their care by asking more appropriate and relevant questions (i.e. patient activation[65]).

In our study of 80 Latinas and their SPs[41], we found significant improvements on all QOL measures with effect sizes that were moderate in magnitude. Only modest evidence was found that survivors improved more than their SPs on psychological QOL, however other dimensions (physical, social and spiritual) were comparable. There was no evidence suggesting that one intervention was superior to the other, however to deconstruct the intervention effects, we did a pair of mixed model ANOVAs. We did find there was a differential improvement in the psychosocial resources between the TIP-C and THE. Participants in THE improved more than TIP-C in cancer knowledge and self-efficacy and participants in the TIP-C improved more in perceptions of social support.

For the men with prostate cancer and their SPs[61], superior outcomes were found in the THE condition. Men and their SPs in THE reported significant improvements in depression, negative affect, stress, fatigue and spiritual well-being compared to men in the TIP-C condition. We suspect there may be a gender effect here where the information-based intervention was more acceptable and met unmet needs better with this older male sample. When we examined who might benefit from the intervention[66] , we found that older, less well-educated and less well-functioning men in the domains of social support, cancer knowledge and prostate functioning, benefited from THE intervention. In contrast, men with higher education and greater social support and prostate functioning, benefited more from the TIP-C. We clearly need more research to find out what are the participant characteristics that could predict maximum benefit for each intervention to translate these findings into practice.

In summary, psychosocial interventions are effective and we have evidence that telephone delivery does not diminish their effectiveness. In fact, telephone delivery may remove barriers to treatment, decrease drop-out from treatment, and improve adherence to treatment.

What We Know and Where Do We Go From Here?

As I summarize the evidence from my work as well as others, I think we can agree that psychological distress is an important problem in cancer survivorship. Depression (distress) is a leading cause of disability and a major contributor to the global burden of disease worldwide [2]. I don't think we need many more behavioral studies to identify that distress in cancer patients and their families is a problem. I also think we have pretty convincing evidence of the interdependence of distress between cancer survivors and their supportive partners, whoever that person is within the social network (see Segrin et al.). Several interesting avenues for future research with the social support networks of cancer survivors include: 1) Who within the social network is selected and why?; 2) Are there cultural or gender differences we need to know more about?; and 3) What is the optimal timing of various types of social support?. My current research will hopefully find some answers to some of these questions.

We know that screening works to find distress and more work needs to be done to determine the best ways to screen cancer patients for distress. Although I did some initial work in screening, I will leave it to my colleagues such as Karen Weihs at the Arizona Cancer Center or Paul Jacobsen from Moffit Cancer Center who is spearheading a national psychological distress screening initiative to move that agenda forward. That research is helped by the new care standard that psychosocial screening be part of routine cancer care. Various health care systems are working now to incorporate systematic screening protocols by 2014, and the various cancer societies (e.g. American Psychosocial Oncology Society, American Society for Clinical Oncologists) are working with these health care systems to help implement the new standards.

We also have fairly convincing evidence that psychosocial interventions work to reduce distress in cancer patients and their family members[36,58,67], and that telephone interventions are as effective as the more traditional FTF[59,60]. However, we need research about intervention effectiveness delivered through alternative methods, as I suspect we have yet to imagine the possibilities. We need more research using internet-based and smart phone applications (using Skype or Facetime, texting, etc) to provide sufficient evidence that these technologies can be used to deliver quality interventions. The move to pay for evidence based quality care will assist with this effort. A second foci for new research is with underserved and minority populations to determine the profiles of who responds to which psychosocial intervention and under what circumstances. More research with underserved populations is needed, whether ethnic minority or different types of cancer. The majority of studies are with breast and prostate cancer survivors.

Certainly an important finding in any of this research will be the long term cost-effectiveness of our treatments. The evidence is fairly consistent that the costs of screening and delivering depression treatment increases costs in primary care[68], at least in the short term. What we don't know is the long term implications for routine screening and treatment, although the research is suggestive (reduced health care utilization, improved symptom management, adherence to treatment).

Another major shift for behavioral scientists like me is we must begin to collect biomarker data in addition to our self-report questionnaires, interviews and observational data. The evidence is mounting in the field of psychoneuroimmunology about the interactions between behavior, the brain and the body's immune system. For example, we have fairly consistent evidence that reduced diurnal cortisol rhythm—assessed as flattening of the diurnal "cortisol slope"—is associated with a variety of negative psychosocial and disease outcomes in patients with cancer.[69-77] Moreover, flattening of the diurnal cortisol slope may be a risk factor for cancer development.[78] Further, we are learning more each day about inflammatory markers of depression and its relationship to cancer. As I move forward, I excited to work with Charles Raison to examine how psychosocial, inflammatory and HPA axis factors interact over time to influence emotional well-being in cancer. We also will be testing the interdependence of both behavioral and biological variables between cancer survivors and their SPs as I suspect interdependence will operate in the biological like the behavioral.

In conclusion, we have come far in our understanding of psychological distress, the interdependence in emotional states between survivors and their supportive partners, and the treatment of psychological distress in cancer patients and their supportive partners, but we still have much to learn and far to go. To again paraphrase Dr. Seuss[79], "I will step with care and great tact and remember that Research is a Great Balancing Act. I won't forget to be dexterous and deft, and never mix up my right foot with my left. And I will succeed; yes I will indeed (98 and ¾ percent guaranteed)". Thank you.

Funding for Research cited in this paper: NIMH, NINR, NCI, Livestrong and Oncology Nursing Society Foundations, American Cancer Society.

Home

◀ ▶ go to PG.

References

1. Seuss D. *Did I ever tell you how lucky you are?* New York: Random House; 1973.
2. Organization WH. Depression Fact Sheet. 2012; www.who.int/mediacentre/factsheets/fs369/en/index. Accessed 1/11/13, 2013.
3. Zabora J, Breintzenhotfeszoc, K., Curbow, K., Hooker, C. & Piantdosi, S. The prevalence of psychologica distress by cancer site. *Psycho Oncology.* 2001;10:19-28.
4. Spiegel DG-D, J. Depression and cancer: Mechanisms and Disease Progression. *Society of Biological Psychiatry.* 2003;54:269-282.
5. Radloff L.S. The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement.* 1977;1(3):385-401.
6. Spielberger C., Gorsuch R., Lushene R., Vagg P., Jacobs G. *Manual for the State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press; 1983.
7. Sullivan HS. *The Interpersonal Theory of Psychiatry*. New York: Norton; 1953.
8. Peplau H. *Interpersonal relations in nursing*. New York: Putnam; 1952.
9. Northouse L.L. Social support in patients' and husbands' adjustment to breast cancer. *Nursing Research.* 1988;37:91-95.
10. Manne S. Cancer in the marital context: a review of the literature. *Cancer investigation.* 1998;16(3):188-202.
11. Northouse L., Templin T., Mood D. Couples' adjustment to breast disease during the first year following diagnosis. *Journal of Behavioral Medicine.* 2001;24(2):115-136.
12. Northouse L.L., Mood D.W., Montie J.E., et al. Living with prostate cancer: patients' and spouses' psychosocial status and quality of life. *Journal of clinical oncology: official journal of the American Society of Clinical Oncology.* 2007;25(27):4171-4177.
13. Fletcher K.A., Lewis, F.M., & Haberman, M.R. Cancer-related concerns of spouses of women with breast cancer. *Psychooncology.* 2010;19(10):1094-1101.
14. Holland J.C., Andersen B. et al. Distress Management Clinical Practice Guidelines in Oncology. *Journal of the National Comprehensive Cancer Network (JNCCN).* 2003;1:334-374.
15. Coyne J.C. Depression and the response of others. *Journal of abnormal psychology.* 1976;85(2):186-193.
16. Coyne J.C. Toward an interactional description of depression. *Psychiatry.* 1976;39(1):28-40.
17. Pearlin L., Mullan, J.T., Semple, S.J., & Skaff, M.M. Caregiving and the stress process: An overview of concepts and their measures. *The Gerontologist.* 1990;30:583-594.
18. Westman M., Keinan G., Roziner I., Benyamini Y. The crossover of perceived health between spouses. *Journal of occupational health psychology.* 2008;13(2):168-180.
19. IOM. *Cancer Care for the whole patient: Meeting psychosocial health needs.* Washington, D.C.: The National Academies Press;2007.
20. Hatfield E., Cacioppo, J.T., & Rapson, R.L. *Emotional contagion*. Paris: Cambridge University Press; 1994.
21. Ferrell B.R., Grant M., Funk B., Otis-Green S., Garcia N. Quality of life in breast cancer. Part II: Psychological and spiritual well-being. *Cancer nursing.* 1998;21(1):1-9.
22. Ferrell B.R., Grant M., Funk B., Otis-Green S., Garcia N. Quality of life in breast cancer. Part I: Physical and social well-being. *Cancer nursing.* 1997;20(6):398-408.

Home ◀ ▶ go to PG.

23. Gaugler J., Hanna, N., Linder, J., Given, C.W., Tolbert, V., Kataria, R., et al. Cancer caregiving and subjective stress: A multi-site, multi-dimensional analysis. *Psycho-oncology.* 2005;14:771-785.
24. Gaugler J., Linder, J., Given, C.W., Kataria, R., Tucker, G. & Regine, W.F. The proliferation of primary cancer caregiving stress to secondary stress. *Cancr Nursing.* 2008;31:116-123.
25. Gaugler J., Linder, J., Given, C.W., Kataria, R., Tucker, G. & Regine, W.F. Family caregiving and negative outcomes: the direct and mediational effects of psychoscoal resources. *Journal of family nursing.* 2009;15:417-444.
26. Ashing-Giwa K.T. Can a culturally responsive model for research desing bring us closer to addressing participation disparities? Lessons learned from cancer survivorship studies. *Ethnicity & disease.* 2005;15:130-137.
27. Ashing-Giwa K.T.L., Jung-won. Examining the impact of socioeconomic status and socioecological stress on physical and mental health quality of life among breast cancer survivors. *Oncology nursing forum.* 2009;36(1):79-88.
28. Elder J.P., Ayala, G.X., Slymen, D.J., Arrendondo, E.M., & Campbell, N.R. Evaluating psychosocial and behavioral mechanisms of change in a tailored communication intervention. *Health education U& Behavior.* 2009;36(3):366-380.
29. Ashing-Giwa K.T., Tejero J.S., Kim J., Padilla G.V., Hellemann G. Examining predictive models of HRQOL in a population-based, multiethnic sample of women with breast carcinoma. *Quality of life research : an international journal of quality of life aspects of treatment, care and rehabilitation.* 2007;16(3):413-428.
30. Ell K., Xie B., Wells A., Nedjat-Haiem F., Lee P.J., Vourlekis B. Economic stress among low-income women with cancer: effects on quality of life. *Cancer.* 2008;112(3):616-625.
31. Cantor M. Strain among caregivers: A study of experience in the United States. *The Gerontologist.* 1983;23:597-604.
32. Cantor M. Neighborhoods and friends: An overlooked resource in the informal support system. *Research on Aging.* 1979;1:434-463.
33. Cantor M., Brennan, M. & Sainz, A. The importance of ethnicity in the social support systems of older New Yorkers: A longitudinal perspective (1970-1990). *Journal of Gerontological Social Work.* 1994;22:95-128.
34. Almeida J., Molnar, B.E., Kawachi, I., & Subramanian, S.V. Ethnicity and nativity status of perceived social support: Testing the concept of familism. *Social Science and Medicine.* 2009;68:1852-1858.
35. Freeberg A.L., & Stein, C.H. Felt obligation toward parents in Mexican-American and Anglo-American young adults. *Journal of Social and Personal Relationships.* 1996;13:457-471.
36. Given C., Given B., Rahbar M., et al. Effect of a cognitive behavioral intervention on reducing symptom severity during chemotherapy. *Journal of clinical oncology: official journal of the American Society of Clinical Oncology.* 2004;22(3):507-516.
37. Segrin C., Badger, T.A., Figueredo, A.J. Stage of Disease Progression Moderates the Associate Between Social Support and Depression in Prostate Cancer Survivors. *Journal of Psychosocial Oncology.* 2011;29:552-560.
38. Cohen S., Wills T.A. Stress, social support, and the buffering hypothesis. *Psychological bulletin.* 1985;98(2):310-357.
39. Badger T., Segrin C., Meek P., Lopez A.M., Bonham E., Sieger A. Telephone interpersonal counseling with women with breast cancer: symptom management and quality of life. *Oncology nursing forum.* 2005;32(2):273-279.

Home ◀ ▶ go to PG.

40. Badger T.A. S., C., Figueredo, A.J., Harrington, J., Sheppard, K., Passalacqua, S., Pasvogel, A., & Bishop, M. Psychosocial interventions to improve quality of life in prostate cancer survivors and their intimate or family partners. *Quality of life research : an international journal of quality of life aspects of treatment, care and rehabilitation.* 2011.
41. Badger T.A. S., C., Hepworth, J., Pasvogel, A., Weihs, K. & Lopez, A.M. Telephone delivered health education and interpersonal counseling improve quality of life for Latinas with breast cancer and their supportive partners. *Psycho Oncology.* 2012.
42. Badger T.A., Segrin, C., Dorros, S., M., Meek, P., & Lopez, A.M. (2007). Depression and anxiety in women with breast cancer and their partners. *Nursing research.* 2007;56:44-53.
43. Barrera M., Sandler, I.N., & Ramsay, T.B. Preliminary development of a scale of social support: Studies on college students. *American Journal of Communirty Psychiatry.* 1981;9:435-447.
44. Hendrick S.S., Dicke, A., & Hendrick, C. (1998), 15. The Relationship Assessment Scale. *Journal of Social and Personal Relationships.* 1998;15:137-142.
45. Segrin C., Badger T. Interdependence in family systems adjusting to breast and prostate cancer. In: Day MM, ed. *Going through this together: Family communication and health transitions*. Cresskill, NJ: Hamptom Press; 2012.
46. Manne S., Ostroff J., Winkel G., Grana G., Fox K. Partner unsupportive responses, avoidant coping and distress among women with early stage breast cancer: Patient and partner. *Health Psychology.* 2005;24(6):635-641.
47. Segrin C., Badger T., Sieger A., Meek P., Lopez A.M. Interpersonal well-being and mental health among male partners of women with breast cancer. *Issues in Mental Health Nursing.* 2006;27(4):371-389.
48. Hagedoorn M., Sanderman R., Bolks H.N., Tuinstra J., Coyne J.C. Distress in couples coping with cancer: a meta-analysis and critical review of role and gender effects. *Psychological bulletin.* 2008;134(1):1-30.
49. Procidano M.E., Heller K. Measures of perceived social support from friends and from family: three validation studies. *American Journal of Community Psychology.* 1983;11(1):1-24.
50. Northouse L.L., Dorris, G., & Charron-Moore, C. Factors affecting couples' adjustment to recurrent breast cancer. *Social Science and Medicine.* 1995;41:69-76.
51. Baider L., Ever-Hadani P., Goldzweig G., Wygoda M.R., Peretz T. Is perceived family support a relevant variable in psychological distress?. A sample of prostate and breast cancer couples. *Journal of psychosomatic research.* 2003;55(5):453-460.
52. Fang C.Y., Manne, S.L., Paper, S.J. Functional imparment, marital quality, and patient psychological distress as predictors of psychological distress among cancer patients' spouses. *Health Psychology.* 2001;20:452-457.
53. Kenny D..A, Kashy, D.A., & Cook, W.L., ed *Dyadic data analysis*. New York: Guilford Press; 2006.
54. Kenny D.A.C, W. Partner effects in relationship research: conceptual issues, analytic difficulties, and illustrations. *Personal Relationships.* 1999;6:433-488.
55. Segrin C., Badger, T.A., & Harrington, J. Interdependent psychological quality of life in dyads adjusting to prostate cancer. *Health Psychology.* 2012;31:70-79.
56. Segrin C.B., T.A. Psychological distress of Latinas with breast cancer is interdependent with their supportive partnersin press, Journal of Latina/o Psychology.

Home

◀ ▶ go to PG.

57. Aiken L.S., West S.G.. *Multiple regression : testing and interpreting interactions*. Newbury Park, Calif.: Sage Publications; 1991.
58. Northouse L., Katapodi, M.C., Song, L., Zhang, L., & Mood, D. Interventions with family caregivers of cancer patients: Meta-analysis of randomized trials. *CA: a cancer journal for clinicians.* 2010;60:317-339.
59. Hammond G.C., Croudace, T.J., Radhakrishnan, M., Lafortune, L., Watson, A., McMillan-Shields, F., & Jones, P. B. Comparative effectiveness of cogntive therapies delivered face-to-face or over the telephone: An observational study using propensity methods. *Plos ONE.* 2012;7(9):e42916.
60. Mohr D.C., Ho, J., Duffecy, J., Reifler, D., Sokol, L., Burns, M.N., Jin, L., & Siddique, J. Effect of telephone-adminstered vs face-to-face cognitive behavioral therapy on adhernece to therapy and depression outcomes among primary care patients: A randomized trial. *JAMA.* 2012;307(21):2278-2285.
61. Badger T.A., Segrin, C., Figueredo, A.J., Harrington, J., Sheppard, K., Passalacqua, S., Pasvogel, A., & Bishop, M. Psychosocial Interventions to improve quality of life among prostate cancer survivors and their partners *Quality of life research: an international journal of quality of life aspects of treatment, care and rehabilitation.* 2011;20(6):833-844.
62. Weissman M.M., Markowitz J.C., Klerman G.L. *Comprehensive guide to interpersonal psychotherapy*. New York: Basic Books; 2000.
63. Cuijpers P., Geraedts, A.S., van Oppen, P., Andersson, G., Markowitz, J.C., & van Straten, A. Interpersonal psychotherapy for depression: A meta-analysis. *American Journal of Psychiatry.* 2011;168(6):581-592.
64. Cuijpers P., van Straten A., van Schaik A., Andersson G. Psychological treatment of depression in primary care: a meta-analysis. *The British journal of general practice: the journal of the Royal College of General Practitioners.* 2009;59(559):e51-60.
65. Hendren S., Griggs, J.J., Epstein, R.M., et al. Study protocol: A randomized controlled trial of patient navigation-activation to reduce cancer health disparities. *BMC Cancer.* 2010;10.
66. Badger T., Segrin, C., Figueredo, A.J. , Harrington, J., Sheppard, K., Passalacqua, S., Pasvogel, A., & Bishop, M. Who benefits from a psychosocial counseling vs. educational intervention to improve psychological quality of life in prostate cancer surviors. *Psychology & Health.* 2012.
67. Given C., Given B., Rahbar M., et al. Does a symptom management intervention affect depression among cancer patients: results from a clinical trial. *Psycho-oncology.* 2004;13(11):818-830.
68. Klerman G.L., & Weissman, M.M. The course, morbidity and costs of depression. *Archives of General Psychiatry.* 1992;49:831-834.
69. Bower J..E, Ganz P.A., Dickerson S.S., Petersen L., Aziz N., Fahey J.L. Diurnal cortisol rhythm and fatigue in breast cancer survivors. *Psychoneuroendocrinology.* 2005;30(1):92-100.
70. Spiegel D., Giese-Davis J., Taylor C.B., Kraemer H. Stress sensitivity in metastatic breast cancer: analysis of hypothalamic-pituitary-adrenal axis function. *Psychoneuroendocrinology.* Nov 2006;31(10):1231-1244.
71. Giese-Davis J., Sephton S.E., Abercrombie H.C., Duran R.E., Spiegel D. Repression and high anxiety are associated with aberrant diurnal cortisol rhythms in women with metastatic breast cancer. *Health Psychology.* 2004;23(6):645-650.
72. Abercrombie H.C., Giese-Davis J., Sephton S., Epel E.S., Turner-Cobb J.M., Spiegel D. Flattened cortisol rhythms in metastatic breast cancer patients. *Psychoneuroendocrinology.* 2004;29(8):1082-1092.

73. Turner-Cobb J.M., Sephton S.E., Koopman C., Blake-Mortimer J., Spiegel D. Social support and salivary cortisol in women with metastatic breast cancer. *Psychosomatic medicine.* 2000;62(3):337-345.
74. Sephton S.E., Sapolsky R.M., Kraemer H.C., Spiegel D. Diurnal cortisol rhythm as a predictor of breast cancer survival.[see comment]. *Journal of the National Cancer Institute.* 2000;92(12):994-1000.
75. Weinrib A.Z., Sephton S.E., Degeest K., et al. Diurnal cortisol dysregulation, functional disability, and depression in women with ovarian cancer. *Cancer.* Sep 15 2010;116(18):4410-4419.
76. Sephton S.E., Dhabhar F.S., Keuroghlian A.S., et al. Depression, cortisol, and suppressed cell-mediated immunity in metastatic breast cancer. *Brain Behav Immun.* Nov 2009;23(8):1148-1155.
77. Turner-Cobb J.M., Sephton S.E., Koopman C., Blake-Mortimer J., Spiegel D. Social support and salivary cortisol in women with metastatic breast cancer. *Psychosom Med.* May-Jun 2000;62(3):337-345.
78. Spiegel D., Sephton S. Re: Night shift work, light at night, and risk of breast cancer. *J Natl Cancer Inst.* Apr 3 2002;94(7):530; author reply 532-533.
79. Seuss D. *Oh, the places you'll go!* New York: Random House; 1990.

The Carol A. Lindeman Award for a New Researcher Paper

EFFECTS OF ALTITUDE AND SLEEP ON PERINATAL OUTCOMES

Gayle J. Kipnis, PhD, RNC-OB, AHN-BC
Assistant Professor
School of Nursing
California State University
Chico, CA

EFFECTS OF ALTITUDE AND SLEEP ON PERINATAL OUTCOMES

*Gayle J. Kipnis, PhD, RNC-OB, AHN-BC**
Assistant Professor
School of Nursing
California State University
Chico, CA

Introduction

Sleep disturbance during late pregnancy is so commonly reported that it prompted the recognition of Pregnancy-Associated Sleep Disorder as a distinct entity in the revised International Classification of Sleep Disorders (American Academy of Sleep Medicine, 2001). Normal sleep for healthy adults consists of falling asleep within five to ten minutes of turning out the light, sleeping seven to eight hours, and waking refreshed (Lee, 2003).

Pregnancy sleep disturbance has been studied extensively both objectively and subjectively and diminished sleep quality, frequent mid-sleep awakenings, and decreased duration of sleep are consistently observed during the last trimester of pregnancy (Lee, Zaffke, & McEnany, 2000; Facco, Kramer, Ho, Zee, & Grobman, 2010; Mindell & Jacobsen, 2000). Sleep disturbance has been associated with prolonged labor in women at sea level (Lee & Gay, 2004) and findings have been replicated in Tehran, Iran at an elevation of 3900 feet (Zafarghandi et al., 2011; Naghi, Keypour, Ahari, & Khak, 2011).

Sleep disturbance at higher altitudes has been studied but pregnant women have been excluded from these studies. Pregnancy outcomes at extremely high altitudes in the Andes or Himalayan Mountains show negative perinatal outcomes related to the duration and intensity of the elevation (Gonzales, Steenlund, & Tapiz, 2009; Julian, Krampl, & Moore, 2009; Krampl, 2002; McAuliffe, Kametas, Krampl, Ernsting, & Nicolaides, 2001; Moore et al., 2004).

Adult sleep at higher elevations has been studied, mostly in men during treks to very high altitudes (Johnson, Edwards, Burgess, & Sullivan, 2010; Szymcak et al., 2009; Weil, 2004; Zielinski et al., 2000). Physiologic adaptation to altitude varies by duration and intensity and can take up to 12 months. Adults complain of restless interrupted sleep despite total sleep time being unaltered (Dill, 1968). After arriving at higher elevations, sleep becomes more fragmented due to periodic breathing (Salvaggio et al., 1998).

An estimated 140 million people are permanent residents at higher elevations worldwide and as many as 34 million people visit high elevation destinations each year. Since air travel also exposes people to simulated moderate altitudes with airplane cabins pressurized to an altitude of 8202 feet (Kametas, McAuliffe, Krampl, Chambers, & Nicolaides, 2004), the American College of Obstetrics and Gynecology recommends restricted international air travel for pregnant women after 35 gestational weeks or domestic air travel after 36 gestational weeks (American College of Obstetrics & Gynecology, 2001).

This purpose of this study was to replicate findings previously reported a sea level and test the hypothesis that sleep at moderate altitude (6910 feet; 2106 meters) is predictive of labor duration and mode of delivery (cesarean or vaginal) after controlling for mother's weight, income, age, and infant's birth weight. Although specific definitions of altitude vary, moderate altitude is considered to be from 4553 feet to 8858 feet (Hankins et al., 1996; Moore, 1987; Zamudio, 2007). This study was based on a combination of theories; the Symptom Management Theory, the Theory of Integral Nursing, and Lee's Conceptual Model of Impaired Sleep.

Materials and Methods

Design and Sample

A prospective, descriptive study was conducted in Northern Arizona (elevation 6910 ft.) from February-July 2011 with a convenience sample of 50 nulliparous women who had complete 35 gestational weeks of pregnancy. IRB and CHR approvals were obtained and all participants signed informed consent. Sleep booklets were completed during the last five weeks of pregnancy that included a 3-day sleep diary and the Pittsburgh Sleep Quality Index (PSQI). Participants were contacted by phone 2-4 weeks post-delivery to collect birth information. Analyses included Pearson product-moment correlation coefficient, hierarchical multiple regression to explore relationships between sleep and length of labor, and logistic regression to predict mode of delivery from sleep parameters.

Measures

The 3-day sleep diary measured subjective aspects of sleep over 72 hours and was completed at each bedtime and each morning for three nights. It consisted of nine evening items and 16 morning items that described activity, diet, bed times, wake times, sleep latency, mid-sleep awakenings, and perception of sleep.

The PSQI was used to measure subjective dimensions of sleep over the previous month. It has 19 multiple-choice items with four additional open-ended questions regarding habitual bed time, wake time, sleep latency, and hours of sleep. Seven component scores were calculated into scales of 0-3 with zero signifying no sleep disturbance and 3 indicating severe sleep disturbances. The component scores were added together to create a global score that ranged from 0-21. A PSQI global score of > 5 indicates a severe sleep disturbance in two or more component areas or moderate sleep disturbance in three areas yielding a diagnostic sensitivity and specificity of 89.6% and 86.5% respectively, when compared with a combination of clinical interviews and polysomnographic measures (Buysse, Reynolds, Monk, Berman, & Kupfer, 1989). The Cronbach alpha coefficient for the current study sample was .77 for the 7-component PSQI global score.

All data were analyzed using SPSS software program version 18 for Windows (SPSS Inc., Chicago, Illinois). Pearson product-moment correlation coefficient, multiple regression and logistic regression were used for statistical analysis. A p value of $< .05$ was considered statistically significant.

Results

The mean age of the 50 participants was 27.10 ± 6.2 years. The sample was 60% Caucasian, 50% percent college educated, 80% employed at the time of enrollment, and 60% had an annual household income of less than $36,000. The majority of infants were born full term with delivery occurring at a mean of 39.5 ± 1.1 gestational weeks with a range of 37- 42 gestational weeks. Self-reported length of labor ranged from 0 hours to 42 hours (*M* = 12.9, SD ± 7.18). Sleep onset latency (time to fall asleep) from the item on the PSQI ranged from 5 minutes to 105 minutes (*M* = 23.8, SD ± 21.57) and PSQI sleep hours ranged from 2.5 hours to 10 hours (*M* = 7.14, SD ± 1.55). PSQI sleep quality (component #1) and sleep disturbance (component #5) were recoded from 0 (good sleep) to 3 (poor sleep) for the purpose of computing an overall PSQI 7-category sleep quality index score than can range from 0 to 21.

The relationship between measurements of sleep disturbance and self-reported length of labor was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. In this sample, there was a significant correlation between self-reported length of labor and the number of minutes to fall asleep ($r = .58$, $n = 50$, $p < .001$). There was also a significant correlation between self-reported length of labor and infant birth weight ($r=.33$, $n = 50$, $p < .01$).

Heirarchical multiple regression was used to predict self-reported length of labor from the four sleep measures on the PSQI (sleep onset latency, hours of sleep, subjective sleep quality, and sleep disturbance) after controlling for infant birth weight, maternal income, age, BMI prior to pregnancy and BMI difference between pre-pregnancy and delivery. Maternal age, BMI prior to pregnancy, and income were entered in Step 1, explaining 12.7%, (F (3, 46) = 2.23, $p = .098$) of the variance in self-reported length of labor (refer to Table 2). After entering BMI difference and infant birth weight in Step 2, the total explained variance in self-reported length of labor was 26.2%, (F (5, 44) = 3.13, $p < .017$). In Step 3, the four sleep measures were entered and accounted for an additional 25.4% of the total explained variance in self-reported length of labor. After controlling for infant birth weight, maternal age, income, maternal BMI prior to pregnancy, and maternal BMI at delivery, the final model explained 51.6% (F (9, 40) = 4.74, $p < .001$) of the total variance in self-reported length of labor. Minutes to fall asleep ($\beta = .593$) and infant birth weight ($\beta = .315$) were statistically significant in the final model (Refer to Table 1).

In this sample, for each one minute increase in sleep onset latency, the length of labor increased by .20 hours, holding the other eight variables constant. On average, for each additional minute it took to fall asleep, the length of labor increased by approximately 12 minutes for these pregnant women living at moderate altitude. For the women who reported falling asleep within 10 minutes, mean self-reported length of labor was 9 hours ± 4.4 hours. For the women who reported falling asleep in 10-20 minutes, length of labor was 13.4 ± 6.2 hours. Self-reported length of labor was 14.8 ± 4.8 hours for women who reported falling asleep in 20-30 minutes. For the women who reported taking over 30 minutes to fall asleep, mean self-reported length of labor was 17.9 ± 10.3 hours.

For the women who reported getting less than 6 hours of sleep, the mean length of labor was 15.3 ± 13.1 hours. The mean length of labor was 14.7 ± 6.4 hours for the women who reported getting between 6 -6.9 hours of sleep. For women in this sample who slept more than 7 hours, the mean length of labor was 12 ± 5.1hours.

Home ◀ ▶ go to PG.

Logistic regression was utilized to predict mode of delivery from the same four sleep measures on the PSQI (sleep onset latency, hours of sleep, subjective sleep quality, and sleep disturbance) after controlling for infant birth weight, maternal income, age, BMI prior to pregnancy, and BMI difference between pre-pregnancy and delivery. The full model containing the predictors was not statistically significant, X^2 (8, N = 50) = 4.161, *p* = .842, indicating that self-reported sleep variables were not able to distinguish between women who had cesarean births from those who had a vaginal birth. The model as a whole explained between 13.8 and 21.9% of the variance in mode of delivery, and correctly classified 82% of cases. However, none of the independent sleep variables made a unique statistically significant contribution to the model after controlling for infant birth weight and maternal weight.

In this sample of 50 pregnant women living at altitude, nine women reported getting an average of less than 6 hours of sleep per night during their last month of pregnancy, and of them, three had required a cesarean birth (33.3%). There were five women who reported getting between 6 - 6.9 hours of sleep per night but none had cesarean births. Finally, of the 36 women who reported sleeping 7 hours or more per night, seven (19.4%) were delivered by cesarean.

Discussion

In this study there was a correlation between self-reported length of labor and the PSQI global score (r = .282, $p < .05$) as well as PSQI sleep onset latency (r = .577, $p < .001$). An interesting finding is that 64% of this sample of pregnant women in late pregnancy had a PSQI global score > 5 which indicates severe sleep disturbance and is a larger percentage than identified in any previous study. At lower altitudes, Facco et al.(2010) reported that 53.5% of their sample of nulliparas (n= 189) located in Chicago (elevation 583 feet) had a PSQI > 5 in third trimester which became more common as pregnancy progressed compared to 39% at 6-20 gestational weeks. Lee and Gay (2004) had a PSQI global score of > 5 in 59.5% of their nulliparous sample from San Francisco (elevation 131 feet) and Tsai and colleagues (2011) reported that 50% of their sample of 30 nulliparas in Taipei, Taiwan (elevation 30 feet) had a PSQI > 5. At an elevation of 3900 feet in Tehran, Iran, Naghi et al. (2011) reported 43.8% of primiparas and multiparas in their last trimester had a PSQI > 5.

The PSQI sleep onset latency was strongly predictive of length of labor even after controlling for known clinical characteristics such as maternal BMI and infant's birth weight. Sleep onset latency is measured as the minutes it takes to fall asleep with greater than 30 minutes indicating insomnia. The PSQI mean sleep latency was 23.8 ± 21.58 minutes, the PSQI global score mean 7.6 ± 3.8, and PSQI habitual sleep efficiency was 78% ± 15.65%. Tsai and colleagues (2011) reported a PSQI sleep latency of 24 ± 22.0, PSQI global score mean of 6.06 ± 3.10, and PSQI habitual sleep efficiency of 86.6% ± 11.0% in their sample at sea level. This indicates that in our sample at moderate altitude, sleep efficiency was lower and overall sleep quality was worse.

Birth weight was also found to be predictive of self-reported length of labor in this study. For every SD unit increase in infant birth weight (SD= 444 grams), self-reported length of labor (SD= 7.35 hours) increased by .315 SD units. In this sample, each additional pound of infant birth weight increased labor by 2.32 hours. Although birth weight has long been known to effect labor and delivery it has special significance at altitude. Jenson & Moore (1997) conducted a retrospective cohort study of an altitude-stratified random sample of 3836 Colorado birth certificates from 1989-1991 to examine whether the decline in birth weight with increasing altitude was due to an independent effect of altitude or an exacerbation of other risk factors that included gestational age, maternal weight gain, parity, smoking, number of prenatal visits, and hypertension. Their results showed that none of the characteristics related to birth weight interacted with the effect of altitude and that birth weight declined 102 grams independently for every 3300 feet in elevation gain. The mean weight of the newborns in this study was 3231 ± 444 grams at 6910 feet elevation and was in alignment with these findings. Other studies also show similar results with Naghi (2011) reporting the mean newborn birth weight of their 488 participants at 3900 feet elevation to be 3284 ± 439 grams and Lee and Gay (2004) reporting a mean birth weight of 3543 ± 513 grams at sea level.

As self-reported total sleep time increased, there were fewer cesarean births but it was not statistically significant in this small sample. This finding replicates the results reported by Lee & Gay (2004) in their study of sleep predicting length of labor and type of delivery in their sample of 131 nulliparous women living at sea level. They reported cesarean rates of 36.8%, 34.2%, and 10.8% for participants who had less than 6, 6-6.9 and ≥ 7 hours of sleep per night, respectively. This sample living at altitude had cesarean rates of 33.3%, 0%, and 19.4%, respectively.

In the logistic regression for mode of delivery, maternal BMI prior to delivery ($p = .144$), PSQI sleep quality ($p = .149$), and maternal age ($p = .133$) approached statistical significance. Maternal BMI prior to delivery was higher for mothers who had cesarean births ($M = 27.3$, N = 10) than for mothers who had vaginal deliveries ($M = 24.9$, N = 40). A power analysis revealed that to achieve 80% power, with a .05 two-sided significance level, 155 participants would have been required to show statistical significance. Within this sample, there was a non-significant trend for an increase in cesarean births with an increase in maternal BMI prior to delivery and maternal age, and with a decrease in PSQI sleep quality.

Limitations

This study has some limitations to consider. The sample size was small with 50 participants, the participants were not randomly selected, and most of the data were based on subjective reports. The use of self-report data to study sleep during pregnancy are common and the various tools have been shown to be valid and reliable. Reporting errors that may occur during completion of these types of questionnaires are likely to be the same across study participants. Conducting a study in late pregnancy can be complicated by health issues that develop during the 40 weeks of gestation.

Implications

Pregnant women need to allow themselves time to sleep, especially at higher altitudes. Educating health care providers and nurses about the importance of assessing for sleep disturbance during pregnancy is vital to the well-being of all expectant mothers and their newborns.

Home ◀ ▶ go to PG.

Conclusion

This is the first study that has explored pregnancy sleep at moderate altitude which has unique influences on prenatal sleep. In this sample, sleep onset latency and infant birth weight were predictors of self-reported length of labor at moderate altitude. As research develops into how sleep is related to maternal and fetal outcomes at all altitudes, new discoveries will move us closer to interventions and treatment for this very vulnerable population.

Table 1. Multiple Regression Model Accounting for the Variance in Self-Reported Length of Labor (n = 50)

Scale	Variables	Beta	Unique R^2	*p* value	F	R Square
PSQI						
	Minutes to fall asleep	.593	.217	.000		
	Hours of sleep	.078	.032	.604		
	Subjective sleep quality	-.029	.0004	.846		
	Sleep disturbance	-.09	.006	.490		
Covariates						
	Birth weight (gms)	.315	.081	.014		
	BMI prior to pregnancy	-.188	.031	.118		
	Income	-.231	.026	.148		
	Maternal age	.193	.017	.245		
	BMI difference	.115	.012	.331		
Total Model				**≤ .001**	**4.743**	**.516**

---

*Funding for my PhD studies at the University of California, San Francisco and this dissertation study was provided by the Betty Irene Moore Foundation.

Home go to PG.

References

American Academy of Sleep Medicine (2001).*International classification of sleep disorders, revised:* Diagnostic and coding manual. Chicago: American Academy of Sleep Medicine.

American College of Obstetrics & Gynecology Committee on Obstetric Practice (2001). Committee Opinion: Number 264, December 2001. Air travel during pregnancy.*Obstetrics & Gynecology*, 98, 1187.

Buysse, D. J., Reynolds, C. F., Monk, C. F., Berman, S. R., & Kupfer, D. J. (1989). The Pittsburgh Sleep Quality Index: A new instrument for psychiatric practice and research. *Psychiatry Research*, 28, 193-213.

Dill, D. B. (1968). Physiological adjustments to altitude changes. *Journal of the American Medical Association*, 205, 123-129.

Facco, F. L., Kramer, J., Ho, K. H., Zee, P. C., & Grobman, W. A. (2010). Sleep disturbances in pregnancy. *Obstetrics and Gynecology*, 115(1).

Gonzales, G. F., Steenlund, K., & Tapiz, V. (2009). Maternal hemoglobin level and fetal outcome at low and high altitude.*American Journal of Physiology: Regulatory, Integrative, and Comparative Physiology*, 297, R1477-1485.

Hankins, G. D., Clark, S. L., Harvey, C. H., Uckan, E. M., Cotton, D., & Van Hook, J. W. (1996). Third-trimester arterial blood gas and acid base values in normal pregnancy at moderate altitude. *Obstetrics & Gynecology,* 88, 347-350.

Jenson, G. M., & Moore, L. G. (1997). The effect of high altitude and other risk factors on birthweight: Independent or interactive effects? *American Journal of Public Health*, 87, 1003-1007.

Johnson, P. L., Edwards, N., Burgess, K. R., & Sullivan, C. E. (2010). Sleep architecture changes during a trek from 1400 to 5000 m in the Nepal Himalaya. *Journal of Sleep Research*, 19, 148-156.

Julian, C. G., Wilson, M. J., & Moore, L. G. (2009). Evolutionary adaptation to high altitude; A view from in utero. *American Journal of Human Biology*, 21, 614-622.

Kametas, N. A., McAuliffe, E., Krampl, E., Chambers, J., & Nicolaides, K. H. (2004). Maternal cardiac function during pregnancy at high altitude. *British Journal of Obstetrics & Gynaecology*, 111, 1051-1058. Krampl, E. (2002). Pregnancy at high altitude. *Ultrasound in Obstetrics & Gynecology*, 19, 535-539.

Lee, K. A. (2003). Impaired sleep. In Carrieri-Kohlman, V., Lindsey, A. & West, C. (Eds.), *Pathophysiological phenomena in nursing: Human responses to illness* (3rd ed., pp. 363-385). St. Louis: Saunders.

Lee, K. A., & Gay, C. L. (2004). Sleep in late pregnancy predicts length of labor and type of delivery. *American Journal of Obstetrics and Gynecology*, 191, 2041-2046.

Lee, K. A., & Zaffke, M. E. & McEnany, G. (2000). Parity and sleep patterns during and after pregnancy. *Sleep & Pregnancy* 95 (1).

McAuliffe, F., Kametas, N., Krampl, E., Ernsting, J., & Nicolaides, K. (2001). Blood gases in pregnancy at sea level and at high altitude. *British Journal of Obstetrics and Gynaecology*, 108, 980-985.

Mindell, J. A., & Jacobsen, B. J. (2000). Sleep disturbances druing pregnancy. *Journal of Obstetric, Gynecologoic, & Neonatal Nursing*, 590-597.

Moore, L. G. (1987). Altitude-aggravated illness: Examples from pregnancy and prenatal life. *Annals of Emergency Medicine*, 16, 965-973.

Moore, L. G., Shriver, M., Bemis, L., Wilson, M., Brutsaert, T., Parra, E., & Vargas, E. (2004). Maternal adaptation to high-altitude pregnancy: An experiment of nature-a review. *Placenta*, 25, S60-71.

Naghi, I., Keypour, S. B., Ahari, S. A., & Khak, M. (2011). Sleep disturbance in late pregnancy and type and duration of labour. *Journal of Obstetrics and Gynaecology*, 31, 489-491.

Salvaggio, A., Insalaco, G., Marrone, O., Romano, S., Braghiroli, A., Lanfranchi, P.,... Bonsignore, G. (1998). Effects of high-altitude periodic breathing on sleep and arterial oxyhaemoglobin saturation. *European Respiratory Journal*, 12, 408-413.

Szymcak, R. K., Sitek, E. J., Slawek, J. W., Basinski, A., Sieminski, M., &Wieczorek, D. (2009). Subjective sleep quality alterations at high altitude. *Environmental Medicine*, 20, 305-310.

Tsai, S., Kuo, L., Lai, Y., & Lee, C. (2011). Factors associated with sleep quality in pregnant women. *Nursing Research*, 60, 405-412.

Zamudio, S. (2007).High-altitude hypoxia and pre-eclampsia. *Frontiers in Bioscience,* 12, 2967-2977.

Zafarghandi, N., Hadavand, S., Davati, A., Mohseni, S. M., Kimiaiimaoghadam, F., & Torkestani, F. (2012).The effects of sleep quality and duration in late pregnancy on labor and fetal outcome. *The Journal of Maternal-Fetal and Neonatal Medicine,* 25 (5), 535-537.

Zielinski, J., Koziej, M., Mankowski, M., Sarybaev, A. S., Tursalievaj, J. S., &Sabirov, I. S.,...Mirrakhimov, M. M. (2000). The quality of sleep and periodic breathing in healthy subjects at an altitude of 3200 m. *High Altitude Medicine & Biology*, 1, 331-336.

Home ◀ ▶ go to PG.

The Patsy A. Perry Biological Nursing Research Award Paper

SEARCHING FOR CYCLIC EFFECTS OF OPIOIDS ON PREMATURE INFANT BRAIN FUNCTION

Lauren Thorngate, PhD, RN, CCRN
Postdoctoral Research Fellow
Biomedical Informatics and Medical Education
University of Washington
Seattle, WA

SEARCHING FOR CYCLIC EFFECTS OF OPIOIDS ON PREMATURE INFANT BRAIN FUNCTION

Lauren Thorngate, PhD, RN, CCRN
Postdoctoral Research Fellow
Biomedical Informatics and Medical Education
University of Washington
Seattle, WA

Background

All physiologic function is governed by rhythmicity, whether imposed or endogenous. One of the most significant aspects of newborn development is the emergence of sleep and wake organization. Healthy sleep and wake development is dependent upon the organization of patterns of evolving brain function, described as waves, and depicted electrographically as signal bursts and flats or periods of electrical quiescence [1]. For prematurely born infants, major physiological changes including sleep and wake pattern neuro-organization are occurring in a developmentally unexpected environment of painful procedures, environmental stresses, and with exposure to pharmacologic treatments including opioids.

While the effects of painful procedures are often studied in premature and ill infants, the immediate effects of opioids for pain management are less well known. Recent findings that opioids may not relieve acute pain [2, 3] coupled with some emerging studies of negative developmental outcome are raising concern about opioids in premature infants despite common practice patterns of use for pain management and sedation. A large randomized controlled trial of morphine administration in premature infants found that preemptive morphine for clinical care in the neonatal intensive care unit (NICU) was not protective for developmental outcomes [4]. A study of varied pain management approaches including oxycodone identified marked alterations in the sleep structure (timing and order of REM and nonREM sleep cycles) of premature infants who received oxycodone, as compared to oral glucose and a non-pharmacologic behavioral intervention [5]. Moreover, sleep disturbances experienced in the NICU are thought to contribute to behavioral and physiologic consequences well into adulthood [6].

The use of opioids in the NICU to reduce procedural and postoperative pain while important to optimize comfort and minimize negative outcomes from pain, may contribute to untoward patterns of brain function seen as EEG changes. The full consequence of brain function disruption upon neurodevelopment and sleep state progression early in life is not known.

Purpose and Aim

The purpose of this study was to evaluate changes in brain wave signal variability with quantification of signal cyclicity before and after standard morphine administration. Specifically, we examined differences in spectral density distribution after extracting raw EEG signal from limited channel EEG recordings in the NICU.

Methods

The within-subject study design took advantage of a naturalistic experiment of opioid administration as standard NICU care for sedation and analgesia to describe effects on power spectral densities of brain function. We employed an ABAB structure to measure brain function before and after intravenous opioid doses within each infant to minimize the expected inter-individual variation of opioid effects and differing physiological conditions including maturation within the sample. This design was advantageous to obtain continuous recordings of data in a single recording while minimizing handling of the infant.

The infants were recruited from two Level III NICUs in the Pacific Northwest. The sample comprised infants at 24-42 weeks postmenstrual age (PMA), who were expected to require morphine by bolus injection for mechanical ventilation or painful procedures. Infants were excluded if they had neurologic alterations such as grade III or higher intraventricular hemorrhage, periventricular leukomalacia or congenital malformations involving neural structures, or previously diagnosed seizures. Infants were also excluded while on high frequency ventilation or if their parents did not speak English.

Instrumentation included use of the Olympic CFM 6000 (Natus Medical, San Carlos, CA) amplitude-integrated EEG single channel device to obtain raw EEG signal for frequency interpretation. Real time signal fidelity was assessed by evaluation of the continuous impedance values for the three scalp sensors. Established validity between aEEG and conventional EEG is documented for the neonatal population, including premature infants [7-9]. The following demographic information was obtained from the medical record: age, weight, gender, primary diagnosis, exposure to ante or postnatal steroids, physiological support such as thermal devices, respiratory support, inotropic agents, and other environmental factors including parent presence during the data collection. Severity of illness was assessed by acuity scoring on the SNAPPE-II scale which has retained reliability over time despite practice changes in neonatal care. [10, 11]

Study procedures included non-invasive application of three hydrogel adhesive scalp sensors placed in accordance with the International 10-20 system [12] as modified for neonatal head size. Sensors were applied according to our previously published protocol [13] in the P3-P4 location with a reference sensor on the forehead. Infant care activities, such as repositioning, painful procedures, morphine administration, and sleep or wake states were digitally annotated throughout the recording. Continuous recordings commenced at least 15 minutes prior to an expected morphine dose or after handling for standard NICU care and continued until several hours had elapsed from the second morphine dose, ranging from 3-12 hours for total length of recordings. Data was sampled at 100 times per second.

We planned and conducted a rigorous analytical exploration of the data due to the descriptive nature of the study. Upon download from the CFM 6000 device, data were imported into MatLab R2011a (The Math Works Inc. Natick, MA) visually assessed and then scanned for artifact primarily through sensor impedance values. We devised custom signal processing to include filtering, segment blocking, and then applied a fast Fourier transformation to analyze the frequency domain. Spectral edge frequency (SEF) variables were created for SEF50 and SEF90 to represent the point at which or threshold to account for the amount of spectral power existing below 50% or 90% of the total power. Power spectral slope was calculated as the slope of the total power across all bands of the spectrum. These variables served to summarize detailed spectral information for comparison within subject. Additionally, we categorized the spectral power data into "mini-bands" of 2 Hz frequency bands between 0.5 and 35 Hz, to explore finer granularity in the low frequency range. Data were later exported to SPSS

15 (IBM. Chicago, IL) and we conducted non-parametric comparison of time points after morphine administration.

Results

Of 60 infants screened for inclusion, 37 (3 sets of twins) met criteria for inclusion, 10 parents declined consent while 19 parents gave consent for infant participation. Thirteen infants were not studied for various reasons: transferred to another unit or hospital, required surgery, did not receive morphine, respiratory support issues, parent indecision, a participant expired after enrollment and equipment failure occurred during one recording. Data from one male infant were not analyzed due to high sensor impedance values throughout the recording. The resultant sample included eight infants (two male) 25.71 and 39.71 (mean 29.89 SD 4.89) weeks PMA, with birth weights ranging from 0.54-3.49 kg (mean 1.27 SD 1.03); with average weight at time of study 1.32 kg (SD 1.02). Parents were invited to participate in the care of their infant throughout the study, most were present less than 1/3 of the total study recording time. Morphine doses were low, 0.03-0.18 mg (mean 0.05 mg, SD 0.05), equating to 0.04 mg/kg mean dosing (SD 0.03). The study was not designed to demonstrate dose effect. Six of the 8 infants received a single dose during the study recording.

Friedman rank ANOVA tests were conducted to compare variables across morphine time points: 15 minutes prior, 30 minutes after, 60 minutes after, and 120 minutes after morphine administration. All morphine doses were included in this part of the analysis, however some time points reflected segments of missing data due to high impedance values for some infants and thus were automatically dropped from the Friedman rank ordering, resulting in different numbers of doses for the four and two time point tests. A significant difference in rank order was found for SEF50 (n=8 [morphine doses], $\chi^2 = 8.923$, df =3, p<0.030). In contrast, SEF90 did not show a significant difference between morphine times (n=8, $\chi2$=2.885 df=3 p=.410). Also our power scale slope variable (median) did not demonstrate significant differences (n=8, $\chi2$=1.050 df=3 p=.789) across the four time points.

Upon identification of primarily low frequency power for all infants, we endeavored to explore possible effects of morphine doses on the higher frequency portion of the spectrum by creating a variable we called "Non-Delta" which represented all power above 4Hz. We found no significant difference between time 1 (15 minutes prior) and time 3 (60 minutes after) for "Non-Delta" (n=9 [morphine doses], $\chi2$=2.778, df=1, p<.096). After log transformation to reduce heterogeneity, the 2Hz "mini-bands" of the frequency spectrum were each compared at two time points before and after morphine dose. A significant difference in mean rank was shown between two time points (time 1 at 15 minutes prior and time 3 at 60 minutes after morphine administration) for a specific "mini-band" of 14-16 Hz (n=9 [morphine doses], $\chi2$ =5.444, df=1, p<0.20).

Implications

The convenience sample of this study included a wide postmenstrual age, allowing us the opportunity to informally explore variations in spectral power among infants of widely ranging gestational maturation; however the study was not powered to determine age effects. Gestational age and maturational effects on neonatal brain function are well described [14-19]. Our data especially among the youngest infants, demonstrated similarities with regard to large low frequency power amounts to a study of spectral power in premature infants 30 weeks and younger (PMA) [20].

In contrast to earlier published reports of opioid effects on neonatal EEG [21, 22], morphine effects were not significant within our study except for the measures more sensitive to high frequency shifts (SEF 50 and "mini-band 14-16 Hz). A recent study of brain function using aEEG and spectral edge frequency measuring anesthesia effect on infants found indiscriminate and in some cases paradoxical SEF90 results in young infants whereas in older children the values were able to discriminate between awake and anesthetized states [23]. In our study, morphine effect did not emerge until analysis included the "mini-bands" of 2 Hz increments, which reflected some subtle shifting after morphine dose. Morphine effects on brain function may be masked by the heavy presence of delta low frequency power common early in gestation. It is our belief that the two infants with higher PMA in our study may have contributed to the spectral shifts seen, future studies will benefit from targeted sampling to group infants by developmental age.

In addition, these data may not have demonstrated identifiable differences due to obvious limitations such as small numbers, artifact induced signal disruption and data loss, baseline vs. dose timing and infant response to handling. Also, the lack of pain intensity measurement in our study prohibited consideration of pain responses. As an exploratory study, the use of a naturalistic setting although limited, was ideal to noninvasively obtain direct measures of brain function from vulnerable critically ill infants. Our preliminary study served us well to initiate future hypotheses regarding subtle frequency shifts within the spectrum of neonatal brain function. Opioid effects that result in frequency distribution changes of brain function may indicate sleep cycle disruption, with unknown implications for neurodevelopment.

Home ◀ ▶ go to PG.

References

1. Parmelee A.H., Akiyama Y., Stern E., Harris M.A. A periodic cerebral rhythm in newborn infants. Experimental Neurology 1969;25:575-84.
2. Carbajal R., Lenclen R., Jugie M., Paupe A., Barton B.A., Anand K.J. Morphine does not provide adequate analgesia for acute procedural pain among preterm neonates. Pediatrics 2005;115:1494-500.
3. Simons S.H., van Dijk M., van Lingen R.A., et al. Routine morphine infusion in preterm newborns who received ventilatory support: a randomized controlled trial. Jama 2003;290:2419-27.
4. Anand K.J., Hall R.W., Desai N., et al. Effects of morphine analgesia in ventilated preterm neonates: primary outcomes from the NEOPAIN randomised trial. Lancet 2004;363:1673-82.
5. Axelin A., Kirjavainen J., Salanterä S., Lehtonen L. Effects of pain management on sleep in preterm infants. European Journal of Pain 2010;14:752-8.
6. Mirmiran M., Ariagno R.L. Role of REM sleep in brain development and plasticity. In: Maquet P., Smith C., Stickgold R., eds. Sleep and Brain Plasticity. New York: Oxford University Press; 2003:181-7.
7. Clancy R.R., Dicker L., Cho S., et al. Agreement Between Long-Term Neonatal Background Classification by Conventional and Amplitude-Integrated EEG. Journal of Clinical Neurophysiology February 2011;28:1-9.
8. Hellstrom-Westas L. Continuous electroencephalography monitoring of the preterm infant. Clin Perinatol 2006;33:633-47.
9. Toet M.C., van der Meij W., De Vries L.S., Uiterwaal CSPM, van Huffelen K.C. Comparison between simultaneously recorded amplitude integrated electroencephalogram (Cerebral Function Monitor) and standard electroencephalogram in neonates. Pediatrics 2002;109:772-9.
10. Richardson D.K., Corcoran J.D., Escobar G.J., Lee S.K. SNAP-II and SNAPPE-II: Simplified newborn illness severity and mortality risk scores. J Pediatr 2001;138:92-100.
11. Zupancic J.A., Richardson D.K., Horbar J.D., Carpenter J.H., Lee S.K., Escobar G.J. Revalidation of the Score for Neonatal Acute Physiology in the Vermont Oxford Network. Pediatrics 2007;119:e156-63.
12. Klem G.H., Luders H.O., Jasper H.H., Elger C. The ten-twenty electrode system of the International Federation. The International Federation of Clinical Neurophysiology. Electroencephalography and Clinical Neurophysiology 1999;52:3-6.
13. Foreman S.W., Thorngate L., Burr R.L., Thomas K.A. Electrode challenges in amplitude-integrated electroencephalography (aEEG): research application of a novel noninvasive measure of brain function in preterm infants. Biol Res Nurs 2011;13:251-9.
14. Burdjalov V.F., Baumgart S., Spitzer A.R. Cerebral Function Monitoring: A New Scoring System for the Evaluation of Brain Maturation in Neonates. Pediatrics 2003;112:855-61.
15. Hellstrom-Westas L., Rosen I., de Vries L.S., Greisen G. Amplitude-integrated EEG Classification and Interpretation in Preterm and Term Infants. NeoReviews 2006;7:e76-e87.
16. Herbertz S., Pulzer F., Gebauer C., Panhofer M., Robel-Tillig E., Knupfer M. The effect of maturation and sedation on amplitude-integrated electroencephalogram of the preterm neonate: results of a prospective study. Acta Paediatr 2006;95:1394-

9.
17. Kato T., Okumura A., Hayakawa F., Tsuji T., Natsume J., Watanabe K. Evaluation of brain maturation in pre-term infants using conventional and amplitude-integrated electroencephalograms. Clin Neurophysiol 2011;122:1967-72.
18. Vecchierini M.F., Andre M., d'Allest A.M. Normal EEG of premature infants born between 24 and 30 weeks gestational age: terminology, definitions and maturation aspects. Neurophysiol Clin 2007;37:311-23.
19. Zhang D., Liu Y., Hou X., et al. Reference Values for Amplitude-Integrated EEGs in Infants From Preterm to 3.5 Months of Age. Pediatrics 2011;127:e1280-e7.
20. Victor S., Appleton R.E., Beirne M., Marson A.G., Weindling A.M. Spectral analysis of electroencephalography in premature newborn infants: normal ranges. Pediatr Res 2005;57:336-41.
21. Nguyen The Tich S., Vecchierini M.F., Debillon T., Pereon Y. Effects of sufentanil on electroencephalogram in very and extremely preterm neonates. Pediatrics 2003;111:123-8.
22. Young G.B., da Silva O.P. Effects of morphine on the electroencephalograms of neonates: a prospective, observational study. Clin Neurophysiol 2000;111:1955-60.
23. McKeever S., Johnston L., Davidson AJ. An observational study exploring amplitude-integrated electroencephalogram and spectral edge frequency during paediatric anaesthesia. Anaesth Intensive Care 2012;40:275-84.

Funding:
NINR F31- NR011365, T32-NR007106 NLM 2T15LM007442-11.
American Nurses Foundation, Hyundai Motors Scholar, Integra Neuroscience Nursing Foundation, Sigma Theta Tau, Psi Chapter at Large.

Home ◀ ▶ go to PG.

Abstract of the Western Academy of Nurses Panel

EMERGING GENDER SCIENCE IN CARDIOVASCULAR DISEASE

Moderator:
Lynn V. Doering, RN, DNSc, FAAN
Professor
UCLA School of Nursing
Los Angeles, CA

Panelists:
Holli A. DeVon, PhD, RN
Associate Professor
University of Illinois at Chicago
Chicago, IL

JoAnn Eastwood, PhD, RN, CCNS, ACNP-C
Assistant Professor
UCLA School of Nursing
Los Angeles, CA

Christopher Sean Lee, PhD, RN
Assistant Professor
Oregon Health & Science University
Portland, OR

Home ◀ ▶ go to PG.

EMERGING GENDER SCIENCE IN CARDIOVASCULAR DISEASE

Lynn V. Doering, RN, DNSc, FAAN
Professor
UCLA School of Nursing
Los Angeles, CA

Holli A. DeVon, PhD, RN
Associate Professor
University of Illinois at Chicago
Chicago, IL

JoAnn Eastwood, PhD, RN, CCNS, ACNP-C
Assistant Professor
UCLA School of Nursing
Los Angeles, CA

Christopher Sean Lee, PhD, RN
Assistant Professor
Oregon Health & Science University
Portland, OR

This state-of-the science panel, organized by fellows of the Western Academy of Nursing, focuses on the emerging science regarding the influence of gender in cardiovascular disease and the application of theories and study findings to gender-specific symptom identification and disease treatment/prevention. In the overview, Dr. Doering will present a review of gender differences in identification, treatment, and outcomes (including survival) in cardiovascular disease, with a focus on coronary atherosclerosis, heart failure, and stroke. Included will be a review of the philosophical and theoretical foundations of the science and an introduction of new directions of study. Each panelist will present his/her nationally funded, cutting edge work that extends our current knowledge. Dr. Christopher Sean Lee, PhD, RN, Assistant Professor, Oregon Health & Science University, will present his work on 'biobehavioral' profiling of adults with chronic cardiovascular disease, with a focus on characterization of gender differences in physical and psychological symptom profiles in heart failure. Dr. Holli Devon, Associate Professor at the Betty Irene Moore School of Nursing, University of California, will present her study on the influence of gender on symptom characteristics during acute coronary syndrome, in which she is recording symptoms in the emergency department in "real time" and exploring biobehavioral correlates of symptom clusters. Dr. JoAnn Eastwood, Assistant Professor at the UCLA School of Nursing, will present her novel study that includes application of community participatory research methods and mobile health techniques to reduce cardiac risk factors in young minority women. Together, these presentations will provide participants with new information about the role of gender in diagnosis, treatment and prevention of cardiovascular disease.

Home ◀ ▶ go to PG.

A CLOSED CRUSH MUSCLE INJURY MODEL FOR LEUKOCYTE STUDIES

Moderator:
Barbara St. Pierre Schneider, DNSc, RN
Associate Professor
School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV

OVERVIEW: A CLOSED CRUSH MUSCLE INJURY MODEL FOR LEUKOCYTE STUDIES

Barbara St. Pierre Schneider

SMALL ANIMAL MODELS OF SKELETAL MUSCLE CRUSH INJURY

Georgina Dobek, Barbara St. Pierre Schneider

MUSCLE INJURY INDICATORS OF A CLOSED CRUSH MODEL

Nadia D. Fulkerson, Barbara St. Pierre Schneider

LEUKOCYTE INFILTRATION IN A CLOSED CRUSH MUSCLE INJURY MODEL

Jennifer Nicholas, Barbara St. Pierre Schneider

CYTOKINE EXPRESSION AND MICROARRAY ANALYSIS OF SKELETAL MUSCLE CRUSH INJURY

Joachim Voss, Cassandra Steiner, James McDonald, Joyce Tsuji, Frederico Farin,
Theo Bammler, Barbara St. Pierre-Schneider

Home ◀ ▶ go to PG.

A CLOSED CRUSH MUSCLE INJURY MODEL FOR LEUKOCYTE STUDIES

Overview: A Closed Crush Muscle Injury Model for Leukocyte Studies

Barbara St. Pierre Schneider, DNSc, RN
Associate Professor
School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV

A skeletal muscle crush injury occurs during accidents, natural disasters, and military combat. Depending on the degree of injury, recovery from a crush muscle injury can take days to months. Additionally, in certain cases, a muscle injury can lead to other complications, including fibrosis and ectopic bone formation, which will delay recovery. At this time, there are no therapeutic strategies that will expedite recovery of a crush muscle injury. However, the development of these strategies would likely shorten rehabilitation time and costs. Therefore, studies focused on the mechanisms of cells that promote muscle recovery are valuable.

Much of our knowledge about the recovery of crush muscle injury has been obtained from a small animal open model that was developed in the late 1980s and has focused on muscle cells involved in muscle regeneration. Since this time, animal use perspectives have changed about open or invasive procedures, and we now know that leukocytes are also critical to different phases of the recovery of injured muscle. One objective of this symposium is to provide an analysis and evaluation of these current small animal crush muscle injury models.

Recently, we developed a small animal closed muscle crush injury model so that we could study the mechanisms of leukocytes during the recovery of crush-injured muscle. Because the approach of this new model is significantly different from the established open model, we performed a validation study. This validation study consisted of determining which muscle injury indicators occur and the time course, distribution, and appearance of leukocytes infiltrating the crush-injured muscle. The second objective of this symposium is to present these data. Finally, this symposium will discuss how nurse researchers can use this model to study leukocyte mechanisms of muscle recovery and the factors that affect these mechanisms.

Funding: This material is based on research sponsored by the Air Force Surgeon General's Office under agreement number FA7014-10-2-0001. Review of material does not imply Department of the Air Force endorsement of factual accuracy or opinion.

Home

◀ ▶ go to PG.

A CLOSED CRUSH MUSCLE INJURY MODEL FOR LEUKOCYTE STUDIES

Small Animal Models of Skeletal Muscle Crush Injury

Georgina Dobek, DVM
Research Technologist
School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV

Barbara St. Pierre Schneider, DNSc, RN
Associate Professor
School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV

Purpose/Aims: The purpose is to provide an analysis and evaluation of the available small animal skeletal muscle crush injury models.
Concept: Skeletal muscle crush injury is caused by compression of a limb, resulting in interrupted blood flow and damage to the cell membrane of muscle fibers. This type of injury causes significant morbidity in natural disaster and battlefield settings. To study the pathophysiology of muscle crush injury, and to investigate potential therapies for expediting muscle recovery, a refined animal model is needed.
Concept Analysis: The earliest small animal muscle injury model was an open (invasive) model in which pressure is applied to a surgically isolated muscle with a clamp, and was developed to study the muscle response during regeneration. With the enforcement of the Health Research Extension Act of 1985 through the Public Health Service Policy on Humane Care and Use of Laboratory Animals, views on invasive procedures in laboratory animals have changed. In addition to the concerns about the invasive nature of the model, surgical isolation of the muscle requires additional animals for the sham-operated control group. In response, a closed (noninvasive) model, which consists of dropping a weight onto a hind limb, was developed to remove the confounding variable of incision-induced inflammation, and reduce the number of animals needed because the contralateral hind limb can serve as the uninjured control. However, the closed dropped weight model is limited by a fracture incidence of 27%, and by the high impact nature of the injury, which does not accurately mimic the sustained applied force of real-world crush injuries.
Conclusions: The ideal crush injury model should involve a sustained applied force, avoid surgical isolation, use the least number of animals necessary, and have a low fracture complication. The closed, sustained, applied force model achieves these goals.
Importance to Nursing Practice: The use of a closed muscle crush injury model will allow nurse researchers to comply with the animal use principles of reduction and refinement, and conduct studies that more closely mimic the human condition. Through these studies, nurse researchers may enhance our understanding of the inflammatory response of muscle crush injury and test therapies to improve patient recovery.

Funding: This material is based on research sponsored by the Air Force Surgeon General's Office under agreement number FA7014-10-2-0001. Review of material does not imply Department of the Air Force endorsement of factual accuracy or opinion.

Home ◀ ▶ go to PG.

A CLOSED CRUSH MUSCLE INJURY MODEL FOR LEUKOCYTE STUDIES

Muscle Injury Indicators of a Closed Crush Model

Nadia D. Fulkerson, BS, MPH
Research Technician
School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV

Barbara St. Pierre Schneider, DNSc, RN
Associate Professor
School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV

Purpose/Aims: The aim of this study was to determine which muscle injury indicators occur in a novel, closed crush muscle injury model.

Background: Many open (invasive) small animal models of muscle crush injuries result in morphological and biochemical changes because of the loss of structural integrity of blood vessels, capillaries, and individual muscle fibers. This loss can then lead to intramuscular bleeding (a hematoma), the release of substances (e.g., creatine kinase) from muscle fibers into the bloodstream, and extensive leukocyte infiltration into injured muscle fibers as evidenced by fibers with multiple internal nuclei. In contrast, certain closed muscle injury models, such as unaccustomed exercise, do not consistently yield a muscle hematoma, edema, or extensive leukocyte infiltration. Therefore, the occurrence of muscle injury indicators needs to be determined before a newly-developed closed crush muscle injury model, in which the crush stimulus is applied force, can be used to advance our understanding of the inflammatory response to a crush muscle injury.

Methods: A female murine model ($n = 30$) of a C57BL/6 background (6-7 weeks old) received analgesia and then 20 min later were anesthetized. Next the right gastrocnemius muscle underwent a closed muscle crush injury at two sites by applying 45 psi for 30 s via a piston. Afterwards, samples were taken at 4 hr ($n = 5$), 8 hr ($n = 10$), 24 hr ($n = 7$), and 48 hr ($n = 8$). At each recovery time point, the lateral head of the gastrocnemius muscle was dissected and inspected for hematomas and then stained for hematoxylin and eosin to detect the presence of morphological indicators of injury. Additionally, the serum creatine kinase levels from 17 of these animals were measured at 4 hr, 8 hr, or 24 hr using a biochemical, enzymatic assay and compared using the Kruskal-Wallis test with Bonferroni Post-hoc analysis.

Results: At 4-48 hr postinjury, 1-2 hematomas were visible on the surface of the gastrocnemius muscle. At 4 hr and 8 hr, hematomas were focalized in the lateral gastrocnemius muscle. At 24 hr and 48 hr, the hematoma was diffusely spread. In areas corresponding to the location of the hematomas, muscle fibers exhibited pale eosin-stained cytoplasm and multiple nuclei inside the cytoplasm. Regarding serum creatine kinase levels, there was a significant difference between 4 hr and 8 hr ($p = .004$).

Implications: This closed muscle crush injury rodent model yields morphological and biochemical changes that are (a) indicative of serious damage to both blood vessels and individual muscle fibers and (b) similar to an open crush muscle injury model. Therefore, nurse researchers can use this model to gain a better understanding of the inflammatory response to muscle when crushed during accidents or military conflict and to test nonpharmacological strategies to promote recovery after a crush muscle injury.

Funding: This material is based on research sponsored by the Air Force Surgeon General's Office under agreement number FA7014-10-2-0001. Review of material does not imply Department of the Air Force endorsement of factual accuracy or opinion.

Home ◀ ▶ go to PG.

A CLOSED CRUSH MUSCLE INJURY MODEL FOR LEUKOCYTE STUDIES

Leukocyte Infiltration in a Closed Crush Muscle Injury Model

Jennifer Nicholas, BSc (Hons), BA
Research Assistant
School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV

Barbara St. Pierre Schneider, DNSc, RN
Associate Professor
School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV

Purpose/Aims: To investigate neutrophil and macrophage infiltration in response to a closed (noninvasive) lower extremity crush muscle injury.

Background: Much of the crush muscle injury research has used open crush muscle injury models. However, these open models result in a secondary inflammatory response due to the surgical isolation of the muscle. This secondary inflammatory response hinders our understanding of the neutrophil and macrophage mechanisms involved in the recovery of crushed muscle. Therefore, neutrophil and macrophage infiltration into crush-injured muscle needs to be examined in a closed model in which a secondary inflammatory response is avoided.

Methods: A female murine model (n = 25) of a C57BL/6 background (6-7 weeks old) were anesthetized, underwent a crush injury of the gastrocnemius muscle. Samples were taken at 4 hr, 8 hr, 24 hr, and 48 hr postcrush. Antibody probes were used to detect two subpopulations of macrophages and three subpopulations of neutrophils present in muscle cross-sections. A computer-assisted image analysis procedure was then used to quantify the results. For each animal, the number of positive cells, the percentage of the analysis area occupied by positive cells (area percentage), and the average size of the positive cells was determined. A qualitative analysis of the overall appearance of these cells was also performed.

Results: Neutrophil infiltration occurred as early as 4 hr and remained elevated at 24 hr. These cells were observed within muscles fibers and in connective tissue. Furthermore, the area percentage and size of one of the three neutrophil subpopulations decreased from 24 hr to 48 hr postcrush (p = .01). Although macrophages were detected in the same areas as neutrophils, significant macrophage infiltration began later at 24 hr and continued 48 hr postcrush.

Implications: A closed muscle crush injury model results in the infiltration of multiple neutrophil and macrophage subpopulations. Therefore, nurse researchers can use this closed muscle crush injury model to study the mechanisms by which neutrophils and macrophages promote muscle recovery after a crush injury and test nonpharmacological interventions for expediting recovery.

Funding: This material is based on research sponsored by the Air Force Surgeon General's Office under agreement number FA7014-10-2-0001. Review of material does not imply Department of the Air Force endorsement of factual accuracy or opinion.

Home ◀ ▶ go to PG.

A CLOSED CRUSH MUSCLE INJURY MODEL FOR LEUKOCYTE STUDIES

Cytokine Expression and Microarray Analysis of Skeletal Muscle Crush Injury

Joachim Voss, PhD, RN
Associate Professor
School of Nursing
[1]University of Washington
Seattle, WA

[1]Joyce Tsuji, MS
Research Technologist
School of Nursing

[1]Cassandra Steiner, BS
Research Assistant
School of Nursing

[2]Frederico Farin, MD
Director
School of Public Health

[2]Theo Bammler, PhD
Research Scientist
School of Public Health

[2]James McDonald, PhD
Biostatistician
School of Public Health

[3]Barbara St. Pierre-Schneider, PHD, RN
Associate Professor
School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV

Purpose/Aims: The purpose of this study was to conduct a time course analysis and study the cytokine gene expression and microarray data in crush-injured skeletal muscle.
Background: Crush injury in skeletal muscle is caused by an interruption of blood flow and prolonged pressure, resulting in hypoxia and damage to the cell membrane of muscle fibers. The initial response in the hypoxic area is significant inflammation. In general, the inflammatory response in injured muscle consists of an upregulation of proinflammatory cytokines, such as interleukins and tumor necrosis factor and the recruitment of leucocytes. These leukocytes clear cellular debris at the injury site, repair cells, and stimulate the growth of muscle precursor cells called satellite cells. However, the time course of these proinflammatory cytokines and co-regulated genes is not well-characterized in a closed crush muscle injury murine model.
Methods: A female murine model of a C57BL/6 background received a crush injury to the skin overlying right gastrocnemius (calf) muscle and tissues samples were taken after 10 min, 4 h, 8 h, 24 h, or 48 h. The right and left (uninjured) gastrocnemius muscles were harvested and flash frozen in liquid nitrogen. RNA was extracted and cDNA was obtained using standard reverse transcription kits. Realtime-PCR (RT-PCR) analysis compared the relative gene expression of three major proinflammatory cytokines (tumor necrosis factor alpha (TNF-α), interleukin-1beta (IL-1ß), and interleukin-6 (IL-6) to 18S expression for the right gastrocnemius cDNA as endogenous control. These data were normalized to a pool of uninjured, left gastrocnemius cDNA. The microarray core facility processed the Affymetrix microarray experiments and correlational tests were performed between the agreement of the RT-PCR and the microarray data.
Results: IL-1ß and IL-6 messenger RNA expression peaked early at 4 h, while TNF-α expression peaked at 24 h. Correlational tests revealed 75% agreement for IL-1ß, 75% for IL-6, and 54% for TNF between microarray and real-time expression data. There were 631 genes co-regulated by the three cytokines, of which 67 inflammatory genes were co-regulated by IL-1ß and IL-6.
Implications: Nurse researchers can use this model to study the cytokine and genetic changes associated with the recovery from a sustained pressure injury. Additionally, nurse scientists can use to model to compare various treatments that will limit tissue damage and loss of limbs in similar crush injury conditions that humans experience in natural disasters and in combat situations.

Funding: This material is based on research sponsored by the Air Force Surgeon General's Office under agreement number FA7014-10-2-0001. Review of material does not imply Department of the Air Force endorsement of factual accuracy or opinion.

Home ◀ ▶ go to PG.

BEST PRACTICES IN GRADUATE NURSING EDUCATION: TEAM PROJECT BASED SERVICE LEARNING

Moderator:
Barbara Plovie, MN, ARNP, BC
Maternity Clinical Lead
Nursing Program
University of Washington
Seattle, WA

OVERVIEW: BEST PRACTICES IN GRADUATE NURSING EDUCATION: TEAM PROJECT BASED SERVICE LEARNING

Barbara Plovie, Linda Westbrook

EVALUATION AND ANALYSIS OF FEEDBACK ON NURSING SIMULATION LAB

David J. Baure

DEVELOPING AN INSTRUMENT TO MEASURE STUDENT CLINICAL COMPETENCE AND CONFIDENCE

Diana Davidson, Julie Samms

THE VALUE OF PROJECT BASED LEARNING IN GRADUATE SCHOOL COURSEWORK

Sue Huth, Maria Turla-Devera

Home
◀ ▶ go to PG.

BEST PRACTICES IN GRADUATE NURSING EDUCATION: TEAM PROJECT BASED SERVICE LEARNING

Overview: Best Practices in Graduate Nursing Education: Team Project Based Service Learning

Barbara Plovie, MN, ARNP, BC
Maternity Clinical Lead
Nursing Program
University of Washington
Seattle, WA

Linda Westbrook, PhD, RN
Senior Lecturer
Nursing and Health Studies Program
University of Washington Bothell
Bothell, WA

Professional nurses must utilize their knowledge in actual clinical practice situations. Therefore experiential learning has been a key feature of nursing education from the beginning. This type of learning is no less important for nursing graduate students who are preparing themselves for leadership roles in nursing practice, education or research. The participants in this symposium present a case exemplar illustrating the process and outcomes of using a project based, context situated approach to learning in a program planning course. The course was designed with the expectation that students would apply learning and utilize teamwork skills to complete a “real world” service project for a nursing service or educational setting. This approach is consistent with Benner and colleagues’ (Benner, Sutphen, Leonard & Day, 2010) mandate to strengthen the pedagogies of integration in nursing.

For this project, a team of five MN students was asked to evaluate changes in the simulation laboratory portion of the maternity nursing course in a BSN program. The changes were made as a result of the work of a student project team the previous year. The faculty from the undergraduate nursing program was actively involved for both years as the students’ client. The client provided the students with background information, access to student evaluation data and faculty feedback. The client also acted as a conduit to other clinical faculty and sites.

The students planned and conducted their project using a logic model framework (W.K. Kellogg Foundation, 2004). This project based learning assignment involved: negotiating project objectives and deliverables with the client, weekly meetings and online discussions, and a formal presentation of deliverables, conclusions and recommendations. Team members contributed their rich collective professional experience and their collaborative spirit to the success of the project. In addition they were able to develop data analysis, literature review and instrument design skills as most were concurrently enrolled in a research methods course. The client and course instructor provided guidance, resources and support to the effort.

The first paper in this symposium describes the process and outcomes of the comparative analysis of quantitative and qualitative data generated from the evaluation of the simulation lab changes. Conclusions reached at the end of this process lead to a recommendation that a further means of assessing the effectiveness of the simulation lab experience was necessary. Thus the second paper describes the research and development of an instrument designed to be used by BSN clinical students and preceptors to assess student competence and confidence in the performance of skills required in the maternity clinical practicum. The final paper describes the graduate student experience within the project based learning environment, including specific collaborative processes that were helpful within and across courses, lessons learned, and the implications of the use of this teaching-learning approach to graduate nursing education.

Home ◀ ▶ go to PG.

BEST PRACTICES IN GRADUATE NURSING EDUCATION: TEAM PROJECT BASED SERVICE LEARNING

Evaluation and Analysis of Feedback on Nursing Simulation Lab

David J. Baure, RN, BSN, CEN
Master of Nursing Student
Nursing and Health Sciences Program
University of Washington Bothell
Bothell, WA

Purpose/Aims: Evaluate effectiveness of improvements made to an undergraduate nursing Maternity Simulation.

Background: Simulation plays a vital role in nursing education. In 2011, a team of graduate nursing students recommended three improvements to an undergraduate Maternity Sim (Simulation) lab: 1) a shorter lab duration, 2) the use of checklists, and 3) the introduction of scenario debriefing. In 2012, a new team of graduate students evaluated the efficacy of these changes.

Methods: Three academic quarters' of data was provided to the team. Data consisted of students' evaluations of the Maternity Sim Lab acquired using a tool consisting of 13 questions with a 5 point Likert scale and 4 open-ended questions. Questions elicited responses about the quality of the lab course, effectiveness of teaching, and other aspects. Winter 2011 and 2012 cohorts were similar in sample size and composition and were used for quantitative analysis. Descriptive statistics and comparisons were used to evaluate ratings of the two cohorts. A qualitative analysis of the open-ended questions was performed for the 2012 winter cohort capturing student responses after changes to the lab were made. The team created an online survey tool with 10 open-ended questions to gather qualitative data from 4 of the 2012 instructors. Questions elicited responses that would capture instructor's perceptions about the quality of the lab course, effectiveness of teaching, and connections to clinical objectives. All Qualitative responses were coded independently by each team member and coded again as a team to increase internal validity.

Results/Outcomes: Analysis revealed the quantitative ratings of students' responses were highly variable. Winter 2012 scores decreased on 8 items and improved on 5 items. Analysis of qualitative data from students uncovered two themes: 1) a negative response to the shortened length of lab time and 2) a positive response to the introduction of debriefing. Qualitative evaluations from instructors demonstrated four themes: 1) overall improved effectiveness of lab observed through student performance, 2) negative response to the shortened lab time, 3) disconnect between lab and clinical instruction, and 4) support to ensure lab experience precedes clinical experience.

Implications/Conclusions: The highly variable kurtosis of the quantitative portion of student survey highlights the limitations of the current tool in evaluating the changes made to the Maternity Sim Lab. By contrast, the qualitative findings provide clearer recommendations to continue debriefing and lengthen lab time. Evaluations revealed the need for a more consistent means of gathering instructor feedback as responses provide valuable insight into the Maternity Sim Lab. Results also suggest that, if measuring student competence and confidence is the goal the existing evaluation tools fail to capture and measure this goal. This conclusion led the team to develop a revised evaluation tool as part of their deliverables.

Home

◀ ▶ go to PG.

BEST PRACTICES IN GRADUATE NURSING EDUCATION: TEAM PROJECT BASED SERVICE LEARNING

Developing an Instrument to Measure Student Clinical Competence and Confidence

Diana Davidson, RN, BSN
Master of Nursing Student
Nursing and Health Studies Program
University of Washington Bothell
Bothell, WA

Julie Samms, RN, BSN
Master of Nursing Student
Nursing and Health Studies Program
University of Washington Bothell
Bothell, WA

Purpose: 1) Evaluate the efficacy of existing instrument and survey methods, 2) conduct a literature search for valid and reliable clinical evaluation instruments, and 3) develop a new instrument if necessary.

Background: A 2011 survey of precepting nurses at maternity sites concluded student nurses from the client's school were perceived as lacking competence and confidence. An evaluation of the effectiveness of related program modifications was desired. Changes resulting from the proposals of the 2011 team included alterations to the undergraduate school Maternity Sim (simulation) Lab. The 2011 survey team was interviewed to provide insight into previous methods used. These team members provided their data, instruments and information about the flaws of their original methodology. In 2011, precepting nurses were surveyed about student performance based on availability, and emailed or called weeks or months after the clinical interaction. Items on the survey were open-ended questions and yielded data helpful for redesigning the program, but could not be meaningfully compared to new data. A high participant burden also contributed to a low participation rate. Based on discovered flaws in the previous survey instrument and methods, a decision was made by the 2012 team to design a new instrument that could be easily adapted to various clinical sites and schools. This instrument would be completed during each clinical experience, with low burden for nurse preceptors and clinical instructors.

Methods: A search for established and reliable clinical skill evaluation instruments produced one from Turkey and one from Sweden. Existing instruments were synthesized with learning objectives used for the Maternity Sim Lab. The Clinical Competence and Confidence Assessment Tool (CCCAT) was developed applying principles learned from both program planning and nursing research. The instrument was piloted with the project stakeholder, seven precepting nurses, twelve student nurses, and seven clinical instructors for feedback concerning content validity and ease of completion. Changes were made to the instrument based on this feedback to reduce participant burden and increase clarity.

Outcome: The CCCAT was created with four Likert items seeking feedback on student competency related to learning objective skills, one Likert item seeking perception of student confidence, and one item seeking open-ended comments.

Conclusions: The CCCAT is easy to use, and fulfills the need to assess student competence and confidence at the clinical site. The CCCAT also helps student nurses clearly communicate learning objectives with precepting nurses at the beginning of each shift. By collecting the instrument at the end of each shift, clinical instructors gain meaningful feedback from precepting nurses. This enables the school to use collected data to assess the program's effectiveness in preparing student nurses for their maternity rotation. By using the CCCAT as a template and substituting learning objectives from other programs, the instrument can be shared and adapted to assess nursing students' competence and confidence in other settings.

Home ◀ ▶ go to PG.

BEST PRACTICES IN GRADUATE NURSING EDUCATION: TEAM PROJECT BASED SERVICE LEARNING

The Value of Project Based Learning in Graduate School Coursework

Sue Huth, RNC, BSN
Master of Nursing Student
Nursing and Health Sciences Program
University of Washington Bothell
Bothell, WA

Maria Turla-Devera, BA, RN
Master of Nursing Student
Nursing and Health Sciences Program
University of Washington Bothell
Bothell, WA

Purpose: The purpose of this paper is to describe and evaluate the experience of project based learning graduate nursing education from the student perspective.
Background/Rationale: Project-based learning (PBL) is a progressive educational model that requires problem-solving, decision making, and advanced investigative and application skills. Collaborative learning requires ongoing discourse and engages students in the development of social and intellectual skills. It demands both individual and group accountability. This MN course in program planning and evaluation was designed to combine project-based and collaborative learning in a "real world"/"situated learning" context. This approach to learning increases student motivation and provides a service to collaborating partners in the community. Concurrent enrollment in a research course strengthened the planning, research and deliverables of the team.
Best Practices/Process: Course content, readings, and assignments focused on the development of a broad base of program planning and evaluation skills that were applied to a project in an actual practice setting. The team of MN students followed up with a project that had been started the previous year by another team of students. It involved completing a formative evaluation of changes made to the curriculum of the simulation lab of a maternity nursing course. To clarify project goals, the MN team met with the project client, a faculty member from the BSN program of a local university. A written project charter included objectives and team deliverables. Students posted a weekly progress report, wrote an executive summary of the project, and delivered a formal presentation and its deliverables to the client and student colleagues. Individual strengths were tapped as members designated specific tasks according to expertise. Weekly meetings strengthened teamwork skills such as flexibility, accountability, communication, and feedback. Collaborative writing skills were developed using internet-based document sharing sites. Written and verbal feedback was received from client, faculty, team members and attendees of final presentation. Team members were surveyed to evaluate the use of PBL in their educational experience.
Outcomes: PBL was found to be an effective way to learn program planning, allowing students to integrate their learning through completion of a project of relevance in the real world. The team produced the following deliverables: 1) a formative evaluation, 2) an assessment tool, and 3) proposals for program changes. The client reported high satisfaction with the results delivered and the experience of working with the team. Team members found PBL to be effective, meaningful, and enjoyable, forming strong bonds of mutual respect.
Conclusions/Implications: PBL is a new dynamic approach to learning in an MN program. Students are more engaged and invested when given the opportunity to apply concepts to real world situations. The synergistic experience of working as a team allowed students to gain skills at an accelerated pace. PBL is an educational model with broad transferability throughout nurse education programs.

Home ◀ ▶ go to PG.

BUILDING COLLABORATIVE RELATIONSHIPS VIA COMMUNITY PARTNERSHIP MODEL ACTION PHASES

Moderator:
Janna Lesser, PhD, RN
Assistant Professor
Family Nursing
University of Texas Health Science Center at San Antonio
San Antonio, TX

OVERVIEW: BUILDING COLLABORATIVE RELATIONSHIPS VIA COMMUNITY PARTNERSHIP MODEL ACTION PHASES

Nancy Anderson, Janna Lesser

COLLABORATIVE COMMUNITY ASSESSMENT OF HEALTH CONCERNS WITH YOUNG MEN OF COLOR

Peter Andrew Guarnero

THE POWER OF CONNECTION IN SUSTAINING COMMUNITY PARTNERSHIPS

Janna Lesser

THE ANDERSON COMMUNITY PARTNERSHIP MODEL: PRE-ENGAGEMENT IN A HOMELESS SHELTER

Rebecca Bonugli

ANDERSON CPM: PRELICENSURE NURSING STUDENTS ENGAGING WITH COMMUNITY ORGANIZATIONS

Inese L. Verzemnieks

ANDERSON'S CPM: INTERVENTION DESIGN, IMPLEMENTATION AND EVALUATION PHASES IN AN RCT

Deborah Koniak-Griffin, Juan José Villegas

Home
go to PG.

BUILDING COLLABORATIVE RELATIONSHIPS VIA COMMUNITY PARTNERSHIP MODEL ACTION PHASES

Overview: Building Collaborative Relationships via Community Partnership Model Action Phases

Nancy Anderson, RN, PhD, FAAN
Professor Emeritus
School of Nursing
University of California, Los Angeles
Cambria, CA

Janna Lesser, PhD, RN
Assistant Professor
Family Nursing
University of Texas Health Science Center at San Antonio
San Antonio, TX

Purpose: This symposium illustrates the process of developing and sustaining community partnerships in five diverse community settings. We present the Community Partnership Model (CPM) for collaborative transcultural nursing research and practice partnerships designed to allow flexible movement back and forth through action phases that can be adapted to a variety of communities. The CPM takes into account the continuously evolving variations in communities and research entities. Each presentation describes the evolutionary pathways that build on community capacity and strengths to improve health status and diminish health disparities within the example partnerships.

Rationale and Historical Background: The CPM embraces the theoretical and philosophical foundations embodied in community-based participatory research (CBPR). The constantly shifting and dynamic nature of communities present enormous challenges for the process of forming and sustaining partnerships. Every community is unique with special strengths and health-related needs making a predetermined step by step community-based partnership formation and implementation process impossible. Instead the CPM allows partners to move back and forth through a series of flexible action phases from pre-engagement to sustainability and community advocacy.

The Partnership Process and Outcomes: Each of the community partnership examples discusses a different action phase of the process of working effectively with community members to develop the partnership and collaboratively plan and conduct projects. Each presentation describes unique and creative ways of integrating CBPR approaches that are relevant to the particular group. Rebecca Bonugli describes the Pre-engagement Phase in a project at Haven for Hope. Inese Verzemnieks demonstrates the Engagement Phase activities as public health students engage with community organizations. Peter Guarnero conducts focus group discussions with young men of color in the Community Assessment Phase. Deborah Koniak Griffin illustrates the Intervention, Implementation and Evaluation Phases in her partnership with Promotoras and other community members. Sustainability and Community Advocacy are addressed by Janna Lesser in the Mujeres Nobles project.

Conclusion: The fluid reality of community partnerships requires a cyclical process of discovery that allows for and even encourages movement in unanticipated directions and also pays great attention to the cultural beliefs and practices of all partnership participants. This process is intended to result in sustained translation of project outcomes and increased community self-advocacy.

Home ◀ ▶ go to PG.

BUILDING COLLABORATIVE RELATIONSHIPS VIA COMMUNITY PARTNERSHIP MODEL ACTION PHASES

Collaborative Community Assessment of Health Concerns with Young Men of Color

Peter Andrew Guarnero, RN, PhD, MSc
University of Texas Health Science Center at San Antonio
San Antonio, TX

Purposes/Aims: This presentation describes the community assessment phase from the Community Partnership Model during a project designed to identify factors that influenced health promotion behaviors in a group of young Latino men. A key factor in carrying out the study was identifying and engaging community members who had an understanding of health issues among young men of color. As part of this process these partners participated in assessing those health issues.

Rationale/Conceptual Basis/Background: There is ample evidence that engaging community members in developing a research project may have positive effects for both the academic community as well as the community at large. Collaborative assessment of the strengths and health issues within the community facilitates and enhances the partnership development process.

Methods: The researcher approached a member of the community to begin preliminary discussions on carrying out the study to identify factors that influenced health promotion behaviors in a group of young Latino men. The community member was known as a strong advocate for the needs of young Latino men and he had expressed interest in partnering with the health science campus to initiate health promotion programs targeting young men of color. Initial discussions centered on community members perceptions of the needs of young Latino men who frequented a community center affiliated with a Hispanic serving university. The community members participated in the development of initial individual interview questions used during the assessment. The PI maintained an on-going relationship with the administration of the community center and several individual members. In order to enhance his understanding of the center's services the PI participated in several events, including leading a professional writing workshop for Latino graduate students, preparatory sessions for celebrating the community center's foundation and presentation of research findings to the community members. Involvement in community events allowed the development of a trust between the PI and the community members.

Results: A key factor in carrying out the study was the development of trust and confidence between the PI and the identified community. As a result both the community members and the PI experienced a mutual understanding of the community based participatory research processes and the sharing of research findings to assist in developing a more culturally relevant health promotion program for young Latino men. Findings indicated that young Latino men were concerned about health and personal issues that affected their lives. Their lives were impacted by family, their barrio (neighborhood) and the university community.

Implications: Community based participatory research requires that the academic-community partners develop a mutual understanding of their strengths and limitations early on so as to develop a working relationship that is mutually beneficial. Future work includes developing academic-community partnerships in various settings that have a large proportion of young Latino men.

Home ◀ ▶ go to PG.

BUILDING COLLABORATIVE RELATIONSHIPS VIA COMMUNITY PARTNERSHIP MODEL ACTION PHASES

The Power of Connection in Sustaining Community Partnerships

Janna Lesser, PhD, RN
Associate Professor
Family and Community Health Systems
School of Nursing
The University of Texas Health Science Center at San Antonio
San Antonio, TX

Purpose: The *Familias En Acción* Violence Prevention Project exemplifies the use of the Anderson CPM in a transcultural partnership formation and implementation process. The theoretical orientation of the model guided the community and research partners to interconnect and move flexibly through all action phases, facilitating sustainability and community self-advocacy. This community-based participatory research (CBPR) partnership mobilized the community and in the process led to the formation of *Las Mujeres Nobles de Harlandale.* The purpose of this presentation is to illustrate how through a group analysis process used to analyze their own qualitative data, *Las Mujeres* identified the power of connection and support in sustaining their community-academic partnership and community self-advocacy.

Background: *Las Mujeres* was formed in 2007 under the umbrella of the *Familias En Acción* Violence Prevention Project, a CBPR partnership between the University of Texas Health Science Center at San Antonio and the Harlandale community. *Las Mujeres* advocate for community change, a result of feeling powerless growing up in a community filled with social injustices, including violence. They envision building working relationships to empower women while finding solutions to impact the community in a positive way. The group focuses on the future: to educate, train, and empower young women in the group to bring about lasting community change.

Methods: In the fall of 2010, three doctoral students from the University of Texas Houston School of Public Health worked with *Las Mujeres* to collect, analyze and present extant data on various violence indicators requested by the group. As part of their project, the students conducted interviews with members of *Las Mujeres* and explored the group's role in the empowerment of women. Interviews were conducted with 16 individual members (adults and adolescents). A participatory group process to analyze the data was conducted using the following steps described by Jackson (2008); preparation of the data, grouping and coding, consolidating, and making sense of the data.

Results: A key finding was that *Las Mujeres* had a powerful and profound impact on women's lives in their community. Key to this impact was their process of strengthening connections with each other as well as with other community action groups.

Implications: Developing and maintaining successful community-academic partnerships are important both for effective research and for initiating social change. *Las Mujeres* have become a venue through which adult women pass along their wisdom to the next generation, so that younger women can better overcome the societal hurdles that affect health and welfare.

Funding: The development of *Las Mujeres* was made possible through projects funded by NIH/NINR R01-NR008563 and NIH/NICHD R01-HD057842.

Home ◀ ▶ go to PG.

BUILDING COLLABORATIVE RELATIONSHIPS VIA COMMUNITY PARTNERSHIP MODEL ACTION PHASES

The Anderson Community Partnership Model: Pre-Engagement in a Homeless Shelter

Rebecca Bonugli, PhD, APRN, PMHCNS
Assistant Professor
School of Nursing
The University of Texas Health Science Center at San Antonio
San Antonio, TX

Purpose: This purpose of this paper is to discuss the Anderson Community Partnership Model (CPM), specifically the pre-engagement phase, as applied to a project between resident members, staff and administrators at a community-based transitional homeless shelter and faculty from a university. The paper highlights pre-engagement activities designed to ascertain the level of community capacity for a potential partnership between Haven for Hope and The Center for Community Based Health Promotion for Women and Children.

Background: Life within a homeless shelter is wrought with challenges, including how to safely manage one's personal medications. As in all communities, abuse of prescribed medications, especially narcotics, is problematic. Balancing safety needs while ensuring personal rights of individuals living in the shelter is a challenge, as abuse of medication has the impact of negatively impacting individual health and wellbeing. Recognizing this challenge, a key administrator from Haven for Hope reached out to the school of nursing for guidance. Using the Anderson CPM as a framework, faculty began the process of pre-engagement with resident members, staff and administrators of the shelter.

Methods/Description of Project: Informed by the Anderson CPM, faculty collaborated with Haven for Hope leaders to initiate pre-engagement phase activities. A Community Advisory Board (CAB) was formed consisting of Haven for Hope resident members and staff. The CAB advised faculty members of issues they felt relevant to the problem of medication management. This information guided the formation of questions to be used in a series of focus groups. In total, five focus groups were conducted with members and staff.

Results: This initial pre-engagement phase provided the opportunity to discover the level of community capacity for a partnership between Haven for Hope and faculty members. In a fluid process of exchanging thoughts and feelings, faculty members were able to assess the goodness of fit between the partners. By engaging in the shared work activity to address the issue of medication management within the shelter, trust and mutual respect were established between partners. Most importantly, the community partners identified positive solutions to a troubling issue.

Implications: The Anderson CPM, specifically the pre-engagement phase, provided the mechanism to successfully build a community partnership between Haven for Hope and faculty members. Building on the trust and respect established in the pre-engagement phase, a foundation for future community based participatory research was established.

Home ◀ ▶ go to PG.

BUILDING COLLABORATIVE RELATIONSHIPS VIA COMMUNITY PARTNERSHIP MODEL ACTION PHASES

Anderson CPM: Prelicensure Nursing Students Engaging with Community Organizations

Inese L. Verzemnieks, PhD, RN, CNL
Lecturer
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Purpose: This paper examines how the Anderson Community Partnership Model (CPM) applies not only to the research environment, but provides guidance for faculty during community based prelicensure clinical experience. This presentation will demonstrate the usefulness of the Anderson CPM within the Public Health Nursing clinical practicum for prelicensure students, with an emphasis on engagement.

Background: With competition of baccalaureate and master's entry programs in large urban areas for diminished opportunities for experiences in Public Health Departments (PHDs), groups of students are increasingly based in Community Based Organizations (CBOs) to provide valuable community health experience. This affords students one of few opportunities to explore health issues outside acute care facilities, where students get most of their training. The different pace and process can create uncertainty and frustration for students. The role of faculty is crucial to successful projects, as will be shared during this presentation.

Process: Applying participatory research methods, faculty met with CBO leaders to discus potential projects to present to students, who then collectively decide on a group project. Student groups apply the principles of public health nursing, guided by the Quad Council Competencies and Public Health Nursing Practice Model (Smith & Bazini-Barakat, 2003). Under faculty direction, students work with community groups to establish, refine, and complete a project during their 10-week rotation. Faculty guide and facilitate students to engage stakeholders in the organization as well as community, and through a reiterative process that varies with the project, consult with community partners to enhance the design and utility of projects that are eventually embraced by the CBOs.

Outcomes: Students at CBO placements have completed multiple well-received and utilized projects. Successful projects include: provide condom education and availability at a homeless services organization; formalize strategies to assist parents to obtain documentation required for early head start from health providers; update a community needs assessment (including surveying the community) and share results with the stakeholders; develop a dental health education project for preschoolers; and develop and provided targeted child care basics for high school students. Feedback from CBOs has been consistently positive, continuing to use the projects long after students leave the rotations. Through engagement, students overcome their initial hesitation working in the community, seeing how the project changes with important input from stakeholders. The Community Advisory Council and parent representatives applaud student efforts, eager to use materials as they are developed, building on the students' sense of accomplishment.

Conclusions: This presentation illustrates how the Anderson CPM can be applied to enhance community experiences within an academic framework. Under the direction of faculty, students can be guided to utilize community-based participatory methods during their 10-week rotations, and engage with communities to solve meaningful problems related to health that they are not able to solve on their own. The benefits to both academia and community groups through engagement is realized.

Home ◀ ▶ go to PG.

BUILDING COLLABORATIVE RELATIONSHIPS VIA COMMUNITY PARTNERSHIP MODEL ACTION PHASES

Anderson's CPM: Intervention Design, Implementation and Evaluation Phases in an RCT

Deborah Koniak-Griffin, RNC, EdD, FAAN
Professor and Audrienne H. Moseley
Endowed Chair in Women's Health Research
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Juan José Villegas, BA
Research Associate
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Purpose: This paper examines how community partners are involved in the intervention design, implementation, and evaluation phases of the Anderson Community Partnership Model (CPM) in a randomized controlled trial (RCT). The case study describes how these phases are applied in evaluating the feasibility and outcomes of a promotora-delivered healthy lifestyle behavior intervention (LSBI) for overweight, immigrant Latinas.

Background: Designing and implementing culturally relevant interventions is recognized as a strategy to improve the health of minority/underserved populations, yet within the context of an RCT, members of the community often are not directly involved in these activities. Community members as promotoras were ideally suited for involvement in this study because they understood the strengths and resources of their community, were culturally and linguistically appropriate, and generally were trusted by immigrant Latinos.

Methods: Applying participatory research methods, our team partnered with community members in all phases of this RCT; some served on the Community Advisory Board (CAB), and others were employed as promotoras. CAB members selected the *Su Corazón, Su Vida* curriculum for the LSBI group education classes. The researchers presented the individual teaching and coaching (ITC) component of the intervention to the promotora-intervenors, who further refined the strategies and agreed upon delivery methods. Data collection was conducted by members of the community (promotora-evaluators) and the academic research team at baseline and post-intervention with physiologic (waist circumference, blood pressure, lipid profile, fasting blood sugar) and behavioral measures (eating habits, physical activity).

Results: Participants (*N*=223) were adult Latina women of predominantly Mexican descent and low-income. Outcome analyses used age-adjusted mixed effect models to test for change over time between groups. Women in the LSBI (*n*=111) showed significant improvements in lifestyle behaviors (overall eating habits) (*F*[2, 170]=5.02, *p*=.008) and a decrease in waist circumference (*F*[2, 213]=3.26, *p*=.04**)** compared to those (*n*=112) in a comparable length control condition. Significant treatment effects also were found from baseline to 9 months for accelerometer-measured average daily step count (*t*[201]=2.01, *p*=.04), and scores on the Heart Knowledge questionnaire improved from pretest to posttest (*t*=4.09, *p*<.001). Feasibility data supported LSBI implementation by promotoras as evidenced by participation rates; 83% of the women attended at least half of the classes and nearly 40% attended the entire series of 8 classes. All scheduled home visits (*n*=4) were received by 53% of the women. Retention rates at follow-up were 84-89%.

Implications: The Anderson CPM may be applied in a lifestyle behavior intervention by training and employing promotoras in intervention design, delivery, and evaluation. Use of the model enabled implementation of a culturally relevant intervention tailored to meet the unique needs of immigrant Latinos and was well-accepted in the community.

Funding: By NHLBI: Award R01 HL086931.

Home

go to PG.

CIVILITY IN EDUCATION AND PRACTICE: LOCAL, NATIONAL, AND INTERNATIONAL PERSPECTIVES

Moderator:
Cynthia M. Clark, RN, PhD, ANEF, FAAN
Professor
School of Nursing
Boise State University
Boise, ID

OVERVIEW: CIVILITY IN EDUCATION AND PRACTICE: LOCAL, NATIONAL, AND INTERNATIONAL PERSPECTIVES

Cynthia M. Clark, Pamela J. Springer, Sara M. Ahten, Suzan Kardong-Edgren

---

STUDENT PERCEPTIONS OF STRESS, COPING, AND ACADEMIC INCIVILITY: A LONGITUDINAL STUDY

Cynthia Clark

USING KIRKPATRICK'S MODEL TO ASSESS NEW NURSES' ABILITY TO ADDRESS PRACTICE INCIVILITY

Sara M. Ahten

EFFECT OF ORGANIZATIONAL CULTURE AND CIVILITY ON FACULTY INTENT TO LEAVE ACADEME

Pamela J. Springer

A BI-NATIONAL SURVEY OF CLINICAL FACULTY MEMBERS' EXPERIENCES WITH STUDENT INCIVILITY

Suzan Kardong-Edgren

CIVILITY IN EDUCATION AND PRACTICE: LOCAL, NATIONAL, AND INTERNATIONAL PERSPECTIVES

Overview: Civility in Education and Practice: Local, National, and International Perspectives

Cynthia M. Clark, RN, PhD, ANEF, FAAN
Professor
School of Nursing
Boise State University
Boise, ID

Pamela J. Springer, PhD, RN
Professor
School of Nursing
Boise State University
Boise, ID

Sara M. Ahten, DNP, RN
Assistant Professor
School of Nursing
Boise State University
Boise, ID

Suzan Kardong-Edgren, PhD, RN, ANEF
Associate Research Professor
Joanna "Jody" DeMeyer Endowed Chair
School of Nursing
Boise State University
Boise, ID

Incivility in American society is on the rise, and rude and disruptive behavior is increasing in institutions of higher learning. In nursing and other health-related disciplines, the risk assumed by not addressing uncivil behavior reaches well beyond the college campus, and can negatively impact individuals, teams, and organizations. Because students in nursing programs provide direct care to patients and families through clinical experiences, uncivil and disruptive acts must be addressed so that such behaviors do not spiral into aggression and jeopardize patient safety. Nurses in academic and clinical settings are eager to reverse this troubling trend by gaining a better understanding of incivility, the research that explores this phenomenon, and the evidence-base strategies to address the problem.

The purpose of this symposium is to provide an overview of the 'State of the Science' on civility and incivility in nursing education and practice, and to present a series of empirical studies designed to generate evidence-based strategies to prevent and address uncivil behaviors in academic and practice settings. Each paper is embedded in the science of civility in nursing, beginning with a mixed-methodological longitudinal study measuring student perceptions of academic incivility, stress, and coping over a 3-year period; a qualitative study investigating the use of Standardized Participants (SP) to prepare nursing students to effectively recognize, prevent, and address incivility in the practice setting; a national study examining the relationship between organizational culture/climate, organizational civility, and intent to leave in nursing faculty; and an international study measuring the frequency of uncivil nursing student behaviors experienced by clinical educators in Australia and the United States. Papers are discussed in relation to their implications for advancing nursing science, practice, and future research.

Funding: Research for the national faculty study is supported by grant funding from: Boise State University College of Health Sciences OEF Developmental Research Grant. Research for the international study was funded by Edith Cowan University, Perth, Australia.

CIVILITY IN EDUCATION AND PRACTICE: LOCAL, NATIONAL, AND INTERNATIONAL PERSPECTIVES

Student Perceptions of Stress, Coping, and Academic Incivility: A Longitudinal Study

Cynthia Clark, PhD, RN, ANEF, FAAN
Professor
School of Nursing
Boise State University
Boise, ID

Purposes/Aims: Academic incivility negatively impacts faculty and student well-being, weakens relationships, and impedes effective teaching and learning. Uncivil behavior instigated by or targeted toward faculty and students jeopardizes the welfare of the campus community, the practice environment, and ultimately patient safety. Incivility can impact the academic environment so radically that learning is terminated. This longitudinal study investigated student perceptions of academic, incivility, stress, and coping in one school of nursing over a 3-year period.

Rationale/Background/Conceptual Framework: Studies reveal that stress plays an integral role in the display of uncivil and disruptive behaviors. When stress levels are heightened, incivility is more likely to occur. Knowing the stressors experienced by students and reinforcing effective coping strategies can lead to a safer, more civil learning environment. Incivility, whether initiated by faculty, students, or by a combination of both, presents opportunities for engagement, productive communication, relationship building, and fostering a culture of civility.

Methods: A prospective mixed methodological longitudinal study followed one cohort of nursing students over a three-year period to measure their perspectives of academic incivility, stress, and coping. This study used a 9-item questionnaire to explore perceived levels of civility, major stressors, most effective coping strategies, ways to improve student-to-faculty and student-to-student relationships, and advice to improve civility in the nursing program. Data were collected from a cohort of nursing students upon entry into their nursing program (n=54), 12 months into the nursing program (n=68), and at the end of the nursing program (n=66). The numerical data were analyzed using descriptive statistical analysis and the narrative comments were analyzed using qualitative content analysis.

Results: Using a Likert scale ranging from extremely civil (6) to not civil at all (1), perceived levels of civility declined slightly over the course of the study (year 1=5.33, year 2=5.17, and year 3= 4.68). The top 2 stressors remained constant through all 3 measurements; demanding workload and balancing work, school, family, and personal lives; however the third stressor changed over time to include challenging clinical assignments and preparing for licensing exams. Most students coped by relaxing and spending time with others, exercising, and getting organized. Student-faculty relationships were enhanced by faculty presence and responsiveness, while student-student relationships were improved by supporting and encouraging one another. The most effective ways to foster civility included faculty encouragement and flexibility and course organization and clarity.

Implications: Raising awareness about the stressors experienced by students and knowing the most effective coping strategies and ways to promote civility can have a major impact on improving the teaching-learning environment, building positive relationships among faculty and students, and addressing the challenges of academic incivility. Further studies can be conducted to test the generalizability of these findings.

Home ◀ ▶ go to PG.

CIVILITY IN EDUCATION AND PRACTICE: LOCAL, NATIONAL, AND INTERNATIONAL PERSPECTIVES

Using Kirkpatrick's Model to Assess New Nurses' Ability to Address Practice Incivility

Sara M. Ahten, DNP, RN
Assistant Professor
School of Nursing
Boise State University
Boise, ID

Purposes/Aims: Addressing incivility in nursing education has an important twofold purpose: to increase civility within the nursing education experience and to lay the groundwork for creating cultures of civility in professional nursing practice. While increasing students' knowledge of civility is vital, it is not an indication that participants will use their newly acquired knowledge in meaningful ways. The purpose of this study was to examine whether the use of a Problem-based Learning (PBL) scenario about nurse-to-nurse incivility changed the behaviors of newly graduated nurses once they were in the workplace setting.

Rationale/Background/Conceptual Framework: Incivility may contribute to new graduates leaving their first job within 6 months and if incivility is tolerated, nurses may leave the profession altogether. Given the impact of incivility on nurses' employment satisfaction and retention, it is imperative that nursing students learn and practice the skills, knowledge, and attitudes to effectively prevent and address incivility in the practice setting upon graduation from their nursing programs. Kirkpatrick's Model of Evaluation was chosen as the framework for this study, as it has been used extensively in academic and clinical education for program development and instructional evaluation.

Methods: In a previous study, a PBL scenario on nurse-to-nurse incivility was used to assess student learning, using Levels 1 and 2 of Kirkpatrick's Model for Evaluation. This study reports the findings of a 10-month follow-up study that described how new graduates applied knowledge gained from the PBL scenario in their workplaces. A link to a secure online survey was distributed to 30 former students who participated in the PBL scenario and who agreed to participate in the follow-up study. The survey consisted of 5 questions based on Level 3 of Kirkpatrick's Model of Evaluation.

Results: Eighteen of 30 new graduates (60%) participated in the follow-up study: 15 (83.3%) women and 3 men (16.72%). All were newly licensed registered nurses. 64.7% of respondents reported experiencing or observing incivility in the workplace. 68.8% reported using the information learned in the PBL scenario about nurse-to-nurse incivility in their practice. 87.5% of the respondents reported experiencing a change in behavior as a result of the PBL scenario. 57.1% identified issues that discouraged or prevented them from applying what they learned in the scenario. 90.9% of respondents identified personal or professional benefits/rewards they received in their practice by using the knowledge they learned from the PBL scenario.

Implications: A PBL scenario was an effective teaching strategy for preparing new graduates to address nurse-to-nurse incivility in the practice setting. Because students were made aware of types of incivility during their education, and practiced ways to address uncivil behaviors in the classroom, students with even limited experience and newness of their nursing role, were able to identify uncivil behaviors, and in some cases, effectively address the offending behavior. This can be empowering knowledge for new nurses, especially with workplaces adopting policies for uncivil and disruptive behavior.

CIVILITY IN EDUCATION AND PRACTICE: LOCAL, NATIONAL, AND INTERNATIONAL PERSPECTIVES

Effect of Organizational Culture and Civility on Faculty Intent to Leave Academe

Pamela J. Springer, PhD, RN, CNE
Associate Dean, College of Health Sciences
Director, School of Nursing
Boise State University
Boise, ID

Purpose/Aim: The United States is experiencing a shortage of qualified nursing faculty which limits student admissions to nursing programs. Reasons for the faculty shortage are not well documented, thus this national study was conducted to examine the relationship between organizational culture/climate, civility, and faculty's intent to leave their positions.

Background: Deans and Directors of nursing programs cite noncompetitive salaries and a limited pool of doctorally-prepared faculty as major factors contributors to the shortage of nursing faculty. Thus, it is important to enlarge the pool of qualified faculty by implementing evidence-based strategies to recruit and retain nursing faculty. Though some studies have focused on staff nurse satisfaction and intent to leave; few have studied the relationship between healthy workplaces, job satisfaction, and faculty recruitment and retention.

Methods: An online survey using validated measures of organizational culture/climate (Culture/Climate Assessment Scale), civility (the mini-Organizational Civility Scale), demographic information, and nursing faculty intent to leave academe was sent directly to faculty in over 400 nursing schools/departments across the United States.

Results: *Sample*: One thousand one hundred and sixty eight (1168) nursing faculty responded to the survey; 87.6% were Caucasian and 83.8% were female. Thirty nine percent (39%) had taught nursing for over 15 years and 92% were full-time. All levels of nursing programs and all areas of the United States were evenly represented.

Satisfaction: Faculty were asked to assess the effectiveness of communication, conflict, teamwork, and work satisfaction. Communication was rated average by 35.9% of respondents and good by 31.9%. The level of conflict in the nursing unit was described as moderate (41.6%) to minimal (40.7%). Teamwork was described as average by 34.7% of respondents and good by 34.8%; 33.7% rated themselves as satisfied with their jobs.

Civility and intent to leave: On a scale of 1 (uncivil) to 7 (civil), 62.5% rated civility in their current place of employment as 5 or above. When asked if they had seriously considered leaving their jobs, 53.5% indicated yes and 24.7% reported actively seeking another job. When asked how likely it was they would leave their job this year 14.1% responded they would probably or definitely be leaving. Higher levels of conflict and lower scores for communication, decision support, teamwork, job satisfaction, and civility were reported for those who intended to leave their positions.

Implications: Results of this national study show the importance of workplace culture/climate and civility on faculty intent to stay in their academic position. With a significant shortage of nursing faculty, leaders need to pay attention to workplace culture, civility, and job satisfaction. Creating cultures that value faculty input in decision making and creating cultures of civility may positively faculty turnover. Future research should focus on intervention studies to improve culture and study the impact on turnover.

Funding: Provided by the Boise State University College of Health Sciences.

Home ◀ ▶ go to PG.

CIVILITY IN EDUCATION AND PRACTICE: LOCAL, NATIONAL, AND INTERNATIONAL PERSPECTIVES

A Bi-National Survey of Clinical Faculty Members' Experiences with Student Incivility

Suzan Kardong-Edgren, PhD, RN, ANEF
Associate Research Professor
Joanna "Jody" DeMeyer Endowed Chair
School of Nursing
Boise State University
Boise, ID

Purpose: Student incivility is a documented worldwide phenomenon. This paper reports findings of a descriptive bi-national survey of faculty who function as clinical instructors, about their experiences with student incivility in the clinical setting. The survey was conducted at three schools of nursing in Australia and one school in the United States.

Background: Clinical faculty are often ill-prepared to deal with uncivil student encounters and situations arising in the clinical setting. Simulation is routinely used for teaching students but rarely used for teaching faculty. This survey was conducted to provide real life material for the development of scenarios designed to prepare faculty to prevent, address and minimize the potential for overt student incivility in the clinical setting.

Methods: A 9 item short answer questionnaire was developed based on a systematic review of the literature related to nursing student incivility. The survey was distributed online via a secure web-based survey management system to 197 clinical faculty in four schools of nursing. Faculty were also asked if they ever passed low performing or failing students.

Results: Thirty-six percent (n=74) of these clinical faculty responded to the survey. Ninety-four percent (n=70) reported experiencing some degree of incivility in the clinical setting. They reported experiencing student incivility most often when addressing a student's lack of professionalism or deficits in clinical skills. Incivility occurred more frequently when verbal or informal feedback was given than when formalized or documented feedback was provided. The three most frequent reactions to constructive feedback were excuses for poor performance (89%), defensiveness (86%), and refusal to listen or rejecting feedback (73%). Faculty described several student defensive behaviors within a single student incident. An analysis of answers to short answer questions suggested three themes of (1) response to constructive criticism, (2) incivility, and (3) presenting or seeking advocates arose from the short answer questions. Excuses for poor performance fell into two subthemes: cultural differences and external stressors.

Implications: Student incivility worldwide is on the rise. Many clinical faculty feel poorly prepared to deal with these behavior and faculty instruction and education is needed to prepare them to effectively prevent and address uncivil student behaviors. Findings from this study will be used to develop and evaluate an interactive educational simulation curriculum to prepare faculty to deal with these challenges.

Funding: The study was funded by Edith Cowan University, Perth, Australia.

Home

◀ ▶ go to PG.

CREATIVE LEADERSHIP APPROACHES TO RECURRENT ISSUES IN NURSING ACADEMIA

Moderator:
Maureen R. Keefe, RN, PhD
Dean and Professor
College of Nursing
University of Utah
Salt Lake City, UT

OVERVIEW: CREATIVE LEADERSHIP APPROACHES TO RECURRENT ISSUES IN NURSING ACADEMIA

Maureen R. Keefe

POINT OF DIMINISHING RETURN: DEVELOPING EQUITABLE FACULTY WORKLOAD

Barbara L. Wilson, Catherine Coda

COLLABORATIVE PARTNERSHIP: BUILDING CRITICAL THINKING SKILLS

Leissa Roberts

DOING THE RITE THING: PROMOTING RESEARCH PRODUCTIVITY

Ginette A. Pepper

MEASURING AND IMPROVING FACULTY SATISFACTION

Lauren Clark, Stephanie J. Richardson

ENRICHING MENTORING PROGRAMS FOR FACULTY

Stephanie J. Richardson, Ginette A. Pepper, Lauren Clark

Home ◀ ▶ go to PG.

CREATIVE LEADERSHIP APPROACHES TO RECURRENT ISSUES IN NURSING ACADEMIA

Overview: Creative Leadership Approaches to Recurrent Issues in Nursing Academia

Maureen R. Keefe, RN, PhD
Dean and Professor
College of Nursing
University of Utah
Salt Lake City, UT

This symposium will provide a unique perspective on what appear to be some common yet unrelenting issues that all academic nursing organizations are struggling to address. Creating an environment within your organization in which faculty can thrive is a shared goal for nursing's academic leaders. Finding the right balance and structures to support productivity and ensure a sense of community can be a challenge in the best of times. Recent budget reductions and faculty shortages can lead to low morale and disengagement of faculty. In this symposium we will summarize some of the most frequently occurring faculty support issues based on our collective academic experiences and a review of the AACN leadership topical discussion threads. We will explore the relationship between personal accountability and job satisfaction among faculty. Faculty satisfaction survey results can also be used to inform college and division level annual goals for development or process improvement. We will review the ongoing challenges of refining a teaching formula and workload methodology for allocating faculty time and effort. Thoughtful workload allocation can ultimately safeguard satisfaction factors intrinsic to the work itself and support faculty fulfillment in teaching, research, service, and practice.

Resourceful approaches to peer and group mentoring for various targeted faculty, both DNP and PhD prepared, will be discussed. Group mentoring programs, particularly when offered over time and in concert, are an effective way to meet the development needs of new and mid-career faculty. A novel integrated faculty practice program for graduate student learning and financial support will be highlighted. This new virtual nursing service program emphasizes the integration of didactic education and practice while providing income for students, allowing educational pursuits to be their primary focus and commitment. Finally the development of a new model for supporting research productivity will be presented. Based on a needs-assessment, conducted to identify hindrances and opportunities to enhance the research-conducive characteristics of the environment, research teams were created. Essential components of the teams included a coherent theme that would foster innovative nursing science, diversity of membership including senior and junior faculty, high potential for NIH funding, and plans to develop NIH submissions.

This symposium showcasing innovative approaches to recurrent issues in academia will simulate an open discussion as others share their experiences, insights and lessons learned in leading our academic organizations forward.

CREATIVE LEADERSHIP APPROACHES TO RECURRENT ISSUES IN NURSING ACADEMIA

Point of Diminishing Return: Developing Equitable Faculty Workload

Barbara L. Wilson, PhD, RNC
Associate Professor
College of Nursing
University of Utah
Salt Lake City, UT

Catherine Coda, MBA
Assistant Dean for Finance/Administration
College of Nursing
University of Utah
Salt Lake City, UT

Purpose: Few subjects in nursing academia solicit more interest (and angst) than determining overall faculty workload. Weighing unique assignments to approximate an equitable distribution of work across the faculty is an administrative responsibility open to critique. Our purpose is to consider best practices in faculty workload assignment overall procedures and provide detail about how one public college of nursing evolved a teaching workload formula through successive adaptations and generous faculty input.
Background: Herzberg's Motivation-Hygiene Theory proposes two independent continua explaining job satisfaction. In regard to workload allocation, administrators must attend to the need for higher-order gratification in the areas of responsibility, recognition, and the satisfaction from the work itself while simultaneously considering the need for basic hygiene factors like pleasant working conditions and a decent salary. Thoughtful workload allocation can ultimately safeguard satisfaction factors intrinsic to the work itself and support faculty fulfillment in teaching, research, service, and practice.
Methods: An extensive list of teaching, research, service, and practice activities can be generated by any group of faculty for allocation of specific workload consideration. In the teaching area, qualifiers can be used to increase or decrease a standard workload allocation, including whether or not an assigned course is taught via standard online technology, more complex videoconferencing, offered with interdisciplinary colleagues and students, taught as a combination of didactic/clinical, or supported with a teaching assistant. Guidelines generated through a collaborative effort between faculty and administrators assure both a comprehensive list of workload-bearing activities and an agreed-upon valuation for each activity.

A faculty task force was convened to recommend a standard workload model for the college. Development and implementation of an automated informatics dashboard was in process at the same time, allowing division chairs and associate deans the opportunity to easily develop, modify, and evaluate formulas, offering individual faculty immediate access to their own workload. Once the dashboard was in place, workload comparisons could be calculated by administrators and individual assignments made visible to faculty.
Outcomes: In the three years since initial implementation, this system has decreased faculty dissatisfaction around workload assignment process and provided a creative and accessible way for faculty to access their annual employment contract, course assignments, and overall workload allocation by semester and year. It should be noted that no single system can provide all of the flexibility and fluidity required to maintain equitable assignments. Negotiation and interpretation are needed to adjust any given workload to account for state-mandated student-faculty ratios, clinical site requirements for faculty and students, extramural grant awards, and other complexities.
Conclusion: As leaders, we are managing workload as a basic hygiene factor for nursing faculty. It is unlikely that faculty will be completely satisfied with their employment solely on the basis of an equitable workload allocation. Even so, a comprehensive and equitable workload formula satisfies a need for transparent workplace processes and results in efficiently satisfying types and amounts of workload assignments.

Home ◀ ▶ go to PG.

CREATIVE LEADERSHIP APPROACHES TO RECURRENT ISSUES IN NURSING ACADEMIA

Collaborative Partnership: Building Critical Thinking Skills

Leissa Roberts, DNP, CNM
Associate Professor (Clinical)
College of Nursing
University of Utah
Salt Lake City, UT

Purpose: A partnership between a college of nursing (CON) and a major health care organization (HCO) was developed to: (a) provide graduate nursing students with graduate assistantships (GA) that would pay a wage plus tuition; and, (b) facilitate the critical thinking skills development of doctor of nursing practice (DNP) students. The major aim for the HCO was to increase organizational and patient satisfaction with their telephone triage services.

Background: When handled appropriately, telephone triage can assist a health system to respond to patient needs, aligning the patient with the right level of care, the right provider, in the right place, at the right time. Adding telephone triage to DNP student education enhances the diversity of clinical experiences. Developing a hybrid program of paid employment with tuition reduction and supervised advanced practice nursing skill development promotes students' academic success.

Methods: The CON contracted with the HCO to set up a virtual nursing service to provide telephone triage for HCO patients in the women's health, primary care, pediatrics, geriatrics, acute care, hospice care, follow-up emergency department discharges, and prescription renewal. GAs hired by the university are assigned to the HCO to work within the parameters of their nursing license to handle triage calls and make a final patient disposition that matches the acuity of the caller's problem. Best practices for telephone triage encompass employing excellent staff, using evidence-based protocols, and applying critical thinking strategies and processes. Employing DNP students as GAs enables them to sharpen patient interviewing skills, increase their proficiency in electronic medical record documentation, and exercise their evolving critical thinking as they work through the nursing process of assessment, diagnosis and planning in telephone triage.

Outcomes: The program has been in existence for one year with positive student feedback received during ongoing program evaluations. In the first year, 16 graduate students were employed in the program, with 40 graduate students employed by the second year. Faculty who teach in the physical exam course have been able to identify participating students, noting their advanced interview skills in comparison to non-GA students. Currently, GAs are responding to over 4000 calls per month, up from 2500 upon opening the service. The high quality telephone triage service offered by GAs has improved HCO providers' satisfaction as measured by ongoing program evaluations and rapid cycle feedback.

Conclusions: This model emphasizes the integration of didactic education and practice to build critical thinking skills in DNP students hired as GAs. It provides financial aid and an income for students, while allowing educational pursuits to be their primary focus and commitment. Recommendations for the future include outcomes research on the topics of GA, patient, and provider satisfaction; tracking changes to critical thinking skills in GAs over time; HCO cost analysis pre- and post-partnership; estimation of correct final patient disposition by GA experience level; and design of a video-enabled tele-nursing visit process and outcome study.

Home ◀ ▶ go to PG.

CREATIVE LEADERSHIP APPROACHES TO RECURRENT ISSUES IN NURSING ACADEMIA

Doing the RITe Thing: Promoting Research Productivity

Ginette A. Pepper, PhD, RN
Professor
College of Nursing
University of Utah
Salt Lake City, UT

Purpose: Establishing an environment conducive to faculty scholarship is a challenge in any academic discipline. This is particularly exigent in schools of nursing, given persistent faculty shortages, a dearth of qualified mentors resulting from the high ratio of junior to senior faculty, and impending retirements of senior faculty, creating multiple competing demands on both early stage investigators and senior nurse scientists. The purpose of this presentation is to describe the process and outcomes of an initiative at a college of nursing in a research extensive university (Carnegie RU/VH) to overcome these barriers and enhance research productivity.

Background: While studies have shown that individual characteristics such as personal motivation, training, early scholarly habits, and substantial uninterrupted time investment predict research productivity, environmental characteristics are extremely powerful moderators of scholarly potential (Long & McGinnis, 1981; Perkoff, 1996). Influential environmental conditions include clear goals that serve a coordinating function, research emphasis, distinctive culture, decentralized organization, positive workgroup climate, and frequent communication (Bevil et al., 2012; Bland & Riffin, 1992). Since research is a highly social and political process involving interaction, exchange, and synergy; research affinity groups of faculty with common phenomena of interest can increase innovation and productivity (Conn, et al., 2005; Fox, 1991). In response to the challenge to increase national research rankings, the college implemented a needs assessment to identify hindrances and opportunities to enhance the research-conducive characteristics of the environment. Themes emerging from the assessment included the research culture, timeliness of grant application submissions, opportunities for junior researchers to work on teams with established researchers, staff support that allows investigators to focus on the science, and decentralized resources.

Methods: Addressing obstacles and opportunities identified in the needs assessment, college leadership issued a call for proposals for Research Innovation Teams (RITe). Essential components of the applications for these "pre-centers" included a coherent theme that would foster innovative nursing science, diversity of membership including senior and junior faculty, high potential for NIH funding, and plans to develop NIH submission(s) in the current year and preliminary work to support future submissions. After external review four groups were awarded RITe designation and resources including staff support, assigned statistician, and dedicated team workspace, as well as $10,000 start-up funding and 0.2 FTE workload to be allocated by the team.

Outcomes: Preliminary evaluation indicates that the rate of planned and actual NIH submissions by all faculty increased over fourfold, although it is too early to judge funding success. Early stage investigators involved in RITe groups have enhanced productivity and expressed higher satisfaction with research support and mentorship. Senior investigator interaction with junior faculty increased substantially.

Conclusions: Evidence-based environmental and structural intervention focusing on targeted resource enhancement and team approaches to science is a promising approach to increasing research productivity in schools of nursing.

CREATIVE LEADERSHIP APPROACHES TO RECURRENT ISSUES IN NURSING ACADEMIA

Measuring and Improving Faculty Satisfaction

Lauren Clark, RN, PhD
Professor
College of Nursing
University of Utah
Salt Lake City, UT

Stephanie J. Richardson, RN, PhD
Associate Professor
College of Nursing
University of Utah
Salt Lake City, UT

Purpose: Retaining faculty is critical in this time of shortage. In colleges of nursing, understanding and improving faculty satisfaction is a worthwhile retention effort. Our purpose is to explore contemporary best practices in measuring and improving faculty satisfaction among nursing faculties.

Background: Professors have greater autonomy than the average American worker, and report higher job satisfaction. Public, rather than private universities, have the most satisfied professors. Despite the autonomy and satisfaction derived from their work, professors sacrifice leisure time, reporting an average work-week of 53 hrs, compared to a typical full-time American worker logging about 43 hours/week on the job. A nursing professor works 56 hours/week on average. Not surprisingly, a sizeable proportion of nursing faculty report feeling dissatisfied with their current workload and anticipate leaving their current academic posts in hopes of finding a reduced workload at a different university or in clinical practice. Satisfaction is considered a function of both the workload and other job conditions combined with the accountability of the employee for his or her own satisfaction.

Process: Using locus-of-control theory, we re-worked questions in a legacy faculty satisfaction survey. Questions addressed faculty awareness of workplace mechanisms, opportunities, and norms, as well as understanding of one's potential to progress in retention, promotion, and tenure. We added questions to allow a known-groups approach to establishing construct validity (Wakeman, 2010). Next, we generated an accountability score and analyzed satisfaction results on the basis of high and low accountability as a proxy for locus-of-control. The result was a survey with 33 likert-type items and 2 open-ended questions. The revised, anonymous, annual survey was administered electronically for two years.

Outcomes: Faculty Satisfaction Survey data were used to inform college and division annual goals. Our primary difficulty with the survey was with its construct validity; as a measure of satisfaction there was no way to discriminate between global dissatisfiers in higher education, those within college-level administrative purview, and those for which faculty themselves were responsible. Trends over time in satisfaction by personal accountability scores were generally in the expected direction. College-wide, an index of faculty collegiality continues to trend upwards on an annual basis. The open-ended questions were analyzed for both overt categories of dis/satisfaction as well as interpretive themes. Qualitative results pointed to an over-arching process challenge in the College regarding communication that transected more discrete concerns about promotion, pay, and workload.

Conclusions: Retaining valuable nursing faculty and nurturing a workplace culture of civility, respect, and trust remains a priority. Best practices suggest periodic monitoring of faculty satisfaction, establishing goals to address strengths and needs at the program, division, and college-level, and acknowledging the power of workplace communication to construct narratives of how satisfied we are and how we can change our worklife and community norms to become more satisfied.

CREATIVE LEADERSHIP APPROACHES TO RECURRENT ISSUES IN NURSING ACADEMIA

Enriching Mentoring Programs for Faculty

Stephanie J. Richardson, RN, PhD
Associate Professor
College of Nursing
University of Utah
Salt Lake City, UT

Ginette A. Pepper, PhD, RN
Professor
College of Nursing
University of Utah
Salt Lake City, UT

Lauren Clark, RN, PhD
Professor
College of Nursing
University of Utah
Salt Lake City, UT

Purpose: Newer faculty appointed to both the auxiliary and tenure-tracks at all ranks enter the academy with various developmental and progression strengths and requirements. Similarly, established faculty who retool or update their credentials may discover curious gaps or misperceptions in their knowledge of life in the academy. Our purpose was to develop a collection of facilitated group-based peer mentoring approaches that would be flexible enough to address a variety of faculty development needs and opportunities.

Background: No one person or program could possibly fill all the mentoring needs of newer faculty, and one-on-one mentoring is no longer feasible in light of the declining numbers of seasoned faculty in our ranks. Administrators were eager to capitalize on the initial investment in newer faculty and to retain established faculty who found themselves at a professional crossroads. From a faculty perspective, solid educational preparation in practice and research missions was coupled with a desire to succeed in academia. A bolus of pre-tenured faculty and an influx of newly-prepared DNP faculty, some of whom had been faculty prior to earning their doctorates, needed administrative support to gain competence in a context of bureaucratic complexities and higher education culture.

Process: We began with two formal group mentoring programs, one for pre-tenured faculty and one for DNP-prepared faculty who were on the auxiliary track. Both groups met monthly and followed a curriculum designed to cover such issues as faculty governance, academic freedom, promotion and retention, and diversity in higher education. For the tenure-track group, criteria for tenure was a topic of intense discussion while the many forms of scholarship was a central issue for the DNP faculty. We adjusted the formal mentoring group curricula with feedback from participants, and added a book group for faculty who felt excluded from group mentoring conversations.

Outcomes: All ten pre-tenured faculty participating in group mentoring have successfully met milestones for review, promotion, and tenure, with one exception. For the DNP prepared faculty, all have been retained and all who applied have been awarded promotion in rank.

Conclusions: Group mentoring programs, particularly when offered over time and in concert, are an effective way to meet the development needs of new and mid-career faculty. Participant collegiality can be expected to increase. Group mentoring programs may become part of a strategic plan aimed at important initiatives, such as fostering faculty retention, promotion, and productive scholarship.

Home ◀ ▶ go to PG.

CTSA'S IN THE WEST: COLLABORATIVE OPPORTUNITIES FOR NURSE SCIENTISTS

Moderator:
Heather M. Young, PhD, RN, FAAN
Associate Vice Chancellor for Nursing
Dean and Professor
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

OVERVIEW: CTSA'S IN THE WEST: COLLABORATIVE OPPORTUNITIES FOR NURSE SCIENTISTS

Heather M. Young, Sheridan Miyamoto

EXPERIENCES OF TWO STUDENTS IN THE TL1 TRAINING PROGRAM

Grace A. Kline, Erin Abu-Rish

NURSING COLLABORATION IN CLINICAL TRANSLATIONAL RESEARCH AT UC IRVINE

Ellen Olshansky, Ruth Mulnard, Jill Berg, Jung Ah-Lee, Sarah Choi, Yuqing Guo, E. Alison Holman, Julie Rousseau

---

KL2 SCHOLAR AND MENTOR EXPERIENCES

Heather Leutwyler, Kathryn Lee

UTILIZATION OF A CLINICAL AND TRANSLATIONAL SCIENCE CENTER TO ADVANCE NURSING SCIENCE

Sheridan Miyamoto, Heather M. Young, Deborah Ward

INSTITUTE FOR TRANSLATIONAL HEALTH SCIENCES: NURSING ENGAGEMENT AND LEADERSHIP

JoAnne D. Whitney, Pamela H. Mitchell

CTSA'S IN THE WEST: COLLABORATIVE OPPORTUNITIES FOR NURSE SCIENTISTS

Overview: CTSA's in the West: Collaborative Opportunities for Nurse Scientists

Heather M. Young, PhD, RN, FAAN
Associate Vice Chancellor for Nursing
Dean and Professor
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Sheridan Miyamoto, MSN, RN
PhD Candidate, Project Manager
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Purpose: This symposium will present an array of opportunities available through the Clinical and Translational Science Centers throughout the Western region for consideration by faculty, students and fellows. It will highlight accomplishments of nurse scientists conducting nursing research within this network.

Background: The mission of the NIH-funded Clinical and Translational Science Awards (CTSA) program is to support innovative, team-based research to advance science and speed the translation of discovery to practical, timely applications to improve health. Since 2006, a number of centers have been funded at universities in the West, and nurse scientists have been engaged in leadership, conducting research, and as scholars and fellows. In addition, a national network of CTSA Nurse Scientists has formed, with strong connections to the regional nursing research associations. This symposium is an outgrowth of annual gatherings of involved nurse scientists at the Western Institute of Nursing and brings together collaborators from across our region.

Presentation: This symposium will feature a brief overview of the location and focus of the CTSAs in the region, followed by five presentations from four of the western CTSA Centers. The first will describe the integration of nurse scientists in the application and governance of a CTSA, including collaborative partnerships that leverage opportunities for nurses. The second will describe the KL2 scholar program offered from a CTSA from both the scholar's and the mentor's perspectives. This program provides career development support for faculty over a 4-5 year period. The third paper will describe the experiences of two doctoral students as TL1 trainees within the CTSA including how they have taken advantage of the opportunity and suggestions for other doctoral students interested in such an experience. The fourth paper will provide an overview from the perspective of senior nurse scientists regarding collaborative interprofessional opportunities at the university and at the national level from a mature CTSA Center. The final paper presents an example of utilization of CTSA resources to conduct research, including obtaining funding for the study and gaining access to grant writing, statistical, clinical research nurse and evaluation resources.

Conclusion: As research funding becomes more competitive and interprofessional approaches to complex questions in health are increasingly rewarded, CTSAs offer rich sources of opportunity for nurse scientists to engage in new collaborations.

Home ◀ ▶ go to PG.

CTSA'S IN THE WEST: COLLABORATIVE OPPORTUNITIES FOR NURSE SCIENTISTS

Experiences of Two Students in the TL1 Training Program

Grace A. Kline, PhC, MN, RN
Doctoral Student
School of Nursing
University of Washington
Seattle, WA

Erin Abu-Rish, BA/BSN, MA, RN
Doctoral Student
School of Nursing
University of Washington
Seattle, WA

Aim: The aim of this presentation is to describe theTL-1 Traineeship program experiences of two doctoral nursing students.

The Institute for Translational Health Sciences (ITHS) is the CTSA at the University of Washington. ITHS provides opportunities for developing interdisciplinary relationships and translational research skills for researchers at all levels. The TL1 training program serves twelve pre-doctoral students each year from six schools within the health sciences: Nursing, Medicine, Pharmacy, Dentistry, Social Work, and Public Health. This year-long program includes seminars, coursework, bio-ethics training, and additional opportunities for developing inter-professional relationships. Joint trainings for the TL1 and KL2 programs provide for interactions between pre and post-doctoral scholars on topics that promote not only scientific research, but also professional development including publication, grant funding, and mentorship.

Grace Kline: The inter-disciplinary support of my dissertation research study, titled Pain of Osteoarthritis in Women: Environment Research, was enhanced through my involvement in the TL1 program. I developed a more formal mentorship arrangement among the members of my supervisory committee, which increased their commitment and clarified the contributions from different disciplines. Informal interactions among TL1 and KL2 scholars were promoted by sharing office space. For example, a KL2 scholar helped me with resolving a database issue through use of a data management program supported by the ITHS: Research Electronic Data Capture (REDCap). The TL1 program made a tremendous contribution toward an increased depth and breadth in my understanding of health sciences research.

Erin Abu-Rish: TL1 support during the 2011-2012 and 2012-2013 academic years has allowed me to pursue additional course work and develop knowledge and analytic skills in epidemiologic and health services research methods. These courses have better equipped me to pursue my dissertation research into the impacts of the recent recession on local public health budget cuts and maternal child health disparities. In addition to coursework, faculty/staff support and funding supported me in carrying out research activities (e.g. conducting in-person key informant interviews) and participating in relevant conferences. Conference attendance, including the opportunity to present at the annual national TL1 conference, helped me to build my presentation skills and develop important connections within the interdisciplinary field of public health systems and services research. Overall, participation in the TL1 has, and continues to, support and accelerate my development as a translational health researcher.

Implications: The TL1 training program promotes translational research and inter-professional skill development by providing opportunities to practice working/learning together with scientists from different disciplines.

Funding: This work is funded under NCRR Grant TL1 RR 025016.

Home ◀ ▶ go to PG.

CTSA'S IN THE WEST: COLLABORATIVE OPPORTUNITIES FOR NURSE SCIENTISTS

Nursing Collaboration in Clinical Translational Research at UC Irvine

Ellen Olshansky, Ruth Mulnard, Jill Berg, Jung Ah-Lee, Sarah Choi, Yuqing Guo,
E. Alison Holman, Julie Rousseau

Purpose/Aims: This presentation highlights the collaboration between the Nursing Science faculty at (blinded) CTSA across the campus, with the goal of providing examples of how nursing can have a strong voice in their own CTSAs.

Rationale/Background: With funding by NIH of CTSAs across the country, nurse scientists must be vigilant about becoming and maintaining centrally involved in the CTSAs, working collaboratively with researchers in various health science professions. This CTSA has a strong nursing presence in leadership and funding for translational science projects.

Description of the Approach: During the development of the CTSA, a senior faculty member in nursing was integrally involved and was named Associate Director, with primary leadership of the Scientific Review, Resource Allocation, IRB Liaison, and Clinical Research Resources Functions of the Center. She is also liaison from the CTSA to the nursing faculty. Two senior faculty members serve on the Leadership Team of the Community Engagement Unit (CEU), working in partnership with faculty across the campus and with community agencies to create collaborative research projects guided by concepts of community-based participatory research. One faculty member is a Robert Wood Johnson Nurse Faculty Scholar, and she received additional funding from our CTSA to support a lecture series on clinical translational research. Through this funding we were able to bring out several speakers on clinical translational research. The Nursing Science Program Director regularly participates in the phone conferences of the Nurses Special Interest Group of the CTSAs across the country.

Outcomes: Two faculty members were each awarded the Chancellor's Award for Outstanding Community Nursing Research, through the CEU. Another senior faculty member was funded for a Team Building Conference to forge a better partnership between clinical and research professionals in the community. Two faculty members were also funded for a Team Building Conference to develop a strategic research plan in partnership with a new park being developed in the community. A junior faculty member received a Campus Community Research Incubator (CCRI) grant to study hip-fractured older adults and family caregivers' knowledge of venous-thrombo-embolism prevention and satisfaction with education, adherence to medication, and quality of life. Another junior faculty member in collaboration with two other faculty, received a CCRI grant to collaborate with a non-profit organization for under-served mothers and babies, to analyze data on effectiveness of the home visitation services that are an integral part of this organization's model. Another junior faculty received a KL2 career development award for her research in diabetes self-management in the Korean community.

Conclusions: The Nursing Science faculty members have developed and maintain a strong presence in our CTSA, ensuring that nursing is a key player in health sciences research across campus.

Home ◀ ▶ go to PG.

CTSA'S IN THE WEST: COLLABORATIVE OPPORTUNITIES FOR NURSE SCIENTISTS

KL2 Scholar and Mentor Experiences

Heather Leutwyler, RN, PhD, FNP-BC, CNS
Assistant Professor
Department of Physiological Nursing
University of California, San Francisco
San Francisco, CA

Kathryn Lee, RN, PhD, FAAN, CBSM
Associate Dean for Research
Professor and James and Marjorie Livingston Endowed Chair
Family Health Care Nursing
University of California, San Francisco
San Francisco, CA

Background and Purpose: The UCSF Clinical and Translational Science Institute Career Development Program (CTSI KL2) is supported by the CTSI and the four UCSF schools (Nursing, Medicine, Dentistry, and Pharmacy). The purpose of this presentation is to provide an overview of the Kl2 program at UCSF and to share the experience of a KL2 scholar and a KL2 mentor from the School of Nursing.

Description of the KL2 Program: Approximately 5-6 scholars are selected for a career development award through a competitive application process. Scholars receive 4-5 years of salary support for 75% effort to pursue multidisciplinary clinical research with structured training and mentoring. Clinical research is broadly defined to include everything except pure science and the program emphasizes T1 and T2 translational research. The program includes an option to pursue a master's degree in clinical research and funds of at least $22,000 per year for research, tuition and travel. Works in Progress (WIP) group sessions are held weekly. Methodology seminars and access to expert faculty are readily available.

Outcomes: The goal of the program is to increase the number and quality of high caliber clinical investigators skilled at leading multidisciplinary research teams and to promote research that will have an important impact on the health of the public. The program provides investigators with the resources, training, and expertise to competitively apply for an R01 or equivalent grant. As an Assistant Professor nurse faculty in the tenure track role, the Kl2 program is providing the necessary protected time, resources, networking, and training to launch a productive program of research. As a KL2 mentor for scholars in other disciplines, a nursing perspective has been an important component of broadening research questions from another discipline to include more patient-centered outcomes that take advantage of nurses' expertise.

Conclusion: The UCSF CSTI KL2 scholars program is an ideal starting point for assistant professors in a research-intensive environment to develop a successful multidisciplinary program of research. It is also a rewarding experience for a mentor to bring a discipline's perspective to the mentees.

Funding: This work was supported by the National Center for Research Resources (grant KL2R024130) and the NIH CTSA (UL RR024131-06).

CTSA'S IN THE WEST: COLLABORATIVE OPPORTUNITIES FOR NURSE SCIENTISTS

Utilization of a Clinical and Translational Science Center to Advance Nursing Science

Sheridan Miyamoto, MSN, RN, PhD Candidate
Project Manager, Research Nurse
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Heather M. Young, PhD, RN, FAAN
Associate Vice Chancellor for Nursing,
Dean and Professor
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Deborah Ward, PhD, RN, FAAN
Associate Dean and Health Sciences
Associate Professor
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Purpose: This presentation will focus on how the resources of a Clinical and Translational Science Center were utilized to support novel nursing research in rural settings.

Background: The mission of the Clinical and Translational Science Awards (CTSA) program is to support innovative, team-based research to advance science and speed the translation of discovery to practical, timely applications to improve health. UC Davis was one of twelve institutions initially funded as CTSA awardees in 2006 and the program has grown to 60 health care research institutions in 2011.

Process: The resources of the CTSA offer an opportunity for nurse researchers to participate in team research and to contribute the vantage point of nursing's unique insight into how to improve health. This session presents a research study of the use of telehealth for health promotion among rural diabetics led by nurse scientists and supported by CTSA resources. It will highlight how nurse researchers can engage with a CTSA and access services to assist in the translation of nursing discovery. Focus areas will include 1) how to demonstrate the value of inclusion of nursing scientists within a CTSA and how to construct interdisciplinary teams; 2) working with a CTSA to identify funding opportunities; 3) accessing grant writing support; 4) how to utilize informatics and clinical resources at CTSA to further research and translation objectives; 5) how and why researchers should partner with an Evaluation team; and 6) educational and advancement opportunities for students, post-doctoral scholars and junior faculty.

Outcomes Achieved: Specific examples of how the resources utilized within the CTSA supported and added to the success of this research project will be presented.

Conclusion: Increasingly, funders recognize the increased quality of research discovery and translation resulting from team science. In the realm of healthcare research, it is critical that nursing scientists be part of the team in order to advance the health of those we care for. CTSAs offer rich sources of opportunity for nurse researcher engagement and support.

Home ◀ ▶ go to PG.

CTSA'S IN THE WEST: COLLABORATIVE OPPORTUNITIES FOR NURSE SCIENTISTS

Institute for Translational Health Sciences: Nursing Engagement and Leadership

JoAnne D. Whitney, PhD, RN,
FAAN, CWCN
Associate Dean for Research
Harborview Medical Center Endowed
Professor in Critical Care Nursing
Biobehavioral Nursing and Health Systems
University of Washington
Seattle, WA

Pamela H. Mitchell, PhD, RN,
FAHA, FAAN
Robert G. and Jean A. Reid Dean
in Nursing (Interim)
Professor
Biobehavioral Nursing and Health Systems
University of Washington
Seattle, WA

Purpose: This presentation describes the leadership of nursing faculty at the University of Washington, School of Nursing (UW SoN) within the Institute for Translational Health Sciences (ITHS), the involvement of UW nurse students and scholars and the benefits and outcomes related to the engagement of nursing in the ITHS.

Background: The UW ITHS is a collaboration between the University of Washington, the Fred Hutchinson Cancer Research Center and Seattle Children's Center. The ITHS, beginning its sixth year of NIH support, is a "collaboratory" providing resources to support translational science throughout the 5-state WAMI (Washington, Wyoming, Alaska, Montana and Idaho) region. Since its establishment in 2007, SoN faculty have actively participated and contributed to the mission of the ITHS to promote and train multidisciplinary, research teams and provide resources that facilitate translational research that offers effective solutions to health issues in our region.

Brief Description: UW SoN faculty play central roles in core ITHS services. Since its beginning, faculty have collaborated with other disciplines in leading the translational research predoctoral (TL1) and post doctoral (KL2) training programs as Director of the ITHS Education Core, program director (TL1) and members of the KL2 scholar selection committee. Nurse faculty also direct the Center for Scientific Review and the Research Coordinator Mentoring and Training, implementing the ITHS pilot funding program and providing continuing research training to investigators and research staff. SoN faculty and predoctoral students have been awarded translational training scholarships through the inter-professional and highly competitive translational research training programs. Faculty are often invited speakers in the mentoring and career development series and reviewers for pilot study applications. In addition, the SoN Center for the Management of Sleep Disorders resources and pilot projects are integrated with the ITHS.

Outcomes: SoN faculty have contributed significantly to the development of the ITHS in the first award period and continue to provide leadership. Three SoN faculty and 7 predoctoral students have completed the KL2 and TL1 programs respectively. Several nurse researchers have received funding support. ITHS involvement has led to national efforts: one of the SoN faculty was instrumental in creating the NIH Nurse-Scientist Special Interest Group and continues this leadership that links nurse investigators across CTSAs.

Conclusion: SoN faculty and student engagement in the ITHS provides opportunities for multidisciplinary collaboration that is essential for the advancement of translational science.

Home ◀ ▶ go to PG.

CULTIVATING NURSE LEADERS: A FRAMEWORK FOR NURSING EDUCATION IN VULNERABLE POPULATIONS

Moderator:
Janelle Palacios, RN, CNM, PhD
Doctoral Fellow, School of Nursing
University of California, Los Angeles
Los Angeles, CA

OVERVIEW: CULTIVATING NURSE LEADERS

Janelle Palacios, Felicia Schanche Hodge, Carol Rose DeLilly,
Teodocia Hayes-Bautista, Cynthia Albarran

DEVELOPING A NURSE LEADER EDUCATION IN VULNERABLE POPULATIONS AND HEALTH DISPARITIES

Felicia Schanche Hodge

NURSE LEADER EDUCATION: VULNERABLE POPULATIONS AND HEALTH DISPARITIES RESEARCH

Teodocia Maria Hayes-Bautista

VULNERABLE POPULATIONS AND HEALTH DISPARITIES CONTRIBUTIONS OF T-32 FELLOWS

Carol Rose DeLilly

LEARNING HOW TO ESTABLISH COMMUNITY PARTNERSHIPS FOR VULNERABLE POPULATIONS RESEARCH

Cynthia R. Albarrán

Home

◀ ▶ go to PG.

CULTIVATING NURSE LEADERS: A FRAMEWORK FOR NURSING EDUCATION IN VULNERABLE POPULATIONS

Overview: Cultivating Nurse Leaders

Janelle Palacios, RN, CNM, PhD
Doctoral Fellow, School of Nursing
University of California, Los Angeles
Los Angeles, CA

Felicia Schanche Hodge, DrPH
Professor
School of Nursing and Public Health
University of California, Los Angeles
Los Angeles, CA

Carol Rose DeLilly, RN, MSN
Doctoral Student
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Teodocia Hayes-Bautista, RN, MPH, PhD(c)
Doctoral Student
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Cynthia Albarran, RN, MS, CNS, PhD(c)
Doctoral Student
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Purpose: To understand the process of developing and implementing a successful pre and postdoctoral T-32 Fellows program at a School of Nursing that works with vulnerable populations aiming to reduce health disparities.

Rationale: Health disparities persist, especially among vulnerable populations. Few programs have targeted the task of mentoring and guiding new nurse scientists into developing a research trajectory with vulnerable populations aiming to decrease health disparities.

Approaches Taken: Frequencies of hallmark outcomes among past and current Fellows illustrate the success of this program. Self reflection and presented cases give examples of various aspects of this program.

Outcomes Achieved: A historical background demonstrates the need for the pre and postdoctoral nursing leader Fellows program. A Nursing Fellows Framework, developed by a pre doctoral student, demonstrates aspects that help nurture burgeoning nurse leader qualities. Scholarship of past and recent research projects are shared to demonstrate the diversity and breadth of inquiries originating from this program. Finally, community based participatory research from a student perspective illustrates potential avenues for future Fellows to pursue when collaborating with vulnerable populations.

Conclusions: From the breadth of activities and markers of successful nursing scientists who participated in the Fellows program, we surmise that this T-32 Fellows Program effectively cultivates future nursing leaders.

Funding: NIH/NINR T32 NR007077 Vulnerable Populations/Health Disparities Training.

Home

go to PG.

CULTIVATING NURSE LEADERS: A FRAMEWORK FOR NURSING EDUCATION IN VULNERABLE POPULATIONS

Developing a Nurse Leader Education in Vulnerable Populations and Health Disparities

Felicia Schanche Hodge, DrPH
Professor, School of Nursing
University of California, Los Angeles
Los Angeles, CA

Purpose: The overall aim is to report on the development and implementation of the highly successful pre and postdoctoral Fellows program at a School of Nursing. A second aim is to develop a cadre of nurse scientist from vulnerable/health disparities population.
Rationale: Despite progress in a number of areas, health disparities continue to exist in key health indicators among vulnerable populations (VPs) compared to the overall population and, in some areas, continue to worsen. Reasons for health disparities include differences in resource availability, risk factors, lack of access to health care, inadequately targeted prevention messages, and cultural differences between the health care system and the population it serves. Studies show that ethnic/racial minorities are much less likely than Whites to receive services such as clinically necessary procedures, and disparities exist in the occurrence of many diseases including cancer, cardiovascular disease, and infectious diseases such as HIV/AIDS, diabetes, and mental illness. Eliminating disparities requires continued knowledge development surrounding factors contributing to diseases and causes of such disparities. One approach to reducing disparities includes culturally appropriate, effective interventions for prevention and treatment; as well as enhancing methods of improving access and acceptability of quality health services. Another approach includes developing innovative methodologies for working in partnership with communities, community-based organizations, health care systems, and state/local governments.
Approach: A 16-year history of recruiting and training nurse scholars in pre and postdoctoral education emphasizing methods and measures strengthens the approaches for ameliorating VP health disparities. Attention is given to a comprehensive scientific foundation, coupled with strong mentorship and training experience: a) a conceptual framework for training/study, b) development of the health knowledge base of VPs and health disparities, c) development of participatory research methods, d) consideration of methodologic challenges, and e) ethical issues in VP research. A summer session provides courses/expanded experience in health disparities in rural/urban sites (i.e., homeless and Indian reservations).
Outcomes Achieved: Four current trainees and 34 pre and postdoctoral trainees participated in the T32 Fellows program. Their impact can be measured by the many publications (over 150) and their areas of research (over 20) dedicated to ameliorating VP health disparities, such as the homeless, fragility, drug abuser, infants, and ethnic minorities. The program has trained over 22 Fellows from historically marginalized populations, and has six of scientist at universities who help promote the continued membership in the Fellows program.
Conclusions: Implications for educational and training practices for nurses include targeted sessions on methods and measures for VP health disparities coupled with empirical knowledge in VP populations at sites where trained cohorts can gain practical experience.

Funding: NIH/NINR T32 NR007077 Vulnerable Populations/Health Disparities Training.

CULTIVATING NURSE LEADERS: A FRAMEWORK FOR NURSING EDUCATION IN VULNERABLE POPULATIONS

Nurse Leader Education: Vulnerable Populations and Health Disparities Research

Teodocia Maria Hayes-Bautista, RN, MPH, PhDc
Doctoral Student, School of Nursing
University of California, Los Angeles
Los Angeles, CA

Purpose: To present the features of a Nursing Fellows apprenticeship through the personal and professional experiences of a student.

Background: The School of Nursing Fellow Program provided me the opportunity to develop my research skills by providing me with a stable source of academic support which included mentoring, counseling and skill development. In addition, the camaraderie and endless emotional support of other fellows created an intellectually stimulating environment. The Nursing Fellows faculty invited me to apply for the T32 Fellows Program in my second year of doctoral work. I was selected as a Fellow because my interest in vulnerable populations and health disparities was evident in my choice of program curriculum, and I had first-hand experience with the health, social, economic and political conditions of vulnerable populations.

Methods: Self reflection determined the key outcomes of a framework for understanding how the Nursing Fellows T-32 Program facilitated my nursing research leadership skills.

Outcomes: The Nurse Fellows framework works by: 1) Developing academic coping strategies; 2) Emphasizing the evolutionary nature of scholarship as a "work in progress;" 3) Stressing the importance of research work in health disparities and vulnerable populations; 4) Providing a safe forum for the open discussion of social, economic and political conditions as potential factors in the creation of inequities and health disparities; 5) Guiding me in the use of various quantitative public data sets and analytical statistical programs; 6) Providing me with the philosophical underpinnings of qualitative data analysis by evaluating their relevancy in pursuing specific research aims; 7) Helping me to develop habits for academic self- management; and 8) Increasing my social academic capital by integrating me into a community of scholars.

Conclusion: The School of Nursing Fellows framework for intellectual development helped me pursue a doctoral degree and compete successfully for the Ruth L. Kirschstein National Research Service Award (NRSA) NIH funding to support my research on the coping strategies used by Latina immigrant mothers whose sons have been incarcerated. I have completed the data collection, and have drafted three articles for submission on the following topics: mothering an incarcerated son; experiencing institutional betrayal; developing self-therapy.

Funding: NIH/NINR T32 NR007077 Vulnerable Populations/Health Disparities Training and NIH/NRSA 1F31NRO12862-01.

Home ◀ ▶ go to PG.

CULTIVATING NURSE LEADERS: A FRAMEWORK FOR NURSING EDUCATION IN VULNERABLE POPULATIONS

Vulnerable Populations and Health Disparities Contributions of T-32 Fellows

Carol Rose DeLilly, RN, MSN
Doctoral Student, School of Nursing
University of California, Los Angeles
Los Angeles, CA

Purpose: The aim of this presentation is to report the significant nursing research contributions of Fellows in studies among vulnerable populations and health disparities.
Rationale: Advancements in nursing science among vulnerable populations and health disparities (VP/HD) has experienced scientific growth at the molecular, genetic, physical, psychological and behavioral levels. Studies recognize the impact of NIH funded Fellows' contributions to VP/HD research that facilitate a wide-range of intervention outcomes. Yet, disparities remain. Risk factors for poor health outcomes are pronounced among many racial minorities, and these risks are confounded by a disproportionate representation of minorities in the lower socioeconomic tiers. Understanding under-represented cohorts has included research among substance abusers, sexual risks taking in women's health, premature newborn stress, access to care among minority and homeless elderly populations, represent a few of the studies explored by Fellows.
Undertaking: The School of Nursing Fellows research has included studies tailored to meet the specific needs of VP/HD research. For example, research training identifies vulnerable populations as those with a greater than average risk of developing health problems by virtue of their marginalized sociocultural status, their limited access to economic resources, or age and gender. VP/HD Fellows apply culturally sensitive theories and frameworks to inform social, psychological, and physical dimensions of health as applied to persons within a system context. To develop new health knowledge base among VP/HD, T-32 Fellows employ qualitative studies to generate emic data and quantitative studies to test hypothesis exploring relationships between individuals and communities on a variety of policy levels. T-32 Fellows research training includes educational development of community-based participatory research. Considerations of methodologic challenges include recruitment concerns, challenging study settings, managing biases, and understanding researcher ethnocentricities. Ethics in VP/HD includes access to and protection of VP/HD cohorts, such as American Indians, incarcerated persons, substance abusers, the very young and the elderly.
Outcomes: At least 5 ethnic/minority populations and 8 other vulnerable groups, representing age cohorts, gender, powerless (jailed) and marginalized populations have been identified and studied as a part of the Fellows program. Knowledge generated has included newborn stress measures (infant hair), perspectives of HIV sexual risk-taking, measures of frailty among homeless persons, exploration of immigrant health practices, and understanding barriers of chronic disease management.
Conclusions: The contributions of School of Nursing Fellows, trained in research methods and measures for addressing VP/HD is significant. This Nurse Fellows Program provides expert mentoring, education, training, and experience guiding methods and measures in the ethical conduct of research for VP/HD nurse researchers, educators, planners and interventionist in much needed areas of health care.

Funding: NIH/NINR T32 NR007077 Vulnerable Populations/Health Disparities.

Home ◀ ▶ go to PG.

CULTIVATING NURSE LEADERS: A FRAMEWORK FOR NURSING EDUCATION IN VULNERABLE POPULATIONS

Learning How to Establish Community Partnerships forVulnerable Populations Research

Cynthia R. Albarrán, RN, PhDc
Doctoral Candidate, School of Nursing
University of California, Los Angeles
Los Angeles, CA

Purpose: To highlight Community-Based Participatory Research (CBPR) as a useful strategy for early nursing scientists collaborating with vulnerable populations, using the presenter's ongoing doctoral research with migrant farmworker women as an example.

Background: CBPR involves members of the target community and/or research participants in the entire research process. Although CBPR is commonly used by experienced nurse researchers as a way to share knowledge, power, and benefits with vulnerable groups, it is uncommon for doctoral students to have sufficient time, funding, and mentorship to implement CBPR strategies. The T-32 Fellows program provides students with the necessary tools and support to begin implementing CBPR techniques in dissertation research. One example of this is the presenter's ongoing research with migrant farmworker women in California. Female migrant farmworkers in California are mainly of Mexican origin, monolingual Spanish speaking, lack health insurance, and are at risk for HIV acquisition. Vulnerability to HIV appears to be related to multiple realities faced by migrant women, including interpersonal violence, partner infidelity, poverty, and spatial mobility. Qualitative research with migrant women can shed light into their unique experiences with and perceptions of HIV risk, paving the way for future nursing and public health interventions.

Approach: Through mentorship with several faculty experienced in CBPR, a modified CBPR approach was chosen. Self-reflection of the presenter's experience is provided.

Outcomes: Community partnerships were established and a Community Advisory Board was formed. Ongoing communication with key contacts and research sites in two locations along California's migrant stream are being maintained. Special attention is given to the power balance between academic and community partners. Challenges related to partnering with the target community for doctoral research include: 1) determining which aspects of CBPR were feasible to implement, 2) encouraging sensitivity regarding the research topic, 3) protecting anonymity of research participants, 4) nurturing an on-going relationship with a mobile population, 5) building trust as an outsider. Dissemination plans include a primary focus on using research results to impact program development and/or future intervention research targeting HIV risk reduction for migrant women in these communities.

Conclusions: Incorporating CBPR approaches in nurse researcher training programs is essential to prepare a cadre of nurse leaders prepared to partner with vulnerable populations. The T-32 Fellows Program is uniquely positioned to train nurse researchers in processes for partnering with vulnerable communities.

Funding: The project described was supported by grant number F31NR013101 from the National Institutes of Nursing Research and NIH/NINR T32 NR007077 Vulnerable Populations/Health Disparities Training.

Home ◀ ▶ go to PG.

DETECTING AND CHARACTERIZING PATTERNS OF BEHAVIORAL SYMPTOMS OF DEMENTIA

Moderator:
Linda R. Phillips, RN, PhD, FAAN
School of Nursing
University of California, Los Angeles
Los Angeles, CA

OVERVIEW: DETECTING AND CHARACTERIZING PATTERNS OF BEHAVIORAL SYMPTOMS OF DEMENTIA

Diana Lynn Woods, Maria Yefimova, Haesook Kim

A CASE STUDY OF INTERACTION LEADING TO ESCALATION OF BEHAVIOR IN PERSONS WITH DEMENTIA

Maria Yefimova, Haesook Kim, Diana Lynn Woods

THE RELATIONSHIP BETWEEN DEMENTIA AND CULTURALLY APPROPRIATE INTERACTION AND BEHAVIORAL SYMPTOMS OF DEMENTIA

Haesook Kim, Maria Yefimova, Diana Lynn Woods

VALIDATING A NON-PHARMACOLOGICAL TREATMENT EFFECT FOR BSD USING PATTERN RECOGNITION

Diana Lynn Woods, Maria Yefimova, Haesook Kim

Home ◀ ▶ go to PG.

DETECTING AND CHARACTERIZING PATTERNS OF BEHAVIORAL SYMPTOMS OF DEMENTIA

Overview: Detecting and Characterizing Patterns of Behavioral Symptoms of Dementia

Diana Lynn Woods, PhD, APRN-BC, FGSA
Assistant Professor
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Maria Yefimova, RN, BS
Doctoral Student
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Haesook Kim, RN, PhD
School of Nursing
University of California, Los Angeles
Los Angeles, CA

The high prevalence of dementia among older adults over the age of 85 years, the fastest growing sector of the population in the United States, constitutes an impending health care crisis. One major contributor to the costs and distress experiences is the management of behavioral symptoms in persons with dementia (BSD), such as yelling, restlessness and wandering. There is a critical need for effective interventions that either prevent or reduce the occurrence of BSD. Part of the reason that we have failed to create satisfactory treatments that produce safe and consistent results is that currently we have very crude measures for outcomes. Outcomes are usually assessed with a single dichotomous indicator, focusing on either the presence or absence of a particularly troublesome behavior, rather than viewing behavior as occurring in a cluster. The current conceptualization of BSD leads to our inability to quantify and detect subtle behavior changes that might signify intervention responses or to appropriately detect and characterize these behaviors such that interventions can be tailored. Temporal pattern analysis (T-pattern) can be used to detect and characterize subtle behavior changes that might signify intervention responses. In this chapter we present work completed by our research team at the University of California, Los Angeles, School of Nursing using pattern recognition software, THEME 5.0. The aim of the following sections is first, to review and critique the current measurement strategies for BSD and their limitations, and second, to offer an alternative method of conceptualizing and analyzing behavioral data. The purpose of using THEME™ is to identify and quantify behavior patterns with regard to intensity, frequency and complexity. These temporal associations may reveal characteristics of behavior escalation, which in turn will enhance the tailoring and timing of interventions to reduce BSD burden. The T-pattern algorithm was used to detect and characterize BSD using videotaped and direct observation data. Three exemplars are presented: first, a case study of interaction leading to escalation of behavior, second, the relationship between dementia and culturally appropriate interaction and BSD, and third validating a non-pharmacological treatment effect on BSD. The analysis of the exemplar data is presented and discussed in the context of a direction for future research.

Funding: University of California, Los Angeles School of Nursing; Intramural University of California, Los Angeles, Academic Senate.

Home ◀ ▶ go to PG.

DETECTING AND CHARACTERIZING PATTERNS OF BEHAVIORAL SYMPTOMS OF DEMENTIA

A Case Study of Interaction Leading to Escalation of Behavior in Persons with Dementia

Maria Yefimova, RN, BS
Doctoral Student, School of Nursing
University of California, Los Angeles
Los Angeles, CA

Haesook Kim, RN, PhD, MN
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Diana Lynn Woods, PhD,
APRN-BC, FGSA
Assistant Professor, School of Nursing
University of California, Los Angeles
Los Angeles, CA

Background: Affect is closely related to behavior and can be a sign of unfulfilled needs that may prompt behavior. The quality of interaction with others influences affect and potentially, if positive, can alleviate outbursts of behavior or change the escalation trajectory of a behavior. Traditional analysis methods have been unable to successfully identify the relationship between affect, behavior and interaction. Pattern recognition (THEME™) was used to detect temporal patterns that may shed light on the relationships among affect, interaction and behavior. The ultimate goal is to provide an avenue for the development of tailored interventions.

Purpose: Use pattern recognition to detect behaviors that cluster with affect and interaction.

Method: The case study exemplar is a 93-year old Caucasian female with moderate-to-severe dementia who resides in a nursing home. A trained research assistant recoded behavioral symptoms of dementia (BSD), affect and interaction using videotaped observations. BSD was coded using modified Agitated Behavior Rating Scale (mABRS) (Woods & Dimond, 2002), an instrument that codes for both frequency and intensity of behavior. Affect and interaction behaviors were coded with the Observable Displays of Affect Scale (ODAS) Vogelpohl & Beck, 1997). Of the 18 20-minute videotapes recorded over a 4-day period, one videotape that demonstrated the majority of BSD was selected for further analysis using THEME™. THEME™ provides a method of detecting within individual sequential and non-sequential temporal patterns (T-patterns) of related behavior clusters that are not obvious to the trained observer or identifiable by traditional sequential methods.

Results: When visually observing the selected videotape, there is a direct temporal relationship between the interaction and behavior, however, the specific relationship is difficult to discern. Pattern recognition using THEME™ provided a more detailed picture of this behavior, yielding 1094 different behavior patterns with 4477 occurrences. Probability of a chance occurrence was .05. An occurrence of 3 times in a 20-minute period indicates that this pattern may be a fairly frequent pattern that may be predicted. The detected pattern suggests that once the person was left alone, she began exhibiting high intensity banging.

Implications: The clinical implication of detecting such a pattern is significant. If the type of behavior as well as the clustering of behavior shows a predictable pattern, then interventions can be developed and timed to prevent or decrease the manifestation of this pattern.

Funding: Grant Support: University of California, Los Angeles, Academic Senate Grant University of California, Los Angeles, School of Nursing Intramural Grant.

References:

Vogelpohl, T.S. & Beck, C.K. (1997) Affective Responses to Behavioral Interventions, *Seminars in Clinical Neuropsychiatry* 2, 102-112.

Woods, D.L. & Dimond, M. (2002) The Effect of Therapeutic Touch on Agitated Behavior and Cortisol in Persons with Alzheimer's Disease, *Biological Research in Nursing* 4, 104-114.

Home ◀ ▶ go to PG.

DETECTING AND CHARACTERIZING PATTERNS OF BEHAVIORAL SYMPTOMS OF DEMENTIA

The Relationship between Dementia and Culturally Appropriate Interaction and Behavioral Symptoms of Dementia

Haesook Kim, PhD, RN
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Maria Yefimova, RN, BS
Doctoral Student
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Diana Lynn Woods, PhD, APRN-BC, FGSA
Assistant Professor
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Ethnic minority elders in the United States are frequently cared by Certified Nursing Assistant (CNAs) who are from a different cultural background. This case study is a part of a larger study, (Kim et al. 2012) that focused on describing the association between the culturally competent care delivered by direct care staff to Korean American (KA) elders and behavioral symptoms of dementia (BSD). This case study focuses on detecting the social interaction between the resident with dementia and the CNA, and the influence of the CNA's cultural and dementia competent behaviors on BSD. We focus on two research questions: 1) using THEME™ can we validate the original findings from the parent study; 2) can THEME™ provide more discrete information about the specific high intensity troublesome behaviors.

Three CNAs' communication styles and a resident's BSD were directly observed and recorded by trained research assistants, while the CNAs assisted the resident's with activities of daily living twice daily, in the morning and in the afternoon. Six observations, three morning and three afternoon, over a 3-day period were used for analysis. The CNAs' communication styles were measured using the Dementia Social Interaction Scheme and the Culture Social Interaction Scheme developed to assess whether the CNAs used appropriate or inappropriate communication styles. Residents' BSD were assessed using the modified Agitation Behavior Rating Scale.

Results indicated that the CNAs' average percentage of culturally appropriate behaviors was 20% in the morning and 48% in the afternoon, while dementia appropriate behaviors were 89% in the morning and 67% in the afternoon. The average count of this residents' BSD across the three morning observations was 90 compared to 246 across the three afternoon observations. Pattern recognition using THEME™ detected specific patterns containing both communication styles and BSD. When the CNAs used simple and familiar words, the intensity of residents' BSD decreased. THEME™ results validated findings from the original study, showing a trend toward a decrease in BSD as dementia competent care increased especially in the afternoon. In conclusion, CNAs' communication styles may contribute to escalation/de-escalation of residents' BSD.

Funding: John A. Hartford Foundation Patricia Archbold Scholarship (formerly the John A. Hartford predoctoral scholarship).

Reference:

Kim, H., Woods, D. L., Phillips, L. R., Mentes, J., Martin, J. & Moon, A. *The Relationship between Direct-Care Staff's Competence in Social Interaction and Behavioral Symptoms in Korean-American Nursing Home Residents with Dementia*, 2012: University of California, Los Angeles.

DETECTING AND CHARACTERIZING PATTERNS OF BEHAVIORAL SYMPTOMS OF DEMENTIA

Validating a Non-Pharmacological Treatment Effect for BSD Using Pattern Recognition

Diana Lynn Woods, PhD, APRN-BC, FGSA
Assistant Professor, School of Nursing
University of California, Los Angeles
Los Angeles, CA

Maria Yefimova, RN, BS
Doctoral Student, School of Nursing
University of California, Los Angeles
Los Angeles, CA

Haesook Kim, PhD, RN
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Background: It is well known that behavioral symptoms of dementia (BSD)s such as yelling, restlessness and wandering, are some of the most difficult care problems faced by caregivers, consuming enormous amounts of time and effort. They are disruptive, and unsafe, resulting in fear and avoidance in caregivers, staff turnover, and accidents involving both elders and care providers. While current costs are estimated at upward of $200 billion a year, these costs are likely to triple in the next 30 years. While nonpharmacological interventions are recommended as a first line of treatment for BSDs, overall these treatments show only small to moderate effects. Part of the reason for the lack of consistent results is that we have very crude measures of outcomes. One strategy may be to use pattern recognition to detect complex behavior patterns of high intensity behavior and then to determine if these patterns are altered post intervention.

Purpose: Using pattern recognition to validate known results of a randomized clinical trial described elsewhere (Woods, Beck & Sinha, 2009). The original study evaluated the effect of therapeutic touch (TT) to decrease BSD in NH residents with dementia. The sample of 64 predominantly Caucasian participants aged 67-93 years, was randomized into three groups (experimental, placebo, and control). We used THEME™ to analyze to detect the number of behavior patterns in each of the 5 phases of the study over a 21-day period (baseline, treatment 1, post treatment 1, treatment 2, post treatment 2) and validate an intervention response.

Method: Behavioral data that had been aggregated within person across each phase of the study were entered into THEME™. The search settings were 1) minimum occurrence – 3, specifying that the pattern must occur at least 3 times; 2) Significance Level of < 0.05, specifying the probability of random occurrence. Filters were set such that only patterns containing high intensity behavior was detected. The % of behavioral clusters containing high intensity behaviors was calculated by dividing the number of patterns of high intensity behaviors by the total number of detected patterns. A mixed model was used to look at change in the %of high intensity patterns across the 5 phases.

Results: Results of the pattern recognition validated results in the original study, a significant decrease in restlessness from baseline to treatment 2. Furthermore, using THEME™ we were able to detect patterns that contained high intensity restlessness providing more discrete and specific information about which behaviors are included in these high intensity patterns, patterns that decreased significantly during treatment 2 phase.

Implications: We were able to identify specific BSD that are part of the high intensity restlessness pattern using THEME™, thus providing insight into behaviors that may be linked to an escalation pattern and which complex patterns responded to treatment.

Funding: Alzheimer's Association of America, New Investigator Award University of California, Los Angeles, School of Nursing Intramural Grant.

Reference:

Woods, D. L., Beck, C. & Sinha, K. (2009) The Effect of Therapeutic Touch on Behavioral Symptoms and Cortisol in Persons with Dementia., *Forschende Komplementärmedizin* 16 (2009), 181-189.

Home ◀ ▶ go to PG.

EMERGING CHALLENGES IN NURSING DOCTORAL PROGRAMS

Moderator:
Marie L. Lobo, PhD, RN, FAAN
Professor
College of Nursing
University of New Mexico
Albuquerque, NM

OVERVIEW: EMERGING CHALLENGES IN NURSING DOCTORAL PROGRAMS

Marie L. Lobo, Judith A. Berg, Nancy F. Woods, J. Kathy Magilvy

---

CONTEMPORARY CHALLENGES IN PHD NURSING PROGRAMS

Marie L. Lobo

DNP PROJECTS: LET'S ENSURE QUALITY

Judith A. Berg

TEAM SCIENCE AND DOCTORAL EDUCATION IN NURSING: COMPLEMENTARITY BETWEEN DNP AND PHD

Nancy F. Woods

CHALLENGES IN DISTANCE ACCESSIBLITY OF DOCTORAL EDUCATION

J. Kathy Magilvy

Home ◀ ▶ go to PG.

EMERGING CHALLENGES IN NURSING DOCTORAL PROGRAMS

Overview: Emerging Challenges in Nursing Doctoral Programs

Marie L. Lobo, PhD, RN, FAAN
Professor
College of Nursing
University of New Mexico
Albuquerque, NM

Judith A. Berg, PhD, RN, FAAN
Professor Emeritus
College of Nursing
The University of Arizona
Tucson, AZ

Nancy F. Woods, PhD, RN, FAAN
Professor and Dean Emeritus
School of Nursing
University of Washington
Seattle, WA

J. Kathy Magilvy, PhD, RN, FAAN
Professor, Associate Dean for Academic Programs, College of Nursing
University of Colorado, Denver
Denver, CO

The purpose of this symposium is to examine the challenges of educating nurses at the doctoral level, both for the attainment of a Doctor of Philosophy and a Doctor of Nursing Practice. There are currently 128 PhD programs listed by the American Association of Colleges of Nursing. The Commission on Collegiate Nursing Education has 184 accredited DNP programs and 4 programs are under consideration. The National League for Nursing Accrediting Commission has 7 accredited DNP programs and 5 programs under consideration. Thus, there is a need to consider the challenges in educating nurses at this level.

Contemporary Challenges in PhD Nursing Education: The introductory paper will address the contemporary debate of substance versus methods in PhD education. Early doctoral programs focused on students gaining in-depth knowledge around a specific problem encountered by nurses. Programs today are often focused on students learning specific research methods and analysis strategies. What are the costs and benefits to nursing knowledge with this change in focus?

DNP Projects: Let's Ensure Quality: A major challenge for DNP faculty is defining the capstone projects. How much depth should they include?

Team Science and Doctoral Education in Nursing: Complementarity between DNP and PhD Education: The third paper will focus on the use of team science for both PhD dissertations and DNP Capstone projects. How do students identify the unique piece of the science they need for their dissertation or project? How do they work within the structure of Clinical and Translational Science Centers? Models of capstone projects and dissertations will be presented.

Challenges in Distance Accessibility of Doctoral Education: The fourth paper will focus on emerging educational delivery methods. The challenges of online delivery of doctoral education will be discussed. The challenges of research assistantships and faculty mentoring in the online/distant environment will be discussed.

EMERGING CHALLENGES IN NURSING DOCTORAL PROGRAMS

Contemporary Challenges in PhD Nursing Programs

Marie L. Lobo, PhD, RN, FAAN
Professor
College of Nursing
University of New Mexico
Albuquerque, NM

Purpose: The purpose of this paper is to address the contemporary debate over the emphasis on research methods courses over substance courses in Doctor of Philosophy (PhD) in Nursing programs.

Background: There has been an explosion of PhD in Nursing programs in recent years. In 1978, there were 25 PhD or Doctor of Nursing Science (DNS) programs in the United States; by 2012, there were 128 PhD programs and 5 DNS programs. The content of these programs varies greatly. Traditionally, when students enter a PhD program, they become immersed in the literature and science focused on their phenomenon of interest. This may include multiple courses in nursing concentrating on the phenomenon and/or courses from a single or multiple disciplines focused on that phenomenon. When students are not exposed to in-depth study of the knowledge around their phenomenon or the methods that have previously been applied to develop that knowledge, how does it affect their development as scholars?

Approach: Today, many nursing PhD programs require students to obtain in-depth knowledge about research methods, including quantitative, qualitative and mixed methods. Students are expected to immerse themselves in methods, obtain the information they need about the substantive knowledge base from readings, and apply what they are learning in their methods courses. What do students gain or lose by their lack of in-depth knowledge about the phenomenon they wish to study?

Outcomes: How does the lack of in-depth knowledge about the phenomenon, which might otherwise be developed through targeted course work, affect the development of the nurse scientist? Dissertations may have strong methods but lack sufficient depth in the knowledge of the phenomenon the student is studying. How does the student gain the needed depth of knowledge while learning the methods without lengthening programs?

Conclusions: This paper generates a number of questions: How is content determined in PhD in Nursing programs? How do the outcomes differ when the emphasis is on methods versus substance? What is the best strategy to prepare future nurse scientists?

EMERGING CHALLENGES IN NURSING DOCTORAL PROGRAMS

DNP Projects: Let's Ensure Quality

Judith A. Berg, PhD, RN, WHNP-BC, FAAN, FAANP
Clinical Professor
College of Nursing
The University of Arizona
Tucson, AZ

Purposes/Aims: The purpose of this presentation is to highlight the challenge of ensuring quality in DNP capstone projects. While there is much debate about the types of capstone projects students may undertake, the issue of rigor and quality is less often discussed.

Rationale/Background: The Doctor of Nursing Practice (DNP) is a clinical doctoral degree that must be worthy of that designation. The capstone project vehicle is utilized as the final work product rather than the traditional dissertation undertaken by PhD in Nursing students. To assure the merit, rigor, and quality of DNP capstone projects, guidelines are proposed.

Brief Description: In order to propose guidelines to ensure quality, a number of documents were examined, including the NONPF 2007 Recommended Criteria for NP Scholarly Projects in the Practice Doctorate Program, websites from five schools of nursing with capstone project guidelines, and discussions with colleagues.

Outcomes: From these analysis, guidelines were developed that include recommendations for project type and composition (must have a background and significance, problem statement and purpose, theoretical framework and literature synthesis with critique, project design, results or outcomes, and evaluation data). Recommendations also include committee composition (must have content, theory, and methods experts). It is proposed that all DNP projects be part of a quality assurance initiative in which DNP/PhD faculty sample a percent of DNP projects each year and score them for quality and rigor. Those data shared with all faculty who advise DNP students and/or supervise DNP projects. In this way, quality can be bolstered and open a dialog about ways to improve DNP project quality.

Conclusions: Careful attention must be paid to assuring rigor and quality in DNP capstone projects. This is important for gaining and maintaining recognition and respect of our clinical doctorate from health care colleagues and our students. Basic steps to implement quality assurance may be an important way to bolster quality while attending to the rigor of the entire process. This information is important to all nurses who are embarking upon a DNP program and/or their capstone project. More, it is important to continue to refine and attend to quality in all of our educational programs.

Objectives:
1. Attendees will be able to list the steps needed to improve quality and rigor in DNP projects.
2. Attendees will be able to state the differences between PhD and DNP final work products.

Home

go to PG.

EMERGING CHALLENGES IN NURSING DOCTORAL PROGRAMS

Team Science and Doctoral Education in Nursing: Complementarity between DNP and PhD

Nancy F. Woods, PhD, RN, FAAN
Professor and Dean Emeritus
School of Nursing
University of Washington
Seattle, WA

Team Science is an area of emphasis nationally with the advent of studies of genomics, proteomics, and metabolomics which necessitate the engagement of large interdisciplinary teams to advance this research. At the same time, there is national emphasis on the importance of interprofessional education with initiatives being sponsored by the Macy Foundation and the Health Resources and Services Administration as well as advocated in international circles.

The **purpose** of this paper is to: 1) identify opportunities for nursing investigators and advanced practice clinicians in PhD and DNP programs to engage in team science; 2) explicate models for intra- and inter-professional collaboration on initiatives; and 3) propose opportunities for future engagement of both PhD and DNP graduates in advancing translational research.

Approaches: Published information about PhD research and DNP practice inquiry opportunities as well as models that could be supported by CTSAs and funders of interprofessional education have been reviewed and will be integrated, with differentiation of the outcomes and contributions of types of nursing doctoral programs. Updates on models of capstone projects conducted by DNP students in the US will be compared to emergent models of dissertations. Opportunities for support for collaboration and complementary efforts to advance the generation of and translation of science as teams will be emphasized.

Outcomes: Outcomes of DNP and PhD education will be examined to identify the types of contributions to interdisciplinary team efforts. Recommendations for interprofessional and interdisciplinary experiences while enrolled in graduate study will be included.

Conclusions: Although DNP programs are novel in most universities, and the PhD programs in most less than 40 years old, the engagement of students and graduates with other disciplines dates to the Nurse Scientist Training Programs of the 1960s and 1970s. With current advocacy for interprofessional education, it is likely that the inherently interdisciplinary nature of nursing science will be conjoined with interprofessional collaboration in clinical scholarship by DNP graduates of the future.

Home ◀ ▶ go to PG.

EMERGING CHALLENGES IN NURSING DOCTORAL PROGRAMS

Challenges in Distance Accessiblity of Doctoral Education

J. Kathy Magilvy, PhD, RN, FAAN, FWAN
Professor, Associate Dean, Academic Programs
University of Colorado
College of Nursing
Aurora, CO

Purposes/Aims: The purpose of this paper is to discuss emerging educational delivery methods used in distance accessible doctoral education in nursing with the aims of: identifying and comparing several emerging technologies; describing strengths, weaknesses and challenges of online delivery; and discussing other challenges related to professional and research mentoring of distant students.

Rationale/Background: Graduate education in nursing has been offered in a distance accessible format for several decades, beginning with faculty travel to distant educational sites and continuing with formats such as online and hybrid delivery, intensive offerings, interactive video, and other synchronous or asynchronous methods. Today many doctoral programs are offered in a distance accessible manner but challenges exist to quality teaching and learning practices. A growing literature supports these strategies.

Undertaking/Best Practice/Approach/Methods/Process: Comparisons across these delivery strategies facilitate identification of strengths and weaknesses in each for the student, faculty, and college. Online education will be highlighted as an exemplar of a modality with potential for quality doctoral education and concurrently, challenges inherent in this strategy. Professional and research mentoring of distant doctoral students also presents realistic challenges that can be addressed through planning and creativity.

Outcomes Achieved: Best practices will be identified, such as a course exchange consortium and outcomes described.

Conclusions: Universities in the Western states are increasingly employing distance education strategies to make doctoral education accessible to students in states with limited numbers of programs, large geographical and rural distances, and a high need for increasing the number of doctorally prepared nurse leaders, scientists, and educators.

ENHANCING ACADEMIC CAPACITY: THE GERONTOLOGIC NURSE FACULTY SCHOLARS PROGRAM

Moderator:
Teresa T. Goodell, PhD, RN, CNS
Assistant Professor
School of Nursing
Oregon Health & Science University
Portland, OR

OVERVIEW: ENHANCING GERO ED: THE GERONTOLOGY NURSE FACULTY SCHOLARS PROGRAM

Teresa T. Goodell, Theresa Harvath

ONLINE HEALTHY AGING COURSE DEVELOPMENT AND THE GNFSP

Jayne Josephsen

IMPACT OF THE GNFSP INITIATIVE ON A PRE-LICENSURE NURSING PROGRAM AFTER TWO YEARS

Darcy Mize, Carla Hagen

ENHANCING GERONTOLOGY SKILLS AND KNOWLEDGE IN STUDENTS REENTERING AN ASSOCIATE DEGREE PROGRAM

Renee' Menkens

ENHANCING ACADEMIC CAPACITY: THE GERONTOLOGIC NURSE FACULTY SCHOLARS PROGRAM

Overview: Enhancing Gero Ed: The Gerontology Nurse Faculty Scholars Program

Teresa T. Goodell, PhD, RN, CNS
Assistant Professor
School of Nursing
Oregon Health & Science University
Portland, OR
goodellt@ohsu.edu

Theresa Harvath, PhD, RN, CNS, FAAN
Professor
School of Nursing
Oregon Health & Science University
Portland, OR

Purposes/Aims: The Gerontology Nurse Faculty Scholars Program was designed to improve the capacity of undergraduate nursing faculty to teach gerontology, a priority in nursing education as the health care system strives to meet the needs of a growing, complex older adult population.

Rationale/Background: Although numerous resources for independent use can be found online, we believed that faculty who lacked experience teaching nursing from a gerontologic perspective would gain more from sustained interaction with gerontology nurse faculty experts in a mentored relationship. This led to the Gerontology Faculty Scholars Program, a program consisting of a two day in-person workshop, access to extensive teaching/learning resources compiled on the course website, and three months of mentoring.

Approach: Each faculty scholar conducted a project designed to “gerontologize” one or multiple courses. In each of the 2 years of the program, 5 faculty scholars were selected from a pool of applicants on the basis of lack of prior gerontology teaching experience, dean’s/director’s letters of support, and quality of the scholar’s proposed project. Applicants were selected to represent a variety of schools of nursing and a variety of types of courses to enrich the learning experience. Scholars’ projects ranged widely, including infusing gerontology into an ADN re-entry course in the OCNE curriculum, authoring of gerontologic case studies for acute care with ethical implications, and creating an entire gerontologic nursing course.

Outcomes Achieved: Pre-test and post-test evaluations showed marked improvement in scholars’ confidence in teaching gerontologic nursing topics such as atypical illness presentation, geriatric syndromes, normal age-related changes, use of gerontologic health assessment tools, and managing the risks of polypharmacy. Anecdotal comments were unanimously positive, especially regarding the value of the mentored relationship. Ten faculty scholars from three states and seven schools have now attended the in-person workshop; the second cohort is currently completing the mentored portion of the program. Faculty scholars from cohort one reported that the “gerontologizing” extended beyond their own courses to include other faculty, broadening the influence of the Gerontology Faculty Scholars Program. One faculty scholar from cohort one has subsequently obtained gerontology nursing certification. Sustainability is a concern, as the program’s funder has redirected its priorities to other initiatives. True costs exceeded $5000 per faculty scholar.

Conclusions: Mentoring by a gerontologic nursing faculty expert, online access to prepared teaching materials, periodic cohort meetings, and a two-day face-to-face workshop were effective in teaching inexperienced undergraduate nursing faculty to incorporate gerontology content into their courses, and this learning was disseminated by the faculty scholars at their respective schools. The benefits of the program have been substantial. Other funding sources and different models for delivering the course are being considered to sustain the program.

Funding: John A. Hartford Foundation and the Atlantic Philanthropies – grant # 10-235.

ENHANCING ACADEMIC CAPACITY: THE GERONTOLOGIC NURSE FACULTY SCHOLARS PROGRAM

Online Healthy Aging Course Development and the GNFSP

Jayne Josephsen, MS, RN, CHPN
Assistant Professor of Nursing
Boise State University
Boise, ID

Purpose/Aims: In order to meet the needs of current nursing practice, Boise State University endeavored to develop a dedicated and required course concerning nursing roles and healthy aging for their online RN to BS completion program. Determined to make a relevant course that met gerontological evidence-based practice and nursing competency standards, one faculty member participated in the Gerontological Nurse Faculty Scholars Program (GNFSP). This program offered training, resources, and mentoring throughout the course development process.

Rationale/Background: Although many of the approximately 375 students in the RN to BS completion program are working RN's, they may not have had the benefit of focused instruction related to geriatric nursing competencies. Development and implementation of this course is viewed to be essential to the curriculum, as there is a foundational need for professional nurses to ensure that safe, quality, and appropriate care is delivered to older adults. Prior to this time geriatric content had been integrated into other courses and specific application of geriatric nursing concepts was difficult to identify. This course's focus on healthy aging and the nurses role in that process was selected as the professional nurse is considered to have a unique and important role in promotion of healthy aging in a variety of capacities such as advocacy, resource management, preventative health, and care transitions.

Approach: The course design process utilized the American Association of Colleges of Nursing's (AACN) gerontological nursing competency statements as a framework for course outcome selection. Once this framework was established, the GNFSP training, resources, and mentorship were accessed and employed for specific assignment and content development. The GNFSP training offered identification of evidence-based nursing practice issues and concepts essential as core content for the course. The variety of resources available enhanced the process and made for a richer course development experience. In addition, the mentoring offered via experienced nursing educators specializing in geriatric nursing was invaluable to the course developer in keeping the course focused on healthy aging concepts and creation of appropriate and engaging student assignments that could be offered in an online format.

Outcomes Achieved: A working syllabus has been constructed, as well as assignments, rubrics, and the textbook chosen. The course is currently undergoing the university curriculum approval process. Assignments selected meet the 19 AACN gerontological nursing competency statements and offer a variety of learning activities such as aging theory debates, discussions related to transitional care, ethics, and risks and benefits of care, presentation of evidence based geriatric assessment tools, preventative health plan of care development, and a chronic disease health impact paper.

Conclusions: Occasionally nursing educators develop courses without the benefit of expert educator guidance and training, potentially leading to key content areas being excluded. Participating in an organized educational training in which expert nursing educators offer support, training and mentoring to faculty new to a content area is invaluable and essential to evidence-based nursing educational practice development. Additional programs, such as the GNFSP, would be of benefit to all nurse educators whether in the participant or mentor role.

Home ◀ ▶ go to PG.

ENHANCING ACADEMIC CAPACITY: THE GERONTOLOGIC NURSE FACULTY SCHOLARS PROGRAM

Impact of the GNFSP Initiative on a Pre-Licensure Nursing Program after Two Years

Darcy Mize, MSN, RN-BC
Assistant Professor of Nursing
George Fox University
Newberg, OR

Carla Hagen, PhD, MPH, RN
Director, Department of Nursing
George Fox University
Newberg, OR

Purpose/Aims: In an effort to prepare pre-licensure nursing student to meet the health care needs of a growing older adult population, George Fox University nursing program launched an intentioned effort to “gerontologize” the nursing curriculum. A faculty member participated in the Gerontologic Nurse Faculty Scholars Program (GNFSP) and led the endeavor. Gerontologic content was integrated into first-year nursing fundamentals courses using evidence-based resources made available through GNFSP. Continued integration of gerontologic content is now happening in second year courses with the expectation that students will exhibit an increased knowledge base and competency in the care of the older adult. The program goal is that gerontologic content will be systematically integrated into all levels of the nursing curriculum.

Rationale/Background: George Fox University is a liberal arts Christian University with a pre-licensure nursing program in Newberg, Oregon. Prior to the Fall of 2010, gerontologic content was not clearly synthesized or specifically placed within the nursing curriculum. In Fall 2010, the work of “gerontologizing” the fundamentals nursing curriculum began using resources available through participation in GNFSP. In Spring, 2011 a cohort of 48 incoming nursing students experienced the curriculum that intentionally integrated gerontologic content. The same cohort has now moved into their second year of nursing education, and are being introduced to curriculum that includes an increased breadth and complexity of gerontologic content. For faculty, impact of participation in the GNFSP continues to influence the process of curriculum revision and enhancement.

Approach: In addition to the goal of gerontologizing the curriculum, another goal has been to shift pedagogical efforts from a lecture-based/skills-acquisition approach, to contextualized interactive/learner-centered approach (Benner, Sutphen, Leonard &Day, 2010). Three examples of learning activities exemplifying gerontologic curriculum are described:

1. *Reflections on the Social Health of Residents in an Assisted Living Facility*
2. *Post-operative Care of an Older Adult - Hip Repair with Delirium Episode*
3. *Critical Reasoning Exercise - Polypharmacy, Adverse Drug Effects, and Health Literacy Implications.*

Implementation of the curriculum revision included mentoring new clinical faculty, particularly in the appreciation of integrating gerontologic nursing content in overall curriculum and the associated knowledge and skills required for the undertaking.

Outcomes Achieved: Gerontologic nursing content has now been integrated into both first and second year nursing curriculum. Student content mastery has been indirectly measured by comparing results from Assessment Technologies Institute (ATI) content mastery scores from the Nursing Fundamentals test from students that experienced the curriculum including integrated gerontological content and nursing fundamentals scores of students who experienced the former curriculum. The findings suggest intentionally integrating gerontologic nursing content significantly improves content mastery of fundamental principles. Also, anecdotal information taken from second year student written reflections indicates an increased awareness of gerontologic nursing. Finally, at the end of the second year, students will complete a survey about attitudes toward nursing care of older adults.

Reference: (Benner, P., Sutphen, M., Leonard, V., & Day L. (2010). *Educating nurses: A Call for radical transformation*. San Francisco, CA: Jossey-Bass).

ENHANCING ACADEMIC CAPACITY: THE GERONTOLOGIC NURSE FACULTY SCHOLARS PROGRAM

Enhancing Gerontology Skills and Knowledge in Students Reentering an Associate Degree Program

Renee' Menkens, RN, MS
Instructor, Oregon Health & Science University
RNBS Completion Program
Portland, OR

Purpose/Aims: The 2011 Gerontological Nursing Faculty Scholars Program **(**GNFS) program provided opportunities for nursing faculty to explore and expand current teaching knowledge and emphasis on older adults in an associate degree nursing (ADN) re-entry pilot course.

Rationale/Background: The emphasis of the GNFS program was to enhance the competencies of current faculty through a review of demographics, theories, online resources, best practice learning activities, expert mentoring, and completion of a gerontology project by each scholar. The setting for this teaching innovation was an ADN program on the Oregon Southcoast. It enrolls approximately 54 students. This college was one of the first to adopt the Oregon Consortium for Nursing Education (OCNE) curriculum. Gerontology content is embedded in this curriculum through a focus on lifespan development, specified essential content, case studies and simulations. The GNSF program materials were foundational in development of the re-entry pilot course. Nearly 22% of Coos county residents are 65 years or older compared to the state average of 15% (US Census, 2012). In 2011, 51% of patients cared for in the local hospital were eligible for Medicare (BAH, 2012).

Approach: The development and implementation of a re-entry course evolved from a specific need to assist students who had not been able to complete the first year in the nursing program and were eligible to re-enter. Incorporation of gerontological content, which is evident in the OCNE curriculum, was a high priority to assist these students' successful return to the nursing program. The 1 credit re-entry practicum course, offered winter term 2012, supported a review of basic nursing skills, critical thinking and theoretical content. Weekly class sessions included 1 hour seminar and 2 hours laboratory or simulation experiences over 10 weeks. Class sessions focused on foundational skills, including assessment of the older adult, clinical judgment, nursing care planning specific to older adult health issues, and evaluation of care provided. Case vignettes focusing on assessment and medication administration and simulations emphasizing nursing care planning and interventions with older adults were developed.

Outcomes Achieved: Students who completed the pilot stated "The course was a good overview of critical topics needed to be able to resume the nursing program." The students indicated that the course focus was consistent with the types of patients they had observed in clinical settings. A student indicated the re-entry course "helped me be better prepared to come back to the program, care for patients and reminded me of the unique needs of older adults..."

Conclusions: This course successfully incorporated gerontologic content into a re-entry course for returning ADN students. Gerontology-focused learning activities helped prepare these students to return to a curriculum where gerontologic content is integrated throughout the program of study with the use of a variety of learner-centered activities.

Reference:

Bay Area Hospital. (2012). Community benefits report. Bay Area Hospital.
U.S. Census Bureau: State and County QuickFacts, Coos County Oregon. (2012). http://quickfacts.census.gov/qfd/states/41/41011.html , Retrieved 9/18/12.

Home ◀ ▶ go to PG.

FACULTY ENHANCEMENT OPPORTUNITIES THROUGH NEXUS

Moderator:
Janice Hayes, PhD
Professor and Assistant Director of Graduate Program
School of Nursing
University of Northern Colorado
Greeley, CO
Janice.hayes@unco.edu

OVERVIEW: FACULTY ENHANCEMENT OPPORTUNITIES THROUGH NEXUS

Janice Hayes

CUTTING EDGE INFORMATION SHARING

J. Kathy Magilvy, Gail Houck

SMALL SCHOOL AND INTERNATIONAL FOCUS: SUPPORT AND COLLABORATION

Patricia K. T. Pothier, Betty Winslow

POTENTIAL FOR FACULTY SCHOLARSHIP AND RESEARCH

Pauline Komnenich, Barbara Haas

COLLABORATION ON HOT TOPICS

Janice Hayes, Robin Meize-Grochowski

FACULTY ENHANCEMENT OPPORTUNITIES THROUGH NEXUS

Overview: Faculty Enhancement Opportunities through NEXus

Janice Hayes, PhD
Professor and Assistant Director of Graduate Program
School of Nursing
University of Northern Colorado
Greeley, CO
Janice.hayes@unco.edu

Purposes/Aims: The purpose of the symposium is to describe the opportunities for scholarly enhancement available to faculty within the NEXus consortium.

Rationale/Background: Collaboration among doctoral granting nursing programs provides unique opportunities to network and engage in joint scholarly activities that benefit the faculty. Research, publication, and teaching enrichment is available to the members.

Undertaking/Best Practice/Approach/Methods/Process: NEXus began as a consortium offering courses to PhD students in the member schools and has grown to include DNP programs as well. The growth of NEXus has extended to collaborative endeavors in addition to course exchange. Presentations will address collaboration on hot topics, cutting edge information sharing, support for smaller schools and international focus, and scholarly opportunities.

Outcomes Achieved/Documented: The experiences of faculty working in NEXus included collaboration in publication, offering courses, developing joint courses, presenting at conferences. The scholarly work of faculty has been enhanced by the experience.

Conclusions: Participation in the NEXus collaboration has provided new avenues for faculty scholarship and teaching that have served as an enhancement to participating faculty.

Home ◀ ▶ go to PG.

FACULTY ENHANCEMENT OPPORTUNITIES THROUGH NEXUS

Cutting Edge Information Sharing

J. Kathy Magilvy, PhD, RN, FAAN
Professor
Associate Dean, Academic Programs
University of Colorado
College of Nursing
Aurora, CO

Gail Houck, PhD, RN, PMHNP
Professor
Director, Post Masters DNP Program
Oregon Health & Science University
School of Nursing
Portland, OR

Purposes/Aims: The purpose of this paper is to discuss opportunities for faculty to engage in discussion around cutting edge issues through participation in the NEXus collaborative. Aims are to describe participation of expert faculty in course cluster groups; creating ideas for emerging clusters; exploring the direction of doctoral education in nursing; examining current concerns and debates in distance education; and participation on the NEXus governing board.

Rationale/Background: NEXus began in 2006 as a partnership to share courses among universities that offered PhD programs to address the nursing faculty shortage by educating well-prepared nurse educators through application of distance accessible delivery methods. The project expanded to include 13 schools with distance accessible programs, and expanded to include DNP programs in addition to PhD programs (www.winnexus.org). Original advantages to faculty in participating institutions were that professors could reach a larger group of students with courses more specific to their research expertise than minimum enrollment policies generally allow. However, other advantages have emerged during the 6 years of project operation.

Undertaking/Best Practice/Approach/Methods/Process: Courses in the NEXus course exchange catalog are organized by topical clusters as well as by term and institution. Over 9 clusters are available in areas such as Nursing Education; Diverse and Vulnerable Populations; Health Systems, Leadership, Informatics & Policy; and Gerontology. Opportunities abound for faculty at participating schools. Expert faculty in cluster areas participate with peers in cluster oversight discussions and sharing teaching ideas. Faculty teaching NEXus students have opportunities to mentor or serve on doctoral committees, and member school faculty provide input to emerging clusters and course development needs across the consortium. Participation on the NEXus governing board further increases possibilities to be engaged in current developments related to the Department of Education regulations and the implications for education programs using distance technology. Regular evaluation of the NEXus programs points to these and other advantages to professors as well as students and institutions.

Outcomes Achieved: A number of positive outcomes have been identified by members. NEXus board meetings open with a sharing of events and news from each member school providing opportunities for benchmarking and problem solving. Collaboration with WICHE and WCET has facilitated members being informed about breaking issues and concerns, and therefore able to engage in proactive decision-making and policy development. Cluster group teleconferences provide opportunities to share latest trends and issues in sub-disciplinary knowledge and assist with mentoring of students in home institutions. Development of new clusters or courses allows for resource conservation and expanded course offerings for doctoral students.

Conclusions: NEXus participation has been shown to have a variety of benefits to universities, doctoral students, and the preparation of nurse educators, scientists, and leaders. However, recent evaluation and discussions among member institutions has identified many advantages to faculty and increased the communication opportunities among expert faculty across the US.

Funding: Provided by the US Department of Health and Human Services, Health Resources and Services Administration (D09HP09070). Project developed under the sponsorship of the Fund for the Improvement of Postsecondary Education, U.S. Department of Education (FIPSE #P116B040822).

Home

◀ ▶ go to PG.

FACULTY ENHANCEMENT OPPORTUNITIES THROUGH NEXUS

Small School and International Focus: Support and Collaboration

Patricia K. T. Pothier, PhD, RN
Associate Professor
Graduate Department, School of Nursing
Loma Linda University
Loma Linda, CA

Betty Winslow, PhD, RN
Professor
Graduate Department, School of Nursing
Loma Linda University
Loma Linda, CA

Purpose: The purpose of this paper is to discuss how membership in the NEXus consortium supports small doctoral programs and those with international students.

Background: Small programs face challenges in providing high quality doctoral education. The cost of developing and delivering special interest topics to meet the unique research and educational needs of small numbers of students are not off-set by tuition income. Additionally, limited enrollment courses may not include enough students for the 'critical mass' needed to provide the scholarly challenges and different perspectives essential to doctoral education. Some programs deal with small numbers by using directed study courses, but these may not provide the variety of perspectives inherent in studying with a group of peers. In addition a small teaching and research faculty may not expose students to a wide variety of perspectives on general or research topics.

Undertaking: Membership in NEXus can provide benefits to both students and faculty, offsetting some of the challenges faced by small programs. Students have access to a wide variety of courses that may not be available in their home school. This helps small programs by decreasing the cost required to develop needed course with small enrollment potential. It also places students in contact with a group of peers, providing the opportunity for scholarly challenge, diverse perspectives, networking, and collaboration. While most courses taken on NEXus are elective or concentration/focus courses, there is also the opportunity to make up a core course when a student gets off track, permitting the student to stay with their cohort. Faculty benefits include both networking and faculty-improvement opportunities. Faculty may serve on NEXus committees giving the opportunity to get acquainted, exchange ideas, and collaborate with colleagues they otherwise would not know. Member school faculty are welcome to take courses through NEXus at the same common price as their students, giving them access to specialized courses not available at their home university.

Outcome: An exemplar using experiences of both national and international students at one university with a small doctoral faculty will be presented. At this university students have an on-campus component during the summer when core courses are taught and take NEXus courses during the rest of the academic year.

Conclusion: There are a variety of expected outcomes deemed essential to doctoral education programs. Some of these, noted by the AANC for the research-focused doctorate in nursing include opportunities for students in communicating scholarship, understanding roles and responsibilities of a nurse scholar, participating in team science and interdisciplinary research, collaboration, and contribution to a global community of scholars. For faculty essential elements include having a large enough faculty to provide an intellectual community, represent and value diverse perspectives and backgrounds, socialize students to a community of scholars, and active engagement in scholarship. NEXus membership is one way to support these expected outcomes for both students and faculty.

Funding: Provided by the US Department of Health and Human Services, Health Resources and Services Administration (D09HP09070). Project developed under the sponsorship of the Fund for the Improvement of Postsecondary Education, U.S. Department of Education (FIPSE #P116B040822).

FACULTY ENHANCEMENT OPPORTUNITIES THROUGH NEXUS

Potential for Faculty Scholarship and Research

Pauline Komnenich, PhD, RN
Professor; Director, Nurse Educator Program
Arizona State University
College of Nursing and Health Innovation
Phoenix, AZ
paulina@asu.edu

Barbara Haas, PhD, RN
Professor; Associate Dean for Graduate Nursing Programs
The University of Texas at Tyler
bhaas@uttyler.edu

Purposes/Aims: The purpose of this presentation is to describe collaborative opportunities for faculty scholarship and research through a consortium network.

Rationale/Background: Patterning after regional, national and international consortia to broaden opportunities for faculty scholarship and research, this consortium provides forums for faculty in university schools of nursing to meet in focused groups around topics referred to as clusters. These clusters were formed to identify courses that can be shared across institutions Faculty representatives from member schools also meet semi-annually to address issues common to the programs and consortium. These interactions have provided faculty opportunities for scholarly exchanges, research, mentoring and publication.

Outcomes Achieved/Documented: Faculty in the education cluster piloted offering a three credit course provided in five week blocks at three consortium institutions. Students reported that the seminars and the formats expanded their horizons, gave them opportunity to engage with a broader group of faculty and to take courses either not offered or out of sequence for their programs of study. Potential for faculty to engage in mentoring is increased through these endeavors opening up opportunities for collaborative scholarship and research. Thus far faculty representatives from participating institutions have published one article, one is in press and the third is in process. In addition the consortium is currently discussing a proposal with another nationally known group to further expand opportunities for scholarly exchange. Other clusters such as the systems cluster and the research cluster are ripe for generating further scholarly activities.

Conclusions: The collaboration encouraged by the consortium arrangement can lead to strong interinstitutional relationships that foster scholarly opportunities for faculty and students.

Funding: Provided by the US Department of Health and Human Services, Health Resources and Services Administration (D09HP09070). Project developed under the sponsorship of the Fund for the Improvement of Postsecondary Education, U.S. Department of Education (FIPSE #P116B040822).

Home ◀ ▶ go to PG.

FACULTY ENHANCEMENT OPPORTUNITIES THROUGH NEXUS

Collaboration on Hot Topics

Janice Hayes, PhD
Professor and Assistant Director of Graduate Program
School of Nursing
University of Northern Colorado
Greeley, CO
Janice.hayes@unco.edu

Robin Meize-Grochowski, RN, PhD
Professor and UNM Regents' Lecturer
College of Nursing
University of New Mexico
Albuquerque, NM
Rmeize@salud.unm.edu

Purposes/Aims: The purpose of this presentation is to describe the development of a unique collaborative strategy for providing educational opportunities related to hot topics in nursing education.

Rationale/Background: Highly current information is often not amenable to course creation. A collaborative seminar series was developed through NEXus that allowed students and faculty from different institutions to discuss cutting edge and real time events such as health care reform, the IOM report, and the Future of Nursing.

Undertaking/Best Practice/Approach/Methods/Process: A seminar series of three back to back one-credit seminars on current issues affecting nursing education was developed collaboratively by three NEXus member institutions. The faculty represented three different universities, giving the students an opportunity to interact and discuss with diverse faculty having expertise on the topics. Students could register for one, two, or three of the seminars.

Outcomes Achieved/Documented: The seminars were offered fall semester 2012 and incorporated information and discussion related to current topics. The students were able to register for the number of credits desired or needed, offering flexibility to students who need 1-3 credit hours. Faculty involved in the seminars reported that the networking benefited them and was a stimulating and unique opportunity.

Conclusions: The development of the seminar series on hot topics provides a model for collaboration on current information. The collaboration within NEXus provided an avenue for offering the course that brought together students and faculty from different universities.

Home ◀ ▶ go to PG.

FINDING MEANING IN THE MAGIC KINGDOM OF METHODS: NEVERLAND OR TOMORROWLAND?

Moderator:
Paul F. Cook, PhD
Associate Professor
University of Colorado
College of Nursing
Aurora, CO

OVERVIEW: FINDING MEANING IN THE MAGIC KINGDOM OF METHODS: NEVERLAND OR TOMORROWLAND?

Paul F. Cook, Karen H. Sousa, Paula Meek

NEVERLAND AND TOMORROWLAND OF HEALTH STATUS PHENOTYPES: USING LATENT CLASS ANALYSIS

Sarah J. Schmiege, Paula Meek

MISSING DATA: MEANING AND METHODS

Scott B. Harpin, Sarah J. Schmiege, Paul F. Cook

CONSTRUCT VALIDITY: IS IT FOUND IN THE MAGIC?

Karen H. Sousa, Judith Harris, Susanne W. Cook

CLASSIFYING CONSTRUCTS TO MAXIMIZE MEANING IN CANCER RESEARCH

Leli W. Pedro, Paul F. Cook, Teresa J. Sakraida, Kai R. Larsen

Home

◀ ▶ go to PG.

FINDING MEANING IN THE MAGIC KINGDOM OF METHODS: NEVERLAND OR TOMORROWLAND?

Overview: Finding Meaning in the Magic Kingdom of Methods: Neverland or Tomorrowland?

Paul F. Cook, PhD
Associate Professor
U. of Colorado College of Nursing
Aurora, CO

Karen Sousa, PhD, FAAN
Associate Dean for Research
U. of Colorado College of Nursing
Aurora, CO

Paula Meek, PhD, FAAN
Professor
U. of Colorado College of Nursing
Aurora, CO

Purpose/Aims of Symposium: Now more than ever, researchers are confronted with issues of *meaning* in their quantitative data. For example, comparative effectiveness questions ask what types of treatment work best for which patients, and require first answering the question of how to sort patients into meaningful groups. Almost all quantitative studies result in some missing data, and handling this situation requires answers to questions about what data are missing and why. Research questions about health disparities require first answering the question of whether outcome measures function similarly in diverse populations. And most quantitative research questions rely on measurement of psychometrically defined constructs that may themselves have similar or overlapping meaning with other constructs called by different names; parsing construct meanings is crucial for linking the results of any given study to the broader literature. Although researchers in the past could safely ignore these issues (relegating them to "Neverland"), increasing demands for accountability and public health usefulness require scientists to address them in the "Tomorrowland" of research.

Conceptual Approach to Methods for Finding Meaning: Researchers at the CU College of Nursing utilize novel statistical approaches to handle issues of meaning. Some of these statistical strategies work inductively from data to underlying groupings of people (latent class analysis) or variables (missing data analysis). Other approaches work deductively from hypothesized meanings to the observed inter-relationships of variables (invariance analysis) or constructs (inter-nomological network analysis). The linkages between underlying meaning and observed data are always challenging and subject to interpretation; however, appropriate quantitative techniques can help researchers to ensure that we are "carving nature at its joints" (Plato, *Phaedrus,* 265d-266a) in order to draw valid conclusions about the applicability of findings in terms of patient populations, missing information, measures, and theoretical constructs.

Overview of Methods Presentations: Drs. Sarah Schmiege and Paula Meek will describe an inductive, latent class analysis approach to identifying subgroups of patients who smoke based on their respiratory symptoms; these psychometrically identified latent classes of patients have also been found to differ on physiological measures. Next, Dr. Scott Harpin will present an example of missing data analysis, working from observations about "missingness" to identify potential mechanisms – random or nonrandom – that produce those gaps in the data, with implications for analysis. Third, Dr. Karen Sousa will present a deductive, confirmatory factor analysis approach – invariance analysis – to determine whether psychometric instruments have the same factor structure across patient populations. Finally, Drs. Leli Pedro and Paul Cook will present a novel method termed "inter-nomological network (INN) analysis" for classifying constructs in order to more effectively compare and contrast results across research studies.

Funding: This methods symposium received support from NIH grant 1UL1RR025780-01, the Colorado Clinical and Translational Science Institute.

Reference: Hayat, M. J. (Ed.). (2012). Statistics in nursing research [Special issue]. *Nursing Research, 61*(3).

FINDING MEANING IN THE MAGIC KINGDOM OF METHODS: NEVERLAND OR TOMORROWLAND?

Neverland and Tommorowland of Health Status Phenotypes: Using Latent Class Analysis

Sarah J. Schmiege, PhD
Assistant Professor
U. of Colorado College of Nursing
Aurora, CO

Paula Meek, RN, PhD
Professor
U. of Colorado College of Nursing
Aurora, CO

Purpose/Aims: This study describes the process of formulating health status phenotypes using latent class analysis (LCA) and related statistical techniques. The presentation will demonstrate the application of LCA for the identification of respiratory health status symptoms and functional indicators among a cohort of smokers.

Background: LCA provides a cutting edge way to classify individuals into groupings based on response patterns to measured variables. This method outperforms traditional cluster analysis and is characterized by the use of a categorical latent variable to create classifications. This analysis applied LCA to targeted questions from the Saint George's Respiratory Questionnaire (SGRQ) to determine the presence of different health status classes (i.e., phenotypes). Individual difference variables were examined as predictors of class membership to demonstrate how classes of patients differ on important variables and how covariates can be useful for class enumeration.

Methods: Participants were 1,969 individuals from the Lovelace Smokers' Cohort (LSC), a predominantly female cohort of ever-smokers without lung cancer, living in the Albuquerque, New Mexico area. Eligible patients were former or current smokers with a minimum of a 10 pack-year smoking history, between the ages of 40 to 77 years of age, and able to understand English. The SGRQ consists of a total score and three subscales on impact of disease, activity limitation and symptoms. Four questions from each SGRQ domain were used in the LCA. All LCA analyses were carried out in Mplus. Two, three, four, and five-class solutions were considered, and the four-class solution was retained based on superior scores on key fit indices (Bayesian Information Criteria and a bootstrapped likelihood ratio test).

Results: The analyses revealed a class that scored high on all items, a class that scored low on all items, a class with high symptoms but low impact, and a class with high shortness of breath and limited activity. Personal demographics (age, obesity status, Hispanic ethnicity), smoke exposure characteristics (pack-years, wood smoke exposure), and health characteristics (history of chronic bronchitis and COPD) were examined as predictors of class membership using multinomial logistic regression. The individual difference variables predicted class membership in several ways; notably, wood smoke exposure, current smoking status, greater number of pack-years, COPD, bronchitis, obesity, and Hispanic ethnicity predicted membership in the "high" class relative to the other classes.

Implications: Using LCA, four classes emerged that differed on demographics, smoke exposure, and health characteristics. These analyses shed light on individual differences in respiratory symptoms and functional indicators, with implications for tailoring treatment. Thus, the "tomorrowland" technique of LCA can reveal differences not apparent in the previous symptom cluster analysis. Extensions of the methodology beyond the current example will also be discussed, including latent profile analysis, regression mixture modeling, and extensions to longitudinal data modeling using growth mixture modeling or latent transition analysis.

Funding: Supported by NIH/NCRR Colorado CTSI Grant Number UL1 RR025780.

Home
◀ ▶ go to PG.

FINDING MEANING IN THE MAGIC KINGDOM OF METHODS: NEVERLAND OR TOMORROWLAND?

Missing Data: Meaning and Methods

Scott B. Harpin, PhD, MPH, APRN-BC
Assistant Professor
College of Nursing
University of Colorado
Aurora, CO

Sarah Schmiege, PhD
Biostatistician
College of Nursing
University of Colorado
Aurora, CO

Paul Cook, PhD
Associate Professor
College of Nursing
University of Colorado
Aurora, CO

Purpose/Aim: The goal of this presentation is to offer an overview of the problem of interpreting missing data in research, using an example from a 3-year longitudinal intervention study.

Background/Rationale: Missing data, including those lost to participant attrition, are a common threat to validity in longitudinal and cross-sectional analyses alike. Investigators often implicitly ignore missing data by using case-wise deletion methods and may not investigate reasons for why missing data in their study can contribute to bias. Data imputation methods have evolved and common statistical packages with greater computing power have made these techniques more readily available to even beginner analysts. Such advanced statistical methods require assumptions about the reasons items were skipped, but also provide more valid information than traditional approaches.

Methods: We will present an overview of the problem of missing data in research, with a deeper exploration of the reasons why items are skipped and why participant attrition occurs in quantitative studies. Methods to examine missing data will be shown, as will options for handling missing data: case-deletion, regression-based imputation, maximum-likelihood estimation, and multiple imputation. Imputation examples will feature data from a 3-year intervention study, using Stata 12.0 statistical software.

Results/Outcomes: Participants attending this presentation will leave with a greater understanding of missingness in research and with foundational skills to employ when determining the meaning behind missing data (e.g. missing completely at random; missing at random; not missing at random). Point-estimates, confidence errors, and random error will be examined for each of the examples so that participants can observe the outcomes and implications of using each method.

Implications: Nursing research investigators can benefit from advanced missing data imputation methods to strengthen the validity of their studies. As many study designs are costly and time-consuming, it is imperative to have a deeper understanding of missing data in one's study and to consider imputation methods as a means to preserve valuable information.

Home

◀ ▶ go to PG.

FINDING MEANING IN THE MAGIC KINGDOM OF METHODS: NEVERLAND OR TOMORROWLAND?

Construct Validity: Is It Found in the Magic?

Karen H. Sousa, PhD, RN, FAAN
University of Colorado College of Nursing
Karen.sousa@ucdenver.edu

Judith Harris, MS, RN, CPNP
Director, Breathmobile
Phoenix Children's Hospital
jharris@phoenixchildrens.com

Susanne W. Cook, PhD, RN
Retired
stag1135@gmail.com

Background: Registered Nurses use psychometric instruments to measure outcomes for both within single groups and between group comparisons. A goal of many nursing research studies is to compare differences between groups on some contruct such as quality of life, depression, or autonomy. In order to make these comparisons a central question is whether members of the two groups ascribe the same meaning to the items. A comparison between groups requires conceptual equivalence of the underlying theoretical variable in each group; equivalent associations, factor loadings between operationalizations, measured items, and the construct across groups; and the extent to which the measured items are influenced to the same degree and perhaps by the same unique factors across groups. Violations of these assumptions can render interpretation of between-group differences highly suspect. Most of the instruments widely used in research have been developed using homogeneous samples, but research questions increasingly focus on group comparisons. If an instrument cannot be applied reliably across groups, then that instrument has extremely limited utility. The purpose of this presentation is to demonstrate measurement invariance as a techique to enhance concept validity and support the appropriateness of between-group comparisons.

Methods: Measurement invariance involves testing the equivalence of measured constructs in two or more independent groups to assure that the same constructs are being assessed in each group (construct validity). The most frequently used approach is multiple group confirmatory factor analysis. A series of hierarchically nested models is tested. The first level is configural invariance which requires that the same items represent the same latent variable in each group. The next level is factor loading invariance which represents the strength of the linear relation between each factor and its associated items. If the factor loadings are equal between groups then the unit of measurement of the underlying factor is identical. The next level of invariance is intercept invariance. Intercepts represent the origin of the scale and it is this level that is required for comparing latent means across groups. The fourth level of invariance is residual invariance. In testing this level, the residuals or measurement errors associated with each measured variable are constrained to be equal across the groups. When this level of invariance is achieved, all group differences on the items can safely be interpreted as group differences on the latent factors. To compare the fit of models at each level, the Chi-square difference test and goodness-of-fit indexes are used. Measurement invariance for a unidimensional pediatric quality of life instrument, translated from English to Spanish, will be explored. The strategy for a second-order factor quality of life model (men living with HIV who were working versus non-workers) will also be demonstrated.

Implications: In the absence of measurement invariance, comparisons between groups are difficult. Traditional approaches for evaluating construct validity between groups have been less thorough. Understanding the implications of measurement variance is essential for nurse researchers when group comparisons are of interest.

Funding: This project was partially funded by Grant #R01 NR04817 and #1R15NR010632 from the National Center for Nursing Research, National Institutes of Health.

Home ◀ ▶ go to PG.

FINDING MEANING IN THE MAGIC KINGDOM OF METHODS: NEVERLAND OR TOMORROWLAND?

Classifying Constructs to Maximize Meaning in Cancer Research

Leli W. Pedro, DNSc, RN, OCN, CNE
Assistant Professor, College of Nursing
University of Colorado, Aurora, CO

Paul F. Cook, PhD
Associate Professor, College of Nursing
University of Colorado, Aurora, CO

Teresa J. Sakraida, PhD, RN
Assistant Professor, College of Nursing
University of Colorado, Aurora, CO

Kai R. Larsen, PhD
Associate Professor, School of Business,
University of Colorado, Boulder, CO

Purpose: We applied internomological network (INN) analysis, a novel approach that classifies constructs based on their underlying meaning, to constructs from the National Cancer Institute (NCI)'s Grid-enabled measures (GEM) database. Seven expert raters sorted these constructs using Michie's Theoretical Domains Framework (TDF). Our objectives were to evaluate the TDF domains, examine GEM's domain coverage, and to enhance the trustworthiness of research by creating a gold standard for natural language processing under the auspices of the federally funded INN project.

Background: Identifying constructs that accurately describe the phenomenon for study remains a challenge as long as the nomenclature of even related theories remains unconnected. The INN method assists with the challenge of differently named constructs with overlapping measures. Results from the first use of INN demonstrated its utility to clarify the meaning of constructs in transdisciplinary scientific fields (Cook et al. 2012). As an extension, the current study applied INN to TDF. The TDF is an integrative framework with 14 domains classifying constructs in psychosocial research (Cane et al. 2012). We used the TDF to sort 238 constructs in NCI's GEM database, an interactive website enabling research harmonization by listing agreed-upon measures and constructs.

Methods: Seven nursing faculty sorted all GEM constructs into domains using a 3-step process. First, a single expert categorized each construct. Second, all experts reviewed initial assignments and either agreed or proposed another domain. Third, we resolved discrepancies in discussion. Nineteen domains (14 original plus 5 proposed by the group) were used in the final construct sort.

Results: Agreement about initial domain assignments (*kappa*) varied from .43 (goals) to .93 (emotion). Overall kappa was .72, which is acceptable but not ideal. Domains with more constructs had higher agreement, which may indicate more clarity about their definitions or greater applicability to the cancer-related constructs in GEM. In the third step, we achieved 100% agreement on a domain assignment for each construct. TDF domains most useful in classifying GEM constructs were (1) environmental context and resources, (2) emotion, and (3) behavioral regulation. One domain (rewards) did not apply to any constructs in GEM. Thirteen GEM constructs were found to have meanings identical to other constructs in the database under different names.

Implications: Despite limitations of the expert-consensus method, our success sorting 238 constructs into 19 domains with moderate reliability suggests commonalities that point to the meaning of constructs in cancer research. In future studies, it will be interesting to compare current results with those from natural language processing algorithms. Additional methods for identifying construct similarity and synonymy are likely to improve classification results and maximize the credibility of research findings.

Funding: NIH grant 1UL1RR025780-01 supported this research.

References:

Cane, J., O'Connor, D., Michie, S. (2012). Validation of the theoretical domains framework for use in behaviour change and implementation research. *Implementation Science*, 7(37). doi: 10.1186/1748-5908-7-37.

Cook, P. F., Larsen, K. R., Sakraida, T. J., Pedro, L. W. (2012), A novel quantitative approach to concept analysis: The Inter-Nomological Network. *Nursing Research,* 61(5), 369-378. doi: 10.1097/NNR.0b013e318250c199.

Home ◀ ▶ go to PG.

IMPROVING EBP AND RESEARCH THROUGH PARTNERSHIPS

Moderator:
Pamela Springer, RN, PhD
Associate Dean, College of Health Sciences
Director, School of Nursing
Boise State University
Boise, ID

OVERVIEW: IMPROVING EBP AND RESEARCH THROUGH PARTNERSHIPS

Pamela Springer

THE CENTER FOR NURSING EBP, RESEARCH, AND INNOVATION – STRUCTURE FOR PARTNERSHIPS

Miki Goodwin

DEVELOPMENT OF A FELLOWSHIP PROGRAM – BEGINNING THE PARTNERSHIP

Pamela Springer

TRANSFORMATION OF THE FELLOWSHIP PROGRAM: TEAMWORK AT ITS BEST

Laura J. Tivis

BUILDING STAFF NURSE RESEARCH CAPACITY THROUGH THE UTILIZATION OF FACULTY MENTORS

Leonie Sutherland

CREATING THE CLINICAL QUESTION

Stacy Tucker, Erica Yager

Home ◀ ▶ go to PG.

IMPROVING EBP AND RESEARCH THROUGH PARTNERSHIPS

Overview: Improving EBP and Research through Partnerships

Pamela Springer, RN, PhD
Associate Dean, College of Health Sciences
Director, School of Nursing
Boise State University
Boise, ID

Purpose: The purpose of this symposium is to describe the successful development of a research/EBP fellowship program through the partnership of a thrice Magnet designated hospital within a Health system and a School of Nursing.

Rationale/Background: Hospitals with Magnet status are challenged to observe the latest IOM guidelines and continually increase the knowledge and skills of nurses in EBP and research. While such institutions can hire nurse researchers, opportunities exist for deep and meaningful partnerships between hospitals and Schools of Nursing to develop the scholarly skills of nurses at the bedside.

Description: The symposium will describe the development of a “Center” within the Hospital dedicated to supporting research and EBP. The history of a partnership focused on research between the Hospital and School will be described followed by the description of a fellowship to increase knowledge and skills of staff nurses in research and EBP. Roles of the faculty mentor and staff nurse fellow will be described. The presentation will conclude with the description of the developmental process for one research project as an example of what is accomplished through this partnership.

Outcomes and Conclusion: Knowledge and skills in EBP and research have greatly increased in the Hospital setting. The School of Nursing incorporated the EBP model used in the Hospital into the school curriculum to better prepare graduates for local employment. The staff nurse Fellows form strong relationships with nursing faculty encouraging further formal education and publication. Faculty are kept current of clinical PICO questions and increase mentorship skills.

Home ◀ ▶ go to PG.

IMPROVING EBP AND RESEARCH THROUGH PARTNERSHIPS

The Center for Nursing EBP, Research, and Innovation - Structure for Partnerships

Miki Goodwin, PhD, RN, PHN
Department of Nursing
Holy Names University
Oakland, CA

Purposes/Aims: The Center for Nursing Evidence–based Practice, Research and Innovation was developed in alignment with the Magnet® model component of new knowledge, innovations and improvement. It was designed to foster the expansion of nursing research and innovative programs and initiatives that address patient care, nursing and the patient care environment. It follows recommendations of the Institute of Medicine to develop, implement and evaluate structures and processes that support evidence-based nursing practice and the ability for nurses to use evidence to support clinical decision-making. The overarching aim of creating a Center within a hospital of over 2060 nurses was to promote scholarship among nurses and prepare them to lead changes that advance health.

Background: The Center was founded in 2011 with the procurement of staff and faculty carefully selected to blend clinical practice with academia. A descriptive model was constructed to illustrate the Center's integrative approach to scholarly activity, professional development and promotion of best practice.

Description: Included in the elements of the Center's Model are Nursing Shared Governance, a Nursing Residency Program, a Nursing Research Fellowship Program, and a new Nursing Peer Review Program. The Johns Hopkins Model for Nursing Evidence-based Practice was adopted and educational materials shared across the system and with all academic partners. The Center team members and academic partners work collaboratively to assist all nurses and students to maximize opportunities to learn and substantiate evidence-based practice (EBP), offering the EBP course at a reduced rate and creating EBP champions throughout all settings. In addition, the Center has the charge for engagement and oversight of advanced nursing practice as well as selecting and prioritizing improvement initiatives and interventions that influence the diffusion and adoption of evidence-based practices into nursing practice standards and guidelines to improve patient care. Other initiatives include Innovative Working Groups to brainstorm and fine-tune work in progress, and Night Owl groups where breakfast champions share initiatives to encourage, challenge and promote high quality nursing practice.

Outcomes: Since its inception the Center has grown to include oversight of the Magnet Program; a nursing peer review process based on just culture was launched; 20 research fellows have successfully navigated the IRB and are conducting research or evidence-based projects; 5 cohorts of new nurses have attended residency (160 nurses), and university collaboration has included the design of a popular1-credit course for staff nurses exploring graduate school options.

Conclusion: The Center exemplifies commitment to advance nurses' preparedness for leading change through involvement and collaboration across clinical and academic settings. As nurses work through elements of the Model from transition to practice, shared governance and research, they learn the benefits of scholarly opportunities intrinsic to facilitating learning and advancing health. Similar experiences can be explored at other facilities and incorporated into various learning experiences throughout the nurse's career.

Home ◀ ▶ go to PG.

IMPROVING EBP AND RESEARCH THROUGH PARTNERSHIPS

Development of a Fellowship Program - Beginning the Partnership

Pamela Springer, RN, PhD
Associate Dean, College of Health Sciences
Director, School of Nursing
Boise State University
Boise, ID

Purpose: The purpose of this presentation is to describe the partnership between a School of Nursing and a clinical partner to increase evidence based practice and research. What began as a mechanism to "help" the clinical agency with evidence-based practice and research turned into a true partnership where both partners have greatly benefitted.

Rationale/Background: Faculty in Baccalaureate and higher education nursing programs have a tripartite mission of teaching, service, and scholarship. Clinical partners are very important to all parts of the mission. Students cannot be effectively taught unless schools have support from clinical partners. Many times there are community service events where schools partner with clinical facilities. In addition, research partnerships occur that take on different levels depending on the research skills of the faculty in the College/University and the interest in research and evidence-based practice of the clinical agency.

Description: This partnership began as an outgrowth of a joint appointment for research that existed between the School of Nursing and the Hospital. As part of the joint research appointment, the faculty worked with the clinical educator and developed a definition of evidence-based practice choosing to use the Rosswurm and Larabee model of EBP. Courses were developed to teach staff nurses how to undertake a research project and the Fellowship program began.

The Hospital approached the School of Nursing to see if faculty could mentor staff nurse fellows in a research project as the staff participated in the Fellowship program. The School was beginning an increased focus on research and initially tried to place this faculty commitment under the research domain trying to match research interests of faculty with interest areas of the staff nurse fellows. This was only marginally successful. Even though interest areas could be matched in general, the faculty and staff interests were very different, and in the end it did not work well. After three years, the School leadership determined it was a better fit to place the mentoring under a service commitment. This also proved difficult as this type of service was time consuming in summer when faculty were off contract. Once again, modifications were made. The model that has worked the best is for the hospital to enter into a contract and pay the faculty for work that covers time in the summer.

Outcomes Achieved/Documented: The partnership has been in existence for 8 years. Each year nursing faculty mentor 4-6 pairs of staff nurse fellows. This partnership has resulted in publications and presentations that are jointly authored.

Conclusion: Partnerships such as this greatly benefit both clinical agencies and Schools of Nursing. While the outcomes of presentations and publications are impressive, it is the deepening of the partnership that is most important. The faculty are more aware of practice issues they can weave into their teaching and research agendas. The staff nurse fellows are introduced to scholarly presenting and publishing and many have shown interest in graduate school.

Home ◀ ▶ go to PG.

Transformation of the Fellowship Program: Teamwork at Its Best

Laura J. Tivis, PhD
Director of Nursing Research
Center for Nursing Evidence-based Practice, Research and Innovation
St. Luke's Health System, Boise, ID

Purpose/Aims: This presentation describes a hospital system's Nursing Research and Evidence-based Practice Fellowship and the enhancement processes that occurred to enrich the experience. The purpose of the Fellowship program is to provide a rewarding research and evidence-based practice (EBP) learning experience for nurse employees at all levels of professional practice.

Rationale/Background: Formulating a practice question, examining the available evidence, and understanding the importance of generating new knowledge are important facets of clinical inquiry. But providing the opportunity for nurses to learn and apply these skills requires rich resources beyond the clinical setting. A strong partnership between clinical practice and academia is vital to the development and realization of such programmatic aims. With input from program leaders, academic partners, and the Nursing Research Council, the Nursing Research Fellowship program transformed itself to meet identified needs, increase participation, and to challenge the existing culture that suggests research is too hard or too complicated for staff nurses to undertake.

Undertaking/Best Practice: Two programmatic needs/changes were identified: 1) realistic projects that could be completed within the fellowship year, and 2) a greater sense of "teamness" between fellows, their assigned university mentors, and Fellowship leaders. To address the first need, Fellowship leaders met with former fellows, schools of nursing faculty at partnering universities, and hospital system personnel to strategize. Transformation focused on adding John's Hopkins EBP project training to the research curriculum. An EBP project option was provided for those with little or no research training, as well as for those who entered the fellowship with a clear idea of a practice problem better suited to an EBP project than to a research study. To address the second need, strategies were employed to enhance the mentors' role. These included legitimizing the relationship with a formal Academic Mentor Agreement, utilizing student research assistants, enhancing communication whereby Fellowship leaders encourage fellows to connect regularly with mentors and keep mentors included with respect to plans, challenges, and celebrations.

Outcomes: The addition of EBP was met with strong support. Projects are still challenging, but can be realistically completed in the one-year fellowship period. The available mentor pool was consequently broadened, creating an opportunity for clinical faculty to also contribute to the partnership. Enhanced "teamness" led to improved communication between mentors and Fellowship leaders, resulting in increased understanding of mutual expectations and cohesive striving toward fellows' successful program completion.

Conclusions: The enhanced Fellowship program has benefited from increased interest among staff nurses, nursing leaders, and interdisciplinary co-workers. Implications are that nurses can and should question current practices, formulate hypotheses, and contribute to practice change. Goals for program improvement, based on strategic, focused, interactions with stakeholders, are attainable with dedicated teamwork and supportive administration. Strong partnerships are key to programmatic sustainability. Recommendations include establishing community partnerships that yield supportive collaborations, programmatic self-study, identifying best practices, and striving for continued improvement.

Home go to PG.

Building Staff Nurse Research Capacity through the Utilization of Faculty Mentors

Leonie Sutherland, PhD, RN
Associate Professor
Boise State University School of Nursing
Boise, ID

Purpose/Aims: The purpose of this presentation is to describe the formalized role of research faculty as they mentored staff nurses enrolled in a Health System supported research fellowship. The experience helped build the capacity for staff nurses to engage in future research and gave the Health System the opportunity to further enhance their Magnet designated status.

Rationale/Background: A hospital with Magnet designation must demonstrate an active program of research and evidence-based practice (EBP), including processes to support the research/EBP activities. Moreover, Magnet hospitals must sustain and promote the scientific inquiry of nursing research. As staff nurses are not prepared to design and carry out a research study, Magnet hospitals frequently utilize research mentors. Typically, faculty research mentors work with students who participate in the faculty's program of research. The role of mentoring outside of the faculty's specialty can provide unique opportunities to help staff nurses be successful undertaking a research or EBP project.

Description: The hospital system made the Research and Evidence Based Practice Fellowship available to staff nurse dyads and triads including a formal application and statement of a research/EBP idea. The faculty received a blinded list of research and EBP topics and signed up for their choice of project. Faculty with research doctorates were paired with dyads/triads who desired to carry out a research project while master's prepared faculty and those holding a Doctor of Nursing Practice were paired with EBP dyads/triads. An initial meeting offered the opportunity for the nurse dyads/triads to describe their ideas and seek input from the mentors. Over the next year, the faculty guided the team by building a trusting and nurturing relationship. Faculty used mentor practices consisting of teaching, counseling, coaching, professional development and active listening. The faculty in a guiding role allowed the nurse dyads/triads to fully experience the process of carrying out a research or EBP project.

Outcomes Achieved: The nurse dyads/triads learned the research or EBP process from practical application in addition to classroom instruction and they were empowered to facilitate change in their respective practice areas. Additionally, the nurse dyads/triads experienced personal growth, increased job satisfaction and improved their knowledge base. The faculty mentors benefitted from reciprocal learning and having pride in seeing the project carried out. Faculty felt positively challenged and stimulated while gaining new ideas for their own practice. Faculty and nurse dyads/triads have plans to disseminate their findings in various presentations and publications.

Conclusions: Formalized faculty research or EBP mentorships are an effective way to create a supportive learning environment. At the end of the mentorship, evaluation of the experience will be instrumental to further improve the experience for subsequent research fellows.

Home ◀ ▶ go to PG.

IMPROVING EBP AND RESEARCH THROUGH PARTNERSHIPS

Creating the Clinical Question

Stacy Tucker, RN, BSN, CBN, CMSRN
Medical Surgical Service Line Educator
Learning Services
St. Luke's Health System
Boise Medical Center
Boise, ID

Erica Yager, RN, BSN
St. Luke's Health System
Boise Medical Center
Boise, ID

Purpose/Aims: The purpose of this presentation is to describe the planning process and provide insight from a Med/Surg bedside nurse's point of view about conducting research, from the development of the research question through data analysis. Magnet Hospital certification encourages front line staff to be actively involved in research and evidence-based practice. Through a well-developed education and mentoring program, nursing staff are given the opportunity to learn about and participate in research.

Rational/Background: The hospital system has developed a Research Fellowship, which was well advertised throughout the Shared Governance model. All Nurses with at least 2 year's experience and a desire to conduct research are eligible. For many nurses, previous undergraduate research experience was intimidating, detailed and time intensive. Through the Research Fellowship, actively engaging in research no longer felt daunting, but rather it became thought provoking as we began the process of developing the research question and research design.

Description: As bedside providers on a Med/Surg floor, many staff members commented on the frequency with which patients watched cooking shows, especially those unable to eat. This led to lively conversation among nurses and we saw the opportunity to conduct a small research study. Through the Fellowship application process, it was essential to obtain nurse manager approval since the program requires the home unit to absorb the salary cost of one eight-hour shift every two weeks. The Fellowship program curriculum provided step-by-step research content including completion of the John's Hopkins Evidence Based Practice online program. This helped with determining our initial question was truly research and not Evidence Based Practice. An extensive literature search was performed and it was clear that watching cooking shows after abdominal surgery had not been studied. That led to the research question, "Do patients who watch cooking shows have a quicker return of bowel function after surgery than those who do not". With assistance of our faculty mentor and statistician we developed a descriptive research design, conducted a power analysis to ensure adequate sample size, and prepared the Institutional Review Board (IRB) application.

Outcomes: At this time, the John's Hopkins Evidence Based Practice program has been completed. In addition, the research protocol, informed consent and all related appendices have been submitted to the IRB for approval. Staff education has been completed in preparation for data collection as well as an update with the nursing research council. Both parties, mentor and fellows have found a collaborative relationship through this program.

Conclusions: Throughout the program, mentors and the Nursing Research Director calmed fears and anxieties by being close to hand through the development of the research question to the IRB process. The structure of the program provided enough guidance while challenging nurses to do the real work of research. Once data has been collected, the intention is to present the findings at conferences and a potential publication. Research is no longer thought of as intimidating but a more accepting and necessary part of the nursing culture.

Home ◀ ▶ go to PG.

INNOVATIVE METHODS TO CREATE A SPIRIT OF INQUIRY IN UNDERGRADUATE NURSING STUDENTS

Moderator:
Katreena Collette Merrill, RN, PhD
Assistant Professor
College of Nursing
Brigham Young University
Provo, UT

OVERVIEW: INNOVATIVE METHODS TO CREATE A SPIRIT OF INQUIRY IN UNDERGRADUATE NURSING STUDENTS

Katreena Collette Merrill, Janelle Macintosh, Barbara Mandleco, Betsy Hopkins, Christopher Macintosh

---

USING 'REAL LIFE' CASE STUDIES TO ASK AND ANSWER CLINICAL QUESTIONS

Barbara Mandleco, Betsy Hopkins, Katreena Merrill, Janelle Macintosh

---

ENGAGING STUDENTS IN UNDERSTANDING RESEARCH DESIGN

Katreena Collette Merrill, Janelle Macintosh, Barbara Mandleco

---

TEACHING SAMPLING: SIMPLE AND EASY

Janelle Macintosh, Katreena Merrill, Barbara Mandleco

A PAINLESS APPROACH TO TEACHING STATISTICS TO UNDERGRADUATE NURSING STUDENTS

Christopher Macintosh, Katreena Merrill, Janelle Macintosh, Barbara Mandleco

INNOVATIVE METHODS TO CREATE A SPIRIT OF INQUIRY IN UNDERGRADUATE NURSING STUDENTS

Overview: Innovative Methods to Create a Spirit of Inquiry in Undergraduate Nursing Students

Katreena Collette Merrill, RN, PhD, Assistant Professor
Janelle Macintosh, RN, PhD, Assistant Professor
Barbara Mandleco, RN, PhD, ANEF, Professor
College of Nursing, Brigham Young University
Provo, UT

Betsy Hopkins, BS, MLS, Nursing Librarian
Harold B. Lee Library
Brigham Young University
Provo, UT

Christopher Macintosh, RN, BSN, Doctoral Student
College of Nursing, University of Utah
Salt Lake City, UT

The purpose of this symposium is to discuss the use of innovative instruction strategies to teach content related to research and evidence based practice (EBP) in an undergraduate nursing research course.

It takes years to implement evidence into clinical practice. Additionally, nurses report feeling overwhelmed with the amount of literature available and the ability to analyze it adequately (Melnyk & Fineout-Overholt, 2010). While there are multiple frameworks to implement EBP, a gap remains between evidence and practice. One possible reason for this gap is that students and clinical staff are mostly taught research and EBP strategies in a formal classroom setting. Consequently, they have difficulty applying the information learned to practice. To move beyond the theoretical to concrete implementation, new educational tactics are needed.

The College of Nursing teaches a three-credit *Scholarly Inquiry* course where students learn research and EBP concepts and demonstrate their understanding of this information through written and oral communication. The course curriculum was revised to include technology, object lessons and other innovative teaching methods. Emphasis was placed on the principle that discussions about EBP and research should apply directly to clinical practice. As a result, students responded positively to course activities and were able to apply it to practice in their clinical courses.

The symposium presentations will provide information on how to a) integrate innovative teaching methods into course content, b) teach students to ask and answer 'real life' clinical questions, c) engage students in teaching research design, and d) develop hands on experiences related to sampling and statistics. The four presentations will also offer examples of innovative teaching methods designed to foster a spirit of inquiry into an undergraduate nursing course that demonstrate positive outcomes.

References:
Melnyk, B.M. & Fineout-Overholt, E. (2010). Evidence-Based Practice in Nursing & Healthcare: A Guide to Best Practice, 2nd Edition. Lippincott Williams & Wilkins: Philadelphia.

INNOVATIVE METHODS TO CREATE A SPIRIT OF INQUIRY IN UNDERGRADUATE NURSING STUDENTS

Using ‘Real Life’ Case Studies to Ask and Answer Clinical Questions

Barbara Mandleco, PhD, RN, ANEF
Betsy Hopkins, BS, MLS
Katreena Merrill, RN, PhD
Janelle Macintosh, RN, PhD
Brigham Young University
Provo, UT

Purpose/Aims: The purpose of this presentation is to discuss how faculty in the undergraduate *Scholarly Inquiry* course used ‘real life’ case studies and collaborated with the nursing librarian to teach undergraduate nurses how to ask and answer clinical questions.
Rationale/Background: According to the 2008 AACN *Essentials of Baccalaureate Nursing Education,* “professional nursing practice is grounded in the translation of current evidence into practice” (p.15) Library sessions have been a part of *Scholarly Inquiry* for a number of years. However, the course faculty and nursing librarian felt the sessions should approach finding and evaluating evidence from a clinical viewpoint, instead of an academic one.
Description: Two library computer workshops provided learning experiences on locating and evaluating sources of evidence. The first workshop focused on developing a PICOT question (Population, Intervention, Comparison, Outcome and Timeframe) from a case study and then accessing clinical guidelines and systematic review databases related to the PICOT question. These guidelines/systematic reviews were then compared, as students answered the following questions: (1) Can you find the answer to your clinical question in each of the databases? (2) What was the level of evidence for the interventions recommended? What does this mean? (3) How do the databases compare? (4) How would you use the findings in your clinical practice? A second library computer workshop helped students develop skills in conducting a review of the literature using CINAHL and Medline. Students were given clinical scenarios or chose their own topic and then searched databases to obtain primary research articles. The nursing librarian, assistant librarians, nursing faculty, and teaching assistants participated in both workshops by assisting students in their searches.
Outcomes Achieved/Conclusions: Differences are being noted in the knowledge, skills, and attitudes of students toward evidence based practice after participating in these workshops. Specifically, they report enhanced skills in accessing electronic sources including the Cochrane Library and the National Guidelines Clearinghouse. Students also found these assignments helpful and relevant to clinical practice. This collaborative model demonstrates the essential link between librarians and professional nurses, and enhances integration of EBP.

References: American Association of Colleges of Nursing (AACN, 2008). *The Essentials of Baccalaureate Nursing Education.* Retrieved October 9, 20012 from http://www.aacn.nche.edu/education-resources/essential-series.

INNOVATIVE METHODS TO CREATE A SPIRIT OF INQUIRY IN UNDERGRADUATE NURSING STUDENTS

Engaging Students in Understanding Research Design

Katreena Collette Merrill, RN, PhD
Janelle Macintosh, RN, PhD
Barbara Mandleco, RN, PhD, ANEF
College of Nursing
Brigham Young University
Provo, UT

Purpose/Aims: The purpose of this presentation is to describe the use of student-led activities to teach research design.

Rationale/Background: An important aspect to the spirit inquiry is an understanding of concepts presented in a primary research article. While baccalaureate graduates are not expected to design and conduct research independently, being able to distinguish good research from poor research is important. Teaching about different research designs to undergraduate students becomes problematic when the goal is simply to have students memorize the various types of research designs by using PowerPoint rather than to have them actively involved in the content.

Description: Nursing students in the *Scholarly Inquiry* course were given basic information about common research designs, including experimental, quasi experimental, descriptive, comparative, correlational, and predictive designs, as preparation for the activity. Then, students were divided into groups and assigned a specific design. Each group was then given 10 minutes to determine a research question and draw a figure that best depicted the assigned design. Students used white boards, chalkboards, or 16x20 butcher papers for the drawings. As students explained their drawing, the other students in the class guessed the type of design depicted in the drawing. Students then examined primary research articles in class illustrating the designs discussed, and answered the following questions: (1) What was the design used in the article? (2) Was the design linked to the purpose and/or objectives, questions, or hypotheses? (3) Were all variables manipulated or measured?

Outcomes Achieved/Conclusions: Following the activity, students were able to articulate each of the various designs and describe alternative approaches to answering a research question. In addition, they were able to successfully critique the design of primary research articles, and felt the combination of examining a published research article and explaining a particular type of design to classmates enhanced their learning.

INNOVATIVE METHODS TO CREATE A SPIRIT OF INQUIRY IN UNDERGRADUATE NURSING STUDENTS

Teaching Sampling: Simple and Easy

Janelle Macintosh, RN, PhD
Katreena Merrill, RN, PhD
Barbara Mandleco, RN, PhD, ANEF
College of Nursing
Brigham Young University
Provo, UT

Purposes/Aims: The purpose of this presentation is to describe innovative methods to teach principles related to sampling.

Rationale/Background: Students in an undergraduate Scholarly Inquiry course are often inundated with a new language and complex concepts, many of which are difficult to understand. In addition, many undergraduate research textbooks often do not relate concepts to clinical scenarios making it difficult for students to apply these concepts to practice. However, faculty teaching these courses often have the opportunity to be creative and innovative when teaching principles related to sampling that will allow the students to retain information more easily than if the information was presented traditionally through didactic means and using PowerPoint slides only.

Description: To help students learn and retain concepts related to sampling, faculty provided students with several 'populations'. These populations were of every day objects and included pens and pencils in a pencil holder, paper clips of various sizes, hotel key cards, baseball cards and candy. Students were divided into groups and then assigned a type of sampling method. Students used the 'populations' provided by faculty to demonstrate the sampling method assigned to the group. Following each presentation, the sampling methods were discussed and questions answered as they came up. Students were then given primary research articles and asked to review the sampling methods used in the articles and answer the following questions: (1) What was the sample size? (2) What type of sampling method was used? (3) What were the sampling inclusion and exclusion criteria? (4) What are you concerns about the sample?

Outcomes Achieved/Conclusion: Following the activity, students were able to articulate and demonstrate each of the various sampling methods. In addition, students were able to successfully identify samples and sampling techniques in several primary research articles and felt the combination of examining a published research article and explaining a particular type of sampling method to classmates enhanced their learning.

Home

◀ ▶ go to PG.

INNOVATIVE METHODS TO CREATE A SPIRIT OF INQUIRY IN UNDERGRADUATE NURSING STUDENTS

A Painless Approach to Teaching Statistics to Undergraduate Nursing Students

Christopher Macintosh, RN, BSN, Doctoral Student, University of Utah
Katreena Merrill, RN, PhD, Brigham Young University
Janelle Macintosh, RN, PhD, Brigham Young University
Barbara Mandleco, RN, PhD, ANEF, Brigham Young University

Purposes/Aims: The purpose of this presentation is to discuss creation of an interactive didactic statistics presentation that would assist nursing students understand statistical principles.

Rationale/Background: A basic statistics course is often required during a baccalaureate program in nursing. Nursing students, however, often have difficulty remembering what they learned in these statistics courses.

Description: In order to help students in a scholarly inquiry course remember basic statistical tests often found in primary research articles, they were reminded of statistical principles and tests using peanut and plain chocolate M & M's®. At the beginning of one class, each student took a scoop of the plain M&M's®. They were then asked to graph the frequency of each type of candy according to color on a sheet of paper. Students then shared their graphs with the class, and identified the type of distributions. During another class students were put into groups and given a small package of plain and a small package of peanut M&M's®. Students then calculated the frequency of each color and type of candy and reported that information to faculty. The faculty member then filled in a pre-programmed excel chart with student candy data and calculated a class mean for each color and type of candy. Using the means, t-tests were calculated; using the frequency distribution, Chi-Square tests were calculated. Following each presentation, the statistics were discussed and questions answered as they came up. Students were then given primary research articles and asked to review the statistics used in the articles and answer the following questions: (1) What statistics were calculated? (2) Were they appropriate given the research question/hypothesis? (3) What are you concerns about the statistics used in the article?

Outcomes Achieved/Conclusion: This activity emphasized the effect sample size has on sample distributions since those students who had more candies of a specific color or type were more likely to show a normal distribution when frequencies were graphed. Students also were able to see differences when the t-tests and Chi square statistics were calculated according to type or color of candy. As a result of this activity, students were better able to remember the various statistical tests they were likely to see in primary research articles and felt the combination of examining a published research article and calculating simple statistics enhanced their learning.

INTERPROFESSIONAL EDUCATION: A CNL-ENGINEER PARTNERSHIP TO IMPROVE HEALTH

Moderator:
Charlene A. Winters, PhD, APRN, ACNS-BC
Professor
College of Nursing
Montana State University
Missoula, MT

OVERVIEW: INTERPROFESSIONAL EDUCATION: A CNL-ENGINEER PARTNERSHIP

Charlene A. Winters

INTERPROFESSIONAL EDUCATION FOR CNLS AND ENGINEERS: OPPORTUNITY AND CHALLENGE

Charlene A. Winters

EXPLORING CNL/ENGINEER COURAGEOUS FOLLOWER BEHAVIORS

Sandra W. Kuntz, William J. Schell

SCHOLARLY PROJECTS: AN OPPORTUNITY FOR INTERPROFESSIONAL CLINCAL

Elizabeth Kinion

INTERPROFESSIONAL EDUCATION: CHALLENGES OF EVALUATION

Elizabeth G. Nichols

INTERPROFESSIONAL EDUCATION:
A CNL-ENGINEER PARTNERSHIP TO IMPROVE HEALTH

Overview: Interprofessional Education: A CNL-Engineer Partnership

Charlene A. Winters, PhD, APRN, ACNS-BC
Professor
College of Nursing
Montana State University
Missoula, MT

Purpose/Aims: In this symposium, presenters will describe the purpose, processes, and outcomes of a unique project funded by the Health Resources & Services Administration (HRSA) Advanced Nursing Education grant mechanism to develop and implement collaborative learning experiences for students enrolled in clinical nurse leader (CNL) and industrial (systems) engineering (IE) graduate options. The project purpose is to increase the competence of CNLs and IEs to improve quality and safety of client care and the efficiency of care systems.

Rationale/Background: The project responds to client care needs and to the health care delivery environment as articulated in landmark studies, reports, and scholarly articles that focus with growing alarm on patient safety, quality health care outcomes, effective use of health care resources, as well as a recognized need for systemic health care reforms, interprofessional education, and clinical leadership at the point of care (Long, 2004; American Association of Colleges of Nursing [AACN], 2003; Institute of Medicine [IOM], 2003; American Hospital Association [AHA], 2002). In the project, CNL and IE students, informed through interprofessional education, are prepared to address pressing system challenges that detract from effective, efficient, and safe care.

Methods/Processes: Graduate faculty from nursing and engineering guided the project from concept inception, academic approvals and extramural funding, to development and implementation of interprofessional faculty work, course development, and learning activities. In this symposium, presenters will describe the context, rationale, and purpose for the project; the development and implementation of interprofessional learning activities; the challenges and opportunities inherent in bridging disciplines; and early educational outcomes.

Outcomes Achieved/Documented: Faculty from nursing and engineering successfully designed, implemented, and evaluated interprofessional activities and education for CNL and IE graduate students. The project responds to a growing need for shared learning across disciplines to solve quality/safety problems and leadership challenges in the current health care environment.

Conclusions: In spite of considerable interest in interprofessional education, bridging educational programs across disciplines is still rare and not without challenges. Faculty engaged in graduate teaching and interested in interprofessional education will benefit from attendance at this symposium.

Funding: HRSA [D09HP08335].

References:

Long, K.A. (2004). Preparing nurses for the 21st century: Reinvisioning nursing education and practice. *Journal of Professional Nursing*, 20(2), 82-8.

American Association of Colleges of Nursing [AACN]. (2007). *White paper on the education and role of the clinical nurse leader.* Washington DC: Author.

Institute of Medicine [IOM]. (2003). *Health Professions Education: A Bridge to Quality.* Washington DC: National Academy Press.

American Hospital Association [AHA], (2002). In our hands: How hospital leaders can build a thriving workforce. Chicago, IL: American Hospital Association.

INTERPROFESSIONAL EDUCATION:
A CNL-ENGINEER PARTNERSHIP TO IMPROVE HEALTH

Interprofessional Education for CNLs and Engineers: Opportunity and Challenge

Charlene A. Winters, PhD, APRN, ACNS-BC
Professor
College of Nursing
Montana State University
Missoula, MT

Purposes: The project purposes are to develop and implement interprofessional learning experiences for students from the clinical nurse leader (CNL) and industrial (systems) engineering (IE) programs that will improve competencies to positively affect (a) the quality, safety, and efficiency of care systems and (b) health care outcomes. In this paper, the processes, procedures, and challenges of the project will be explored.

Background: The Institute of Medicine called on all health care organizations and professional groups to promote health care that is safe, effective, client-centered, timely, efficient, and equitable. Furthermore, all health professionals should be educated to deliver patient-centered care as members of an interdisciplinary team. Continued concerns about patient safety, quality health care outcomes, effective and efficient use of health care resources, and alarming increases in patient morbidity and mortality attributable to errors by nurses and other health professionals, provided the impetus for the nursing profession to focus on the delivery of highly competent clinical leadership at the point of care. Even so, in 2006, inadequate or ineffective leadership resulting in failure in the systems and processes that provide the framework for the clinical environment was a contributing factor in 50% of events reported to The Joint Commission. In response to the growing alarm about the health care delivery environment, faculty from nursing and engineering embarked on a unique project to provide interprofessional learning experiences for CNL and IE students.

Approach: Working together, nursing and engineering faculty obtained college and university approvals, secured extramural funding, and developed and implemented curricular changes that include collaborative learning experiences for graduate students in nursing and engineering.

Outcomes: Approval from both colleges resulted in (a) one cross-listed course on health care systems required for CNLs and recommended for IE graduate students, (b) joint learning activities for students that focus on care quality, safety, efficiency, and improved health outcomes, (c) interdisciplinary graduate project committees that focus on clinical service needs, (d) collaborative scholarly products among faculty members, and (e) planning for additional collaboration between colleges. Course scheduling and delivery issues and access to clinical agencies for international students are a few of the ongoing challenges the faculty work to overcome.

Conclusions: Common competencies embedded in CNL and IE curricula provide a strong foundation for interprofessional education with implications for nursing education, research, and practice. Research is needed to explore (a) mechanisms for implementing joint curricula, (b) the immediate and long-term benefits of interprofessional education of nurses and systems engineers, (c) the effect on processes used to ignite systemic reforms in health care delivery at the point of care, and (d) the implementation of best practices for the management of clinical populations to positively influence health outcomes.

Home ◀ ▶ go to PG.

INTERPROFESSIONAL EDUCATION:
A CNL-ENGINEER PARTNERSHIP TO IMPROVE HEALTH

Exploring CNL/Engineer Courageous Follower Behaviors

Sandra W. Kuntz, PhD, PHCNS-BC
Associate Professor
College of Nursing
Montana State University
Missoula, MT

William J. Schell, PhD, PE
Assistant Professor
College of Engineering
Montana State University
Bozeman, MT

Purpose: The purpose of this study was to (a) examine evidence of courageous follower behaviors (Chaleff, 1998), exhibited by nurses pursuing a clinical nurse leader (CNL) role; (b) compare the nurse findings with results from a study of engineers and technology workers based on The Followership Profile (TFP) (Dixon & Westbrook, 2003); (c) describe the similarities/differences evident in the behaviors of the two groups.

Background: An increasingly complex healthcare environment requires not only new approaches to care, but also changes in the models of healthcare leadership. Interprofessional teams working together can discover multi-faceted system and population-based solutions that reach beyond the scope of a single discipline (IOM, 2005). Engineers skilled in process improvement initiatives together with point-of-care partners, principally CNLs, are well positioned to lead change to improve patient outcomes. In addition to acknowledging differences in primary focus and approaches to problem solving, one aspect of bridging the disciplinary divide entails discovery of the leadership and followership behaviors of both nurses and engineers.

Method: Primary data were extracted from case studies (N=26) written by practicing nurses pursuing education toward a CNL degree. In each case, the nurse was asked to reflect on their experience, observations, and reactions to a change event within their unit that required inter-organizational or interdisciplinary collaboration. Each case was analyzed for themes using content analysis. The case was then rated on a five-point scale based on the courageous follower framework. Finally, the nurse behaviors were compared to behaviors of engineers/technology workers using secondary data from the literature.

Results: Using Chaleff's courageous follower model, the nurse cases provided clear examples of average to high levels of action for two of the five followership behaviors. All of the nurses displayed some level of *assumes responsibility* for the change with over half of the cases indicating high levels of evidence of the behavior. Consistent with professional values of altruism and commitment to improving the healthcare environment, *serves* (the common purpose) was prominent in 90% (n=23) of the cases. Less prevalent attributes included the courage to *challenge*, *participate in transformation*, and *take moral action* although these characteristics may be difficult to gauge in a single retrospective analysis of a change event. Related findings from the engineering study using the TFP tool determined that attributes of followership were related to organizational level with highest characteristics found in executives, lowest at the operations level, and supervisors/ managers demonstrating attributes in the mid-range.

Conclusions: The cases and examination of the engineering literature discovered some leadership role similarities related to courageous follower attributes but no clearly defined key differences between nurses and engineers leading from the middle. Additional study is needed to better understand the contribution of ethics, comfort with risk, and discipline-based epistemologies related to courageous follower behaviors in these complimentary yet different professions.

Funding: HRSA [D09HP08335].

References:

Dixon, G., Westbrook, J. (2003). Followers Revealed. *Engineering Management Journal,15*(1), 19 – 25.

Chaleff, I. (1998). *The courageous follower: Standing up to and for our leaders*. San Francisco, CA: Berrett-Koehler Publishers, (1998).

Institute of Medicine (IOM), *Facilitating interdisciplinary research.* Washington, DC: National Academies Press, 2005.

Home ◀ ▶ go to PG.

INTERPROFESSIONAL EDUCATION:
A CNL-ENGINEER PARTNERSHIP TO IMPROVE HEALTH

Scholarly Projects: An Opportunity for Interprofessional Clincal

Elizabeth Kinion, EdD, MSN, RN
Professor
College of Nursing
Montana State University
Bozeman, MT

Purposes: This paper addresses interprofessional collaboration through scholarly capstone projects that will positively impact health care outcomes.

Background: As early as 1998, the Pew Health Professionals Commission called for the development of academic and clinical partnerships between organizations. The Institute of Medicine (2000) also offered recommendations for increased collaboration between institutions as a means for enhancing patient safety. The CNL Scholarly (capstone) Project was based on Assumption Four of the ten assumptions for preparing Clinical Nurse Leaders (AACN, 2012) "...Currently, many students complete their course of study in nursing without having had the opportunity to work closely with physicians, physical therapists, social workers, pharmacists and others who are caring for the same client. Likewise, communication with other nurses who provide care to the same client(s) in other settings is seldom stressed. This lack of communication results in discontinuous and frequently unsafe, uncoordinated, inappropriate care." The College of Nursing faculty determined that the capstone activity for the graduates was to work with health professionals and colleagues in engineering and other disciplines to address a health care issue or a health education need identified by the clinical agency where students completed their clinical immersion.

Approach: Working together, the CNL student, the clinical preceptor, interprofessional topic experts, and the faculty advisor secured approvals, and guided the CNL student through project development and implementation.

Outcomes: Over a dozen CNL scholarly projects have been completed; of these two are with physicians, one with a pharmacist, and three with teams of persons (chief officers, physicians, quality improvement, and risk management personnel) from the Veteran's Administration. The most recent clinical project to improve readmission rates was commission by the Vice President for Nursing from a community hospital and included collaboration with an industrial engineering student. This project demonstrated the importance and value of a nursing – engineering collaboration. Two projects with industrial engineers are currently in progress.

Conclusions: The CNL students addressed the CNL Competencies (AACN, February 2007), engineering students gained insight and experience into health care delivery issues, and the clinical agency received tangible and meaningful projects from the students.

References:

American Association of Colleges of Nursing. (2007).White Paper on the Education and Role of the Clinical Nurse Leader. Washington DC: Author.

Institute of Medicine. (2000). *To Err is Human: Building a Safer Health System.* Washington, DC: National Academy Press.

AACN (2012) White Paper on the Role of the Clinical Nurse retrieved September 25, 2012. www.aacn.nche.edu/publications/white-papers/cnl.

INTERPROFESSIONAL EDUCATION:
A CNL-ENGINEER PARTNERSHIP TO IMPROVE HEALTH

Interprofessional Education: Challenges of Evaluation

Elizabeth G. Nichols, PhD, RN, FAAN
Research Scientist, Professor Emeritus
College of Nursing
Montana State University
Bozeman, MT

Purpose: This paper presents the evaluation aspect of a project to develop and implement interprofessional learning experiences for students from the clinical nurse leader (CNL) and industrial (systems) engineering programs. In this paper, the processes, procedures, and challenges of evaluating the project will be explored and results of the evaluation presented.

Background: Interprofessional experiences have been recognized by a variety of health professional groups as a critical component of the educational process for those working in health care (IOM, 2003, AACN, 2011). The focus of recommendations has been on curriculum for the major health professions such as nursing, medicine, and pharmacy, with the belief that if interprofessional teams work together as students once they are in practice they will better resolve complex system problems through collaborative problem-solving and improved communication. On campuses where there are not medical or pharmacy schools, planned, meaningful, interprofessional experiences can pose a challenge. At one such university, the program in industrial engineering, with a focus on health care settings, provided an opportunity for faculty from these disciplines to design and offer such experiences. The CNL project pairs students from industrial engineering and nursing in courses and projects. In order to determine whether this educational approach impacts the health care settings and the students/graduates in an ongoing way, an evaluation program was developed.

Approach: Evaluation activities are conducted on two levels: course-specific evaluations and programmatic evaluation. Course specific evaluation includes end of course assessments, grades, and student logs. Program evaluation includes post-graduation interviews with students regarding their educational experiences, their employment settings and roles, and assessment of the topics and process of the students' professional projects. To promote participation in the ongoing evaluation, the program orientation includes material on evaluation, and personal interviews rather than web-based questionnaires are conducted.

Outcomes: To date, data are available only from nursing graduates. All graduates are in positions requiring interaction with other professions and all have been tasked with initiating changes within a multi-disciplinary team. All graduates emphasized the importance of understanding multiple approaches to change and the importance of communication skills to effect change.

Conclusions: A number of challenges are inherent in specialty curriculum evaluation such as relatively small numbers of students selecting the option, both from engineering and nursing; tracking graduates once they complete the program – especially the engineering graduates whose programs of study differ in length from those of the nursing students; assessing the impact of a single graduate on a health care unit; and assessing the impact of one aspect of a dynamic curriculum.

Funding: HRSA [D09HP08335].

References: American Association of Colleges of Nursing, (2011) The Essentials of Master's Education in Nursing.
Institute of Medicine [IOM]. (2003). Health Professions Education: A Bridge to Quality.
Washington DC: National Academy Press.

Home go to PG.

PROMOTING THE HEALTH OF VULNERABLE POPULATIONS

Moderator:
Benissa E. Salem, RN, MSN, PHN, CNL
Doctoral Candidate
School of Nursing
University of California, Los Angeles
Los Angeles, CA

OVERVIEW: PROMOTING THE HEALTH OF VULNERABLE POPULATIONS

Benissa E. Salem, Adeline Nyamathi,
Felicia Schanche Hodge, Margaret Susan Stemmler

PREDICTORS OF HIGH LEVELS OF HOSTILITY AMONG HOMELESS MEN ON PAROLE

Adeline Nyamathi, Benissa E. Salem

CORRELATES OF FRAILTY AMONG HOMELESS ADULTS

Benissa E. Salem

METHAMPHETAMINE-USER TO MOTHER: VALIDATING RECOVERY

Margaret Susan Stemmler

PREDICTORS OF ADVERSE EVENTS AMONG AMERICAN INDIANS – IMPLICATIONS FOR HEALTHCARE

Felicia Schanche Hodge

PROMOTING THE HEALTH OF VULNERABLE POPULATIONS

Overview: Promoting the Health of Vulnerable Populations

Benissa E. Salem, RN, MSN, PHN, CNL
Doctoral Candidate
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Adeline Nyamathi, ANP, PhD, FAAN
Distinguished Professor
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Felicia Schanche Hodge, DrPH
Professor
School of Nursing and Public Health
University of California, Los Angeles
Los Angeles, CA

Margaret Susan Stemmler, PhD
Post Doctoral Fellow
David Geffen School of Medicine
University of California, Los Angeles
Los Angeles, CA

Purpose: To understand correlates of health and unmet health care needs among four vulnerable populations; namely, homeless men on parole, middle age to older homeless men and women at risk for frailty, adverse childhood events among American Indians, and early bonding needs and childbirth readiness among methamphetamine (MA)-using women.

Rationale: The challenges experienced by the most vulnerable of populations in terms of meeting health care needs and continuing to thrive despite adversities are stunning. Substantial needs of these populations are compounded by the combination of situational, behavioral, psychosocial, and physiological risk factors which affect health and social outcomes.

Methods: Quantitative methods have been utilized to explore health care and social service needs among four vulnerable populations. As part of a randomized controlled trial, baseline data were collected related to homeless adults and hostility. A cross-sectional design was used to examine correlates of frailty among homeless adults. Among American Indians, health registries were used to conduct random household surveys among adults to determine impact of adverse childhood events and a qualitative design assessed challenges experienced by MA-using mothers.

Results: Homeless men on parole (N=472) faced a multiplicity of challenges in terms of reintegrating into society. Middle age to older homeless men and women (N=150) present with risk factors for frailty which include, physical functioning, comorbid conditions and nutrition. Among American Indians (N=457), adverse childhood events may precipitate chronic illnesses and suicide ideation. Further, among MA-using women (N=8), voices of women made challenges experienced and needs clearly known.

Implications: Across the lifespan, there exist substantial challenges and unmet need experienced, leading to health disparities. For homeless men on parole, encouragement of completion of drug treatment, and access to mental healthcare may reduce hostility, recidivism and substance use. Among homeless men and women, risk factors for frailty include comorbid conditions, poorer nutrition and physical functioning. For American Indians, identifying adverse events is essential in order to develop culturally-sound interventions. Likewise, among MA-using women, recognizing challenges faced by women who are ready to parent a child was made known.

Funding: NIH/NINR T32 NR007077 Vulnerable Populations/Health Disparities.

Home ◀ ▶ go to PG.

Predictors of High Levels of Hostility among Homeless Men on Parole

Adeline Nyamathi, ANP, PhD, FAAN
Distinguished Professor
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Benissa E. Salem, RN, MSN, CNL, PhDc
Doctoral Student
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Purpose/Aims: Homeless men on parole are a hard to reach population who has significant challenges when attempting to reintegrate into the community. The purpose of our study was to examine hostility among homeless men on parole in an effort to reduce substance use and recidivism.

Background: The United States hosts the largest population of men and women behind bars, outranking the rest of the world. High levels of hostility present a formidable challenge among homeless ex-offenders; in particular three quarters are rearrested within three years. With the current day crisis, California can no longer house its large inmate population, and as parolees reenter the community, many must cope with significant stressors. One of these stressors is hostility.

Methods: Guided by the Comprehensive Health Seeking and Coping Paradigm, this cross-sectional study assessed correlates of high levels of hostility using baseline data from a randomized control intervention with recently-released homeless men on parole (n = 472; age 18-60). After informed consent was provided, a structured instrument was administered by research staff containing the following highly reliable and valid instruments: coping behaviors, childhood family relationships, depressive symptoms, emotional well-being, social support, self-esteem, drug and alcohol use and hostility. Staged logistic regression analysis was conducted to identify correlates of high levels of hostility.

Results: Predictors of high levels of hostility included greater depressive symptomatology ($p<.001$), lower self-esteem ($p<.021$), having a mother who was treated for alcohol/drugs ($p<.001$), belonging to a gang ($p<.001$), more tangible support ($p<.037$), having used methamphetamine ($p<.001$) and having a history of cognitive difficulties ($p<.028$).

Conclusions: A multiplicity of challenges exists for homeless men on parole attempting to reintegrate into the community. As successful reentry is difficult in the face of hostility, these findings highlight the need to develop a compendium of services which will focus on mental health, encourage completion of drug treatment, improves self-esteem – all in an effort to uncover challenges faced by this highly vulnerable population. Research implications are discussed in terms of how these findings may shape future nurse-led harm reduction and community-based interventions.

Funding: This research was supported by a grant from the National Institute on Drug Abuse RO1DA27213.

Home ◀ ▶ go to PG.

Correlates of Frailty among Homeless Adults

Benissa E. Salem, RN, MSN, CNL, PhDc
Doctoral Candidate
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Purpose/Aims: Frailty, a relatively unexplored concept among vulnerable populations, may be a significant issue for homeless adults. The purpose of this cross-sectional study was to assess correlates of frailty among middle age and older homeless adults.

Background: The population of the United States (US) is aging and emerging evidence suggests that the number of older homeless adults is expected to double within the next 30 years. Economic vulnerability of the elderly and aging of the baby boomer generation may be two root causes for this exponential increase. Authors contend that homelessness among older adults is a symptom that our safety net is failing; and the aging trends among homelessness and aging of racial and ethnic minorities may be considered a double jeopardy.

Methods: The Frailty Framework among Homeless and Other Vulnerable Populations guided this cross-sectional study (N = 150; age 40-73). A structured instrument was administered by the principle investigator and measured sociodemographic data, comorbid conditions, depressive symptomology, disability, physical functioning, drug use and dependency, nutrition, body mass index, health care utilization, social support, resilience, and frailty. Descriptive analyses, bivariate associations, and multiple regression analyses were used to test the relationship between the independent and dependent variables.

Results: Slightly over half of the participants (59.3%) were over 50, and equally distributed by gender. Spearman *rho* bivariate analysis revealed that there were significant associations found between frailty and gender, comorbid conditions, depressive symptomology, healthcare utilization, and body mass index. Moreover; there were negative correlations between activities of daily living, physical functioning, resilience, social support, age, and nutrition. In the final multiple regression model, significant positive predictors of frailty included comorbid conditions ($p<.01$), whereas, negative associations were found between physical functioning ($p<.01$), and nutrition ($p<.01$).

Conclusions: Frailty is a public health challenge and beckons us to reconsider the way we should care for our homeless adults, especially as they age. Over the next two decades, there is an anticipated increase in the number of homeless adults which will necessitate a greater understanding of the needs of this hard-to-reach population. In essence, these findings serve as a foundation for understanding frailty which will inform future nurse-led studies that will lead to culturally-sensitive interventions.

Funding: This work was supported by the NIH National Institute of Nursing Research (NINR) T32 NR007077, UCLA Dissertation Year Fellowship Award; UCLA Community Academic Partnership for Research in Aging (L.A. CAPRA) Center NIH Grant 1RC4AG038182-01.

Methamphetamine-User to Mother: Validating Recovery

Margaret Susan Stemmler, PhD, MPH, FNP, CNM
Postdoctoral Fellow
David Geffen School of Medicine
University of California, Los Angeles
Los Angeles, CA

Purpose/Aims: To investigate the perceived childbirth and early parenting experiences of eight women who had used methamphetamine during a portion of their pregnancies. Their experiences occurred within the context of attending court-mandated drug treatment.

Background: Methamphetamine use in pregnancy is characterized as methamphetamine dependence. For women with a methamphetamine-centered existence, life is chaotic. Socio-behavioral instabilities related to co-existing mental health problems, poor coping, and paranoia, irritability, and impulsivity of methamphetamine use influence adherence to self-care, nutrition status, safety, and sexuality. The risk for unintended pregnancy is great and methamphetamine use poses countless vasoconstrictive risks to the pregnancy. A methamphetamine-centered lifestyle correlates with delayed entry into prenatal care, the need for high risk management, and poor pregnancy outcome, especially low birth weight. As a result of relapse to methamphetamine use and poor maternal-fetal bonding, within a month of giving birth 35% of women who used the methamphetamine during pregnancy no longer have physical care of their infants.

Methods: Passive recruitment, using flyers posted at substance abuse treatment facilities, WIC sites, and a high-risk maternity practice was conducted. Eligibility for participation required women who used methamphetamine during a pregnancy, who were currently pregnant or not greater than six months postpartum, to be 18 years of age and older, English speaking, and to identify methamphetamine as their primary drug of choice. Of seventeen eligible women, eight were postpartum mothers in substance abuse treatment located in Southern California. The postpartum subsample self-identified ethnicity: five were White, two Hispanic, and one mixed-race Hispanic. Ages ranged from 22 to 37 and all were unemployed. One participant was married; four were in long-term and three in casual relationships with the father of the baby. Using the principles of Constructivist Grounded Theory, one semi-structure interview was audio-recorded and analyzed details of pregnancy, childbirth, and early parenting.

Results: The women revealed their lives within a therapeutic community in residential substance abuse treatment. They described a transitional process to motherhood in "recovery" that offered sanctuary for coping with guilt for methamphetamine use in pregnancy, reduced fears of childbirth and supported bonding interactions with their babies. They perceived validation of their roles as mothers with sustained abstinence from methamphetamine.

Implications: Women mandated into "recovery" during childbirth and early parenting approach conventional motherhood transition with active, ongoing support. This study informs policy regarding focused outreach and more treatment availability for drug-using pregnant women.

Funding: This research was supported by a grant from the National Institute of Nursing Research, T-32 NR007077, Vulnerable Populations and Health Disparities.

Home

◀ ▶ go to PG.

Predictors of Adverse Events among American Indians – Implications for Healthcare

Felicia Schanche Hodge, DrPH
Professor
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Purpose: Adverse events, defined as physical, verbal, sexual, mental and emotional abuse, experienced during childhood/adolescents is suggested to be a major risk factor for chronic illness in later-life. Our study examined prior adverse events and its association with current health status, perception of wellness, risk behaviors, and culture among adult American Indians.

Background: California Indians have historically reported high rates of chronic illness, such as type 2 diabetes, cardiovascular disease, depression and cancer. Few studies report the prevalence, factors and patterns of adverse events among rural American Indians. Cultural factors, individual wellness perceptions and risk behaviors are possible influences to consider in the trajectory and impact of adverse events on current health status.

Methods: Thirteen California rural Indian health clinic registries formed the random household survey sampling frame (N = 457). Adult American Indian household members over the age of 18 were invited to participate in the study – 500 were invited and 457 participated. Survey measures included socio-demographics, wellness, perceptions, health status/health conditions, risk behaviors (alcohol abuse, smoking, and fighting), spirituality, cultural connectivity (speaking tribal language, participating in American Indian practices, and feeling connected to community), suicide attempts or ideation, age at adverse event experience, history of physical abuse and neglect. Statistical tests included Chi Square and Fisher's Exact test, as well as multiple logistic regression analysis.

Results: Findings confirm the trajectory of adverse events among cohorts. Predictors of adverse events were general health status (p=.0001), participation in American Indian cultural practices (p=.001) and suicide ideation (p=.007). Significant differences in wellness status were observed based on certain reported experience of adverse events in childhood (p=.007) and adulthood (p=.002) (neglect, physical abuse, and sexual abuse). Cultural connectivity was found to be associated with perceptions of wellness. Smokers also reported being neglected (p=.002) and physically abused in childhood (p=.008) and adolescence (p=.003), and were statistically more likely to have smoked during pregnancy.

Implications: Identifying and understanding the impact of adverse events in communities will aid nurses in providing case management and support to American Indian patients. Better understanding improves prevention and treatment options and can improve long term chronic illnesses so prevalent in this community. Recommendations include prevention and screening for adverse events and the provision of culturally-appropriate education/ and interventions emphasizing community and cultural connectivity for improving wellness status.

Funding: This research was supported by a grant from the NINR, NIH, R01 NR04528.

Home
◀ ▶ go to PG.

REDEFINING AND REDESIGNING UNDERGRADUATE CLINICAL EDUCATION

Moderator:
Paula Gubrud-Howe, EdD, RN, FAAN
Senior Associate Dean for Education and Statewide Programs
Oregon Health & Science University
School of Nursing
Portland, OR

OVERVIEW: REDEFINING AND REDESIGNING CLINICAL EDUCATION

Paula Gubrud-Howe

CLINICAL EDUCATION IN OREGON: STRENGTHS, CHALLENGES AND PARTNERSHIP PARADOXES

Paula Gubrud-Howe

CLINICAL REDESIGN: AN INNOVATIVE APPROACH TO CLINICAL EDUCATION

Joanne Noone, Paula Gubrud-Howe, Ann Nielsen

CONCEPT BASED LEARNING IN THE CLINICAL ENVIRONMENT

Ann Nielsen

APPLICATION OF THE INTEGRATIVE EXPERIENCE IN COMMUNITY-BASED CLINICAL SETTINGS

Heather Voss, Launa Rae Mathews

Home

◀ ▶ go to PG.

REDEFINING AND REDESIGNING UNDERGRADUATE CLINICAL EDUCATION

Overview: Redefining and Redesigning Clinical Education

Paula Gubrud-Howe, EdD, RN, FAAN
Senior Associate Dean for Education and Statewide Programs
Oregon Health & Science University
School of Nursing
Portland, OR

Purpose/Aims: The purpose of this symposium is to describe a multiphase clinical redesign of undergraduate nursing education in multiple community college and baccalaureate programs in Oregon.

Rationale/Background: Clinical education in nursing education continues to rely on characteristics of the apprenticeship practices from yesteryear. New competency based nursing curricula will require new approaches to clinical education to assure nursing students have opportunity to develop the knowledge, skills and attitudes required in today's practice environment.

Brief Description of the Undertaking: The papers in the symposium document the multiphase aspects of clinical redesign. The first paper describes the needs assessment that occurred, which laid the groundwork for clinical redesign. In the second paper, the process of developing a clinical redesign model is outlined and the five element model is described. In the last two papers, two of the five elements in the models are more fully discussed.

Outcomes Achieved/Documented: A new model for clinical education was created using a collaborative approach involving stakeholders from practice and education. The model is informed by the science of learning and has been implemented in several nursing programs. Pilot projects have created new opportunities for unique clinical approaches and show potential for increasing clinical capacity while enhancing learning opportunity for competency development. An instrument designed for evaluating competency shows promise as an evaluative tool in clinical education.

Conclusions, Emphasizing Implications for Clinical or Educational Practices, and Recommendations for Research or Future Undertakings: The journey of Oregon nurse educators and practice partners to implement clinical education redesign can serve as a guide to other educators considering such an undertaking. A multiphase plan involving a collaborative approach can assist in providing a strong foundational base to ensure success.

Funding: Northwest Health Foundation and Northwest Kaiser Foundation, Ford Family Foundation, Meyer Memorial Trust and US Department for Education Fund for Improvement of Post-Secondary Education.

Home ◀ ▶ go to PG.

REDEFINING AND REDESIGNING UNDERGRADUATE CLINICAL EDUCATION

Clinical Education in Oregon: Strengths, Challenges and Partnership Paradoxes

Paula Gubrud-Howe, EdD, RN, FAAN
Senior Associate Dean for Education and Statewide Programs
Oregon Health & Science University
School of Nursing
Portland, OR

Purpose/Aims: The purposes of Phase 1 of this multiphase project were threefold: 1) Establish perceptions of stakeholders regarding the strengths and challenges of clinical education throughout Oregon, 2) Identify innovative clinical education projects and approaches, 3) Unfreeze assumptions related to traditional approaches to clinical education in preparation for transformational change.

Rationale/Background: Clinical education in nursing has been virtually unchanged for decades despite drastic changes in the role of nursing in health care. Over reliance on the total patient care model is constraining role development, increasing competition for acute care sites and creates challenges for faculty and staff nurses. New learning centered clinical education models are needed to assure graduates are prepared with competencies needed in today's complex health care environment.

Brief Description of the Undertaking: Over 35 focus groups were conducted by the two project directors. One director was an experienced nurse educator and the other was a retired nurse executive and they worked together closely to model a collaborative approach to the entire project. Focus groups were held throughout Oregon and the 750 participants discussed strengths, challenges and innovations they were observing and experiencing in clinical education. Extensive observational notes were developed by the two project directors immediately after each focus groups. Observational notes were analyzed and common themes were identified describing strengths, challenges, and paradoxes in the current state of clinical education.

Outcomes Achieved/Documented: Results were presented at a summit involving 350 stakeholders that included focus group participants from both education and practice. Summit participants were invited to submit a proposal for funding innovative pilot projects. Funded projects were designed to create new and innovative approaches to clinical education and included an education/practice partnership. Results from the focus groups and funded pilot projects were used to inform the development of a new model for clinical education.

Conclusions, Emphasizing Implications for Clinical or Educational Practices, and Recommendations for Research or Future Undertakings: The combined process and results identified from the focus groups and stakeholder summit and pilot projects set the stage for developing a new model for clinical education. Furthermore, the process involving educators and practice partners established new norms for collaboration required for transformational change.

Funding: Northwest Kaiser Foundation and Northwest Health Foundation.

Home ◀ ▶ go to PG.

REDEFINING AND REDESIGNING UNDERGRADUATE CLINICAL EDUCATION

Clinical Redesign: An Innovative Approach to Clinical Education

Joanne Noone, PhD, RN, CNE
Associate Professor, School of Nursing
Oregon Health & Science University
Ashland, OR

Paula Gubrud-Howe, EdD, RN, FAAN
Associate Professor, Senior Associate Dean
for Education and Statewide Programs
School of Nursing
Oregon Health & Science University
Portland, OR

Ann Nielsen, MN, RN
Clinical Assistant Professor
School of Nursing
Oregon Health & Science University
Portland, OR

Rationale and Background: This presentation outlines a clinical education model developed and implemented in the Oregon Consortium for Nursing Education undergraduate curriculum to best prepare nurses to practice in the 21st century. Nurse educators in Oregon responded to demands for increasing skills in graduates through development of a statewide nursing education curriculum shared by partners at community colleges and state universities

Purpose/Aims of the Project: This clinical education model moves away from a "random access opportunity" model of clinical education reliant on "total patient care" experiences to an intentional design of learning activities based on course competencies appropriate to student level. It is intended to promote deep understanding of knowledge and skills used for providing patient care and to structure clinical experiences appropriate to identified learning outcomes and the developmental level of the student.

Description of the Undertaking: This model was developed through collaborative work with stakeholders from across the state by the Clinical Education Redesign Group made up of 32 practice (nurse executives and staff nurses) and education (faculty) partners across Oregon. Expectations for faculty, students and clinical staff were outlined to enhance quality in clinical learning.

Outcomes: Five elements of the models were developed. In early clinical learning, concept-based, case-based and intervention skill-based elements are dominant. Concept-based learning focuses on a concept to be used as foundational building blocks to aid in developing pattern recognition. Case-based learning experiences are clinical exemplars, often delivered through simulation, to enhance developing clinical judgement. Intervention skill-based learning occurs through repetition of psychomotor, assessment and communication skill-building. During mid-level clinical experiences, focused direct client care is used for the student to gain progressive experience in the actual delivery of nursing care in acute care, transitional care and community settings. Integrative clinical experiences dominate in late clinical learning and provide an opportunity for the student to pull elements of prior learning into an authentic clinical practice situation to begin transition into practice.

Conclusions: The demands of the nursing workforce and changing environment of health care today call for a change in clinical education for nursing students. In response, a new clinical education model was developed with input from clinical and education representatives. This model has five elements that exist throughout the curriculum but may be more dominant in certain phases of the curriculum, based on the developmental needs of the learner. Use of a clinical education model that includes planned learning experiences that consider learning development and build upon previous experiences structure clinical learning to assure that students meet identified competencies. An intentional design of clinical learning activities to meet course competencies can facilitate the development of clinical judgment.

Home ◀ ▶ go to PG.

REDEFINING AND REDESIGNING UNDERGRADUATE CLINICAL EDUCATION

Concept Based Learning in the Clinical Environment

Ann Nielsen, MN, RN
School of Nursing
Oregon Health & Science University
Portland, OR

Purposes/Aims: Concept-based learning, an element of the clinical education model, is designed to support integration of theory with practice in deep and meaningful ways, facilitate development of clinical judgment (Benner, Tanner, & Chesla, 2009), and provide opportunities to go beyond the facts to deep exploration of key concepts (Giddens & Brady, 2008).
Rationale/Background: In view of the increasingly complex clinical environment and demands on professional nursing practice, nurse educators are challenged to provide clinical learning experiences in ways that intentionally develop the skills needed by nurses in the 21st century. Concept-based learning is used in a variety of disciplines and is identified as a way to facilitate development of expertise (Bransford, Brown, & Cocking, 2000).
Brief Description of the Best Practice: Concept-Based Learning Activities (CBLAs) provide the structure for students to examine selected aspects of nursing care deeply without responsibility for delivery of patient care interventions (Nielsen, 2009). Students prepare by reading relevant theory, then use a study guide to do an assessment of the patient, the patient population, or the clinical situation. They draw conclusions based on their findings and connect relevant theory to the nursing care situation. They propose nursing actions, but typically do not do them. A key feature of this approach is nursing rounds or topical post-conference, the purpose of which is to compare and contrast findings among students in the clinical group. Because their time is not focused on checking students' preparation to assure safe delivery of patient care, the clinical educator is free to teach. The focus of teaching is to help with assessment and interpretation of findings, identification of salient aspects of the situation and recognition of patterns within the care situation. CBLAs are used across the curriculum, especially when students are new to a patient population or care environment. Three exemplars of CBLA use in various settings (simulation, acute care, and leadership) will be presented.
Outcomes Achieved/Documented: One small study has indicated an increase in clinical judgment associated with CBLA use in acute care settings (Lasater & Nielsen, 2009).
Conclusions: Concept based learning in clinical enhances students' understanding of important aspects of nursing care. They are used in variety of settings to direct students' attention to salient aspects of nursing care. More research is needed to better understand the associated teaching and learning.

References:
Benner, P., Tanner, C., & Chesla, C. (2009). *Expertise in nursing practice: Caring, clinical judgment, and ethics,* 2nd Ed. New York: Springer Publishing Company.
Bransford, J.D., Brown, A.L., & Cocking, R.R. (Eds.). (2000). *How people learn: Brain, mind, experience, and school*. Washington, DC: National Academy Press.
Giddens, J., & Brady, D. (2008). Rescuing nursing education from content saturation: The case for a concept-based curriculum. *Journal of Nursing Education, 46*(2), 65-69.
Lasater, K., & Nielsen, A. (2009). The influence of concept-based learning activities on students' clinical judgment development. *Journal of Nursing Education, 48*(8), 441-446.
Nielsen, A. (2009). Concept-based learning activities using the clinical judgment model as a foundation for clinical learning. *Journal of Nursing Education, 48*(6), 350-354.

Home ◀ ▶ go to PG.

REDEFINING AND REDESIGNING UNDERGRADUATE CLINICAL EDUCATION

Application of the Integrative Experience in Community-Based Clinical Settings

Heather Voss, MSN
Clinical Assistant Professor
School of Nursing
Oregon Health & Science University
Ashland, OR

Launa Rae Mathews, MN
Clinical Assistant Professor
School of Nursing
Oregon Health & Science University
Portland, OR

Purpose/Aims: Highlight integrative learning experiences in a population-based care course using concept, skill and case-based learning activities to engage undergraduate nursing students in health and wellness initiatives.

Rationale/Background: The Integrative Experience is described as clinical learning that brings together and applies previous learning in an authentic clinical setting (Gubrud & Schoessler, 2008; Gubrud, & Schoessler, 2009). Use of the clinical education model supports clinical innovation through purposeful and intentional clinical learning experiences rather than the random direct-focused care that has traditionally dominated much of clinical nursing education. The model provides a consistent frame for assuring that essential concepts and skills are addressed and applied in the clinical setting and embraces a broader definition of what has traditionally been categorized as clinical experience. As students progress in their program of study, the clinical experiences they are exposed to become more complex, requiring consideration of the client's context, culture, social determinants of health, environment, and other factors that influence health and well-being.

Brief Description of the Undertaking: The Population-Based Care course serves as an exemplar of the integrative experience in which students continue their formation as professional nurses within a community setting.

Outpatient settings such as schools, neighborhood centers and community agencies are primary clinical sites for the population-based care. Concepts, including community as client, client centered care and culture are integrated with skill development in communication, assessment, and clinical judgment as students work in teams to assess the health of a population or community. Case base activities provide the structure for students to develop and, then provide, initial interventions which focus on health-related areas identified by the population. The concept, "Zoom" (Banyai, 1995) is used to further integrate and broaden students' perspective about the many variables that impact the health and wellness within a population or community.

Outcomes Achieved/Documented: Integration of concept, skill and case-based learning are demonstrated through formal and informal presentations to academic and community groups, written reflective journals, and clinical post conference discussions. Additionally, students demonstrate integration as they engage and intervene, using a blend of broader perspective thinking and skills, with vulnerable populations in local neighborhoods.

Conclusions, Emphasizing Implications for Clinical or Educational Practices, and Recommendations for Research or Future Undertakings: Community clinical settings provide excellent opportunities for integration and application of skill-based learning such as effective communication and assessment, and concept based knowledge related to community as client and client-centered care. Integrative experiences provide opportunities for nursing students to build on previous knowledge and develop professional skills as they prepare to enter the complex health care system.

References:

Banyai, I. (1995). *ZOOM.* New York: Puffin Books.

Gubrud, P. & Schoessler, M. (2008). From random access opportunity to a clinical education curriculum. *Journal of Nursing Education, 47*(10), 3-4.

Gubrud, P., & Schoessler, M. (2009) Oregon Consortium for Nursing Education Clinical Education Model in Ard, N. and Valiga, T. (Eds) *Clinical Nursing Education: Current Reflections*, pp 39-58.

Home

go to PG.

SHIFTING BETWEEN DETERMINANTS AND PHENOMENA IN BIOBEHAVIORAL SYMPTOM RESEARCH

Moderator:
Nancy K. Lowe, PhD, CNM, FACNM, FAAN
Professor and Chair
Women, Children, & Family Health
College of Nursing
University of Colorado
Aurora, CO

OVERVIEW: SHIFTING BETWEEN DETERMINANTS AND PHENOMENA IN BIOBEHAVIORAL SYMPTOM RESEARCH

Nancy K. Lowe

EVERYDAY STRESS AND COPING IN HIV: RESULTS FROM ECOLOGICAL MOMENTARY ASSESSMENT

Paul F. Cook, Laurra Aagaard, Sarah J. Schmiege

THE SHAPE-SHIFTING ROLE OF BREATHING DISTRESS AND EFFORT IN MEDICATION ERRORS

Paula M. Meek

BIOBEHAVIORAL DETERMINANTS OF UNPLANNED CESAREAN DELIVERY AMONG OBESE WOMEN

Nicole S. Carlson, Nancy K. Lowe

INSOMNIA, FATIGUE, AND ADHERENCE TO INSOMNIA THERAPY IN WOMEN WITH BREAST CANCER

Ellyn E. Matthews, Sarah J. Schmiege, Paul F. Cook,
Ann M. Berger, Mark S. Aloia

Home
◀ ▶ go to PG.

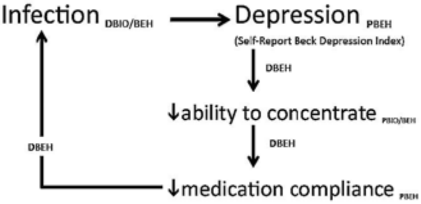
SHIFTING BETWEEN DETERMINANTS AND PHENOMENA IN BIOBEHAVIORAL SYMPTOM RESEARCH

Overview: Shifting between Determinants and Phenomena in Biobehavioral Symptom Research

Nancy K. Lowe, PhD, CNM, FACNM, FAAN
Professor and Chair
Women, Children, & Family Health
College of Nursing
University of Colorado
Aurora, CO

Purpose: The purpose of this symposium is to illustrate the application of the shape shifters metaphor as conceptualized by our faculty group to biobehavioral determinants and phenomena in symptom research.

Rationale: Traditionally, the determinants of symptoms were viewed as separate from the phenomena related to the symptoms. The separation of determinants from phenomena have minimized and dichotomized the complexity and dynamic nature of the symptom experience and subsequent clinical management. In addition, categorizing symptom determinants and phenomena as solely biological or behavioral minimized their dimensionality and limited cross-disciplinary dialogue. We propose that determinants and phenomena are not fixed but shift between each other depending on situation or theoretical/hypothetical perspective. The shape shifter metaphor from folklore illustrates this idea since the shape shifter is able to move between states and may be seen differently by the same person at different times or by multiple individuals at one time. The figure illustrates how infection may be conceptualized as a biobehavioral determinant of depression; depression as a behavioral phenomenon that is a behavioral determinant of lowered ability to concentrate; diminished concentration as a biobehavioral phenomenon that is a behavioral determinant of decreased medication compliance; and decreased medication compliance, a behavioral phenomenon, is a behavioral determinant of continuing infection.



Methods: The symposium includes three faculty data-based papers and one conceptual paper by a doctoral student that illustrate different applications of the shape shifter conceptualization of biobehavioral determinants and phenomena to different areas of investigation.

Results: The symposium papers will address stress and coping as bidirectional in persons living with HIV; breathing distress and effort as shifting components of errors in inhaler medication delivery in persons with COPD; biologically altered myometrial function and clinician behavior as shifting determinants of uterine dystocia in obese nulliparous parturient women; and physical symptoms, fatigue, mood and treatment adherence in women after primary breast cancer treatment with insomnia.

Implications: Each presenter will discuss the shape shifting perspective inherent in their study as well as the analytic approach used.

Home
go to PG.

SHIFTING BETWEEN DETERMINANTS AND PHENOMENA IN BIOBEHAVIORAL SYMPTOM RESEARCH

Everyday Stress and Coping in HIV: Results from Ecological Momentary Assessment

Paul F. Cook, PhD
Associate Professor
U. of Colorado College of Nursing
Aurora, CO

Laurra Aagaard, MS, MA
Study Coordinator
U. of Colorado College of Nursing
Aurora, CO

Sarah J. Schmiege, PhD
Assistant Professor
U. of Colorado College of Nursing
Aurora, CO

Purpose/Aims: In a study on the everyday experiences of persons living with HIV (PLWH), we examined prospective predictors of coping, including measures of mood, control beliefs, social support, and stigma collected one day earlier. Our analysis was guided by the CU College of Nursing “shape shifters” framework, in which phenomena like stress and coping may have bidirectional causation.

Background: Stressful events, particularly chronic stressors, predict reduced adherence that puts PLWH at risk for treatment failure. Other factors such as control beliefs, mood, and perceived social support may influence PLWH’s ability to cope with stressors. We studied everyday psychological experiences (“momentary states”) that may make PLWH more or less able to cope with everyday challenges.

Methods: Using ecological momentary assessment (EMA) to collect data on daily experiences, we asked 21 PLWH to complete surveys on a handheld computer once per day for 6 months. Although this was a small study, quota sampling was used to recruit participants who matched the U.S. HIV epidemic in race/ethnicity, gender, and method of HIV infection. Participants had been living with HIV for M = 10.1 years (SD = 5.7), and most had comorbid medical and/or mental health conditions. Surveys took less than 5 minutes to complete, and 70% of participant-days had complete data. Brief scales validated for EMA were used to assess participants’ control beliefs, mood, stress, coping, experience of HIV-related stigma, and perceived social support (Cook et al., 2010). The coping scale measured the number of coping strategies used, and a second one-item measure asked whether coping was successful. Momentary states (beliefs, mood, etc.) on one day were examined in a multivariable model as predictors of coping on the following day, and we also tested coping as a prospective predictor of subsequent momentary states.

Results: Not surprisingly, coping on one day was the best predictor of coping on the next $t(54) = 2.69$, $p = 0.0095$. Additionally, higher perceived control predicted less next-day coping, $t\ (72) = -2.23$, $p = .03$, and successful resolution of stress on one day approached significance in predicting reduced coping on the next day, $t\ (72) = -1.80$, $p = .075$. Other momentary states, including mood, perceived social support, stigma, and whether stress was chronic or acute, did not prospectively predict coping. The number of coping strategies used on one day did not prospectively predict perceived control on the next day, but did approach significance as a prospective predictor of mood, $t\ (224) = -1.71$, $p = .089$, with increased coping predicting worse mood.

Implications: There appear to be reciprocal relationships between momentary states and coping. In particular, high perceived control predicted reduced coping, and greater coping predicted worse mood. The number of coping efforts used may be a marker for ineffective or inefficient coping efforts. Clinicians might address either PLWH’s momentary states or their coping strategies in order to foster successful coping and positive daily experiences.

Acknowledgements: This study was supported by NIH grants M01RR00051 and 1R21NR012918-01A1.

Reference: Cook PF, McElwain CJ, Bradley-Springer LA. *Res Nurs Health* 2010;33:221-234.

Home ◀ ▶ go to PG.

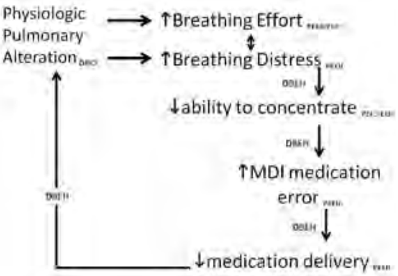
SHIFTING BETWEEN DETERMINANTS AND PHENOMENA IN BIOBEHAVIORAL SYMPTOM RESEARCH

The Shape-Shifting Role of Breathing Distress and Effort in Medication Errors

Paula M. Meek, RN, PhD
Professor, College of Nursing
University of Colorado, Denver
Aurora, CO

Specific Aims: The aim of this presentation is to examine the shape-shifting role of breathing distress and effort in determining errors in meter dose inhaler (MDI) medication delivery.

Rationale and Background: This examination of the potential shifting role of breathing *distress* and *effort* was prompted by a new theoretical biobehavioral perspective of phenomena and determinants (Corwin, Meek, Cook, Lowe, & Sousa, 2012). In addition, there is a long standing problem in management of individuals with COPD in that MDI techniques are complicated and frequently inadequate dosages are delivered. Evidence in physiology and cognitive psychology holds that changes in breathing result in anxiety and decreased ability to concentrate. The question posed was whether individuals who experience an increase in breathing distress will have greater number of errors in technique with MDI delivery than days when breathing distress is at a steady level (figure). The shift is whether the converse may be true with breathing effort.



Methods: A subsample obtained from a larger study (NR008142) of 71 (35M/26F) individuals with moderate to severe (FEV_1 % 50 ±19) COPD and a mean age of 69 (±7.6) was examined. MDI's were monitored over 4 weeks with an electronic monitoring device (MDILog II) resulting in over 1000 test points. Each MDI use was evaluated for technique errors. The technique errors were whether the medication was shaken prior to inhalation, was inhaled too fast, too slow, or not at all, or multiple puffs were attempted. Breathing effort and distress were assessed at the same time using two Visual Analogue Scales (VAS) labeled with either worst possible breathing distress or effort and on the other end no breathing distress or effort. Three groups were created; 1) Days where breathing effort and distress were alike (~5mm), 2) breathing effort was > distress (>5mm) 2) breathing distress was > effort (>5mm). Analysis of associations and sensitivity of these cutoffs group will also be presented.

Results: Individuals used their MDI an average of 4.5 (±6.3) times/day with errors in technique occurring 62% (±20%) of the time, with the most common error delayed inhalation. ANOVA results were that greater distress days had fewer medication errors ($p<.05$).

Implications: The results support that individuals with COPD have poor MDI technique and that with periods of increased breathing distress, there is a decrease in MDI errors. However a shift could not be identified at this point. Consequently, increased distress appears to in the short term, a positive factor related to MDI medication delivery potentially because of the importance of a good delivery method when a person is experiencing distress in their breathing.

Funding: NINR, RO1NR008142.

Reference:

Corwin, E. J., Meek, P., Cook, P. F., Lowe, N. K., & Sousa, K. H. (2012). Shape shifters: biobehavioral determinants and phenomena in symptom research. *Nurs Outlook, 60*(4), 191-197. doi: 10.1016/j.outlook.2012.04.008.

SHIFTING BETWEEN DETERMINANTS AND PHENOMENA IN BIOBEHAVIORAL SYMPTOM RESEARCH

Biobehavioral Determinants of Unplanned Cesarean Delivery among Obese Women

Nicole S. Carlson, CNM, MS
PhD Student
College of Nursing
University of Colorado
Aurora, CO

Nancy K. Lowe, PhD, FACNM, FAAN
Professor & Chair
Women, Children, & Family Health
College of Nursing
University of Colorado
Aurora, CO

Purpose: The purpose of this systematic review was to examine the existing scientific knowledge on the biological and behavioral determinants of the phenomenon of unplanned cesarean delivery for labor dystocia in nulliparous, obese women.

Background/Rationale: The United States is in the midst of an obesity epidemic with over half of U.S. women of childbearing age being either overweight or obese. This obesity epidemic has developed quickly over the past twenty years, resulting in a very different body mass index (BMI) mix of women becoming pregnant now than was present in the near past. Obese women are at particular risk for unplanned cesarean delivery, with rates of cesarean delivery 2-3 times that of normal-weight women. In otherwise healthy nulliparous obese women, poor uterine contractility and caregiver management behaviors in labor have been found to explain much of this increased risk for cesarean delivery. There is a need to better understand the interaction between obese women's unique biology and the timing and use of interventions during labor.

Methods: Pubmed, CINAHL, EBSCO, Google Scholar, and MEDLINE databases were searched in July 2012, with identified studies then assessed for applicability. A second, independent search of the literature was conducted, and the results of the two searches were combined. Literature searches were limited to the years 2007-2012, human subjects, original research, and English language. Search terms were labor dystocia, obese/obesity, BMI, intrapartum management, prolonged labor, contractile function, myometrium, and cesarean section. A total of 10 biological and 14 behavioral studies were assessed for quality, summarized, and used to inform an integrated biobehavioral analysis of the phenomenon of unplanned cesarean delivery for dystocia.

Results: Both biological and behavioral determinants were linked in the reviewed studies. Increased leptin and cholesterol levels decreased myometrial contractility in *in vitro* experiments, even when cells were exposed to exogenous oxytocin. Intermediate biological mechanisms for this observed effect were not explicated in whole-animal models of obesity. Obese women were managed differently than normal-weight women in labor, undergoing more interventions to induce and speed labor and more unplanned cesarean deliveries for the indication of labor dystocia. In 3 prospective behavioral studies, obese women required higher total doses of exogenous oxytocin when compared to normal-weight women.

Implications: Future studies are needed to examine the interactions among serum leptin and cholesterol near term gestation in obese and non-obese women, and the intrapartum management behaviors of providers and birth outcomes of these women. Future studies are also needed to examine the exogenous oxytocin dosages required for successful vaginal delivery among women of different serum leptin and cholesterol levels. Nurse-midwives and labor nurses who care for obese, nulliparous women require new evidence to inform their work of supporting obese women through labor to the safest birth outcome.

Home ◀ ▶ go to PG.

SHIFTING BETWEEN DETERMINANTS AND PHENOMENA IN BIOBEHAVIORAL SYMPTOM RESEARCH

Insomnia, Fatigue, and Adherence to Insomnia Therapy in Women with Breast Cancer

Ellyn E. Matthews, PhD, RN, AOCN, University of Colorado, Aurora, CO
Sarah J. Schmiege, PhD, University of Colorado, Aurora, CO
Paul F. Cook, PhD, University of Colorado, Aurora, CO
Ann M. Berger, PhD, APRN, AOCNS, FAAN, University of Nebraska, Omaha, NE
Mark S. Aloia, PhD, CBSM, National Jewish Health, Denver, CO

Purpose/Aims: In a randomized control trial evaluating the efficacy of cognitive behavioral therapy for insomnia (CBTI) in breast cancer survivors, we examined prospective predictors of adherence to therapy including physical symptoms, mood, and the impact on sleep improvement. Our secondary analysis was guided by the CU College of Nursing "shape shifters" model proposing biobehavioral phenomena and determinants can shift depending on the context and perspective.

Background: Insomnia and fatigue are common and distressing symptoms throughout the cancer trajectory. Evidence suggests that CBTI has a positive impact not only on insomnia but also on related symptoms and consequently, overall health and quality of life. However, 32-89% of CBTI recipients fail to consistently follow recommendations. Greater fatigue and depressive symptoms have been found to predict poor adherence to CBTI, which limits the opportunity to improve sleep. The complex and bidirectional interactions among insomnia, fatigue and adherence is an exemplar of shifting biobehavioral phenomena and determinants.

Methods: Women between 1-36 months after primary breast cancer treatment who meet the criteria for chronic insomnia, were recruited from Western Cancer Centers and community support groups. Participants completed the Insomnia Severity Index (ISI), Hospital Anxiety and Depression Scale (HADS) and the Piper Fatigue Scale (PFS) before and after CBTI, 3 and 6 months. The 7-item ISI using a 0-4 Likert scale evaluates insomnia perception by assessing symptoms, consequences, and distress experienced. The HADS is a 14-item; anxiety and depression are measured by summing the scores each 7- items subscale. Originally developed to measure fatigue in cancer patients, the 22-item PFS assesses current level of fatigue and the degree to which fatigue impacts several key areas of life. Daily sleep diaries were completed during CBTI; adherence measures including days non-adherent, average minutes of non-adherence, and proportion of adherent days/week to prescribed bedtime, rise time and total sleep time.

Results: Thirty-four breast cancer survivors (Mean age = 52.7 years) received CBTI for 6 weeks. The average score of the ISI was 16.9 suggesting clinical insomnia of moderate severity. Adherence to prescribed sleep schedule recommendations was suboptimal. There was a significant decline in adherence to prescribed rise time, and total time in bed during six weekly CBTI sessions. Factors associated with higher adherence included lower fatigue and higher baseline motivation. Results provide preliminary evidence supporting fatigue and motivation as determinants of adherence, and the importance of adherence on certain sleep outcomes.

Implications: The interactions between insomnia, fatigue, and adherence are complex, warranting treatment plans that not only address the underlying sleep disturbance but also the related symptoms that may contribute to insomnia or occur as a result of it. Additional findings and implications will be discussed in greater detail in relation to the "shape shifters" model during the presentation.

Funding: NINR 1K23NR010587.

Home

◀ ▶ go to PG.

SOCIAL JUSTICE AS PRAXIS IN NURSING PEDAGOGY

Moderator:
Selina A. Mohammed, PhD, MPH, RN
Associate Professor
Nursing and Health Studies Program
University of Washington Bothell
Bothell, WA

OVERVIEW: SOCIAL JUSTICE AS PRAXIS IN NURSING PEDAGOGY

Selina A. Mohammed, Cheryl L. Cooke, Mabel Ezeonwu, Christine Stevens

---

EXPLORING ROOT ISSUES OF AMERICAN INDIAN HEALTH: SOCIAL JUSTICE IN NURSING PEDAGOGY

Selina A. Mohammed

FROM GOWN TO THE TOWN: PRISON, COMMUNITIES AND HEALTH AS A SITE FOR SOCIAL JUSTICE PRAXIS

A NURSE-MANAGED HEALTH FAIR TO PROMOTE SOCIAL JUSTICE IN COMMUNITY HEALTH PEDAGOGY

Mabel Ezeonwu

PROMOTING HEALTH THROUGH SOCIAL MARKETING: THE SCIENCE OF SOCIAL JUSTICE

Christine Stevens

SOCIAL JUSTICE AS PRAXIS IN NURSING PEDAGOGY

Overview: Social Justice as Praxis in Nursing Pedagogy

Selina A. Mohammed, PhD, MPH, RN
Associate Professor
Nursing and Health Studies Program
University of Washington Bothell
Bothell, WA

Cheryl L. Cooke, PhD, RN
Assistant Professor
Nursing and Health Studies Program
University of Washington Bothell
Bothell, WA

Mabel Ezeonwu, PhD, RN
Assistant Professor
Nursing and Health Studies Program
University of Washington Bothell
Bothell, WA

Christine Stevens, PhD, MPH, RN
Associate Professor
Nursing and Healthcare Leadership
University of Washington, Tacoma
Tacoma, WA

In response to social, ethical, and professional imperatives of addressing inequities in health and health care, discourses of social justice have become increasingly prevalent within the field of nursing. However, examples of social justice as praxis in nursing education are much less evident. The purpose of this symposium is to address this gap and demonstrate “best practices” with respect to how social justice has been creatively used to undergird pedagogy in nursing curricula. Although there are various and continually evolving forms of social justice within and across disciplines, the foundational conception of social justice used in these illustrations promotes a form of justice within which there is an equitable bearing of burdens and reaping of benefits in society, and a shared responsibility for action.

The first two papers in this symposium provide different examples of how social justice (in conjunction with various critical theories) can be used as a course framework to generate emancipatory knowledge and transformative practice ideas among students, by underscoring how oppression and privilege operate in society, and how historical, political, sociocultural, and economic contexts serve as locations for health and heath care inequities among diverse and marginalized communities. The final two papers demonstrate how partnerships with community agencies can not only further educate students about structural barriers to equitable health and health care, but also lead to collective actions that address inequities in these dimensions and facilitate health promotion. Together, the presentations in this symposium illustrate some of the unique and interesting ways in which a social justice lens can be used in nursing pedagogy to disrupt the production of health injustices and foster social change.

SOCIAL JUSTICE AS PRAXIS IN NURSING PEDAGOGY

Exploring Root Issues of American Indian Health: Social Justice in Nursing Pedagogy

Selina A. Mohammed, PhD, MPH, RN
Associate Professor
Nursing and Health Studies Program
University of Washington Bothell
Bothell, WA

Purpose: The purpose of this presentation is to detail the undertaking of social justice as praxis in nursing pedagogy by describing how social justice and postcolonialism are used in a RN-to-BSN nursing course on American Indian health.

Background: In congruence with models of health and health care constructed from the biomedical paradigm, the majority of undergraduate nursing education courses relate health status predominantly to genetics, lifestyle, behavior, or cultural issues, and as such, an individual responsibility. This perspective often brackets out the contribution of broader social determinants of health as root causes of health inequities, as well as the conceptualization of health as a collective issue. The lack of understanding incurred as a result is especially dangerous when questioning why some groups of people, such as Indigenous populations, bear a disproportionate burden of illness in comparison to members of dominant society, and has the propensity to sustain personal and institutional structures of racial discrimination. To address these issues, postcolonialism and social justice are used in this course to contextualize health inequities for Native communities and scaffold social change. The consciousness-raising and emancipatory dimensions of postcolonialism and social justice make them particularly relevant frameworks.

Approach: This course focuses on how health inequities among American Indian communities are created and can be addressed from a perspective that targets social conditions. Through a variety of learning techniques (e.g., instructor facilitation, large and small group discussions, multidisciplinary literature and research, Indigenous documentary films and literary works of fiction, and class exercises), students examine the impact of racializing and colonizing practices on the health of American Indians. In addition to studying these deleterious effects, the class analyzes the complexities of health care practice and research with American Indians and learns the importance of using decolonizing approaches when working with these communities. A goal of this course is not only to raise social consciousness by underscoring root causes of health inequities for American Indians from a postcolonial perspective, but to also learn how to apply local strengths and resiliencies of American Indians communities to the conceptualization and enactment of meaningful ways to mitigate these issues.

Outcomes: Students in this course learn how health inequities among American Indians have been historically created and sustained through societal relations, and how the nature of health and health care are interrelated with the nation's social, political, and economic climate. They also learn how to use this knowledge and specific approaches, such as community-based participatory research and political action, to address health and health care inequities among American Indian peoples.

Conclusions: The process of becoming critically responsive is slow and incremental, as students increasingly come to see themselves as political beings and move on from "what is," to envisioning through the ideals of social justice "what could be" and contemplating ways to achieve this. A crucial element in social justice pedagogy is supporting students as their awareness deepens and they learn how to engage in transformative nursing practice to address health inequities and create a more socially just world.

From Gown to the Town:
Prison, Communities and Health as a Site for Social Justice Praxis

Cheryl L. Cooke, PhD, RN
Assistant Professor
Nursing and Health Studies
University of Washington Bothell
Bothell, WA

Purpose: The purpose of this presentation is to describe the challenges and successes of using a social justice framework in a BSN level course on the effects of prison on individuals, families, and communities.

Background: Communities, Prisons, and Health is an elective course taught in the University of Washington Bothell Nursing Program since 2008. The students who take this course are university seniors in a RN-BSN program. A majority of students in the course have little experience working with economically and socially disadvantaged populations, particularly in community-based settings, as most are working in acute care, sub-acute, or long-term care settings. The course was developed to help students begin to understand how larger social policies, such as those that lead to imprisonment and interaction in criminal justice system, cast a long shadow on the lives of large populations of our community in the Pacific Northwest. In this course, the community is seen as the site of social justice action and students see themselves as participants in achieving the outcome of improving the long-term health of the community.

Approach and Process: The course is offered in a 10-week format and uses films, readings, writing, discussions with community activists and formerly incarcerated individuals, and individual student action as major pedagogical tools. Part of the work of the course is to have students find areas of intervention in communities. Areas of exploration include learning about prisons, jails, community corrections programs, and health-related services from providers who have worked with incarcerated individuals and their families, exploring the long-term consequences of mass incarceration on individuals, their families, and their larger community, and examining how individuals reintegrate and restart their lives following long-term incarceration. Examining how to provide and support community and healthcare services to traditionally disenfranchised populations in an effort to stem the effects of poverty, mental health disease, substance misuse/abuse, and childhood interactions with the criminal justice system are themes that we focus on in the course.

Outcomes: This course is often BSN students' first exposure to community health and community-centered health-related action. By the end of the course, each student has explored, developed, and presented a small community project that improves some health-related aspect of life for these troubled communities.

Conclusions: A major challenge is breaking through popular discourses on crime, punishment and morality in order to guide students understanding toward the greater issues of disenfranchisement and its effects on the health of communities. A methodological challenge that constantly presents is how to both enhance student interaction in the community while protecting the community from additional social harm. Follow up research is needed to expand the course to two quarters, and to establish how many and in what ways students continue interacting in positive ways with communities affected by mass incarceration following graduation.

Home ◀ ▶ go to PG.

SOCIAL JUSTICE AS PRAXIS IN NURSING PEDAGOGY

A Nurse-Managed Health Fair to Promote Social Justice in Community Health Pedagogy

Mabel Ezeonwu, PhD, RN
Assistant Professor
Nursing and Health Studies Program
University of Washington Bothell
Bothell, WA

Purpose: To discuss the outcomes of a nurse-managed health fair on students and underserved communities using social justice principles.

Background: Access to health services continues to be a challenge for vulnerable populations. As the U.S. economy struggles, the number of unemployed, uninsured and underinsured including the elderly, homeless, and immigrants continues to grow thereby forcing individuals and families to make hard decisions -- to bypass health care for other basic needs. Everyone deserves the right to equal access to cost-effective health care. The lack of access to health services by a significant number of our population across communities presents a social justice issue, and puts the health of the general public at risk including those who can afford health care and those who cannot. Nursing students' exposure to health disparities and inequities in the health care system and their active participation in a community-wide health fair challenges them to use social justice principles in planning, advocating, and providing health services for individuals, families and communities. Nursing provides a model of practice through community engagement that aims to meet the health needs of those who cannot afford health services.

Approach: Using an established trusting relationship between a nursing program and a local community agency, faculty, nursing students and community stakeholders collaborated on strategies to improve the community's health and lifestyles. The PRECEDE-PROCEED model was used as the organizing framework in assessing, planning, implementing and evaluating a community health fair.

Outcomes: Students' outcomes included acquisition of community health nursing skills, and opportunities for critical reflection on the burden of diseases and other adverse social conditions that exist among disadvantaged population groups which drive health inequities. Students also learned about health promotion and disease prevention as fundamental steps to averting health crises. Community impacts of the health fair were characterized by access to primary health services, enhanced health knowledge, and knowledge of new and available health resources.

Conclusions: Addressing inequities related to access to health services is a form of social justice. The active engagement of students in a community health fair provided them with invaluable experience in providing health services to diverse and underserved populations. Community members accessed free health services. At this critical time in our nation's fiscal history, a nurse-managed health fair is cost effective and constitutes an essential policy strategy to improve public's health.

Home ◀ ▶ go to PG.

Promoting Health through Social Marketing: The Science of Social Justice

Christine Stevens, PhD, MPH, RN
Associate Professor
Nursing and Healthcare Leadership
University of Washington Tacoma
Tacoma, WA

Purpose: Health promotion is a thread in undergraduate nursing programs. Through this thread, students gain knowledge about theories of health promotion, partnership, and health disparities for their nursing practice. However, the standard practice of lecture does not allow the students to experience the web of structural processes that influence how individuals and communities are able to promote their own health. This class named “Promoting Health through Social Marketing” was designed to move the focus from content saturation which does not assist students to develop knowledge that would improve their clinical reasoning to working with community members to promote social justice. The purpose of this course is to encourage students to apply the health promotion strategy of social marketing in order to think about broader systems that influence health and social justice.

Background: This course is built on Freire’s dialogical method which is used both in the classroom and with community partners. As students move into the community and dialogue with residents, they start to realize that the societal belief that health is a personal responsibility does not consider how policies and structural processes influence the amount of power an individual or community has to make change. The students start to explore how theory, research, cultural humility, and partnering with a range of agencies might help to inform the work that they are trying to accomplish.

Approach: In this elective, which is open to the entire campus, BSN students learn to work in teams with other students who do not share their same discipline worldview which prepares them for collaborating with diverse populations and partners. Student teams are assigned to work with community groups to develop a social marketing campaign to address health issues identified by the targeted population. During the first few weeks of the quarter as they start to try apply research to a health issue, the students start to hear from community members about the real barriers to health promotion in the community and that the individual is embedded in a web of structural racism, class, culture, language, political and health policy decisions that constrain people’s choices about health.

Outcomes: During the last class, all community members and partners are invited to presentations about the social marketing plans. When the partners leave these presentations, they have an entire campaign including media and teaching materials for health promotion. Many of the projects with agencies such as Healthcare for the Homeless are being used in the community today. In the evaluations of the course, the students verbalize that they recognize that health promotion is not solely about individual responsibility but also about social justice, health equity, and the common good, which will affect the health of everyone in the community.

Conclusion: Using social marketing campaigns as a teaching strategy could be an effective framework to help students link social justice to community practice.

Home ◀ ▶ go to PG.

STRENGTHS AND RISK FACTOR PATTERNS IN RELATION TO HEALTH AMONG LATINOS

Moderator:
Elizabeth Reifsnider, PhD, RN
Professor and Associate Dean
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ

OVERVIEW: STRENGTHS AND RISK FACTOR PATTERNS IN RELATION TO HEALTH AMONG LATINOS

Elizabeth Reifsnider, Sara A. Baldwin, Janice D. Crist,
Deborah Koniak-Griffin, Joanne Noone

CHALLENGING COMMON ASSUMPTIONS ABOUT PHYSICAL ACTIVITY IN OVERWEIGHT LATINA WOMEN

Deborah Koniak-Griffin, Mary-Lynn Brecht

A COMMUNITY-BASED PROGRAM TO LOWER DIABETES AND CARDIO RISK FACTORS IN LATINO WOMEN

Sara A. Baldwin, Janeen Miller, Misty Kesterson

PATTERNS OF FOOD INSECURITY AND CHILD OUTCOMES

Elizabeth Reifsnider, Yolanda Davila, Nonie Mendias

ESCUCHANDO A NUESTROS JÓVENES: A LATINO YOUTH PHOTOVOICE PROJECT ON TEEN PREGNANCY

Joanne Noone, Tiffany L. Allen, Glenise McKenzie,
Maggie Sullivan, Teresa Esqueda

LATINO CAREGIVERS' ACCULTURATION, STRESS, BURDEN, DEPRESSION, FAMILISM, HOME CARE

Janice D. Crist, Alice Pasvogel, Joseph T. Hepworth

Home ◀ ▶ go to PG.

STRENGTHS AND RISK FACTOR PATTERNS IN RELATION TO HEALTH AMONG LATINOS

Overview: Strengths and Risk Factor Patterns in Relation to Health among Latinos

Elizabeth Reifsnider, PhD, RN
Professor and Associate Dean
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ

Sara A. Baldwin, PhD, RN
Associate Professor
School of Nursing
Texas A&M University
Corpus Christi, TX

Janice D. Crist, PhD, RN
Associate Professor
College of Nursing
The University of Arizona
Tucson, AZ

Deborah Koniak-Griffin, PhD, RN
Professor
School of Nursing
University of California,
Los Angeles
Los Angeles, CA

Joanne Noone, PhD, RN
Associate Professor
School of Nursing
Oregon Health & Science
University
Ashland, OR

Risk is, in part, the potential that a chosen action or inaction may lead to an undesirable outcome, and that individuals, families, and communities have influence over the choices that results in the outcomes. Strengths and patterns of risk factors related to common spheres of human activity like diet, physical activity, sexual behavior, or self-care, can predict health trends and outcomes. The papers in this symposium will present strengths and risk patterns in vulnerable segments of Latino populations through a social ecological lens. The patterns discussed occur in low income families of young children who are struggling with food insecurity; in a community with high rates of teen sexual activity; in immigrant middle-age women who are overweight; and families struggling with caregiving burden for elderly parents. Engagement in physical activity levels and the primary/secondary prevention of diabetes and cardiovascular disease is examined in relation to cardiometabolic risk and strength enhancing capability of Latino women.

Social ecological models have been used to understand and intervene on the intrapersonal, interpersonal, sociocultural, built, and policy environments that interact synergistically to influence a person's health decisions, behaviors, and, ultimately, outcomes. In short, these multifactor environments interact to create or reduce patterns of risk. How these ecological patterns of risk or strengths act synergistically to contribute to health behaviors is poorly understood. Ecological factors in low income Latino families concerning food, income, and food insecurity impact child health. Latino teens in Oregon found that community resources and values are part of the pattern of risk for teen pregnancy and adult immigrant women in Southern California showed surprisingly varied levels of physical activity that related their cardiometabolic risk status. A South Texas multi-level disease prevention program saw significant reductions in diabetes and cardiovascular risk scores. It was also demonstrated that caregiving burden is differentially associated with acculturation (Mexican or US), perceived stress, and depression.

The objectives for the symposium are:

1. Describe how diverse patterns of strengths or risk can persist or change across a lifespan.
2. Examine how locating these patterns within a social ecological framework can provide understanding of how to reduce risk and strengthen health patterns.

STRENGTHS AND RISK FACTOR PATTERNS IN RELATION TO HEALTH AMONG LATINOS

Challenging Common Assumptions about Physical Activity in Overweight Latina Women

Deborah Koniak-Griffin, RNC, EdD, FAAN
Professor and Audrienne H. Moseley Endowed Chair in Women's Health Research
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Mary-Lynn Brecht, PhD
Research Statistician
Integrated Substance Abuse Programs
Semel Institute for Neuroscience and Human Behavior
University of California, Los Angeles
Los Angeles, CA

Purpose: The purpose of this study was to evaluate physical activity (PA) and its relationship to cardiometabolic risk factors in overweight, immigrant Latina women.

Background: Low income Latinas, particularly those of Mexican descent, face increased risk for cardiovascular disease (CVD) and other chronic illnesses due to high rates of overweight/obesity. Past research demonstrates the health benefits of PA in increasing cardiovascular fitness, improving glycemic control and decreasing CVD risk. However, a limitation of many prior studies is heavy dependence upon self-report of PA, which has been shown to be significantly higher than objective measures. Few studies use accelerometer–based PA measures and involve Latina women.

Methods: This community-based study used baseline data from a larger investigation (n=223) evaluating a lifestyle intervention involving 223 immigrant, overweight/obese Latinas. Data were collected pre-intervention to examine the relationship among PA, BMI, weight, waist circumference, blood pressure (BP) and lipids. Average daily steps and minutes in bouts of moderate activity (1 bout=≥10 consecutive minutes in continuous PA at ≥ 3 METS) were calculated from Lifecorder accelerometer readings, with groupings based on PA: <5000, <5000-7499, 7500-9999 and ≥10,000 daily steps. Partial correlations were performed to examine the relationship between number of steps and other variables, controlling for age. Differences in clinical variables among PA groups were evaluated using age-adjusted univariate one-way ANOVAs.

Results: Participants were aged 35-64 years (mean=45), Mexican (85%), low-income, partnered (73%), and unemployed (75%), with little education and low acculturation. They averaged 8,556 daily steps (range=3,040-22,785), with 27.6% achieving an average of ≥10,000 steps per day. Only 11% were classified as "sedentary." The women engaged in short bouts of moderate PA (daily mean=16.58 minutes) rather than long-sustained moderate-to-vigorous activity. Significant negative correlations were found between daily steps and BMI, weight (p<.001), waist circumference (p=.001), and triglycerides (p=.007). Results of ANOVAs by step categories revealed differences for weight (F=7.94**,** p<.001), BMI (F=6.50**,** p<.001), waist circumference (F=2.87, p=.038), and triglycerides (F=2.77, p=.042). Similar differences were found between groups for moderate activity level (low, medium and high).

Implications: This comprehensive analysis of PA and its correlates presents findings that challenge beliefs about the "sedentary" lifestyle of Latina women, in particular those who are overweight. Engaging in health-promoting behaviors such as PA, may at least partially contribute to the "Latino paradox." Creating a physical environment believed to support PA is important in helping women to become active or to maintain PA levels, particularly those living in communities with limited resources and environmental risk factors (e.g., heavy traffic, high crime rates). Culturally tailored lifestyle behavior programs are needed to support maintenance of PA in women who are active and to promote healthier behavior in those who are less active.

Funding: NHLBI: Award R01 HL086931.

STRENGTHS AND RISK FACTOR PATTERNS IN RELATION TO HEALTH AMONG LATINOS

A Community-Based Program to Lower Diabetes and Cardio Risk Factors in Latino Women

Sara A. Baldwin, PhD, RN, APHN-BC
Associate Professor
College of Nursing and Health Sciences
Texas A & M University
Corpus Christi, TX

Janeen Miller, PhD, LPC
Assistant Professor
College of Education
Counseling Department
Texas A & M University
Corpus Christi, TX

Misty Kesterson, EdD
Assistant Professor
Department of Kinesiology
Texas A & M University
Corpus Christi, TX

Purpose/Aim: To report findings on diabetes and cardiovascular risk factors and wellness health behaviors following a community-based multi-level lifestyle program with Latino women identified as pre-diabetic or at high risk for developing T2D.

Background: Type 2 diabetes (T2D) is becoming more prevalent among female Latino populations. Lifestyle modifications to lose weight and increase physical activity have been shown in national studies to reduce the development of T2D by 58%. Increasing cardiovascular health can further decrease the risk of being diagnosed with T2D by 32%. No outcomes-based program exists for Latino women diagnosed as pre-diabetic or at high-risk for developing T2D living in a South Texas urban setting (> 300,000). A 12-week community-based lifestyle program was pilot tested and implemented with 2 cohorts of women.

Methods: A pre-and post-test study design was used to assess HgA1C, blood pressure, BMI, waist- to-hip ratio, Hettler's six dimensions of wellness health behaviors (social, occupational, intellectual, emotional, physical and spiritual), and average daily walking steps. Total diabetes and cardiovascular risk scores were calculated. Physical activity was measured in terms of average daily walking steps using a pedometer over 1 week. The program consisted of motivational interviewing and counseling, physical activity classes, and lifestyle modification classes using the "Small Steps, Big Rewards Game Plan."

Results: Sixty-nine women with a mean age of 58 years completed the 12-week program. Paired t-tests revealed that women (at the end of 3 months) showed significant reductions in diabetes and cardiovascular total risk scores. The performance of health behaviors significantly increased during the program. Women on average walked 7,000 steps per day, suggesting a "moderately active" population.

Implications: The short-term effects are promising at 3 months post-test measurement. However this time period is likely not enough time to maintain behaviors on a long-term basis. Six and twelve month measures are recommended in future studies. Social support and empowerment through physical activity were identified and recommended as additional strategies to use with this targeted population.

Funding: The Coastal Bend Diabetes Initiative and the Coastal Bend Foundation, Corpus Christi, TX.

STRENGTHS AND RISK FACTOR PATTERNS IN RELATION TO HEALTH AMONG LATINOS

Patterns of Food Insecurity and Child Outcomes

Elizabeth Reifsnider, PhD, WHNP, PHCNS-BC, FAAN
Professor and Associate Dean
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ

Yolanda Davila, PhD, RN
Professor
School of Nursing
University of Texas Medical Branch
Galveston, TX

Nonie Mendias, PhD, FNP
Professor
School of Nursing
University of Texas Medical Branch
Galveston, TX

Background: Extensive research has documented the link between adverse short-term child health and long-term cardiovascular and metabolic outcomes. Obese children are more likely to remain obese; this risk increases the earlier the onset of obesity began. This presentation reports a secondary analysis of cross-sectional data from a study of Latino mothers and children enrolled in a WIC program in South Texas who were examined using an ecological framework for variables that impact weight, nutrition, and growth.

Purposes/Aims: The goals of this study were to examine the ecological variables present in the microsystem (dietary intake and food insecurity in the home, oral health status), mesosystem (maternal BMI, parents' work status), and exosystem (neighborhood SES factors) for their influence on child health outcomes.

Methods: Children ages 1-4 and their mothers were assessed for weight, height, dietary practices, family structures, oral health, food insecurity, demographics, and acculturation. Twenty-four hour diet histories were collected from mothers of the children. The diet recalls used the triple pass method and were collected on weekdays and weekends. The relationships among these variables were measured with bivariate correlations, and significant relationships were explored for their link to measures of food insecurity.

Results: Maternal employment status and amount of money spent on food are positively associated with oral health needs and negatively associated with child BMI. The amount of food stamps received is negatively related to oral health needs and child BMI. The length of time the child was breast fed, the experience of running out of food, and child hunger are positively related to child feeding scores. Maternal BMI, maternal education, and level of acculturation are negatively associated with the child feeding scores.

Implications: Children's BMIs may not be directly associated with variables such as food insecurity, oral health and maternal acculturation, but these factors affect how families provide food for their children. This suggests that policies and interventions addressing food insecurity and oral health care are needed to develop healthy children. Nurses can build coalitions to address these issues in their communities.

Funding: NINR/NIH 5R29NR004882-04 and Texas Innovation Grant, Texas Department of Health.

STRENGTHS AND RISK FACTOR PATTERNS IN RELATION TO HEALTH AMONG LATINOS

Escuchando a Nuestros Jóvenes: A Latino Youth Photovoice Project on Teen Pregnancy

Joanne Noone, PhD, RN, CNE, Associate Professor
Oregon Health & Science University (OHSU) School of Nursing, Ashland, OR
Tiffany L. Allen, BS, Senior Research Assistant, OHSU School of Nursing, Ashland, OR
Glenise McKenzie, PhD, RN, Associate Professor, OHSU School of Nursing, Ashland, OR
Maggie Sullivan, MPH, Program Mgr, Health Care Coalition of Southern OR, Medford, OR
Teresa Esqueda, Youth Member, Jackson County Latina Health Coalition, Medford, OR

Purpose/Aims: The purpose of this study was to explore a southern Oregon community's strengths and weaknesses, through Photovoice, as viewed by Latino youth to better understand their experiences, beliefs and concerns related to teen pregnancy.

Rationale/Background: Nationally, 52% of Latina teens will become pregnant at least once by the time they are 20. In Jackson County in southern Oregon, the Latina teen pregnancy rates for 2008 and 2009 are nearly double those for non-Hispanics. A local coalition in this Northwest community was formed to address this concern, using community-based participatory research methods.

Methods: Photovoice is a photography and storytelling technique that offers community residents an opportunity to share their perceptions and impressions through photographs of their community and of the local conditions that affect their community's health. Participants were asked to take photographs of what, from their perspective, contributes to 1) preventing or 2) increasing the risk of teen pregnancy in their community. Photographs, fieldnotes from the photovoice sessions, titles, and captions were analyzed using thematic analysis. Themes were generated according to what most saliently captured similar concepts. Themes were identified using the constant comparative method of data analysis. Themes were verified by the research team and participants. The photographs were presented to the community to generate dialogue and problem solving and laid the groundwork for planning future interventions.

Results: Fourteen Latino youth from local high schools and colleges, ages 15-20, enrolled in the study and nine (6 females and 3 males) completed all aspects of the project including dissemination to the community. Four hundred fifty-three photos were taken and developed; of those, forty-one were given captions and descriptions and were selected for presentation and community dissemination. The themes were grouped into the following categories: 1) risks for teens; 2) pressure; 3) education is key; 4) community resources; and 5) Latino values.

Implications: The results of this study provided further affirmation to our coalition that influences for teen pregnancy are broad-based beyond sexual risks and include issues related to family, communication, education and empowerment. Risks for teen pregnancy are not limited to risky sexual behavior so a comprehensive strategy is recommended to address this social issue. Inviting youth participants to document their community provided firsthand insight into the issue based on their own experiences or the experiences of their family members or friends dealing with a teen pregnancy. In addition to assessing and informing the community, the Photovoice method can also provide for empowerment and personal development for the individual participants. This study provides future evidence of the fit of this research method with youth participants and with the Latino culture.

Funding: The Northwest Health Foundation.

Home ◀ ▶ go to PG.

STRENGTHS AND RISK FACTOR PATTERNS IN RELATION TO HEALTH AMONG LATINOS

Latino Caregivers' Acculturation, Stress, Burden, Depression, Familism, Home Care

Janice D. Crist, RN, PhD, FNGNA, FAAN
Associate Professor
Community & Systems Health Science Division
College of Nursing, University of Arizona
Tucson, AZ

Alice Pasvogel, PhD, RN
Assistant Research Scientist
Office of Nursing Research
College of Nursing, University of Arizona
Tucson, AZ

Joseph T. Hepworth, PhD
Associate Research Scientist
Office of Nursing Research
College of Nursing, University of Arizona
Tucson, AZ

Background: Post-hospital care, costing billions of dollars annually, can be reduced by using home health care services (HHCS), at half the cost of nursing home care. As a group, Latino/Hispanic elders are more disabled at younger ages but use HHCS less than other groups. In the Latino culture, it is expected that the family will care for the elder. This places an added burden on today's typical family caregivers (usually women, often daughters) who are also caring for their children, spouses, other family members, as well as meeting other daily demands such as employment outside the home. It has been reported that the use of HHCS improves elder functional ability reducing caregiver illness, burden, depression, and mortality. The Latino subculture with which we work in community partnership is Mexican American (MA).

Purposes/Aims: To understand better the relationships among key constructs involved in the use of HHCS by MA caregivers of elders: Acculturation, perceived stress, caregiving burden, depression, familism, and use of HHCS.

Methods: We explored correlations among caregivers' Acculturation (Mexican or Anglo); Perceived Stress; Caregiving Burden (Objective: elders' personal and instrumental needs and Perceived: tiring, difficult and/or bothersome); Depression (CESD); Familism (cultural norm that the family cares for elders); and Use of HHCS (percentage of actual visits ÷ planned visits) (N=22).

Results: Mexican Acculturation was correlated with Objective Burden for instrumental needs (r=.48, p=.05); Anglo acculturation was correlated with Perceived burden for personal needs (r=.51, p=.04). Perceived Stress was correlated with Objective burden for personal needs (r=.49, p=.05). Caregiver Depression was correlated with Objective Burden (r=.59, p=.01) and Objective Burden for personal needs (r=.58, p=.01).

Implications: The association of Perceived and Objective Caregiving Burden with acculturation, perceived stress, and depression suggests that interventions are needed that focus on the assessment and reduction of burden. Future research should continue to explore these phenomena, their measures, and the use of supportive services such as HHCS. Research shaping interventions to increase the use of HHCS need to continue toward improving practice, thus outcomes, for both elders and caregivers. By sharing these efforts with community partners, health and healthcare equity can be achieved for vulnerable populations.

Funding: NINR: Award R21NR010901. Acknowledgement of the *E.N.C.A.S.A.* Community Advisory Council.

Home ◀ ▶ go to PG.

SYMPTOM CLUSTERS RESEARCH: PROGRESS AND CHALLENGES IN MENOPAUSE RESEARCH

Moderator:
Lori Cray, PhD, RN
Assistant Professor
College of Nursing
Seattle University
Seattle, WA

OVERVIEW: SYMPTOM CLUSTERS RESEARCH: PROGRESS AND CHALLENGES IN MENOPAUSE RESEARCH

Lori Cray, Nancy Fugate Woods

TRADITIONAL CHINESE MEDICINE DIAGNOSES AS THEY RELATE TO MENOPAUSAL SYMPTOM CLUSTERS

Lisa Taylor-Swanson, Lori Cray, Nancy Fugate Woods, Ellen Sullivan Mitchell

---

A CRITICAL ANALYSIS OF TRANSITION THEORY FOR SYMPTOM CLUSTERS DURING MENOPAUSE

Annette J. Thomas, Lori Cray, Nancy Fugate Woods

METHODOLOGICAL CHALLENGES IN RESEARCH ON SYMPTOM CLUSTERS

Rita Ismail, Lori Cray, Nancy Fugate Woods, Ellen Sullivan Mitchell

---

SYMPTOM CLUSTERS AS PHENOTYPE

Lori Cray, Nancy Fugate Woods, Ellen Sullivan Mitchell

SYMPTOM CLUSTERS AS OUTCOMES: CHALLENGES IN CLINICAL TRIALS

Nancy Fugate Woods, Lori Cray, Ellen Sullivan Mitchell, Gerald Herting

Home ◀ ▶ go to PG.

SYMPTOM CLUSTERS RESEARCH: PROGRESS AND CHALLENGES IN MENOPAUSE RESEARCH

Overview: Symptom Clusters Research: Progress and Challenges in Menopause Research

Lori Cray, PhD, RN
Assistant Professor
College of Nursing
Seattle University
Seattle, WA

Nancy Fugate Woods, PhD, RN, FAAN
Professor and Dean Emeritus
Dept. of Biobehavioral and Nursing Science
School of Nursing
University of Washington
Seattle, WA

Nurse scientists have advanced the topic of Symptom Clusters over the past decade with efforts that originated with concept analysis and culminated in hypothesis-driven studies of the relationship of symptom clusters to outcomes including quality of life. Within the field of menopause research there have been efforts to identify clusters using a variety of methods and motivated by various theoretical and conceptual models to account for symptoms and their outcomes. The topics in the individual papers will be linked to theoretical, methodological, and analytic advances within nursing science and to translation to literature in related fields. Dr. Lori Cray will provide an overview reviewing progress in studying symptom clusters using research on the menopausal transition as a focal point.

This symposium consists of 5 papers. The first paper presented by Annette Thomas presents a critical analysis and evaluation of Transition Theory and its potential for use in studying symptom clusters in the menopausal transition.

The second paper presented by Rita Ismail identifies methodological challenges to studying symptom clusters, including empiricist vs. interpretive methodologies and their implications for research methods, measurement, and analysis.

The third paper presented by Lisa Swanson-Taylor compares Eastern and Western systems of conceptualizing symptom clusters.

The fourth paper presented by Dr. Lori Cray explores the utility of symptom clusters as phenotypic data in conjunction with biomarkers, e.g. gene polymorphisms and hormones.

The fifth paper presented by Dr. Nancy Woods clarifies the relationship of symptom clusters to outcomes and therapeutics.

Funding: This work was supported by grants from the National Institute of Nursing Research (NINR 1R21NR012218-01 Menopause Symptom Clusters: Refocusing Therapeutics; NR 04141 - Menopausal Transition: Biobehavioral Dimensions; P30 NR 04001, P50-NR02323 – Center for Women's Health and Gender Research).

Home ◀ ▶ go to PG.

SYMPTOM CLUSTERS RESEARCH: PROGRESS AND CHALLENGES IN MENOPAUSE RESEARCH

Traditional Chinese Medicine Diagnoses as They Relate to Menopausal Symptom Clusters

Lisa Taylor-Swanson, MAcOM, EAMP; Lori Cray**, PhD, RN;*
Nancy Fugate Woods, PhD, RN, FAAN; Ellen Sullivan Mitchell*, PhD, RN*
University of Washington & Seattle University***

Contact: Lisa Taylor-Swanson: ljts369@uw.edu

Aims: This project aims to connect identified symptom clusters during the menopausal transition with Traditional Chinese Medicine (TCM) theory, differential diagnosis and treatment protocols. A second aim is to use this information to illustrate the clinical relevance of identified menopausal transition and early postmenopausal symptom clusters.

Background: Previous work by Cray and Woods has identified symptom clusters of participants of the Seattle Midlife Women's Health Study during the late reproductive (LR), early transition (ET), late transition (LT) and early postmenopausal (EP) periods. The identified clusters account for 54.9% - 60.7% of the variability in each period. Symptom clusters are identified in the clinical practice of TCM. Clusters of symptoms, along with signs such as pulse and tongue assessments, are the foundation for TCM differential diagnosis and treatment.

Methods: 22 symptoms from the Seattle Midlife Women's Health Study diary data were subjected to principal components analysis (PCA) and 3-4 clusters were identified for four periods of the menopausal transition. The symptoms in each cluster were compared to symptoms associated with various TCM diagnoses. Patterns in the clusters and associated TCM diagnoses and treatment principles were analyzed.

Outcomes Documented: LR is characterized by Liver Qi constraint, Liver Blood deficiency, Kidney Yin and Yang deficiency, deficiency heat, and Heart Qi instability. ET is characterized by LR stage diagnoses and Dampness, LT is comprised by LR stage diagnoses plus Gall Bladder instability. EP is characterized by LR stage diagnoses plus Spleen Qi deficiency. Specific treatment principles, acupuncture protocols, and Chinese herbal formulas are associated with each above-mentioned TCM differential diagnosis. These treatment principles address the entire clustered symptom presentation.

Conclusions: MT clusters are characterized primarily by Liver Qi constraint and imbalances of Blood, Kidney Yin and Kidney Yang. There are lesser components of Spleen, Gall Bladder and Heart Qi imbalances. This is consistent with TCM gynecologic texts in English. The symptom clusters identified by Cray and colleagues are clinically relevant and meaningful within the TCM framework.

Funding: UW SoN Zesbaugh & Crowley scholarships; ARCS Fellowship; NIH NR01 04141 and NINR, NIH, P50-NR-02323, P30-NR04001.

Home

◀ ▶ go to PG.

SYMPTOM CLUSTERS RESEARCH:
PROGRESS AND CHALLENGES IN MENOPAUSE RESEARCH

A Critical Analysis of Transition Theory for Symptom Clusters during Menopause

Annette J. Thomas, RN, BSN, MS, PhD Student[1]
Lori Cray, PhD, RN, Assistant Professor[2]
Nancy Fugate Woods, PhD, RN, FAAN, Professor and Dean Emeritus[1]

[1]*University of Washington, Seattle, WA*
[2]*Seattle University, Seattle, WA*

Purpose: To critically analyze and evaluate Transition Theory and its potential for synthesis with other theories related to symptom clusters that women experience during the menopausal transition (MT).

Description of Theory: Meleis' Middle Range Transition Theory was created because people in transition have a tendency to be more vulnerable to risks that may affect their health. The theoretical framework has 6 parts: types and patterns of transitions, properties of transition experiences, transition conditions consisting of facilitators and inhibitors, process indicators, outcome indicators, and nursing therapeutics. Properties of the Transition Experience include awareness, engagement, change and difference, time span, and critical points and events. Synthesis of Transition Theory with the Theory of Unpleasant Symptoms and concepts related to symptom clusters will be elaborated.

Critical Analysis Approach: Transition theory for use in the MT was evaluated using the following methods: Theory analysis from Whall (2005) for origins, scope, and context of the theory; Evaluation from Chinn and Kramer (2005) for observability of the concepts, potential for measurement, and congruency between theoretical assertions and empirical evidence; and Critical Reflection from Chinn and Kramer (2004) for clarity, simplicity, generalizability, accessibility, and importance. In addition, utility of the theory for accounting for women's experiences of symptom clusters during the menopausal transition will be evaluated.

Linkages of Theory to the Menopausal Transition: Every woman will go through a menopausal transition; it may be surgically or medically induced, or occur naturally. Under the Nature of Transitions Category, the MT would be a developmental or situational "type." There are "patterns" of the menstrual cycle that change during the stages of the MT. For example, if a woman's cycle changes (early or late) by five to seven days consistently, she may be in the Early Menopausal Transition. If she skips a cycle, she may be in the Late Menopausal Transition. Cray et al. (2010) found clustering of symptoms in the MT, which are 1) high hot flash, low symptoms cluster, 2) all low symptoms cluster, and 3) low hot flash, moderate symptoms cluster. Further development of nursing therapeutics will include educational tools to enhance awareness of the stages of the menopausal transition and common symptom clusters. These tools will benefit women by anticipating women's needs for information as transition support and in turn, should reduce women's anxiety about what is happening to their bodies. The tools will also support their identifying clusters of symptoms they experience as a basis for individualization of self-care and therapies.

Conclusion: Women experience many kinds of symptoms during the MT. Examples are hot flashes, changes in mood, forgetfulness, impatience, and joint aches. Many women become "aware" of a change that is taking place in their bodies. When women are prepared for these changes or anticipate them as a normal part of the MT, they will experience less angst and have more knowledge about what is happening to them. This "awareness and knowledge" reduces their vulnerability, creating a path for a healthy transition and enhanced well-being.

Home ◀ ▶ go to PG.

SYMPTOM CLUSTERS RESEARCH:
PROGRESS AND CHALLENGES IN MENOPAUSE RESEARCH

Methodological Challenges in Research on Symptom Clusters

Rita Ismail, RN, MPH[1]
Lori Cray, PhD, RN[2]
Nancy Fugate Woods, PhD, RN, FAAN[1]
Ellen Sullivan Mitchell, PhD, RN[1]

[1]*Biobehavioral Nursing, University of Washington, Seattle, WA*
[2]*College of Nursing, Seattle University, Seattle, WA*

Purposes: The purpose of this paper is to analyze issues related to the methodological and methods challenges in studying symptom clusters using the Seattle Midlife Women's Health Study experiences as a source of examples.

Background: The study of symptom clusters originated in nursing and has been informed by advances in nursing science, but clear delineation of methodological origins of this work has not been accomplished. Methodological origins for the study of symptoms and symptom clusters originated in quantitative studies designed to identify symptom clusters, yet symptoms are defined as perceived bodily sensations or feelings that constitute a unique source of information about health, information that is only directly available to the person perceiving the symptom. A variety of models of symptom clusters have been developed, however, a very limited number of them were developed based on qualitative approaches. Data from qualitative methods will produce a comprehensive summary about the same symptom experience from different perspectives. Our current work reflecting interpretive, as well as empiricist, methodological derivations, provides an integrative approach to studying symptom clusters.

Methods: We contrasted identification of symptom clusters using methods derived from both interpretive and empiricist methodologies. Symptom clusters identified through use of approaches such as factor analysis and latent class analysis were contrasted with content analysis from ongoing interviews of women related to their symptom clusters heuristics.

Results: Latent class analysis from the Seattle Midlife Women's Health study identified four groups of women who have experienced five symptoms (hot flashes, problem concentrating, joint aches, mood changes, and awakening at night) in the similar clusters. In the qualitative approach, women can articulate the construction of symptom clusters, are able to identify heuristics about the influence of symptoms on one another, the meaning of physical symptoms experienced alongside psychological response, and can articulate what may be antecedents to symptom cluster experiences. We interviewed women about how they thought their symptoms were related to one another, inviting them to depict the connections among them, probing for the order in which they occurred and whether they thought any single symptom caused another. The link of the menopausal symptoms will be identified based on the responses of women who experienced menopausal symptoms, for example "I wake up in the middle of the night and then I have a hot flash. I begin worrying about what I have to accomplish the next day and wonder if I will ever get back to sleep."

Implications: Future study of symptom clusters will benefit from the integration of work motivated by both interpretive and empiricist methodologies. The result of the study can be used as a guideline in developing effective symptoms management programs.

Home ◀ ▶ go to PG.

SYMPTOM CLUSTERS RESEARCH:
PROGRESS AND CHALLENGES IN MENOPAUSE RESEARCH

Symptom Clusters as Phenotype

Lori Cray, PhD, RN
Assistant Professor
College of Nursing
Seattle University
Seattle, WA

Nancy Fugate Woods, PhD, RN, FAAN
Professor and Dean Emeritus
Dept. of Biobehavioral and Nursing Science
School of Nursing
University of Washington
Seattle, WA

Ellen Sullivan Mitchell, PhD, RN
Professor Emeritus
Family and Child Nursing
University of Washington
Seattle, WA

Purposes: To 1) test models hypothesizing the relationship between symptom severity clusters and profiles of gene polymorphisms in the estrogen synthesis pathways and in the neuroendocrine pathways modulated by estrogen; and 2) to test models hypothesizing differential effects of hypothalamic-pituitary-ovarian biomarkers, hypothalamic-pituitary-adrenal biomarkers and autonomic nervous system biomarkers on symptom severity clusters.

Background: Based on our early analyses, we anticipated finding an estrogen-related set of effects on symptom severity clusters that include high hot flashes. In contrast, we anticipated that gene polymorphisms in the estrogen-modulated NYP polymorphisms were likely to be related to symptom severity clusters that included several high severity symptoms.

Methods: Participants from the Seattle Midlife Women's Health Study who were staged provided data for a total of 6857 occasions. Multilevel latent class analysis with multinomial regression was used to determine the effects of hypothalamic-pituitary-ovarian biomarkers, hypothalamic-pituitary-adrenal biomarkers, autonomic nervous system biomarkers and gene polymorphisms (NYP, CYP19, HSD, BDNF) on class membership.

Results: Relative to the low symptom class higher levels of estrogen (OR 0.016) significantly reduces the likelihood of being in the high hot flash class while women with higher levels of FSH (OR 2.870) were significantly more likely to be in the high hot flash class. Higher levels of epinephrine reduces the likelihood of being in the high hot flash class (OR 0.000) and higher levels or norepinephrine increases the likelihood of being in this class relative to the low symptom class (OR 10.507). Using the high hot flash class as referent, having MORE copies of HSD5942 (OR 0.148) & HSD2389 (OR 0.101) significantly decreased the likelihood of being in the all low severity class compared to the high hot flash class severity class. Having MORE copies of CYP197R3 (OR 0.473) significantly decreased the likelihood of being in the low hot flash class compared to the high hot flash class.

Implications: These findings indicate that estradiol and FSH have opposite effects on the likelihood of being in the high hot flash class. In addition, polymorphisms in both the HSD and CYP polymorphisms differentiated women with the high hot flash cluster from those in the low severity symptom cluster. HSD polymorphisms were both associated with increased likelihood of being in the high hot flash class. Having copies of CYP19r3 (small r is correct) increased the likelihood of being in the high hot flash class. These findings are consistent with the function of these polymorphisms in estrogen synthesis.

Home ◀ ▶ go to PG.

SYMPTOM CLUSTERS RESEARCH: PROGRESS AND CHALLENGES IN MENOPAUSE RESEARCH

Symptom Clusters as Outcomes: Challenges in Clinical Trials

Nancy Fugate Woods, PhD, RN, FAAN
Professor and Dean Emeritus
Dept. of Biobehavioral and Nursing Science
School of Nursing
University of Washington
Seattle, WA

Lori Cray, PhD, RN
Assistant Professor
College of Nursing
Seattle University
Seattle, WA

Ellen Sullivan Mitchell, PhD, RN
Professor Emeritus
Family and Child Nursing
University of Washington
Seattle, WA

Gerald Herting, PhD
Department of Sociology
University of Washington
Seattle, WA

Background: Although there is evidence that women experience multiple symptoms or symptom clusters during the menopausal transition, the majority of intervention trials have been designed to examine the effects of therapies on hot flashes. Recent opportunities to review literature focused on multiple symptom outcomes led to identification of several challenges in the design of intervention trials.

Purpose: To identify challenges in the intervention trial literature related to the menopausal transition with respect to multiple symptom outcomes or symptom clusters and to propose alternative methodological approaches to address these.

Methods: Analysis of results of a systematic review of 59 intervention trials focused on non-pharmacologic therapies for hot flashes and at least one additional symptom (sleep, mood, cognitive, pain) with respect to measurement strategies, analytic strategies, and interpretation of results.

Results: Current trials are challenged by measurement of symptoms in ways that do not allow for analysis of symptom clusters or identification of multiple symptom outcomes due to the approaches used to data analysis. In addition, challenges encountered with respect to statistical power, analysis of individual clusters or outcomes that include a vector of symptoms, and existing metrics for symptom evaluation (severity, interference, bother), were evident.

Implications: Recommendations for future work include: standardizing measurement approaches, including specifying symptoms of interest and common metrics; exploring alternatives to data analysis that include factor analysis, latent class analysis, cluster analysis, and multiple indicator outcomes; proposing theoretical models to account for symptom clusters as outcomes.

Funding: This work was supported by grants from the National Institute of Nursing Research (NINR 1R21NR012218-01 Menopause Symptom Clusters: Refocusing Therapeutics; NR 04141 - Menopausal Transition: Biobehavioral Dimensions; P30 NR 04001, P50-NR02323 – Center for Women's Health and Gender Research).

Home
go to PG.

THE INTEGRATION OF RESEARCH, EDUCATION & BEST PRACTICES TO CARE FOR SENIORS

Moderator:
Ernestine Kotthoff-Burrell, PhD, ANP, BC, FAANP
Assistant Professor
University of Colorado
College of Nursing
Aurora, CO

OVERVIEW: THE INTEGRATION OF RESEARCH, EDUCATION & BEST PRACTICES TO CARE FOR SENIORS

Ernestine Kotthoff-Burrell, Joan M. Nelson, Maria Vejar

EDUCATIONAL REVISION AND REFORM ACROSS UNDERGRADUATE AND GRADUATE NURSING PROGRAMS

Ernestine Kotthoff-Burrell

AN AFFECTIVE AND COGNITIVE GERIATRIC EDUCATIONAL ACTIVITY

Joan M. Nelson, Ernestine Kotthoff-Burrell

MEDICATION MANAGEMENT IN A GERIATRIC PRIMARY CARE PRACTICE SETTING

Maria Vejar

Home ◀ ▶ go to PG.

THE INTEGRATION OF RESEARCH, EDUCATION & BEST PRACTICES TO CARE FOR SENIORS

Overview: The Integration of Research, Education & Best Practices to Care for Seniors

Ernestine Kotthoff-Burrell, PhD, ANP, BC, FAANP
Assistant Professor
University of Colorado
College of Nursing
Aurora, CO

Joan M. Nelson, DNP, APRN-BC
Associate Professor
University of Colorado
College of Nursing
Aurora, CO

Maria Vejar, DNP, GNP
Senior Instructor
University of Colorado
School of Medicine
Aurora, CO

Aim: This symposium describes and discusses: the integration of research, education, and "Best Practices" aimed at improving medication management and reconciliation to reduce adverse drug events in the older adult population.

Background: Today, those over age 65 years comprise 12% of the total U.S. population. The number of older adults will almost double by 2030 (20%). Daily, 10,000 individuals reach age 65. On average, the elderly have 2.2 chronic illnesses; utilize more health care resources than any other demographic segment. They consume one-third of all prescription medications. Yet most health care professionals have little to no formal education regarding the unique needs of older adults. Clearly, changes in professional education and practice have reached the level of a categorical imperative to provide cost effective, patient-centered, quality, safe and evidence–based care. This symposium addresses one university's efforts to revise curriculum, institute new student clinical experience simulations, and promote "Best Practices" to improve medication management in older adults.

Methods: The process and outcomes for major curricular revision across all levels of nursing education; the process for the development, implementation and evaluation of a simulated exercise to enhance student awareness of medication adherence and management for older adults, and the quality improvement process and outcomes for reducing adverse outcomes related to medication mismanagement.

Outcomes Achieved: Educational reform to prepare competent clinicians to care for older adults; innovative educational strategies to enhance awareness of their unique needs, and quality improvement projects which demonstrate effective ways to improve patient outcomes.

Conclusions: This symposium demonstrates the necessity for reforms in professional education as well continued life-long learning in order to enhance care for elders.

Home ◀ ▶ go to PG.

Educational Revision and Reform across Undergraduate and Graduate Nursing Programs

Ernestine Kotthoff-Burrell, PhD, ANP, BC, FAANP
Assistant Professor
University of Colorado
College of Nursing
Aurora, CO

Aim: To describe the processes used in the review and revision of gerontological curriculum across the undergraduate and graduate nursing programs in order to enhance the professional competencies and ultimately the care provided to older adults.

Background: Over 10,000 individuals reach the age of 65 years on a daily basis. Currently, older adults (those over age 65 years) comprise 12% of the total population. This percentage is anticipated to reach 20 % by 2030. Those over 85 years constitute the fastest growing segment of the U.S population.

Older adults have unique and complex health and social issues. On average, they have 2.2 chronic illnesses; take more than 5 prescriptions and over the counter medications on a daily basis. Many require assistance to meet their daily care needs.

In 2010, the American Association of Colleges of Nursing (AACN) recognized that current educational programs were not meeting the present or the future health care needs of older adults. Thus, they recommended closing stand alone Geriatric Nurse Practitioner (GNP) programs due to low enrollments, and expanding the population foci of the adult nurse practitioner to include the elderly. AACN (2010) together with the John A. Hartford Foundation and the National Organization of Nurse Practitioner Faculty (NONPF) (2010) revised and published new core competencies for caring for older adults. The University of Colorado, College of Nursing was among one of the first colleges and universities to receive three years of HRSA funding to review, revise and implement new gerontological content and competencies.

Methods: Core faculty reviewed the recently updated Master's Essentials (AACN, 2010), and the revised Core Competencies for Caring for Older Adults for Baccalaureate, Master's and Doctoral nursing programs (AACN, 2010; NONPF, 2010). They developed a tool for content and concept mapping across the program. They discussed the review and proposed revisions with faculty, and have provided faculty development in aspects of gerontological nursing care as well as innovative teaching strategies to address a myriad of individual learning styles.

Results: The initial phase of the curricular review and revision is complete. The recommendations for revision were approved, and implementation of new courses and content began in the fall 2012. We are planning a subsequent review to ensure adherence to the recommendations as well as to conduct formative and summative course, instructor and student competency-based performance evaluations.

Conclusions: Faculty can benefit from sharing of successes and pitfalls in initiating curricular review and revision to enhance the care of older adults.

Home ◀ ▶ go to PG.

THE INTEGRATION OF RESEARCH, EDUCATION & BEST PRACTICES TO CARE FOR SENIORS

An Affective and Cognitive Geriatric Educational Activity

Joan M. Nelson, DNP, APRN-BC
Associate Professor
University of Colorado
College of Nursing
Aurora, CO

Ernestine Kotthoff-Burrell, PhD, ANP, BC, FAANP
Assistant Professor
University of Colorado
College of Nursing
Aurora, CO

Aim: To provide students with an opportunity to simulate common functional deficits associated with aging and develop innovative strategies for medication administration for patients with functional deficits.

Background: Half of all adults aged 75 and older need help with Instrumental Activities of Daily Living (IADLs) and/or Activities of Daily Living (ADLs) and 78% of adults aged 85 and older need help with IADLs and/or ADLs (Administration on Aging, 2011). Functional deficits contribute to older adults' risks for medication errors which are a significant cause of morbidity and mortality in this population. Thirty five percent of community dwelling older adults experience an adverse drug event (ADE) annually and these ADEs are often significant enough to result in emergency department visits or hospitalizations (Liu & Christensen, 2002). Nursing students need experience and education related to this growing population in order to help to reduce these ADEs.

Methods: An educational activity was developed and conducted in which pairs of students worked together on a medication administration simulation. One student played the role of a patient with a pre-determined functional deficit, while the other was a home care nurse working with the patient to evaluate and teach medication management skills. The students were required to complete three tasks in the two hours allotted: 1) teach the patient to organize his/her medications with a pill box 2) create a master list of medications that the patient can understand and use as a guide to set up the pill box and 3) communicate the system to the patient and assess the patient's ability to independently and safely utilize this system.

First year baccalaureate students who had completed their pharmacology course were provided with eight bottles of medication labeled with different medications and instructions, a medication list from the "home care organization's" office, aging simulation glasses (cataracts, yellowed vision, glaucoma, macular degeneration and CVA glasses), cotton balls to simulate hearing loss, and arthritis simulation gloves.

Results: Students developed a myriad of creative communication tools specific to the functional deficit experienced by the patient partner in this simulation. They evaluated the activity very positively and said that, until this experience, they had little understanding of the impact of functional deficits on medication management by older adults.

Conclusion: The older adult population is the fastest growing segment of the population in the United States and nurses need to gain requisite understanding of this population in order to mitigate common health risks.

References:

Administration on Aging, (2011). A profile of older Americans: 2011. US Dept of Health and Human Services. Accessed 10/9/12 at http://www.aoa.gov/aoaroot/aging_statistics/Profile/2011/docs/2011profile.pdf.

Liu, GG and Christensen, DB. (2002). The continuing challenge of inappropriate prescribing in the elderly. Journal of the American Pharmacologic Association, 42, 847-57.

THE INTEGRATION OF RESEARCH, EDUCATION & BEST PRACTICES TO CARE FOR SENIORS

Medication Management in a Geriatric Primary Care Practice Setting

Maria Vejar, DNP, GNP
Senior Instructor
University of Colorado
School of Medicine
Aurora, CO

Rationale and Significance: Medication reconciliation is a National Patient Safety Goal. Completing medication reconciliation helps to minimize the risk of preventable adverse drug events (ADEs). The elderly are at greatest risk for ADEs due to their high number of comorbidities and medications usage.

Purpose: The purpose of this quality improvement project was to improve medication management in a geriatric primary care practice. Interventions focused on improving medication reconciliation documentation, improving accuracy of medication lists, reduction in inappropriate medication use, and minimizing duplicate medication therapy.

Methodology: A pre and post group design was used, guided by specific interventions to improve medication management over a nine-month time frame. Interventions focused on educating providers, staff and patients on medication reconciliation. Quantitative data analysis of 1580 manual chart audits, and 903 patient questionnaires and corresponding chart audits were completed. Data were analyzed using descriptive and Chi-Square statistics.

Findings: Outcome measures showed statistically significant improvement in all four performance outcomes: Medication reconciliation improved: $c^2(1, N=576) = 32.00$, $p < 0.0001$, $V = 0.4$; Patients bringing medications to clinic improved: $c^2(1, N=277) = 90.46$, $p < 0.0001$, $V = 0.7$; Reduction in patient use of specific Beers list medications: $c^2(1, N=267) = 19.49$, $p < 0.0001$, $V = 0.3$; and Duplicate therapy was reduced: $c^2(1, N=267) = 45.13$, $p < 0.0001$, $V = 0.5$.

Implications for Practice: Improved medication management had a clinically significant impact in patient safety and quality of care in the geriatric primary care setting.

Home ◀ ▶ go to PG.

THE UTILITY OF THE LIFE COURSE PERSPECTIVE TO INFORM INTERVENTIONS

Moderator:
Carrie Jo Braden, PhD, RN, FAAN
Associate Dean for Research
Family and Community Health Systems
The University of Texas Health Science Center at San Antonio School of Nursing
San Antonio, TX

OVERVIEW: THE UTILITY OF THE LIFE COURSE PERSPECTIVE TO INFORM INTERVENTIONS

Carrie Jo Braden

LIFE COURSE & EDUCATIONAL TRANSITIONS: UNDERREPRESENTED GRADUATE STUDENTS

Carrie Jo Braden, Janna Lesser, Adelita Cantu

TRAUMA-INFORMED INTERVENTION PROGRAM FOR LATINO MALE YOUTH: A LIFE COURSE PERSPECTIVE

Janna Lesser, Manuel Angel Oscos-Sanchez

LIFE COURSE THEORY: THE IMPACT OF TRAUMA ON WOMEN LIVING WITH SERIOUS MENTAL ILLNESS

Rebecca Bonugli

DOS GENERACIONES UN CAMINO/TWO GENERATIONS ONE ROAD

Socorro Escandon

THE UTILITY OF THE LIFE COURSE PERSPECTIVE TO INFORM INTERVENTIONS

Overview: The Utility of the Life Course Perspective to Inform Interventions

Carrie Jo Braden, PhD, RN, FAAN
Associate Dean for Research
Family and Community Health Systems
The University of Texas Health Science Center at San Antonio School of Nursing
San Antonio, TX

Purpose: This symposium describes the usefulness of life course as defined by Mayer and Tuma (1980), "social processes extending over the individual life span or over significant portions of it, especially the family cycle, educational and training histories, and employment and occupational careers" (3), as a perspective for thinking about how individual lives unfold, and how specific events and transitions affect life trajectories. Language of the Life Course Perspective that consistently includes constructs such as trajectories, landmark events, turning points, transitions, and asset building reflects a socially constructed orientation that guides sequencing and time of life transitions across the age continuum. Each of the presentations describes turning points that provide a place for strategically timed, health care provider delivered intervention designed to support capacity building outcomes.

Life Turning Points: Lesser and Oscos-Sanchez report findings from across a series of studies exploring and describing the lifelong consequences of exposure to violence and trauma experienced by Latino male youth. The studies, each building on findings from prior work, resulted in development and testing of community-based interventions designed to decrease risk behavior to increase healthy behaviors. Bonugli's paper describes exploratory work with women who are living or who have lived in community shelters and/or live on the streets of a large metropolitan city. Discovery of transitional periods during the women's lives increased understanding about the role of trauma experience for women having serious mental illness. Increased understanding was also gained about the women's capacity to overcome barriers to improving their health status. The findings from across the exploratory work are coalescing to inform intervention strategies that will be formalized and tested in the near future. Escandon reports the work of a group of women, the *Mujeres, Nobles of Harlandale* who are designing interventions to support young Latino women who are transitioning to higher education. Concepts from the Life Course Perspective clearly guided the group's attention to the belief and value conflicts that emerge in Latino families and in young women who seek higher education. Braden, Lesser, and Cantu identify entry into health profession graduate programs as an opportune life turning point for considering planned professional development as a clinical research scientist. The Mechanisms Enhancing Scholarly Achievement (MESA) study interventions are described along with the rationale for timing of the valuing and mentored applied research experience interventions.

Home ◀ ▶ go to PG.

THE UTILITY OF THE LIFE COURSE PERSPECTIVE TO INFORM INTERVENTIONS

Life Course & Educational Transitions: Underrepresented Graduate Students

Carrie Jo Braden, PhD, RN, FAAN
Associate Dean for Research and Scholarships
Family and Community Health Systems
The University of Texas Health Science Center at San Antonio School of Nursing
San Antonio, TX

Janna Lesser, PhD, RN
Associate Professor
Family and Community Health Systems
The University of Texas Health Science Center at San Antonio School of Nursing
San Antonio, TX

Adelita Cantu, PhD, RN
Assistant Professor
Family and Community Health Systems
The University of Texas Health Science Center at San Antonio School of Nursing
San Antonio, TX

Purpose: The ethnic and racial composition of health care professionals and of biomedical and behavioral researchers is not at parity with the composition of the United States population. Under-representation in the health care workforce is clearly linked to racial and ethnic disparities in care delivery and health outcomes that include higher levels of sickness, disability, and premature death. A desire to make a difference relative to such disparities is posed as a significant motivator for minority students who enter health profession education programs. However, it is also thought that the desire to “give back” leads to career choices consistent with a service focus rather than a focus on knowledge building. Without information about the power of research to affect change, minority health care professionals can lack compelling goals for engaging in the deliberative and effortful process of becoming a clinical research scientist. The overall purpose for sharing information about a randomized, controlled prospective-cohort-longitudinal study, Mechanisms Enhancing Scholarly Achievement (MESA), is to increase the understanding of the mechanisms contributing to the transition of an ethnically diverse group of Academic Health Science Center graduate students who are enrolled in clinical programs of study (medicine, nursing, dentistry, public health, health professions/allied health) to planned pursuit of a clinical research scientist career.

Description of Theory: The Life Course Perspective, and its body of work focusing on transitions and trajectories, provides insight into factors affecting transition decisions. Life course perspective emphasizes the potential of single life events to shape future life course trajectories and is guided by four tenets: historical place, timing in lives, linked lives, and human agency.

Internal Consistency of the Theory: Application of a Life Course Perspective regarding the role of educational transitions on students’ academic trajectory decisions holds promise for identifying optimum points in time to offer goal visioning and applied, mentored research experience interventions, particularly for students from underrepresented groups.

Linkage of Theory to Program of Research: In MESA historical place is a health science center having an explicit research mission, timing is entrance into a graduate program, linked lives are the cohorts entering the study, and human agency is the intra person strengths evidenced by individual students.

Conclusion: Values that inform career decisions, experiences during the education process and in the research work setting leading to increased interpersonal risk, are thought to strongly influence minority persons to pursue a clinical research career.

Funding: MESA: Mechanisms for Enhancing Scholarly Achievements NIH/NIGMS 1 R01 GM088781-01A1.

THE UTILITY OF THE LIFE COURSE PERSPECTIVE TO INFORM INTERVENTIONS

Trauma-Informed Intervention Program for Latino Male Youth: A Life Course Perspective

Janna Lesser, PhD, RN
Associate Professor, Family and Community Health Systems
The University of Texas Health Science Center at San Antonio School of Nursing
San Antonio, TX

Manuel Angel Oscos-Sanchez, MD
Associate Professor, Family and Community Medicine
The University of Texas Health Science Center at San Antonio School of Medicine
San Antonio, TX

Purpose: Latino male youth are disproportionately affected by the lifelong consequences of having experienced and/or been exposed to both structural and systemic violence and trauma; including depression, substance abuse, and other mental health problems. There is both a national and local need for theoretically driven and empirically tested mental health-based interventions among Latino male youth. Application of a Life Course Perspective has the potential to positively influence the research process and holds promise for advancing knowledge in our challenge to eliminate health disparities.

Description of Theory: In this presentation we will provide an overview of life course theory as it pertains to our program of research in the area of understanding and healing trauma among young Latino males. This theoretical perspective can influence the design of studies and consequently the interventions that evolve within them. Life course theory combines a focus on health disparities and social determinants of health with an understanding of the interaction between the environment and biology as an approach to gaining knowledge of how health or illness develops over a life time and across generations. A life course perspective, in the context of this paper, refers to the researchers' acknowledgment of interacting multifactorial influences over time that may contribute to health disparities.

Internal Consistency of the Theory: The key concepts within this approach include health pathways or trajectories, early life experiences, critical or sensitive periods, cumulative impact, and risk and protective factors. These concepts address the specific life experiences, special needs, and assets within a particular community or population group.

Linkage of the Theory to Program of Research: We will describe how Qualitative Inquiry and Participatory Research Approaches are techniques consistent with a life course perspective. We will then illustrate how our program of research supports the efficacy of applying a life course perspective when conducting health disparities prevention research.

Conclusion: We suggest that the goodness of fit of the research program described in this presentation with the basic premises of Life Course Theory validates the usefulness of applying a life course perspective when conducting health disparities prevention research. Furthermore, as explicated by Life Course theory, though early adverse life experiences and social, economic, and environmental disadvantage do impact health over the lifespan, our program of research shows that strength-based prevention programs that reflect the reality of these youths' lives have the potential to decrease risk behavior and alter the health trajectory for these young men.

Home ◀ ▶ go to PG.

THE UTILITY OF THE LIFE COURSE PERSPECTIVE TO INFORM INTERVENTIONS

Life Course Theory: The Impact of Trauma on Women Living with Serious Mental Illness

Rebecca Bonugli, PhD, APRN, PMHCNS
Assistant Professor
Family and Community Health Systems
The University of Texas Health Science Center at San Antonio School of Nursing
San Antonio, TX

Purpose: The purpose of this paper is to describe how Life Course Theory (LCT) can serve as a framework for understanding how critical transitional life periods impact the experience of trauma and recovery among homeless women living with serious mental illness (SMI).

Description of Theory to Be Discussed: Life Course Theory is a conceptual framework that seeks to understand, explain, and improve health and disease patterns across population groups. Rooted in social determinants and social equity models, this theory posits that a complex interplay of biological, behavioral, psychological, and social protective and risk factors contribute to health outcomes across the life span. Constructs in this theory include health pathways or trajectories, early programming, critical or sensitive transitional periods, cumulative impact and risk and protective factors. In summary, key life course concepts include timeline, timing, environment and equity.

Internal Consistency of the Theory Developed: The constructs within Life Course Theory is described in the literature related to trauma and mental illness. The theory serves as a sound guide in terms of understanding the predictors of health status among populations who evidence significant health disparities.

Logic Linking the Theory or Concept to Nursing Practice or Research Problem: Understanding the complexity of trauma and serious mental illness among this especially vulnerable group will enable the development of sound trauma informed interventions that will guide nursing practice. This paper highlights findings from several exploratory studies that link SMI, cumulative trauma and homelessness to losses experienced at important transitional periods of life. Key pathways to recovery include finding one's strengths following these losses.

Conclusions, Including a Statement about the Utility of the Theory or Concept for Nursing Practice or Research: The Life Course Theory perspective enables a greater understanding of the factors that will predict health status among this vulnerable population. Most importantly, addressing trauma related issues leading to health disparities, particularly at transitional periods during the life time, provide opportunities to identify interventions based on the strengths of women living with serious mental illness.

Home ◀ ▶ go to PG.

THE UTILITY OF THE LIFE COURSE PERSPECTIVE TO INFORM INTERVENTIONS

Dos Generaciones Un Camino/Two Generations One Road

Socorro Escandon, PhD, RN
Assistant Professor
Family and Community Health Systems
University of Texas Health Science Center at San Antonio
San Antonio, TX

Purpose: To describe the development of a community health program originating from a collaboration with *Las Mujeres Nobles of Harlandale*,* a bilingual women's group that has been working together for five years. The group undertook the challenge to create a program that provides support for their *Mujercitas* (daughters/nieces/ granddaughters) as they go off for more education. The program focuses on helping *Mujercitas* with survival and emotional skills, promoting resiliency and ultimately educational success.

Description of Theory: The Life Course Perspective provides insights about transitions from middle school to high school to higher education as important milestones for young people. The *Mujeres* value education but worry about being able to provide the educational guidance and support that their *Mujercitas* need to enter higher education (Espinoza, 2010).

The Life Course Theory Concepts (LCT)- timeline, timing, environment, and equity—provide a framework in addressing elements of this paradox. ***LCT concept of Timeline*** emphasizes the importance of cumulative and longitudinal impacts both within an individual's life span and across generations. *Mujercitas*, living in a strong cultural environment of familism and raised to cooperate and interdepend, exhibit a strong attachment to nuclear and extended members of the family. The culture of academia expects participants to engulf themselves in their studies, while minimizing if not totally negating any school-family issues that may exist. Understanding Latinas pursing their educational aspirations requires acknowledgement and discussion of cultural values. ***LCT concept of Timing*** points to the importance of recognizing critical or sensitive periods throughout life in order to build interventions that can be maximized. It is important to provide during the critical periods of their transitions to high school and higher education, a forum where strong family connections can be highlighted and their value emphasized. ***LCT concept of Environment*** recognizes that physical, social, and economic environments play an important role in shaping health across populations and communities. Family strategies must be formulated to maintain the cultural values, while adjusting for the educational demands. ***LCT concept of Equity*** seeks to explain health disparities across populations and communities.

Conclusions: The four part program challenges both the *Mujeres* and the *Mujercitas* (in separate groups) to identify solutions to specific issues/problems the young girls will encounter as they make decisions in their transitions from middle school to high school to higher education. The groups unite to discuss solutions as seen from two different generations seeking common ground as they travel the same road.

*A group dedicated to the empowerment of women in the community; a vision of creating avenues and opportunities for women and their families for a better quality of life. The group was established through a grant from the University of Texas Health Science Center at San Antonio (UTHSCSA) called Familias en Acción.

Reference:

Espinoza, R. (2010). The good daughter dilemma: Latinas managing family and school demands. *Journal of Hispanic Higher Education, 9*(4), 317-330.

WOMEN'S HEALTH SCIENCE AND PRACTICE ISSUES: TRANSLATION INTO POLICY

Moderator:
Joan Shaver, PhD, RN, FAAN
Dean and Professor
Biobehavioral Health Science
The University of Arizona
Tucson, AZ

OVERVIEW: WOMEN'S HEALTH SCIENCE AND PRACTICE ISSUES: TRANSLATION INTO POLICY

Joan Shaver

WHO WILL PROVIDE WOMEN'S HEALTH CARE? POLICY OPTIONS FOR A STRONG WORKFORCE

Diana Taylor

HOW WOMEN'S HEALTH RESEARCH DATA CAN INFLUENCE WOMEN'S HEALTH POLICY

Nancy Fugate Woods

CLINICAL PREVENTIVE SERVICES FOR WOMEN: GAPS AND POLICY IMPLICATIONS

Judith A. Berg

TRANSLATION OF WOMEN'S HEALTH RESEARCH INTO POLICY: A CALL TO ACTION

Ellen Olshansky

WOMEN'S HEALTH SCIENCE AND PRACTICE ISSUES: TRANSLATION INTO POLICY

Overview: Women's Health Science and Practice Issues: Translation into Policy

Joan Shaver, PhD, RN, FAAN
Dean and Professor
Biobehavioral Health Science
The University of Arizona
Tucson, AZ

We are living in a socio-political context in which women's health policies are receiving much attention. Often the political debates surrounding women's health are based on ideology rather than data. Translational research includes the transfer of research findings into the real world, whether at the bedside or in the community. Although not commonly described within the umbrella framework of translational research, one aspect is the translation of research data into policy recommendations. In the spirit of promoting translational research emanating from evidence-based practice or practice-based evidence, the purpose of this symposium is to present data from several key projects related to research, clinical services, a competent workforce for sexual and reproductive healthcare and the need for a systematic application of evidence to the development of informed policy for improving the health and lives of women. The four papers are as follows:

1. *How Women's Health Research Data Can Influence Women's Health Policy*
From two national reports articulating a women's health research agenda for the next decade or more, Dr. Nancy Woods outlines salient research areas, followed by expanded research and policy recommendations in the context of an informed nursing science perspective.

2. Women's Health Clinical Preventive Services: Gaps and Policy Implications
Relevant to several strategic policy-shaping reports, all of which address preventive services needs for women, Dr. Judith Berg provides an overview of key clinical services seen as crucial; highlighting gaps in knowledge and evidence while addressing policy needed to accelerate improvements.

3. *Who will provide women's health care? Policy options for a strong workforce*
Based on her experience with the recent Rand Corporation project analysis of demands for sexual and reproductive health services and the threats to the supply of a competent workforce, particularly nurses, Dr. Diana Taylor outlines key data, recommendations and areas for policy applications to achieve comprehensive services and competent nurse providers.

4. *Translation of Women's Health Research into Policy: A Call to Action*
Highlighting results from expert reports and from her community-based, consumer participatory initiative, Dr. Ellen Olshansky presents the priority women's health needs generated along with relevant policy areas in need of addressing and issues a 'call to action' for nurse scientists and clinicians.

WOMEN'S HEALTH SCIENCE AND PRACTICE ISSUES: TRANSLATION INTO POLICY

Who Will Provide Women's Health Care? Policy Options for a Strong Workforce

Diana Taylor, PhD, RNP, FAAN
Professor Emerita, School of Nursing
University of California, San Francisco
San Francisco, CA

Purpose/Aims: To present findings from a new RAND Corporation report on: 1) the supply of advanced practice nurses to provide women's health care, particularly sexual and reproductive health (SRH) services, and; 2) policy interventions to enhance the availability of high quality gender-specific health care, following the World Health Organization (WHO) assertion that the SRH of men and women across their lifespan be delivered within a highly functioning public health/primary care system.

Rationale/Background: Recent policy-shaping reports from the Institute of Medicine (IOM) and WHO coupled with strategic initiatives from the 2010 Affordable Care Act provide a roadmap for reproductive and gender-based healthcare improvements. Services are fragmented by population, setting, professionals, and funding streams. Little is known about the magnitude of the future gap in demand for expanded SRH services and the supply of competent professionals to provide services under an emerging/changing system. In 2011 convened by the RAND Corporation with experts in nursing, medicine, workforce policy and health services research, a study was done to estimate the future supply of professionals capable of providing SRH services to low income populations. The study was focused on nurse practitioners (NPs) as key providers of SRH services particularly in public clinics but with recommendations affecting RNs, nurse-midwives and primary care physicians.

Approach: Multiple data sources and methods were used to address questions related to the future gap between demand for SRH services and supply of competent professionals. Quantitative analyses were focused on existing data sources from federal health and workforce surveys as well as national professional societies and credentialing organizations. Additional data came from interviews with more than 20 experts and clinic personnel and surveys from a professional organization of Women's Health Nurse Practitioners (WHNPs) and clinic administrators.

Outcomes: Key findings and recommendations from the RAND study include that: 1) by 2020 demand for SRH services will grow modestly, requiring more clinicians competent to provide a range of SRH services; 2) SRH is more than maternal-child, family planning or women's health care and requires integration with public health and primary care (as defined by the WHO); 3) combined with likely shortages of primary care physicians, including in obstetrics-gynecology, there is a shrinking proportion of NPs prepared to provide women's health care, and even fewer WHNPs to provide SRH services; 4) a variety of structural factors in the NP supply pipeline and work environments constrict the supply and utilization of NPs and other primary care clinicians in SRH care; and 5) a range of short and intermediate policy options and interventions spanning education, federal/state policy, and emerging models of care delivery have the potential to close expected supply-demand gaps and improve the quality and efficiency of SRH service delivery, expand the provider base delivering SRH services, and better integrate these services with other parts of the health care system.

Conclusions: Policies are needed to support growth of an appropriately competent workforce and the design of efficient, effective and cost conserving models of healthcare that integrate SRH services into primary and public health care.

Home ◀ ▶ go to PG.

WOMEN’S HEALTH SCIENCE AND PRACTICE ISSUES: TRANSLATION INTO POLICY

How Women’s Health Research Data Can Influence Women’s Health Policy

Nancy Fugate Woods, PhD, RN, FAAN
Professor and Dean Emerita
University of Washington School of Nursing
Seattle, WA

Purposes/Aims: To present findings from two government-commissioned research reports on women’s health through distilling the major findings and recommendations and suggesting enhancements based on nursing contributions to health promotion science. These recommendations are discussed in relation to implications for health policy.

Rationale/Background: In 2010 the National Institutes of Health (NIH) Office of Research on Women’s Health and the Institute of Medicine (IOM) released new recommendations on women’s health research priorities. They conveyed the need for renewed attention to areas of women’s health research in need of further development.

Approach: Content analysis of the reports provided the primary data. The two reports were summarized and cross-referenced to identify separate or overlapping research agenda recommendations within eight thematic areas. For each theme, we present a nursing view of missing or expanded elements to enhance the women’s health research agenda for the future and influence the promotion of health in women. We then present implications for health policy, emphasizing the nursing role in health policy recommendations, development, and implementation and promoting best practices.

Outcomes: The eight thematic areas for a re-vitalized women’s health research agenda were: 1) Expanded development and testing of gender-sensitive interventions; 2) Highly focused attention to the intersection of gender with other health determinants: 3) Re-balancing of behavioral, integrative and pharmacological therapeutics emphases: 4) Additional studies of under-emphasized conditions disproportionately affecting women: 5) Increased science related to preventing unintended pregnancies and sexually transmitted infections; 6) Expansion of investigations into preventing and treating consequences of violence against women; 7) Additional studies of effective technologies and their use for behavioral and functional support for women as they age and in their roles as caregivers: and 8) Accelerated testing of models for translating research findings directly to the public (i.e., society).

Conclusions: From these eight thematic areas, we created health care policy recommendations in the following areas: 1) regulations for systematic development and testing of gender-sensitive interventions, including focused attention on determinants of health and gender, interactions, 2) re-prioritization of interventions by re-balancing behavioral, integrative, and pharmacological therapeutics, 3) increased resources availability to study, a) under-emphasized conditions disproportionately affecting women, b) access to prevention of unintended pregnancy and prevention and treatment of sexually transmitted infections, c) expansion of investigations for preventing and treating consequences of violence against women, and d) the most efficient use of technology, as well as, 4) conventions that enhance rapid response by research resources institutions (e.g. NIH) to accelerate the testing of models for translating research findings to communities.

Home ◀ ▶ go to PG.

WOMEN'S HEALTH SCIENCE AND PRACTICE ISSUES: TRANSLATION INTO POLICY

Clinical Preventive Services for Women: Gaps and Policy Implications

Judith A. Berg, PhD, RN, WHNP-BC, FAAN, FAANP
Clinical Professor
The University of Arizona
Tucson, AZ

Purpose/Aims: To describe the clinical preventive services for US women as outlined in the 2010 Affordable Care Act (ACA), the National Prevention Council and Strategy (NPCS), the 2011 IOM report on clinical preventive services for women and the World Health Organization (WHO) strategic plan for 2010-2015. A further purpose is to identify gaps in these services, outline evidence needed to improve these services and address the need for relevant policy based on these findings.

Rationale/Background: In the wake of the ACA, there has been a resurgence of interest in issues and priorities related to women's health. Important to nursing leaders is knowledge of several strategic policy-shaping reports (ACA, NPCS, IOM, WHO), all of which address preventive services needs for women.

Description of the Approach: Each of the strategic documents was examined in detail to identify commonalities, important preventive services recommended, and the inherent strengths and limitations. These documents were then compared and contrasted with the World Health Organization's strategic plan for women's health services and experiences within the U.K. National Health Service.

Outcomes: The ACA, the National Prevention Strategy and the expanded recommendations for women's preventive services are groundbreaking policies that promise to reduce or eliminate health inequities and disparities. Furthermore, sexual and reproductive health, injury and violence-free living, and health promotion strategies are emphasized. The IOM report also includes recommendations for preventive services targeting national health goals for women including prevention of chronic health conditions as well as the prevention of infant mortality and unintended pregnancy. An important gap across these documents involves specific health system recommendations, including the need for a comprehensive healthcare delivery approach for women embedded in a comprehensive, primary care model, and an emphasis on preconception health care. Not enough emphasis was placed on violence prevention or gender differences in specific disease conditions such as heart disease, mental health issues, autoimmune diseases, or development and maintenance of a competent workforce to implement prevention services. Evidence needed to improve clinical preventive services for women includes: a) a critical review of the 'state of the science' on sexual and reproductive health care and specifically prevention of unintended pregnancy, b) preconception health care to develop a model of primary prevention for women across the lifespan, c) evaluation of alternative models of service delivery, d) promotion of clinical practice guidelines development to prevent unintended pregnancy, and e) expanded resources to support gender-based research.

Conclusions: Clinical services for women are dependent upon informed policy decisions. Nurses and other health professionals can influence clinical services by being actively involved in policy dialogues for making recommendations, particularly for expanded prevention strategies, which hold major potential to impact women's health outcomes.

Home ◀ ▶ go to PG.

WOMEN'S HEALTH SCIENCE AND PRACTICE ISSUES: TRANSLATION INTO POLICY

Translation of Women's Health Research into Policy: A Call to Action

Ellen Olshansky, PhD, RN, WHNP-BC, FAAN
Professor and Director
University of California, Irvine
Program in Nursing Science
Irvine, CA

Purpose/Aims: To emphasize health policy implications and recommendations as a critical component of translational research. Using women's health science and its translation to policy as an example, the importance of generating research results and using accurate evidence in making policy recommendations is discussed.

Rationale/Background: Women's health has received a resurgence of interest and attention in the past few years. Often centered on issues and concerns regarding women's health, strong political views divide our national leaders as to relevant policy, pointing to the need for clinicians and academicians to help shape policy based on their practice and science. Simultaneously, the development of Clinical Translational Science institutes, through NIH funding of Clinical Translational Science Awards (CTSAs) has generated a robust interest in translating research findings into practice. Much less attention, however, is paid to policy translation.

Approach: Based on several reports related to women's health policy, exemplar data were extracted to show actual and potential policy applications related to women's access to high quality, affordable health care. Additionally, for the specific purpose of understanding and addressing women's health needs from a policy perspective, we describe the formation of a grassroots, participatory organization in one local area. With a steering team consisting of 4 other colleagues, the author of this paper conducted three focus groups with women's health care providers as well as consumers. We engaged in a process of systematically gathering data, distilling the data into several meaningful categories, and then determining priority needs for women's health. This was followed by amassing a group of women's health care providers and representatives from women's health community agencies for the purpose of planning a health policy summit. The inaugural community-based women's health policy summit was convened in May 2012.

Outcomes: The three priority areas identified by the grassroots women's health organization at the inaugural health policy summit were: 1) prevention of unintended pregnancies and sexually transmitted infections, 2) breast and cervical cancer early detection and prevention, and 3) identification and prevention of interpersonal violence against women. Follow-up task forces have been formed to recommend policy related to these priority issues. In this presentation we profile health policy recommendations and implementation as outcomes of translating clinical research. This includes delineating specific areas in which health care policy remains needed for the improvement of health care of women. Special emphasis is placed on opportunities whereby nurse clinician and scientists can become involved in health policy issues.

Conclusions: The outcome of this presentation will heighten sensitivity and motivate commitment to translate research findings into health policy that drives high quality, accessible, and cost-effective health care.

Home ◀ ▶ go to PG.

ASSESSING PARENT AND INFANT STRESS

Moderator:
Jeri Bigbee, PhD, RN, FNP-BC, FAAN
Adjunct Professor
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

BREAST FEEDING SUCCESS AMONG INFANTS WITH PKU IN THE UNITED STATES AND CANADA

Sandra A. Banta-Wright, Nancy A. Press, Kathleen A. Knafl

PARENT STRESS AND HOPE VARY WHEN INFANTS WITH HIE RECEIVED STANDARD OR EXPERIMENTAL CARE

Kimberly A. Allen, Sharron L. Docherty, Debra Brandon,
Diane Holditch-Davis, C. Michael Cotten

MASSAGE VERSUS HOLDING FOR INFANTS WITH GASTROESOPHAGEAL REFLUX

Madalynn Neu, Mark Laudenslager, Zhaoxing Pan

QUANTIFICATION OF NEONATAL LIMITED CHANNEL EEG PATTERNS

Lauren Thorngate, Shuyuann Wang Foreman, Karen A. Thomas, Robert L. Burr

---

SEARCHING FOR CYCLIC EFFECTS OF OPIOIDS ON PREMATURE INFANT BRAIN FUNCTION

Lauren Thorngate, Karen A. Thomas, Robert L. Burr

Home ◀ ▶ go to PG.

Breast Feeding Success among Infants with PKU in the United States and Canada

Sandra A. Banta-Wright, PhD, RN, NNP-BC
Postdoctoral Fellow
School of Nursing
University of Washington
Seattle, WA

Nancy A. Press, PhD,[1]
Gail Houck, PhD, RN, PMHNP[1]
Robert D. Steiner, MD[2]
Professors
[1]*School of Nursing &* [2]*School of Medicine*
Oregon Health & Science University
Portland, OR

Kathleen A. Knafl, PhD, FAAN
Frances Hill Fox Distinguished Professor
& Associate Dean for Research
School of Nursing
University of North Carolina, Chapel Hill
Chapel Hill, NC

Introduction: Breastmilk is the healthiest milk for infants. Some clinics encourage mothers of infants with PKU, a rare inborn error of metabolism disorder, to continue breastfeeding (BF) whereas others discourage BF after diagnosis. There is limited discussion about BF and PKU in the literature and the incidence and duration is not known for countries in North America.

Purpose: Describe incidence and duration of BF among mothers who have infants with PKU in the US and Canada.

Sample: Mothers meet the following criteria: 1) at least 21 years of age, 2) able to read and write in English, 3) had a child with PKU, and 4) lived in the US or Canada.

Method: Mothers were recruited from across the US and Canada from the PKU Listserv. After being contacted, the research information sheet and instructions for the survey were emailed to mothers. Mothers were informed survey completion was considered evidence of their agreement to participate. Descriptive statistics were used to describe data from the internet survey.

Results: 103 mothers with one child with PKU completed the internet survey. 89 mothers (86.4%) initiated BF and 14 mothers (13.6%) started bottle feeding immediately after delivery. McNemar's test was performed to assess the difference between proportion of mothers' BF immediately after delivery to mothers who continued BF after diagnosis. Significantly fewer mothers breast-fed after diagnosis (McNemar's $\chi^2 = 28.89$, $p \leq .0001$; $n = 89$ versus $n = 71$). Duration of BF among mothers ($n = 89$) ranged from < one month ($n = 19$, 21.3%) to nineteen to twenty-four months ($n = 4$, 4.5%). There were two modal categories ($n = 19$, 21.3%): 1) < one month and 2) from ten to twelve months. Several variables were assessed in relation to duration of BF using chi square analysis. One variable, when standard commercial infant formula was added to the diet replacing BF or pumped expressed mothers' milk, was significantly associated with decreased duration of BF infants with PKU, χ^2 (42, $n = 73$) = 88.13, $p < .0001$.

Discussion: Mothers successfully breast-fed infants with PKU in the US and Canada. They met or exceeded the majority of BF percentages reported in the US and Canada. In comparison to US National Breastfeeding Percentages (2011), mothers exceeded the expected rate of BF initiation (86% vs.75%) and BF at 6-months (55% vs. 44%), but did not meet rate of BF at 12-months (17% vs. 24%). In addition, mothers exceeded the Canadian BF rates (2009) at 3-months (65% vs. 54%) and were comparable to the 6-month rate (55% vs. 54%). Mothers almost met the Canadian BF initiation rate (86% vs. 90%). In comparison to the Healthy People 2020 Breastfeeding Objectives, mothers exceeded the BF initiation rate (86% vs. 82%) but did not meet the BF objectives at 6-months (55% vs. 61%) or 12-months (17% vs. 34%). This drop-off in BF by mothers of infants with PKU perhaps reflects the ongoing demands of managing PKU therapeutics.

Funding: F31-NR-010963: Ruth L. Kirschstein National Research Service Award, NIH, Bethesda, MD.

Home ◀ ▶ go to PG.

ASSESSING PARENT AND INFANT STRESS

Parent Stress and Hope Vary When Infants with HIE Received Standard or Experimental Care

Kimberly A. Allen, PhD, RN, Post Doctoral Fellow[1]
Sharron L. Docherty, PhD, CPNP, Associate Professor[2]
Debra Brandon, PhD, CCNS, FAAN, Associate Professor[2]
Diane Holditch-Davis, PhD, RN, FAAN, Marcus E. Hobbs Distinguished Professor[2]
C. Michael Cotten, MD, MHS, Associate Professor of Pediatrics[3]

[1]*Biobehavioral Nursing and Health Systems, University of Washington, Seattle, WA*
[2]*School of Nursing, Duke University, Durham, NC*
[3]*School of Medicine, Duke University, Durham, NC*

Background: Hypoxic ischemic encephalopathy (HIE) is a brain injury that occurs because of a hypoxic or asphyxia event during the prenatal, intrapartum or postnatal periods that prevents adequate blood flow to the infant's brain. HIE is one of the most serious complications of full term birth. Infants with HIE experience associated morbidities with 40-83% of these infants either dying by age 2 or having severe disabilities. Critical decisions must be made within hours following the birth including resuscitation, type of respiratory support, and possible usefulness of experimental care.
Aim: The purpose of this prospective, multiple case study was to compare parental attributes (stress, hope) associated with the level of parental participation in decision-making for infants with HIE and how the attributes changed over the first 2 months of life.
Methods: Infant medical data and severity of illness was collected. The illness course and subsequent decisions for each infant was created from the medical data and interviews. Parent self-report instruments about parental stress and hopefulness for the infant were collected within 1 week of the infant's birth then monthly. Descriptive statistics were used for self-report data. Parents participated in interviews within 1 week of the infant's birth and then monthly. Content analysis was used to derive themes from the data to further explain differences in parental attributes.
Results: Nine mothers and 8 fathers participated with a mean age of 29 years. The majority of parents was not married and was of minority ethnicity. Eleven of the 17 parents had a high school education or less and 2 parents had some college and 4 parents had a college education. The parental level of participation in decision-making was divergent when participation in standard care was compared to experimental care. Meaning that parents of infants with HIE who received standard care did not report being involved in the decision to initiate care. Parents of infants with HIE who received experimental care reported being involved in the decision-making. Infants who received experimental care had a lower illness severity compared to infants who received standard care. Parents of infants who received experimental care had lower hope than parents in the standard care from birth to 1 month. Parents of infants in the experimental group were less hopeful. Parents of infants who received experimental care also reported less stress than parents of infants who received standard care through the first 2 months of life.
Implications: Parents participate in initial decision-making about care for infant with HIE when they enroll in experimental care. Parents of infants receiving experimental care reported less hope for their infant despite infant illness severity being less than infants receiving standard care. This finding could be related to parents being given more information about HIE initially because consent for experimental care was necessary. The parents of infants in the experimental also had less stress, which could be related to the parent's feeling more control over the emergent situation and the information they received. Further evaluation of why these parents had different attributes is needed.

Funding: NIH/NINR F31NR012083 and American Nurses Foundation to the first author.

ASSESSING PARENT AND INFANT STRESS

Massage Versus Holding for Infants with Gastroesophageal Reflux

Madalynn Neu, PhD, RN
Assistant Professor
College of Nursing

Mark Laudenslager, PhD
Professor
School of Medicine

Zhaoxing Pan, PhD, MD
Assistant Professor
School of Public Health

University of Colorado
Aurora, CO

Purpose: The purpose of this randomized controlled trial was to evaluate the clinical efficacy of massage therapy on gastroesophageal reflux disease (GERD) symptoms in infants.

Background: Frequent regurgitation, heightened irritability, and feeding difficulties, sometimes accompanied by back arching, cyanosis, and apnea are symptoms of GERD in young infants. Symptoms can be extremely stressful to infants and parents and can interrupt infants' sleep and impair their nutrition. Current treatment may relieve reflux, but has limited success in relieving other GERD symptoms (Jordan, et al., 2006, Moore, et al., 2003). Available research suggests that massage therapy (MT) reduces stress, improves mood, promotes weight gain and enhances sleep in infants (Underdown et al., 2006). MT was proposed to lessen GERD symptoms including infant stress. Hypotheses of this study were that when compared to infants receiving holding, infants receiving MT would demonstrate 1) lower GERD scores; 2) better weight gain; 3) longer daily sleep duration, and 4) lower salivary cortisol levels.

Methods: Power analysis indicated a sample of 34 infants to be adequate. Pediatric care providers in 11 offices referred infants to the study. Eligible infants were 6 to 10 weeks of age, born at term, diagnosed be their care provider with GERD, and had no other medical condition. Mothers were over 18 years of age and spoke English. Infants (n = 34) were randomized to receive either MT from a certified infant massage therapist, or holding from a registered nurse or physical therapist experienced with infants. Treatments lasted 30 minutes and were given biweekly for six weeks in the infant's home. Mothers were blinded to treatment condition so were not in the room during treatments. Data collection occurred at baseline and after 4 and 6 weeks of treatment. GERD severity was measured by the 12-item Infant Gastroesophageal Reflux Questionnaire –Revised (I-GERQ-R) that was completed by the mothers. The I-GERQ-R has adequate psychometrics (Kleinman et al, 2006) using a cut-off for GERD diagnosis of 16. At each assessment period infants wore an Actiwatch for three days to measure sleep, and therapists collected salivary cortisol before and after treatments.

Results: The mean baseline I-GERQ-R score of 23 decreased to a mean of 14 at six weeks with no difference between groups. Infants gained weight similarly. No increase in sleep duration occurred and no difference was found between groups. Mean daily hours of sleep at 6 weeks was only 9 hours. Infants receiving MT had lower cortisol levels before and after treatment than infants receiving NMT ($p < .01$).

Implications: Massage therapy given bi-weekly by a therapist lessens infant stress but has no more effect than holding on other symptoms of GERD. More research needs to be done to investigate increased dosage of massage or maternal application of massage. Sleep duration also needs to be addressed and may require an additional intervention.

Funding: NINR R21NR011069.

Home

◀ ▶ go to PG.

Quantification of Neonatal Limited Channel EEG Patterns

Lauren Thorngate, PhD, RN, CCRN, Postdoctoral Research Fellow[1]
Shuyuann Wang Foreman, PhD, RN, Clinical Assistant Professor[2]
Karen A. Thomas, PhD, RN, Ellery and Kirby Cramer Endowed Professor[2]
Robert L. Burr, PhD, MSEE, Research Professor[3]

[1]*Biomedical and Health Informatics, University of Washington, Seattle, WA*
[2]*Family and Child Nursing, University of Washington, Seattle, WA*
[3]*Biobehavioral and Nursing Health Systems, University of Washington, Seattle, WA*

Background: Limited channel electroencephalogram (EEG) offers a valuable, non-invasive tool for the assessment of neonatal brain function, in the clinical setting. After acquisition from a single or double channel, the EEG signal is processed to integrate amplitude changes into a time compressed graphic trend known as amplitude integrated EEG (aEEG). Visual analyses of the envelope of amplitude signal data comprising the lower and upper border of graphic output are commonly used to describe patterns of neonatal brain function. Mature neonatal brain function is described as a smooth cycling between the two conditions of continuity and discontinuity, evidenced by upper and lower border changes. Assessment of neonatal brain function is known to follow maturational progression from a primarily discontinuous signal early in gestation to an alternating pattern of continuous signal with intermittent periods of discontinuity as post menstrual age (PMA) increases. The cyclic changes between continuity and discontinuity are a reflection of increasing brain physical and functional complexity. Qualitative interpretation (visual recognition) of pattern changes is the primary method of evaluating the clinical meaning of the aEEG signal. Research opportunities for understanding premature infant brain function including response to nursing care activities are currently limited by the lack of systematic methods to quantify the aEEG patterns.
Aim: Quantify variations in the lower border and bandwidth of the limited channel aEEG signal and begin to describe cyclic changes between states evidenced by patterns of continuity and discontinuity.
Methods: This within-subject naturalistic experiment acquired brain function data by limited channel aEEG in the neonatal intensive care unit (NICU). Twenty four infants with mean PMA 33.11 weeks were recruited and studied. Data were collected as a one-time aEEG recording obtained by single channel of between 3-12 hours for each infant. Standardized hydrogel electrode placement was achieved using three electrodes applied in a P3-P4 (modified International 10-20) scheme between feeding and caregiving times. Descriptive analyses were conducted after signal processing and visual assessment of the time series data.
Results: Log transformed bandwidth had a strong negative correlation with increasing PMA ($r=-0.877$). Group mean bandwidth was 52.98(SD 27.62) μV, median peak counts 3.625 (SD1.740) per minute, median proportion less than 10μV 22% (SD 0.200). Less mature infants had higher peak counts and more time at low voltage. Less mature infants had a lower mean voltage for the lower border with limited variation. Data showed a smaller lower border variance for younger infants of 1.65μV as compared to 3.96μV.
Implications: This study introduced two calculated variables: count of peaks >10 μV above baseline and proportion of time/minute <10 μV as a simple process for quantifying discontinuity. Limited channel EEG data interpretation in the context of optimizing premature infant caregiving will be made more accessible with straightforward techniques to define and gauge both continuity and discontinuity of brain function.

Funding: NINR F31- NR011365, T32-NR007106 NLM 2T15LM007442-11
American Nurses Foundation, Hyundai Motors Scholar, Integra Neuroscience Nursing Foundation, Sigma Theta Tau, Psi Chapter at Large, UW RIFP (Foreman).

ASSESSING PARENT AND INFANT STRESS

Searching for Cyclic Effects of Opioids on Premature Infant Brain Function

Lauren Thorngate, PhD, RN, CCRN, Postdoctoral Research Fellow[1]
Karen A. Thomas, PhD, RN, Ellery and Kirby Cramer Endowed Professor[2]
Robert L. Burr, PhD, MSEE, Research Professor[3]

[1]*Biomedical and Health Informatics, University of Washington, Seattle, WA*
[2]*Family and Child Nursing, University of Washington, Seattle, WA*
[3]*Biobehavioral and Nursing Health Systems, University of Washington, Seattle, WA*

Background: Rhythmic cycling between common brain function patterns form the basis for active and quiet sleep in the newborn. Neonatal opioid use for pain management and therapeutic sedation may contribute to untoward patterns of brain function, or change frequencies within the power spectrum that constitute sleep processes. The immediate effect of opioid therapy has not been fully explored with regard to neonatal brain function. Consequences of disruption to brain function upon neurodevelopment and sleep state progression early in life is not known.

Aim: The aim of this study was to evaluate changes in brain wave signal variability with quantification of signal cyclicity by spectral density distribution before and after standard morphine administration.

Method: The within-subject natural experiment was designed to describe changes in brain function among infants receiving morphine in the neonatal intensive care unit (NICU) for analgesia or sedation. Raw EEG signal data were acquired from a limited channel aEEG device before (*CFM 6000, Natus Pediatrics*) and after up to two doses of IV morphine from nine critically ill infants of mean postmenstrual age (PMA) 29.89 weeks. A single continuous aEEG recording was obtained without disrupting standard NICU care practices. Signal processing with fast Fourier transformation (FFT) prepared the data for spectral density analysis. Power scale slope, the ratio of spectral power bands across the spectrum and spectral edge frequencies (SEF), a threshold for total spectral power were calculated to summarize the frequency domain.

Results: Data from one infant were not analyzed due to impedance values above threshold for usable signal. After customized signal processing, the frequency domain was evaluated across time to describe morphine effect on spectral measures. Median power scale slope showed no difference for morphine times (n=8 χ^2=1.050 df=3 p=.789). Similarly, for SEF90 no significant difference was seen between morphine times (n=8, χ^2 =2.885 df =3 p=.410) whereas, SEF50 differed significantly across morphine times (n=8, χ^2 =8.923 df =3 p=.03). More specifically, the log transformed “mini-band” of 14-16 Hz showed a significant difference in mean rank (n=9, χ^2 = 5.444, df=1, p<.020) between time 1(15 minutes prior) and time 3 (60 minutes after), by Friedman two-way ANOVA. Younger infants demonstrated high power in the lower frequency (delta) bands throughout all recordings. Shifts in relation to morphine administration within the full spectrum were observed from high frequency toward lower frequencies, among older infants.

Implications: The present study offers an initial exploration of physiologic response to opioid administration through a direct measure of brain function. Spectral density measures (SEF90, power scale slope) did not demonstrate changes in neonatal brain function after morphine administration. Morphine effect did not emerge untild analysis included mini-bands (2Hz) of spectral power. Morphine effects may be masked by the heavy presence of power in the delta range common to early gestation. The exploration of spectral densities offers a framework for demonstrating how brain function frequencies shift within the spectrum after morphine. Frequency distribution changes related to morphine may indicate sleep cycle disruption.

Funding: NINR F31-NR011365, T32-NR007106 NLM 2T15LM007442-11
American Nurses Foundation, Hyundai Motors Scholar, Integra Neuroscience Nursing Foundation, Sigma Theta Tau, Psi Chapter at Large.

BIOMARKERS AND HEALTH STATUS

Moderator:
Paula Cox-North, PhC, MN, NP-C, ARNP
University of Washington
Seattle, WA

AUTOIMMUNE BIOMARKERS IN IMMIGRANT AND NON-IMMIGRANT BLACK YOUTH WITH TYPE 1 DIABETES

M. Rebecca O'Connor, Yuting Lin, Joachim Voss,
Adrian Dobra, Ardith Doorenbos

FKBP5 AND CRHR1 POLYMORPHISMS, LIFETIME STRESS, AND PHYSICAL HEALTH

Jarred Lessard, E. Alison Holman

DIFFUSE NOXIOUS INHIBITORY CONTROL IN WOMEN WITH IRRITABLE BOWEL SYNDROME

Monica E. Jarrett, Robert Shulman, Kevin C. Cain, Lynne T. Smith,
Wimon Deechakawan, Margaret M. Heitkemper

ACE POLYMORPHISMS BUFFER THE SOCIAL CONFLICT-HEALTH ASSOCIATION

E. Alison Holman, Michelle Chan, Jarred Lessard

Autoimmune Biomarkers in Immigrant and Non-Immigrant Black Youth with Type 1 Diabetes

M. Rebecca O'Connor, Ph-C, RN, Pre-doctoral Fellow
Yuting Lin, RN, Master's Student
Joachim Voss, PhD, RN, Associate Professor
Adrian Dobra, PhD, Associate Professor
Ardith Doorenbos, PhD, RN, FAAN, Associate Professor
University of Washington
Seattle, WA

Purpose: To describe diabetes-related auto-antibodies in East African immigrant and non-immigrant black pediatric populations with type 1 diabetes (T1D).

Background: More than 150,000 youth under the age of 20 in the United States have some form of diabetes, 85% of which were identified as T1D. Accurate diagnosis of diabetes type in youth is critical to determine optimal treatment options; however, determining diabetes type can be complex. Diabetes auto-antibodies (DAAs) are used to confirm a diagnosis of T1D and exclude other forms of the disease affecting youth (i.e. type 2 diabetes, mixed/hybrid-type diabetes, monogenic diabetes, and secondary diabetes).

Methods: All East African immigrant (n=60) and non-immigrant black (n=53) patients 0-19 years of age were identified at the time of T1D diagnosis and treated at Seattle Children's Hospital (SCH) on at least on occasion between 1/1/2001-7/31/2011. East Africa includes Kenya, Uganda, Ethiopia, Somalia, and Eritrea and being an East African immigrant is defined as a person born in or having at least one parent born in East Africa. Diabetes auto-antibodies include glutamic acid decarboxylase (GAD), insulinoma-associated 2 antibody (IA-2), insulin auto-antibody (IAA), and islet cell auto-antibody (ICA). Results of DAAs within three months of diagnosis were obtained through review of individual laboratory data in the electronic medical record.

Results: Much variation exists in the number and type of specific DAAs tested at diagnosis of T1D in East African immigrant and non-immigrant black youth treated at SCH. Providers tested for DAAs more often in East African immigrants than non-immigrant black youth with T1D (53.3% versus 30.2%). When tested for any DAA, East African immigrants tested positive 66% of the time, while 75% of non-immigrant black youth tested positive for at least one DAA. Differences between groups also exist in individual DAA results. East African immigrant youth tested positive less frequently than non-immigrant black youth for each of the four markers used: GAD (62.5% versus 76.8%), IA-2 (25.0% versus 55.0%), IAA (34.6% versus 38.5%), and ICA (14.3% versus 20.0%).

Implications: These results suggest that ethnic differences in etiologic pathways involved in T1D might exist or that current DAAs may not be a sufficient measure of T1D-related autoimmune activity in East African immigrants. While sample numbers are small in this retrospective study, differences found between groups in diabetes-related autoimmune biomarkers at diagnosis warrants further investigation to ensure that clinically available diagnostic tools have the same utility across all populations with T1D. In order to provide accurate information to patients and families at the time of diabetes diagnosis, it is essential that nurses are aware that DAA positivity can vary between racial and ethnic groups and that this variance may further complicate a diagnosis of diabetes type.

Home ◀ ▶ go to PG.

FKBP5 and CRHR1 Polymorphisms, Lifetime Stress, and Physical Health

Jarred Lessard, PhD
Postdoctoral Researcher
Program in Nursing Science
University of California, Irvine
Irvine, CA

E. Alison Holman, PhD, FNP
Assistant Professor
Program in Nursing Science
University of California, Irvine
Irvine, CA

Child abuse substantially increases the risk for impaired physical and psychological health in adulthood (Dong et al., 2004). Increased vulnerability to mental and physical health problems may occur through stress-related biological processes, such as dysfunctional growth, development, or activation of the brain's stress response system—the hypothalamic-pituitary adrenal axis (HPA; Watts-English et al., 2006). Similarly, adult stressful life events (SLE) have been implicated as predictors of later physical health ailments (McEwen, 2008). Indeed, uncontrollable stressors often elicit HPA axis responses associated with long-term hormonal dysregulation (Dallman et al., 2004).

Genetic polymorphisms in genes regulating glucocorticoid receptor activity may affect HPA axis response/function and in so doing may exacerbate the health risks posed by child abuse and adult trauma (Binder et al., 2008). Although research has begun to identify genes contributing to depression, posttraumatic stress disorder (PTSD) and other mental health impacts of stress (e.g., Amstadter et al., 2011), genetic vulnerability to the *physical health* impacts of stress during child- and adulthood remain poorly understood.

We examined whether polymorphisms from two hypothalamic-pituitary-adrenal (HPA) axis-related genes previously associated with posttraumatic stress disorder—*FKBP5* and *CRHR1*— buffer the impact of child abuse and adult stress on physical health. We hypothesized that high risk genotypes previously linked to HPA axis dysregulation would exacerbate the negative health effects of child abuse and adult stress.

A community-based subsample of non-Hispanic European-American respondents (n=527) from a large nationally-representative longitudinal three-year study of stress and coping (n=2729) provided saliva samples for genotyping. Participants were genotyped for *FKBP5* rs1368780 and *CRHR1* rs12944712. Participants reported stressful life events retrospectively;physician-diagnosed physical health ailments were prospectively assessed at baseline and in annual follow-ups over three years.

As hypothesized, *FKBP5* interacted with child abuse (IRR = 1.08; $p < .001$) and adult SLE (IRR = 1.02; $p < .01$) to predict physical ailments over the three years after baseline. Similarly, *CRHR1* interacted with child abuse (IRR = 1.04; $p < .01$) and adult SLE (IRR = 1.02; $p < .02$) to predict physical ailments. The pattern of findings was similar for child abuse and adult stress across both polymorphisms' genotypes: Among individuals carrying a risk allele on *FKBP5* rs1368780 and *CRHR1* rs12944712, child abuse and adult stress were strongly associated with increases in physician-diagnosed physical ailments over time. However, for respondents with two major alleles on each of these polymorphisms, child abuse and adult SLE were not associated with physical ailments.

These results suggest that genetic polymorphisms affecting HPA axis activity are involved in moderating the link between child abuse or adult SLE and the development of various physical ailments decades later. HPA axis dysregulation, possibly brought on by adversity and exacerbated by preexisting genetic vulnerabilities, may increase allostatic load, overwhelming the body's ability to repair damage and properly regulate various physiological systems. Ultimately, these changes become pathological and increase risk for physical ailments over time.

Funding: This research was supported by the Robert Wood Johnson Foundation Nurse Faculty Scholars grant #68046 to E. Alison Holman.

Home

go to PG.

BIOMARKERS AND HEALTH STATUS

Diffuse Noxious Inhibitory Control in Women with Irritable Bowel Syndrome

Monica E. Jarrett, PhD
Professor, BNHS
University of Washington
Seattle, WA

Robert Shulman, MD
Professor, Department of Pediatrics
Baylor College of Medicine and
Houston Texas Children's Hospital
Houston, TX

Kevin C. Cain, PhD
Research Scientist
Dept. of Biostatistics
University of Washington
Seattle, WA

Lynne T. Smith, PhD
Research Scientist
Dept. of Biostatistics
University of Washington
Seattle, WA

Wimon Deechakawan, PhD
Research Nurse, BNHS
University of Washington
Seattle, WA

Margaret M. Heitkemper, PhD
Professor, BNHS
University of Washington
Seattle, WA

Purposes/Aims: Evidence suggests that patients with irritable bowel syndrome (IBS) are more vigilant to pain-associated stimuli. The first aim was to compare a measure of pain sensitivity and central pain modulation, the diffuse noxious inhibitory control (DNIC), salivary cortisol levels, pain and psychological symptoms in women with IBS to healthy control (HC) women. Second, the relationships among self-reported pain/discomfort and physiological measures (DNIC and cortisol) were examined in both groups.

Methods: Twenty women IBS and 20 HC, ages 20-42, gave consent, completed questionnaires and kept a symptom diary for 2 weeks. DNIC response was tested with a counter-irritation approach in a laboratory between 8 and 10 am on a follicular phase day. Salivary cortisol levels were collected before and after the DNIC test.

Results: Compared to the HC group, women with IBS report more days with gastrointestinal and somatic pain/discomfort, psychological distress and feeling stressed. During the DNIC baseline testing, women with IBS reported greater pain sensitivity compared to HC group. In the IBS group, the DNIC response was associated with the PROMIS pain interference measure, daily abdominal pain/discomfort, and psychological distress, in particular anxiety. There was no group difference in salivary cortisol levels.

Implications: Overall, a subgroup of women with IBS exhibit an increased sensitivity to pain to thermal stimuli and this increased sensitivity is linked to level of psychological distress. Impaired central modulation of pain is present in a subset of women with IBS.

Funding: Grant from NINR, NIH 1RC2NR011959.

Home ◀ ▶ go to PG.

ACE Polymorphisms Buffer the Social Conflict-Health Association

E. Alison Holman, PhD, FNP, Assistant Professor, University of California, Irvine
Michelle Chan, BSN, University of California, Irvine
Jarred Lessard, PhD, Postdoctoral Researcher, University of California, Irvine

Negative social interactions (e.g., social conflict) influence both cardiovascular disorders (CVD) and depression but the pathways underlying these associations remain unclear. Given the known comorbidity between CVD and depression, it seems plausible that negative interactions trigger physiologic processes common to both ailments. Yet some individuals appear more vulnerable than others to the negative effect of social conflict. Understanding why some people are more affected than others is an important step in planning more personalized patient care. Although few studies have addressed this question directly, an individual's unique genetic vulnerabilities may help explain the link between these disorders.

Recent research suggests that the renin-angiotensin-aldosterone system (RAAS) has a role in the development of CVD, anxiety, and depression (Saavedra, Sanchez-Lemus, & Benicky, 2011). Indeed, polymorphisms from the angiotensin converting enzyme *ACE* gene have been associated with greater risk for hypertension, heart attacks, and depression, further suggesting that the RAAS may contribute to the CVD-depression comorbidity. However, negative social environments can exacerbate the risk associated with having some genetic polymorphisms. The current study examines the moderating effects of social conflict on the relationship between *ACE* polymorphisms, CVD, and depression.

A community-based subsample of non-Hispanic European-American respondents (n=527) from a large nationally-representative longitudinal three-year study of stress and coping (n=2729) provided saliva samples for genotyping. Participants were genotyped for *ACE* rs 4291, *ACE* rs4968591, and *ACE I/D* rs1799752. Participants completed measures of social conflict with spouses, family members, and close friends and physician-diagnosed cardiac ailments and physician-diagnosed depression and anxiety at baseline. Participants also completed measures of cardiac ailments and the Brief Symptom Inventory annually for two years.

As hypothesized, *ACE* rs4291 interacted with negative social interactions ($IRR = 2.34$; $p < .001$) such that among respondents reporting high social conflict, those homozygotic for the rs4291 risk allele (TT) were significantly more likely to report increases in physician-diagnosed cardiac ailments over two years post-baseline. Among individuals reporting few negative social interactions, the TT allele was not associated with greater cardiac ailments. Similarly, *ACE* rs4968591 interacted with negative social interactions ($b = -.18$; $p < .01$) to predict BSI-depression. Consistent with prior research demonstrating that rs4968591 T-allele carriers have higher stress-related allostatic load (Smith, Maloney, Falkenberg, Dimulescu, & Rajeevan, 2009), respondents reporting high social conflict who also had the TT genotype reported higher levels of BSI-depression over two years post-baseline. Among respondents reporting few negative social interactions, the TT genotype was not associated with depression.

Although we did not find that both cardiac ailments and depression were associated with just one polymorphism, two polymorphisms from the same RAAS gene interacted with a negative social environment to predict stress-related disorders. Consistent with prior research, our findings suggest that the RAAS *ACE* gene may be important in moderating the impact of stressful negative social environments on both mental and physical health. Implications for future research and clinical care will be discussed.

Funding: This research was supported by the Robert Wood Johnson Foundation Nurse Faculty Scholars grant #68046 to E. Alison Holman.

References:

Saavedra, J. M., Sanchez-Lemus, E., & Benicky, J. (2011). Blockade of brain angiotensin II AT1 receptors ameliorates stress, anxiety, brain inflammation and ischemia: Therapeutic implications. [Evaluation Studies Research Support, N.I.H., Intramural Review]. *Psychoneuroendocrinology, 36*(1), 1-18. doi: 10.1016/j.psyneuen.2010.10.001

Smith, A. K., Maloney, E. M., Falkenberg, V. R., Dimulescu, I., & Rajeevan, M. S. (2009). An angiotensin-1 converting enzyme polymorphism is associated with allostatic load mediated by C-reactive protein, interleukin-6 and cortisol. *Psychoneuroendocrinology, 34*(4), 597-606.

BUILDING POTENTIAL FOR HEALTH IN THE FUTURE

Moderator:
Cheryl Westlake, RN, PhD, ACNS-BC
Professor and Associate Dean
International and Community Programs
Azusa Pacific University
Azusa, CA

FINDING A NEW NORMAL: LATINA WIVES OF MEN TREATED FOR PROSTATE CANCER

Sally Maliski

EXPERIENCES OF SPOUSE CAREGIVERS OF WOMEN WITH CANCER

Steven C. Simpkins, Elizabeth Z. Rambus, Frances M. Lewis

PERCEPTIONS OF HIV PRE-EXPOSURE CHEMOPROPHYLAXIS IN HIGH-RISK MEN

Nnenna Weathers, Gloria Nwagwu

THE EFFECT OF A PAIN RESOURCE NURSE TRAINING PROGRAM ON PAIN MANAGEMENT KNOWLEDGE

Linda Eaton, Debra Gordon, Ardith Doorenbos

Home go to PG.

Finding a New Normal: Latina Wives of Men Treated for Prostate Cancer

Sally Maliski, PhD, RN, FAAN
Associate Professor and Associate Dean for Academic Affairs
University of California, Los Angeles
School of Nursing
Los Angeles, CA

Purposes/Aims: To understand the process used by Latina wives in creating a "new normal" over the first year following their husband's prostate cancer treatment.

Rationale/Conceptual Basis/Background: Prostate cancer is the most commonly diagnosed noncutaneous cancer among American men and Latinos are the fastest growing minority in the US. All treatments for prostate cancer have numerous side effects including erectile dysfunction, incontinence, fatigue, and mood alterations. Wives are also affected by their husband's treatment effects, but their role in recovery and restoration of daily life has seldom been explored.

Methods: We used grounded theory methods to analyze transcripts of 16 Latina wives at 3 time points over the year following their husbands' treatment for prostate cancer. Semi-structured interviews were conducted shortly after treatment, 6 months and 12 months by a bilingual interviewer. All of the husbands had had a radical prostatectomy. All interviews were transcribed verbatim in the language in which they were conducted and then translated into English for analysis using the process developed by our team for translation of transcripts for qualitative research. We used unit-by-unit coding, development of categories, naming of concepts, linking of concepts and identification of the overarching theme for each timepoint. These themes were then compared and linked across timepoints.

Results: A distinct overarching theme with underlying processes was described for each timepoint. From these overarching timepoint themes emerged a progressive process starting with "creating a healing environment", moving to "having strength for the long-haul" and finally ending with the "creation of a new normal". Process included protecting, understanding, coordinating, and accepting to name a few.

Implications: Latina wives play a crucial role in their husbands' recovery and survivorship. By recognizing the key milestones for the wives during the first year following their husbands' prostate cancer treatment, nurses can support those aspects of the role and provide appropriate education and resources to the wives as well as the men. The Latina wives welcome support that helps them to help their husbands.

Funding: Department of Defense Prostate Cancer Research Program: W81XWH0710069.

Home

go to PG.

Experiences of Spouse Caregivers of Women with Cancer

Steven C. Simpkins, BSN, RN, PhD Student
Elizabeth Z. Rambus, DNP, RN
Frances M. Lewis, PhD, FAAN, Virginia and Prentice Bloedel Professor
University of Washington
Seattle, WA

Purpose: Despite an abundance of intervention studies for spouse caregivers of women with cancer, there are no known studies that document the spouses' perceived response to, interpretation of, or methods of integrating the intervention into their daily lives. The entire process of integrating new materials into their caregiving experience is essentially a black box in nursing research that needs to be opened and examined. The purpose of the current study is to elaborate spouse caregiver's responses to, interpretation of, and integration of a manualized, phone delivered, educational intervention.

Rationale: An estimated 226,870 women in the US will be newly diagnosed with breast cancer in 2012 and an estimated 50% will have a spouse caregiver. Two recent reviews of completed research with spouse caregivers have argued the importance of interventions to enhance theirs and their wives' adjustment to her cancer. Although outcomes are mixed, there is strong suggestive evidence that spouse caregivers benefit from interventions on standardized measures of adjustment. Despite this, both clinicians and scientists have an extremely limited understanding of the mechanisms by which interventions are integrated into the spouse caregivers' affect, mood, and skills.

Methods: A total of nine spouse caregivers were enrolled in a phase II clinical trial involving 5 structured counseling sessions by telephone that were derived from Gender Role Theory and the Relational Model of Adjustment to Cancer. Spouse caregivers completed semi-structured open-ended interviews at 4 weeks post exiting the intervention. Sessions were digitally recorded, transcribed, and verified. The current study then used an interpretive paradigm and inductive content analysis to code and explain the spouse caregivers' ways of viewing and integrating their experience. Trustworthiness of results was protected by coding to consensus, peer debriefing, and maintaining an audit trail.

Results: Four domains captured the spouses' experiences: *Giving opportunities for perspective* - spouses reflected on different ways they and their wives are coping emotionally, how they are learning to rethink how they process feelings, and the importance of taking time out; *Gaining awareness and insight* - spouses increased their understanding of how cancer has affected their wives physically and mentally and how they can look at it differently to help the women and themselves deal with changes due to cancer; *Learning to improve communication techniques* - spouses learned to recognize how women communicate differently from men, how to ask questions, to listen better, and acquired tools to improve conversations with their wives; and *Dealing with her cancer* - spouses learned different ways to offer support rather than attempt to fix their wives problems.

Implications: The study results highlight both the complexity and richness of spouse caregivers' lived experience with nurse delivered interventions that are not captured in traditional standardized measures of adjustment. Spouse reported views enrich our understanding of the struggles, the content, the intensity, and the extent to which a program causes destructuring of the spouse caregiver's framework even as it helps him restructure and build new behaviors and skills.

Funding: Research reported in this abstract was supported by the Graduate Assistance in Areas of National Need Nursing Fellowship and the National Cancer Institute of the National Institutes of Health under Award Number R01CA 114561. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Home ◀ ▶ go to PG.

Perceptions of HIV Pre-Exposure Chemoprophylaxis in High-Risk Men

Nnenna Weathers, PhD, RN
Assistant Professor
School of Nursing
California State University, Los Angeles
Los Angeles, CA

Gloria Nwagwu
Student
School of Nursing
University of San Diego
San Diego, CA

Aims: To explore perceptions of interpersonal and socio-cultural barriers and facilitators to using and adhering to combined emtricitabine and tenofovir known as Truvada, among post-incarcerated, African American, HIV-negative men who have sex with men (MSM) as compared with male to female transgender persons (MtFT).

Background: HIV pre-exposure chemoprophylaxis, Truvada, has been recently FDA approved for use among HIV-negative persons at high risk for HIV. Truvada is most efficacious when used daily, with condoms, with 2-3 month medical checks and counseling.

Methods: This is a qualitative, ethnographic study using convenience sampling, and semi-structured questions in one and one half hour audio-recorded focus groups. Participants were recruited in collaboration with the Center for Health Justice (CHJ) and Men's Central Jail in Los Angeles (MCJ).

Results: This is the first study to examine Truvada among post-incarcerated persons, and MtFT. Most participants were unaware of Truvada. Most participants perceived Truvada as an HIV-related conspiracy against African Americans. Both MSM and MtF transgenders indicated ambivalence to use and adhere to Truvada given that condoms have known efficacy to prevent HIV and STD, therefore they may not use both simultaneously. More MtFT indicated they would use Truvada as compared with MSM.

Implications: Nurses are in a prime position to educate and counsel high-risk persons about Truvada.

Funding: This study was funded by a pilot grant from the Center for HIV Identification, Prevention and Treatment Services NIMH P30MH058107.

Home ◀ ▶ go to PG.

The Effect of a Pain Resource Nurse Training Program on Pain Management Knowledge

Linda Eaton, MN, RN, AOCN, Doctoral Student, lineaton@uw.edu[1]
Debra Gordon, DNP, RN, FAAN, Teaching Associate, Anesthesiology & Pain Medicine[2]
Ardith Doorenbos, PhD, RN, FAAN, Associate Professor[1]

[1]*Biobehavioral Nursing & Health Systems, U. of Washington School of Nursing, Seattle*
[2]*Harborview Medical Center, Seattle, WA*

Purposes/Aims: The purpose of this paper is to describe the effects of a 2-day Pain Resource Nurse (PRN) Training Program. Data from 2006 and 2010 were analyzed to determine: a) impact of the program on pain knowledge, b) pain management knowledge most affected by the program, and c) relationship of demographic characteristics on knowledge gained by attending the program.

Rationale/Conceptual Basis/Background: Nurses often lack adequate knowledge of pain management principles and subsequently are ill-prepared to address patient's pain. Thus, effective educational strategies are needed to improve knowledge of pain management principles.

Methods: The PRN Training Program was implemented in 2002 at the University of Wisconsin Hospitals and Clinics to prepare nurses to function as a unit-based pain management peer resource. The training program, taught by pain management experts, included didactic and case-based learning experiences in pain management. Pre- and post-program knowledge was measured by a modified version of the City of Hope's PRN knowledge test. The instrument was modified by a group of pain experts in 2006 using the American Nurses Credentialing Center Pain Management Certification Exam content outline. The 45-item test measured 11 pain management areas and included true/false and multiple-choice items. Participants completed the test at the program beginning and end. Demographic information was collected by a 5-item questionnaire.

Results: Nurse participants were (N = 144) surveyed in two training sessions. In 2006, n=115 completed the program and in 2010, n=29. Nurses in 2006 and 2010 were similar regarding current practice setting, usual patient population, and whether it was the nurses' first pain course. Overall mean pre-test scores for both groups were similar (2006: 62.72%, 2010: 62.22%). Although the 2010 mean post-test score was higher than 2006 (92.9% vs. 84.56%), it was not statistically significant. Three pre-test items on pain management principles in patients with addictive disease and pharmacologic pain management were answered incorrectly by more than 78% of the participants. The best performing pre-test items (≥ 97% of participants answered correct) addressed pain assessment and principles of acute and chronic non-cancer pain. The only post-test item that participants scored poorly on (29% of participants answered correct) addressed nonpharmacological pain management. Those with more years of nursing experience did not perform significantly better on the pre- or post-test than those with less practice. The mean pre-test score for those who had a previous pain management course was higher and statistically significant ($p<.01$) compared to those who had not had a course.

Implications: The 2-day PRN Training Program was found to be a feasible and effective method for improving pain knowledge. In this study, more years of nursing practice did not necessarily mean better pain knowledge; however, those nurses who had a previous pain management course had a better pain management knowledge base. Pain management principles in patients with addictive disease and pharmacologic pain management are areas in which nursing education may be needed for practicing nurses.

Home ◀ ▶ go to PG.

BUILDING THE EVIDENCE FOR IMPROVED PATIENT OUTCOMES

Moderator:
Linda H. Eaton, MN, RN, AOCN
Doctoral Student
University of Washington
Seattle, WA

COMPARISON OF THERAPEUTIC DRUG LEVELS BY TWO BLOOD DRAW METHODS IN THE PEDIATRIC PATIENT

Royanne Lichliter, Jodi Lucas-Thrasher, Lynea Tremewan,
Jennifer Mehnert, Nicole Shonka, Laney Brennan, Jennifer Reese

---

DIALYSIS CATHETER PATENCY IN PATIENTS WITH HIT: ALTEPLASE VS. NORMAL SALINE?

Kyung Lee, Teresita Corvera-Tindel

DITCH THE PINCH: BILATERAL EXPOSURE INJURIES DURING SUBCUTANEOUS INJECTION

Lisa Black

RURAL NURSE PRACTITIONERS, PATIENTS AND ELECTRONIC HEALTH RECORD IMPLEMENTATION

Sarah Kooienga

Comparison of Therapeutic Drug Levels by Two Blood Draw Methods in the Pediatric Patient

Royanne Lichliter, BSN, RN, CPN, Clinical Coordinator, Inpatient Medical Unit (IMU)
Jodi Lucas-Thrasher, MS, FNP-BC, RN, Advanced Practice Nurse, IMU
Lynea Tremewan, BSN, RN, CCN, Clinical Coordinator, IMU
Jennifer Mehnert, BA, BSN, RN, CPN, Clinical Resource, IMU
Nicole Shonka, BSN, RN, CPN, Department Educator Clinical Coordinator, IMU
Laney Brennan, Pharm D, Pharmacist Clinical Specialist, Pharmacy
Jennifer Reese, MD, Director, Inpatient Medicine
Children's Hospital Colorado
Denver, CO

Purpose: The purpose of this study was to compare serum vancomycin and tobramycin drug concentrations obtained from an existing peripheral intravenous (PIV) catheter or Central Venous Catheter (CVC) that is currently infusing the medications versus samples obtained via venipuncture or finger stick. The hypothesis was that there will be no difference between the two samples based on drawing technique after appropriate flushing and wasting volumes were obtained. A secondary purpose was to change hospital policy allowing drug levels to be drawn from an existing indwelling line in order to avoid "poking" children.

Background: Appropriate sampling of drug serum concentrations is a vital component to ensuring the efficacy of many medications in the clinical setting. There is equivocal evidence in the literature on the most appropriate sampling technique in hospitalized patients. Most drug level studies are conducted drawing samples from a peripheral finger stick/venipuncture or a catheter not used for drug administration. This has led to a practice in our organization requiring that all therapeutic drug levels are drawn by poking the patient even with an existing CVC or PIV. For the pediatric patient, these repeated "pokes" cause considerable pain, discomfort, and dissatisfaction each time a sample is drawn, which could be multiple times per shift, with similar distress for the parent/family observing the procedure and trying to comfort the child.

Methods: Study participants were eligible from an Inpatient Medical Unit in a tertiary pediatric hospital if they were receiving tobramycin or vancomycin, had an indwelling CVC or PIV, and were ordered to have peak/trough drug levels drawn. Each patient served as their own control. Samples were obtained by RNs specially trained on the blood drawing protocol. All fluids were stopped (if running) for one minute prior to flushing. The line was flushed with 3x the internal volume of the line filling volume and the waste volume was 3x the internal volume of the line plus Injection cap/connectors. The drug sample was withdrawn and within 1-2 minutes the RN performed either the capillary or peripheral poke to withdraw the second sample. Samples were analyzed per routine laboratory protocol.

Results: A total of 35 paired samples were obtained (80% power to detect an effect size of $d = 0.50$). Data analysis showed no statistically significant difference between the drug levels from the "line draw" vs. the "stick" (method), $p = 0.25$, and no difference based on either drug (vancomycin vs. tobramycin), $p = 0.09$.

Implications for Practice: Appropriate flushing and waste volumes obtained before drawing a drug serum concentration for tobramycin and vancomycin from an existing CVC or PIV yielded results similar to those drawn via venipuncture or finger stick, supporting the study hypothesis. These findings warrant a change in practice for therapeutic drug level sampling from the pediatric patient in our institution. The clinical implications are especially important as children with indwelling PIV/CVC catheters will no longer need painful, peripheral pokes, thus improving patient, family, and staff satisfaction, and overall quality of care for the pediatric patient.

Home ◀ ▶ go to PG.

Dialysis Catheter Patency in Patients with HIT: Alteplase vs. Normal Saline?

Kyung Lee, RN, CNN
Nursing, Dialysis

Teresita Corvera-Tindel, PhD, RN
Nursing Education & Research

VA Greater Los Angeles Health Care System (VA GLAHS)
Los Angeles, CA

Purpose: We sought to compare NSL to AL in maintaining dialysis catheter patency (as measured by blood flow rate during dialysis treatment) among dialysis patients with Heparin Induced Thrombocytopenia (HIT).

Background: The patency of the dialysis catheter port is maintained using a Heparin lock solution (that prevents catheter clotting). In renal patients with HIT, Heparin is contraindicated as a catheter lock solution due to ensuing thrombocytopenia. At VA Greater Los Angeles Health Care System (VA GLAHS), Alteplase lock solution (AL), a Tissue Plasminogen Activator, is the alternative lock solution to maintain dialysis catheter patency among renal patients with HIT. However, AL is a very costly. In community dialysis centers, 20cc normal saline lock solution (NSL) is the standard of care to maintain dialysis catheter port patency among HIT patients. The effectiveness of NSL to maintain dialysis catheter patency among dialysis patients with HIT is scarcely evaluated.

Method: At VA GLAHS dialysis unit, a one-group cross-over comparative study was conducted. Among Hemodialysis patients with HIT (N=18), only five patients continued to have dialysis at VA GLAHS and were using AL (to maintain dialysis catheter patency). In these five HIT patients (male, 80%, mean age, 79 years, presence of DM, 80%) , AL was retrospectively reviewed in N=117 dialysis treatment (March to May 2011), and NSL was prospectively reviewed (June to September 2011) in N= 116 dialysis treatment. Patency of dialysis catheter was measured by the mean blood flow rate per dialysis treatment (as indicated in the dialysis machine). Adequate blood flow rate is equal to an average of 350ml/min per dialysis treatment. For subject characteristics, descriptive statistics was used. Using *t*-Test, mean blood flow rate between groups (AL vs. NSL) was determined.

Outcomes: Mean blood flow rate during dialysis treatment was 362.3 ± 34.5 ml/min and 356.7 ± 25.6 ml/min for AL and NSL ($t = 1.40$, $p = .16$), respectively. No bleeding complications in either group.

Conclusion: In a limited sample size, there was no difference between NSL and AL in maintaining dialysis catheter patency among patients with HIT. Use of NSL to maintain dialysis catheter patency was safe among HIT patients, which may potentially decrease hospital cost.

Home ◀ ▶ go to PG.

Ditch the Pinch: Bilateral Exposure Injuries during Subcutaneous Injection

Lisa Black, PhD, RN, CNE
Assistant Professor
Orvis School of Nursing
University of Nevada, Reno
Reno, NV

Purposes/Aims: The purpose of this research is to describe factors contributing to bilateral bloodborne pathogen (BBP) exposure injuries among healthcare providers in acute care settings.

Rationale/Conceptual Basis/Background: Bilateral exposure injuries have not previously been described in the research literature. Nurses are typically instructed to manually elevate (i.e. “pinch”) a fold of skin between the thumb and forefinger of the non-dominant hand prior to subcutaneous injection. Injection into an elevated skin fold, however, poses a risk of ‘bilateral exposure’ injury whereby the needle pierces the opposite side of a skin fold and subsequently enters the tissue of the healthcare worker. The needle must then be withdrawn from both the patient and the HCW; simultaneously exposing each to the blood of the other. No available safety device can feasibly prevent injury in cases where a needle passes from the tissue of a patient directly into the tissue of the healthcare worker.

Methods: Narrative injury data from 2,402 percutaneous injuries that occurred during the administration of subcutaneous injections between the years 2000 and 2009 were examined and coded to identify factors that contribute to bilateral exposure injuries. The study sample reflects injuries occurring in 62 acute care hospitals that voluntarily reported exposure data to the EPINet surveillance system and reflect a cumulative total of 47,746 patient days. Descriptive data and multivariate logistic regression analyses were performed.

Results: Eighty-five bilateral exposure injuries were identified between 2000 and 2009, representing 3.5% (n/N = 85/2,402) of all percutaneous injuries occurring during subcutaneous injection. The proportion of injection-related injuries that resulted in a bilateral exposure varied by year from a low of 1.7% (n/N = 4/231) in 2004 to a high of 8.3% (n/N = 21/254) in 2008. Nurses more frequently experienced bilateral exposure injuries than all other health care worker categories combined. Nurses and nursing students administered 73% (n/N 1,751/2,398) of all subcutaneous injections that resulted in a percutaneous injury, and 4.6% (n/N = 81/1,751) of injuries to nurses resulted in a bilateral exposure. Sixty-five percent of the variance in bilateral exposure injury occurrence is explained through examination of: (1) manual elevation (“pinching”) subcutaneous tissue prior to injection; (2) thin/emaciated patient; (3) injection of insulin; (4) injection of heparin; (5) injection of enoxaparin; (6) if a safety device was used; and (7) whether the healthcare worker was wearing gloves at the time of the injury ($X^2(7) = 424.2$; $p < 0.01$).

Implications: While ubiquitously used, manual skinfold elevation potentially places both the health care worker and the patient at risk for exposure to bloodborne disease. Because the contaminated sharp moves directly from the tissue of the patient into that of the healthcare worker, these exposures are not easily prevented through the use of safety engineered sharp devices. The risk of bilateral bloodborne pathogen exposure injuries could be minimized through the use of appropriately-sized needles that permit injection into the subcutaneous tissue without the need for a manually elevated skin fold.

Home ◀ ▶ go to PG.

BUILDING THE EVIDENCE FOR IMPROVED PATIENT OUTCOMES

Rural Nurse Practitioners, Patients and Electronic Health Record Implementation

Sarah Kooienga
Assistant Professor
College of Nursing
Washington State University Vancouver
Vancouver, WA

Purpose: The purpose of this focused ethnography is to examine the process of implementation of an Electronic Health Record (EHR) in one independent nurse practitioner (NP) practice in a remote rural location.

Aims:

1. Examine the context and social complexities of this small rural NP practice in relationship to the EHR and the provision of primary care.
2. Explore the values, beliefs and attitudes of provider and clinic staff of the practice in relation to the EHR.
3. Explore patient perceptions of EHR. in their primary care home.

Background: The patient centered primary care home (PCPCH) is a key component of the Patient Care Affordability Act (ACA) of 2010. The EHR is viewed as the cornerstone of this health care transformation to promote quality, safety and excellence in the PCPCH. In addition, by 2014 the EHR is required for primary care practices to provide services to and bill Medicare and Medicaid patients.

Under legislation as part of the economic stimulus funding, many primary care practices, including independent NP practices, have the opportunity to apply for Federal "meaningful use" funding to assist in EHR implementation.,. For nurse practitioners (NP) in independent rural practices serving vulnerable rural populations, little is known about the process of EHR implementation.

Method: This study used a focused ethnographic approach which examines the small provider practice as a complex, dynamic and evolving system, having unique values, beliefs and ingrained patterns of communication. The conceptualization of this workplace ethnography is based on Suchman's (1995) work views technology as an actor in an ever changing and often unstable setting of people and technologies. Participation observation of providers, and interviews with 4 key informants 16 patient and families, and a focus group with non-provider staff occurred. All field notes, interview and focus group transcripts were analyzed using *Ethnograph* v.6. Independent analysis of focus group data, key informant interviews, and patient interviews were performed by 3 graduate students.

Results: Findings revealed that the 16 patients and family members lacked access to the internet in their homes and distrust computers as a repository for personal data. The two NP providers had a distinct personal vision and value base for their practice, both desiring to maintain a patient centered focus, impacting E.H.R. implementation. Detailed observation and analysis of staff members in this practice revealed formalized job descriptions and informal roles. These informal roles had greater meaning in the E.H.R. implementation process.

Implications: These results illustrate the digital divide which exists between these rural patients and urban patients, and has implications for patient centered Meaningful Use standards. IT professionals assisting small practices to implement EHRs need understandings of informal roles of clinic staff and the non-standardized processes of implementation. Further research is needed of independent nurse practitioner practices in remote rural communities to influence health information technology (HIT) policy.

Reference: Suchman L. (1995) Making Work Visible. *Communication of the ACM* 38 p 56-64.

Funding: WSU-Vancouver Seed Grant.

Home ◀ ▶ go to PG.

CARE OF NATIVE AMERICANS

Moderator:
Perry M. Gee, MSN, RN, CPEHR
PhD Candidate
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

A RISK COMMUNICATION CAMPAIGN FOR NATIVE HEALTH

Laura S. Larsson

FISH CONSUMPTION AND RISK AWARENESS AMONG TRIBAL CHILDBEARING AGE WOMEN

Sandra W. Kuntz, Corinna Littlewolf

SILENT WARRIORS: YOUNG AMERICAN INDIAN FATHERS

Janelle Palacios

Home ◀ ▶ go to PG.

CARE OF NATIVE AMERICANS

A Risk Communication Campaign for Native Health

Laura S. Larsson, PhD, MPH, BSN
Assistant Professor, College of Nursing
Robert Wood Johnson Foundation Nurse Faculty Scholar
College of Nursing
Montana State University
Bozeman, MT

Purposes/Aims: To create a series of theoretically-informed, culturally-relevant risk communication messages for use with digital signage technology (DST) in clinic waiting rooms in two Blackfeet Communities.

Rationale: AI individuals have a lower health status and a life expectancy that is 5.2 years shorter than the average American. The unequal burden of disease and poor health in AI communities is thought to exist because of disproportionate poverty, inadequate education, cultural variations, and discrimination in health care delivery. Creating a series of messages in partnership with community members to address health promotion in a culturally appropriate manner may be one approach to reducing AI health disparities.

Approach: A radon risk-communication message using DST was effective in increasing radon program participation in a community-based trial. Partners in Browning and Heart Butte Montana agreed to test this intervention approach for priority health topics in their communities. The project was presented to the Blackfeet Tribal Business Council for a resolution of approval in July 2012. After community members were interviewed about priority health concerns, a community advisory board was formed to approve, refine, or reject the resulting messages for display. Messages are graphically rich, use no audio, and require that the audience be able to read at about a 6th grade level. Finalized messages are part of a repeating 10-minute loop in the Browning WIC and Heart Butte Indian Health Service Clinic waiting rooms.

Outcomes: Community advisory board members suggested revisions on lowering the reading level, using local people in photographic images, incorporating traditional values, and integration and or exclusion of sacred images. Ten theoretically grounded and culturally relevant messages have been created and approved to date. Topics include four oral health messages and one each on men's health, the community ride service, HIV Screening, WIC Clinic referrals, exclusive breastfeeding, and seatbelt use.

Conclusions: The simple process of editing messages generated by graphic artists provided many examples of the importance of cultural humility, health literacy, and a community based participatory approach in this type of research. While the messages are the starting point for quantitative study they also represent a visually rich body of completed work with lessons to share with other researchers and nurses working with diverse groups or considering DST.

Funding: Robert Wood Johnson Foundation Nurse Faculty Scholars Program Grant ID# 68034.

Home ◀ ▶ go to PG.

Fish Consumption and Risk Awareness among Tribal Childbearing Age Women

Sandra W. Kuntz, PhD, PHCNS-BC
Associate Professor
College of Nursing
Montana State University
Missoula, MT

Corinna Littlewolf, BA
Research Assistant
Science Department
Salish Kootenai College
Pablo, MT

Purpose: The purpose of this study was to (a) develop a community-based participatory research project informed by local tribal knowledge and (b) gather and analyze awareness of fish consumption recommendations and advisories, risk awareness, risk communication preferences, and actual exposure to methylmercury among women of childbearing age.

Background: A delicate balance exists between the health benefits and the health risks of eating fish. Fish advisory messages disseminated through fishing license brochures often fail to reach tribal members who fish on home reservations without the need for a license. Little was known about the fish consumption patterns or potential methylmercury exposure among American Indian women living near the largest freshwater lake in the Northwest.

Method: Participants (N =183) were invited to this cross-sectional descriptive study through a tribal Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) program. An electronic fish consumption, risk awareness, and communication preferences survey was administered by a tribal research assistant. Hair samples were collected and analyzed using EPA method 7473 to determine exposure. A tribal community group advised the research team on ecological, cultural, spiritual, and economic issues throughout the study.

Results: Fish consumption was low with less than half of the sample indicating they ate purchased (48%) or locally caught fish (11%) in the month preceding the survey. Approximately 75% were unaware of state or tribal advisories and 72% lacked awareness of Food and Drug Administration (FDA) safe fish consumption recommendations of 6-12 ounces a week for childbearing women. The top two most trusted sources for health information were doctors and health professionals (73%, *n* =128) and WIC office personnel (61%, *n* = 109). Biomarker results indicate a non-actionable total mercury exposure level ranging from <0.05 to 0.936 ppm. Action level is set at 1 ppm by the EPA.

Implications: While actual exposure to methylmercury was below actionable levels, advisory and healthy fish consumption awareness were also low thereby increasing the potential risk for inadequate omega-3 fatty acids necessary for neurological development of the fetus and child among American Indians living on one northwest reservation. A balanced culturally significant risk/benefit communication message is needed. Next steps will depend on the tribal environmental health advisory committee but could entail developing an environmental literacy intervention model to address exposure to preventable environmental toxins that could impact children in American Indian communities.

Funding: 2P20RR16455 IDeA Network of Biomedical Research Excellence (Montana INBRE) and P20MD002317, NIH NIMHD (MSU Center for Native Health Partnerships).

Home ◀ ▶ go to PG.

CARE OF NATIVE AMERICANS

Silent Warriors: Young American Indian Fathers

Janelle Palacios, RN, CNM, PhD
Postdoctoral Research Fellow, School of Nursing
University of California, Los Angeles
Los Angeles, CA

Purpose: The purpose of this presentation is to describe the findings from a qualitative interpretive phenomenological study that aimed to understand the lived experience of fatherhood among young American Indian men.

Background: While much attention has been given to young mothers, little is understood of the young father's (aged 21 and younger) experience, and rarely have studies addressed the experiences of young American Indian fathers. In general, young fathers aspire to be providers and engage with their children, though they face a number of obstacles.

Method: In a collaborative research partnership with a Western tribe, a convenience sample, comprised of 10 self-identified American Indian young fathers aged 21 and younger, was recruited and interviewed according to a semi-structured interview guide. Interviews were digitally recorded and transcribed verbatim. Interpretive phenomenology, as presented by Benner, with the use of thematic analysis, exemplars and paradigm cases was used to identify themes. Each interview was repeatedly read for a global understanding and a summary was written to create a paradigm case. Similarities and comparisons were made across paradigm cases by means of thematic analysis, a tool to help identify meaningful patterns and concerns. Finally, exemplars were selected to demonstrate a particular salient situation or meaning.

Results: Learning of their impending fatherhood was a time of ambivalence and elation. While extended families provided much support, they were also a source of stress which at times was complicated by their relationship with their child's mother. Despite some obstacles, young fathers remained optimistic of their future and their child's future.

Conclusions: Young fatherhood is a time wherein positive fathering practices may be instituted, as this is a time they may be open for related education and skill development. It may also be a time wrought with stress, and knowledge of good communication skills may benefit young fathers in establishing supportive relationships with their family, friends, partners, and children.

Funding: NIH/NINR T32 NR007077 Vulnerable Populations/Health Disparities Training.

Home ◀ ▶ go to PG.

CARING FOR ELDERS

Moderator:
Pauline Komnenich, PhD, RN
Professor and Director Nurse Educator Program
Arizona State University
Phoenix, AZ

FINDING MEANING IN CARING FOR A SPOUSE WITH DEMENTIA

Bomin Shim, Julie Barroso, Catherine L. Gilliss, Linda L. Davis

---

QUALITY GERIATRIC CARE:
PERCEPTIONS OF RURAL REGISTERED NURSES

Daniel D. Cline, Elizabeth Capezuti,
Christine Kovner, Victoria Vaughan Dickson

THE INTERPLAY BETWEEN SOCIAL SUPPORT AND HEALTH FOR RURAL OLDER ADULTS

Linda S. Edelman, Rumei Yang

THE EFFECTIVENESS OF CARNOSINE FOR COGNITIVE ENHANCEMENT IN OLDER ADULTS

Hsin-Yi (Jean) Tang, Helen Budzynski, Thomas Budzynski

Home

◀ ▶ go to PG.

CARING FOR ELDERS

Finding Meaning in Caring for a Spouse with Dementia

Bomin Shim, PhD, RN
Assistant Professor
School of Health Sciences
Seattle Pacific University
*Seattle, WA**
shimb@spu.edu

Julie Barroso, PhD, ANP, APRN, BC, FAAN
Professor
School of Nursing
Duke University
Durham, NC

Catherine L. Gilliss, PhD, RN, FAAN
Dean
School of Nursing
Duke University
Durham, NC

Linda L. Davis, PhD, RN, ANP, FAAN
Anne Henshaw Gardiner Distinguished Professor of Nursing
School of Nursing
Duke University
Durham, NC

Dementia caregiving can be burdensome with many psychological, physical, social and financial challenges, especially for spousal caregivers who are elderly with limited resources and chronic conditions of their own. However, it can also be an opportunity for growth and transcendence as caregivers find meaning in their caregiving. Thematic qualitative analysis was conducted with 11 caregiver interviews to investigate how spousal caregivers of individuals with dementia found personal meaning in their caregiving experience. Caregivers found personal meaning from caregiving or the relationship with their spouse. Caregivers found meaning by accepting their situation, choosing the attitude they took, focusing on the blessings, and actively seeking resources. Caregivers commonly had altruistic values, and the discipline to live those values. They had faith in a higher power, love for their spouses and they derived strength from past challenges. Positive attitudes among caregivers of individuals with dementia may be enhanced by sharing these strategies, and the study results provide an expansion beyond commonly held views of caregiving for nurses.

Funding: This research was supported by a summer student/internship grant from the Duke Aging Center, Leadership in an Aging Society Program (Duke University, USA). [no grant #].

CARING FOR ELDERS

Quality Geriatric Care: Perceptions of Rural Registered Nurses

Daniel D. Cline, PhD, RN
Assistant Professor, College of Nursing
Anschutz Medical Campus
University of Colorado
Aurora, CO

Elizabeth Capezuti, PhD, RN, FAAN
Professor, College of Nursing
New York University
New York, NY

Christine Kovner, PhD, RN, FAAN
Professor, College of Nursing
New York University
New York, NY

Victoria Vaughan Dickson, PhD, RN, FAHA
Assistant Professor, College of Nursing
New York University
New York, NY

Purpose: The purpose of this study was to explore rural registered nurses' perceptions of quality geriatric care.

Background: The older adult population of the United States is rapidly growing. Many of these older adults will live in rural communities where there is a higher percentage of older adult residents than urban communities. Rural communities have difficulty recruiting and retaining qualified health care professionals and face challenges delivering quality care to hospitalized older adults. Avoidable hospitalizations are more frequent in rural hospitals and over half of all rural hospital inpatient admissions are comprised of older adults. Further, hospitalized older adults are at significant risk of adverse events such as geriatric syndromes and functional decline. Understanding registered nurses perceptions of what constitutes quality geriatric care is essential for improving inpatient care of hospitalized older adults in rural communities.

Methods: Descriptive qualitative techniques (in-depth, semi-structured interviews) were used to interview thirty-one registered nurses working in three hospitals located in rural communities.

Results: Using thematic content analysis, four themes emerged related to registered nurses' perceptions of quality geriatric care: (a) awareness of geriatric specific care needs, (b) importance of the context of care delivery, (c) a need to focus on function, and (d) the significance of quality of life. The four themes represent a broad understanding of the myriad of issues facing older adults, from awareness of physiologic aging processes that impact acute care treatments and responses to those treatments, to an understanding that quality of life and individual preference is of utmost importance for rural dwelling older adults as they approach the end of life.

Implications: Registered nurses' narrative stories demonstrate they are aware of important issues related to quality geriatric care. These findings contribute to a gap in the existing literature by providing evidence about registered nurses working in rural hospitals perceptions of what quality geriatric care encompasses. The findings from this study are important for several reasons. Deficiencies in the quality of geriatric care in rural hospitals may be a result of poor nurse work environments and not nurses' lack of knowledge related to quality geriatric care. However, simply being aware of important components of quality geriatric care may not be sufficient to create meaningful change and prevent adverse events from occurring. Registered nurses must also have skills and abilities to take action, collaborate with colleagues, and work within systems of care to design and implement targeted interventions that prevent adverse events such as geriatric syndromes and functional decline from occurring.

Funding: (1) The John A. Hartford Foundation, Building Academic Geriatric Nursing Capacity (BAGNC) Scholars Program, and (2) The NYU Upsilon Chapter of Sigma Theta Tau International, Dissertation Research Award.

Home ◀ ▶ go to PG.

CARING FOR ELDERS

The Interplay between Social Support and Health for Rural Older Adults

Linda S. Edelman, PhD, RN
Assistant Professor
College of Nursing
University of Utah
Salt Lake City, UT

Rumei Yang, MS, RN
Visiting Scholar
College of Nursing
University of Utah
Salt Lake City, UT

Purpose: To evaluate rural old adults' perceptions of social support and examine the relationship of social support with mental and physical health.
Rationale: Inadequate social support can contribute to a host of negative health consequences. Rural older adults are often geographically isolated from family and friends, have limited public transportation, and lack access to medical care and social services**.** However, the impact of social support on the health of rural older adults is often overlooked. Therefore, understanding rural older adults' perceptions of social support and the interplay of social support and health are of importance.
Methods: A secondary analysis of data from a survey of injury risk perceptions of rural older adults participating in a rural county's home-delivered meals program was employed to describe social support and its relationship with mental and physical health. Perceived social support was measured with the Lubben Social Network Scale (LSNS-6) which has subscales for family and friend support. Mental and physical health was measured using the Medical Outcomes Trust SF-12$^{®}$.
Results: Of the 139 surveys delivered to home delivered meals recipients, 43.9% (n=61) were returned. The average age of respondents was 80.1 years (SD=9.9); 57.9% were female. 36.8% of respondents reported overall social support scores below the clinical cut-off point for the risk of social isolation. Risk of isolation from family was noted for 28.1% of respondents, and from friends for 43.9% of respondents. Age was positively correlated with family support ($r(49)=.376$, $p=.007$), but not with friend support and overall social support. Respondents had significantly poorer physical health compared to the U.S. general health population for adults 65-74 years ($M=32.01$, $SD=10.29$ vs. $M=45.17$, $t(16)=-5.273$, $p<.000$) and 75 plus years ($M=33.20$, $SD=10.94$ vs. $M=42.77$, $t(36)=-5.320$, $p<.000$). Mental health was rated significantly poorer than the U.S. population for adults 65-74 years ($M=45.91$, $SD=12.76$ vs. $M=53.83$, $t(17)=-2.557$, $p=.021$) and 75 plus years ($M=47.03$, $SD=11.93$ vs. $M=54.39$, $t(37)=-3.750$, $p=.001$). Mental health correlated with overall social support ($r(45)=.289$, $p=.049$) and friend support ($r(47)=.323$, $p=.023$), but not family support. Physical health did not correlate with overall social support or family and friend subscales.
Implications: Our results suggest that rural older adults are at risk for social isolation and experience significantly poorer health than their U.S. counterparts, and that higher perceived friend support is associated with better mental health. Therefore, providing opportunities for interactions with friends to decrease social isolation may be important in maintaining rural older adult mental health. Future research is needed to examine the interplay between social support and health in geographically isolated rural older adults.

Funding: Supported by The John A. Hartford Foundation and Atlantic Philanthropies Claire M. Fagin Fellowship.

The Effectiveness of Carnosine for Cognitive Enhancement in Older Adults

Hsin-Yi (Jean) Tang, PhD, ARNP
Associate Professor
College of Nursing
Seattle University
Seattle, WA

Helen Budzynski, PhD, RN
Professor Emerita
School of Nursing
University of Washington
Seattle, WA

Thomas Budzynski, PhD (posthumously)
Affiliate Professor
University of Washington
Seattle, WA

Purpose: The purpose of this study was to evaluate the effectiveness of carnosine for cognitive enhancement in older adults. Specifically, the study was to explore if carnosine delivered through nano-technology patch would improve cognitive functioning in older adults.

Background: Carnosine is a dipeptide found in glial cells in neurons. Carnosine is identified as a protective anti-oxidant, free-radical scavenger and regulator of body metabolism. It is naturally generated in the human body but tends to decline in aging. A recent study found that carnosine supplement reduced the hippocampal intra-neuronal accumulation of amyloid-b and reduced aging-related mitochondrial dysfunctions in mice. This current study is one of few, testing the effect of carnosine on cognitive enhancement in humans.

Method: This was a double-blind randomized-controlled study. Inclusion criterion was healthy individuals age 40 and above. Exclusion criteria included currently not in acute illness or illnesses that impacted cognitive function such as Alzheimer's. The intervention involved the application of carnosine/placebo patches each morning for the duration of 10 hours, five days a week for one month. The patches were applied on skin where it did not interfere with subjects' daily activities. The LifeWave© patches contained amino acids that were devised to generate photo-stimulation to increase self-generated carnosine. Cognitive functioning was measured at the baseline and after one-month of carnosine/placebo patches using the MicroCog program, a well-established computerized assessment program.

Results: Thirty-six participants were randomly assigned into control (N=19, mean age 61±10; male 37%, female 63%) versus experimental group (N=17, mean age 57±8; male 35%, female 65%). T-test with unequal variances was used for group comparison. Significant group mean differences ($p<.0.5$) were noted on 6 of the 9 cognitive components: attention, reasoning/calculation, memory, information processing speed, general cognitive functioning, and general cognitive proficiency; whereas no significance was found in spatial processing, information processing accuracy and reaction time.

Implications: This is one of the few studies on carnosine and cognitive enhancement in human. The findings suggested that carnosine delivered through patches appeared to have positive impact on cognitive enhancement. Future studies should consider biological/physiological measure so the mechanism of carnosine in the neurological health can be further explored.

CHILDHOOD OBESITY

Moderator:
Elaine Rutkowski, PhD, RN, CNS
Assistant Professor
California State University, Fullerton
Fullerton, CA

TECHNOLOGY TO FACILITATE MOTIVATIONAL INTERVIEWING FOR PREVENTING OBESITY

Bonnie Gance-Cleveland, Kevin Gilbert, Keri Bolton Oetzel, Paul Cook, Lynn Gilbert

---

ETHNICITY AS A FACTOR IN CLINICIAN ADHERENCE TO CHILDHOOD OBESITY RECOMMENDATIONS

Bonnie Gance-Cleveland, Lynn Gilbert, Danielle Dandreaux, Sarah Schmiege, Gabriel Shaibi, Diane Skiba, Jinnette Senecal

---

SLEEP QUALITY AND OBESITY IN ADOLESCENTS

Andrea M. Landis

A PRIMARY CARE-BASED RANDOMIZED TREATMENT TRIAL WITH OVERWEIGHT/OBESE CHILDREN

Leigh Small, Darya Bonds-McClain

PHYSICAL ACTIVITY OF OBESE CHILDREN: PARENT-REPORTS COMPARED WITH OBJECTIVE MEASURES

Leigh Small, Darya Bonds-McClain, Alex M. Gannon

CHILDHOOD OBESITY

Technology to Facilitate Motivational Interviewing for Preventing Obesity

Bonnie Gance-Cleveland[1], PhD, RNC, PNP, FAAN; Kevin Gilbert[2], PhD;
Keri Bolton Oetzel[3], PhD; Paul Cook[1], PhD; Lynn Gilbert[2], RN, PhD, PNP-BC

[1]University of Colorado Denver, College of Nursing; [2]HeartSmartKids;
[3]University of Waikato

Purposes/Aims: To describe the development and initial implementation of a computerized decision support algorithm to facilitate the use of Motivational Interviewing (MI) techniques to prevent obesity in pediatric primary care settings.

Rationale/Background: Motivational interviewing is a collaborative counseling technique that recognizes families do not always come to well child visits ready to change behavior. Clinicians work with families to set behavior goals, recognizing their ambivalence about change. MI focuses on helping families recognize the discrepancy between their health goals and current behavior. National experts have included use of MI in guidelines; however, clinicians express a need for decision support tools and prompts to support new techniques.

Brief Description: HeartSmartKids (HSK) is a decision support tool for supporting guideline implementation for childhood obesity. It is currently used by providers in primary care clinics to assess family health behaviors and provide tailored guidance. Patients complete a bilingual screening interview on health behaviors using a touchscreen computer or tablet computer. Clinic staff complete the report by adding clinical measurements and printing tailored guidance for patient and provider.

This work expands the screening process to include Motivational Interviewing (MI) factors - family responses to questions on importance, readiness, and confidence about changing healthy behaviors. These data alone are of great use to providers trained in MI, but the vast majority of primary practitioners lack such training. The authors have developed an algorithm to present decision support in a user-friendly format. Based on family responses to the three questions, guidance for both provider and patient was developed, including potential counseling goals, suggested leading statements, and advice on probable issues (provider).

Outcomes Achieved/Documented: We present the completed algorithm along with suggested guidance items, qualitative data from providers and patients, and observations and lessons learned in implementation. A demonstration of the generation of the tailored patient education materials and provider prompts will be included.

Testing was carried out in a safety-net clinic where childhood obesity risk and rates are prevalent. Screening was carried out at every well-child check, with patients completing the electronic questionnaire in the waiting room and receiving their results during consultation with their practitioner.

Conclusions: The obesity epidemic is one of the most important of a range of health issues that could be best addressed by helping patients choose healthier behaviors. Enabling practitioners to use the latest techniques for motivating their patients has the potential to improve care, increase health, and decrease costs.

Funding: This project was supported by grant number R18HS018646 for the Agency of Healthcare Research and Quality.

Home

◀ ▶ go to PG.

CHILDHOOD OBESITY

Ethnicity as a Factor in Clinician Adherence to Childhood Obesity Recommendations

Bonnie Gance-Cleveland[1], PhD, RNC, PNP, FAAN; Lynn Gilbert[1], RN, PhD, PNP-BC; Danielle Dandreaux[2], PhD; Sarah Schmiege[1], PhD; Gabriel Shaibi[2], PhD; Diane Skiba[1], PhD; Jinnette Senecal[2], BSBA

[1]University of Colorado Denver, College of Nursing, Aurora, CO
[2]Arizona State University, College of Nursing and Health Innovation, Phoenix, AZ

Purpose: The purpose of this study is a comparative effectiveness trial of web-based training on obesity recommendations with and without computer decision support. This presentation is focused on the child's ethnicity as a factor in clinician adherence to obesity recommendations in children seen at school-based health centers (SBHCs) for well child care.

Rationale: The current childhood obesity epidemic in the U.S. suggests this generation of children may be the first to have a shorter lifespan than their parents. Ethnic minority youth are the most affected by childhood obesity, comorbidities and consequences. School-based health centers frequently provide healthcare to poor, underserved youth.

Method: Providers (n=30) from SBHCs in 6 states (AZ, CO, NM, MI, NY, NC) were enrolled in the study. A random sample of 32 chart audits were conducted at each site at baseline. Charts were examined for documentation of BMI, BMI%, BP, BP%, diagnosis of overweight (BMI ≥ 85%) and obesity (BMI ≥ 95%), and orders for laboratory assessment if indicated by current clinical guidelines.

Results: Chart audits (n=786) were conducted, 54.8% from rural SBHCs and 45% from urban centers, Charts were from well child visits on children 5-12 years old, 49.3% male and 50.7% female. The diverse population was comprised of 45.7% Hispanic, 33.3% White, 14.4% Black, 4.0% mixed, 1.2% other, 0.8% Asian, and 0.6% Native American. There were significant differences between classification as overweight and obese using the Center for Disease Control definitions based upon BMI percentile and the health care providers' diagnosis of obesity (p<.0001) and overweight (p<.0001). Providers misclassified the weight category in 16.5% (n=105) of overweight children and 10.7% (n=68) of obese children. There were significant differences in diagnosis of obesity by race/ethnicity ($x^2_{(df=3)} = 11.55$, p<.01), with Caucasian children being correctly classified less often. There were also significant differences between the children who met criteria for having labs ordered and those who had labs ordered (p<.0001) with 43.4% (n=46) of those diagnosed with obesity not being referred for labs and with non-obese Hispanic children being referred for laboratory assessment more often other ethnic groups.

Implications: Providers in SBHCs serve high risk youth. There is need for increased accuracy and consistency in provider identification, assessment, and documentation of overweight and obese children. There appears to be an increased awareness of the risk of obesity in ethnic minority children and a more thorough laboratory assessment per recommendations in Hispanic/Latino youth.

Funding: This project was supported by grant number R18HS018646 for the Agency of Healthcare Research and Quality.

CHILDHOOD OBESITY

Sleep Quality and Obesity in Adolescents

Andrea M. Landis, PhD, RN, FNP-BC
Assistant Professor, Department of Family Child Nursing
University of Washington School of Nursing
Seattle, WA

Background: Obesity is a significant problem and is increasing worldwide. The prevalence of adolescent obesity in the US has more than tripled over the past 20 years. Minority adolescents are disproportionately affected. Recent studies in adults and school-age children have shown sleep duration is inversely associated with body mass index (BMI), but this observation has not been well characterized in adolescents. Adolescents typically require more sleep than they obtain and are at high risk for the consequences of sleep deprivation Inadequate sleep is associated with alterations in endocrine and metabolic hormones which mediate appetite and weight gain. It is unclear whether sleep quality is associated with such changes.

Purpose: Therefore, the purpose of this study is to examine the associations of sleep quality with obesity using measures of BMI, hunger/satiety, and food cravings in a group of otherwise healthy adolescents.

Methods: Subjects, aged 12 to 18 years, were recruited through teen "well-exam" medical clinics and Boys & Girls Clubs, school-based teen clinics, church/religious groups, local medical practices, and advertisement flyers posted in the community. Exclusion criteria included a previous diagnosis of narcolepsy, significant medical or psychological problems, and those taking medications known to affect their sleep. Students completed the Pittsburgh Sleep Quality Index (PSQI); a self-rated 19-item assessment of last month's sleep quality; food cravings inventory (FCI) for high fats, sweets, carbohydrates, and fast foods, and a 7-day hunger/satiety diary was initiated. Weight and height were measured to calculate BMI (kg/m^2). Descriptive and parametric procedures were used for data analyses ($\alpha = .05$). Chronbach's alphas for the PSQI and FCI in this sample were 0.68 and 0.88, respectively.

Results: The sample (n = 61) included 52.5% (32) females, 83.6% (51) White adolescents. The mean age was 15.6 $\pm$ 1.9 years. Mean BMI was 23.4 $\pm$ 4.9 kg/m^2. Average PSQI global scores were 5.08 $\pm$ 2.3 (range 2 – 12); 32.8% of the adolescents endorsed poor subjective sleep quality (PSQI global score > 5). The mean reported nocturnal sleep from the PSQI was 7.78 $\pm$ 1.3 (hours), reflecting a relatively short nocturnal sleep period. Using independent t-tests, there was a significant difference between reported poor and good sleep quality. People with poor sleep quality had significantly higher cravings for fast foods ($t = -2.03$, $p = .05$) and hunger on a weeknight (trended; $p = .08$) than those with good sleep quality. There was no significant difference between PSQI and BMI.

Implications: The findings suggest that inadequate sleep and poor sleep quality are common problems in this age group. Although poor sleep quality was not linked with BMI, it was linked strongly with craving fast foods and less strongly with hunger in the evenings. These findings are comparable to a previous sleep loss study in adults (Spiegel, 2004). By using the PSQI, clinicians, especially school nurses, can begin to understand how sleep may affect metabolic and endocrine pathways, especially appetite regulation, that potentially leads to obesity in adolescents.

Funding: This study was funded by Research & Intramural Funding Program, University of Washington School of Nursing and the Biobehavioral Nursing Training Grant, NINR T32 NR07106.

Reference: Spiegel, K., Tasali, E., Penev, P., & Van Cauter, E. (2004). Brief communication: Sleep curtailment in healthy young men is associated with decreased leptin levels, elevated ghrelin levels, and increased hunger and appetite. *Annals of Internal Medicine*, 141, 846-50.

Home

◀ ▶ go to PG.

CHILDHOOD OBESITY

A Primary Care-based Randomized Treatment Trial with Overweight/Obese Children

Leigh Small, PhD, RN, PNP-PC, FNAP
Associate Professor
Arizona State University
College of Nursing & Health Innovation
Phoenix, AZ

Darya Bonds-McClain, PhD
Associate Research Professor
Arizona State University
College of Nursing & Health Innovation
Phoenix, AZ

Purposes/Aims: The purpose of this NIH-funded (1R15DK074428-01A1) randomized controlled treatment trial was to determine the feasibility and preliminary effects of a theoretically based, primary care intervention on the physical outcomes of overweight/obese preschool/early school-aged children, 4-8 years, and their parents.

Rationale/Conceptual Basis/Background: The prevalence of overweight (BMI percentile>85th) and obesity (BMI percentile 95th) in children 2 to 19 years of age has increased rapidly in the last 20 years. The most recent epidemiological data suggest that this trend appears to have decreased for all child age groups except preschool-aged children (2-5 years). In this age group, rates of overweight and obesity continue to rise from 19.6% in 2008 to 23.4% in 2010. In addition, the increase in prevalence of overweight and obesity between age groups continues to be greatest between the preschool (2-5 years) and the school-aged (6-11 years) groups. This epidemiologic data suggest that research in the child years that cross these age categories are needed.

To address this issue the information, motivation, and behavior skills theoretical model was used to guide the development of this intervention treatment trial, its measures and analyses. This paper will 1) provide an overview of the trial, 2) discuss the findings, and 3) identify barrier to the conduct of the study.

Methods: Following IRB approval, 67 parent-child dyads were recruited for study participation. Baseline assessments were completed and then parent-child dyads were randomly assigned to either the treatment or control condition. Four intervention sessions were conducted with the parents in their child's primary healthcare office, prior to each session parents were offered written and audio taped educational materials. The impact of the intervention was evaluated by assessing child anthropometric measures immediately, 3, and 6 months following the intervention period.

Results: Children in the experimental group were found to have reduced waist circumference and waist-by-height ratio immediately following the intervention (f = .33, .35 respectively) that persisted for 3 and 6 months. Similarly, the mean BMI decreased in the treatment group, a change that persisted 3 months following the intervention; however, the mean BMI consistently increased over time in the control group. There were no significant group differences in BMI percentile. The children's dietary intake changed such that the calories, carbohydrates, fat and saturated fat decreased in children randomly assigned to the experimental group and those shifts persisted up to 3 months following the intervention; however, there were no physical activity differences between groups detected at any time point.

Discussion: These promising findings suggest that a primary care–based, parent-focused overweight/obesity treatment program is feasible and this pilot study demonstrated positive preliminary effects, improving the children's overall health trajectory.

Implications: Many lessons regarding recruitment, interventions to affect physical activity, and measurement were learned that will directly inform the future design, intervention development, and conduct of a large-scale randomized controlled trial.

Physical Activity of Obese Children: Parent-Reports Compared with Objective Measures

Leigh Small, PhD, RN, CPNP-PC, FNAP
Associate Professor
Arizona State University, College of Nursing & Health Innovation
Phoenix, AZ

Darya Bonds-McClain, PhD
Associate Research Professor
Arizona State University
College of Nursing & Health Innovation
Phoenix, AZ

Alex M. Gannon, MPH
Instructional Aide and Research Assistant
Arizona State University
Phoenix, AZ

Purposes/Aims: The purpose of this NIH-funded study (1R15DK074428-01A1) was to compare objectively measured physical activity (PA) and parent-reported assessments of the children's PA in a young overweight/obese child sample.

Rationale/Background: Twenty-three percent of young children, 2-5 years, have a body mass index ≥85th BMI percentile. Among some of the comorbid health conditions associated with excess body weight are hypertension, dyslipidemia, decreased insulin, and the development of atherosclerosis. Physical activity is known to positively affect all these adverse health conditions; however, researchers have had limited success identifying effective methods to increase PA in children. The validity and reliability of measures of PA, a key outcome variable of interest for intervention studies designed to promote increased PA, are of critical importance. The purpose of this paper is to understand relationships between parent-reported child PA and objectively measured child PA.

Methods: 67 child-parent dyads were recruited for study participation. Child anthropometric measures and parent-reported questionnaires regarding child behavior were completed and then PA was measured using accelerometers. A subset of parents (n = 21) were asked to provide parental estimates of the time their child spent in differing levels of PA while wearing the accelerometers. Comparisons of the estimated PA and the objectively measured PA were assessed through a series of paired samples *t*-tests.

Results: The children demonstrated moderate-to-vigorous (MV) PA for 17.91 minutes per day on average and a daily mean of 62.79 minutes of light PA. The children spent 86.7% of their time in sedentary activities. Parents' general reports of hyperactivity were positively and significantly related to the objectively measured PA. Child waist circumference had significant, negative relations with time the child spent in MVPA, and parent-reported hyperactivity. However, the child BMI percentile did not have a significant relationship with the amount of time a child spent in any of the accelerometry-derived physical activity levels. *T*-tests with parent-reported time their child spent in the different activity levels and objective measures of time spent in the different activity levels via the accelerometer were significant for all 3 activity levels suggesting that parents significantly underestimated the average amount of time children spent in sedentary activity, and significantly over-estimated the amount of time spent in MVPA and light activity.

Implications: These findings suggest that while parents may be able to generally characterize their child's activity they may not be able to accurately report specific information and thus may struggle to identify clear activity goals for their child, something necessary for interventions such as motivational interviewing, and/or parents may be unable to assess intervention effects. This finding has clear and important implications for both clinicians and researchers whose intentions are to increase child physical activity.

Home ◀ ▶ go to PG.

CHILDREN AND ADOLESCENTS' HEALTH

Moderator:
Tiffany M. Montgomery, MSN, RNC-OB, C-EFM
Doctoral Student
University of California, Los Angeles
Los Angeles, CA

ADOLESCENTS PERSPECTIVES OF LIVE LIVER DONATION

Roberta Rehm, Annette S. Nasr

PERCEIVED DISCRIMINATION AND CHILDREN'S MENTAL HEALTH SYMPTOMS

Bonnie H. Bowie, Sybil Carrère, Cheryl Cooke

SOMALI BANTU REFUGEE PARENTS' TREATMENT OF NON-EMERGENCY ILLNESS OF THEIR CHILDREN

Mikal Black, Pam Springer, Cathy Deckys

USING THE "NEWEST VITAL SIGN" (NVS) TO ASSESS HEALTH LITERACY IN CHILDREN

Martha Driessnack, Sophia Chung, Elena Perkounkova, Maria Hein

---

POSTOPERATIVE PAIN MANAGEMENT IN ADOLESCENTS UNDERGOING NUSS PROCEDURE

Yuting Lin, Michelle Barnes, Jeffery Avansino, Assaf Oron,
Anjana Kundu, Ardith Doorenbos

Adolescents Perspectives of Live Liver Donation

Roberta Rehm, RN, PhD
Associate Professor
Department of Family Health Care
University of California, San Francisco
San Francisco, CA

Annette S. Nasr, RN
Nurse Scientist
Center for Nursing Excellence
Lucile Packard Children's Hospital
Palo Alto, CA

Purpose: The purpose of this multi-method research study was to better understand the impact a living-related live donation (LRLD) can have on the adolescent recipient and their family, specifically, in the areas of family dynamics, social interactions, and personal development.

Background: Pediatric patients suffering from end stage liver disease (ESLD) must depend on cadaveric liver donation or living liver donation in order to sustain life. According to the United Network of Organ Sharing (UNOS) approximately 85,000 candidates are listed for organ transplantation, 17,000 are listed for live transplantations. Cadaveric liver donation cannot meet the demand presented by children with ESLD, therefore alternative to cadaveric donations must be established.

Methods: This multi-method multi-centered study used ethnographic methods to gather information from 12 adolescent living donor recipients by way of an interview as well as using the Youth Quality of Life Research Version (YQOL-R) survey. Participants were recruited from two transplant centers in San Francisco Bay Area. 6 of these participants were re-interviewed in order to better understand their experience.

Results: Major categories identified from the interview data included: 1. Identity development (understanding their vulnerability, possessing a level of confidence in who they are); 2. redefining family relationships (articulating the role they play in the family, understanding the effects a transplant had on the family); 3. feelings of gratitude to their donors (seeing the donor as a person, a family member, and friend). The overall theme common to all donors was the development of resiliency that seemed to be a result of adapting and adjusting positively to the transplant experience. The survey results were presented for each composite no difference was observed for either overall score or any of the separate domains in the YQOL-R when compared to the reference population.

Home ◀ ▶ go to PG.

CHILDREN AND ADOLESCENTS' HEALTH

Perceived Discrimination and Children's Mental Health Symptoms

Bonnie H. Bowie, PhD, MBA, RN
Assistant Professor, College of Nursing
Seattle University
Seattle, WA

Sybil Carrère, PhD
Professor, Department of Psychology
California State University, San Bernardino
San Bernardino, CA

Cheryl Cooke, PhD, RN
Assistant Professor, School of Nursing
University of Washington, Bothell
Bothell, WA

Purpose: The purpose of this exploratory study was to examine the relationship between children's perceived discrimination and mental health symptoms within and between three racial groups: Euro-American, African American and Multiracial. We also examined the association between children's perceived discrimination and physical health status.

Rationale: There is a growing body of evidence demonstrating that perceived discrimination is strongly associated with mental health outcomes, including, but not limited to, depression, anxiety, chronic stress, post-traumatic stress syndrome, and low self-esteem. In addition, there is ample evidence suggesting a link between perceived discrimination and increased risk for physiological conditions such as addictions, hypertension, cardiovascular disorders and metabolic disease in adults. Indeed, we now know that racism and discrimination can contribute to negative health outcomes in adults, young adults and adolescents. However, the effect of racism and discrimination on children and pre-adolescents is an understudied area that needs to be furthered developed. Furthermore, with regard to specific racial groups, multiracial children have been largely ignored in this important area of research.

Methods: Data were drawn from the Family Health Project, Time 3, a five-year longitudinal study ($N=129$ families). The mean age of the children was 11 ($SD = .9$ years). The Child's Perceived Ethnic Discrimination Questionnaire-Community Version was designed to assess multiple dimensions of racism over time. (CPEDQ-CV; Brondolo et al, 2005). Anxiety and depressive symptoms were measured using the Behavior Assessment System for Children-Child Version (BASC-C; Reynolds & Kamphaus, 1998). Parents' also rated the children's health using the Rand Measurement of Health for Children (Eisen, Donald Ware & Brook, 1980).

Results: African American children experienced significantly higher levels of stigmatization and discrimination at school ($p < .05$) as compared to European American children. Discrimination and stigmatization were significantly correlated with lower self-esteem, higher social stress, anxiety and depressive scores for African American and Multiracial children ($p < .05$). In addition, parents' reports of poor resistance to illness in their children were significantly correlated with their children's perception of stigmatization (Multiracial, Euro-American; $p < .05$), discrimination (African American, Multiracial; $p < .05$), and children's perception of threats by peers (African American, Multiracial; $p < .05$).

Implications: Assisting children and families to identify the underlying causes of anxiety and depression, particularly in families of color, may assist in better adaptation in the classroom for children. Educating teachers, school nurses and parents regarding the harmful effects of discrimination remains an important need in the current school system.

Funding: NIMH (MH42484); NINR (#2P30 NR04001; NICHD (P30 HD02274); NIDA Training Grant (T32 DAO7257-14) NIMHD (P20MD002722).

Home ◀ ▶ go to PG.

CHILDREN AND ADOLESCENTS' HEALTH

Somali Bantu Refugee Parents' Treatment of Non-Emergency Illness of Their Children

Mikal Black, RN, MSN
Assistant Professor
School of Nursing
Boise State University
Boise, ID

Pam Springer, RN, PhD
Professor
School of Nursing
Boise State University
Boise, ID

Cathy Deckys, RN, MS
Clinical Instructor
School of Nursing
Boise State University
Boise, ID

Purpose: This qualitative study explores how Somali Bantu parents treat non-emergency illnesses of their children, including treatments utilized and more specifically, how parents who do not read or understand English nor are familiar with basic information such as their children's weight, use treatments such as over-the-counter medications for their children.

Rationale/Conceptual Basis/Background: Issues of literacy, language and culture affect how Somali Bantu refugee parents access resources and information regarding the health of their children. Using the Leininger's (2202) Sunrise Model, the researchers examined culture care preservation/maintenance, culture care accommodation/negotiations, and culture care repatterning/restructuring.

Methods: Based on the work of Merriam (2209), semi-structured interviews were done with 6 sets of Somali Bantu refugee parents from Boise, ID., both English speaking and non-English speaking, who have children between 1 month and 18 years. Interviews were conducted in participants' homes and lasted from 1 ½ to 2 hours with the use of interpreters as needed.

Results: Findings included use of traditional treatments such as herbs and special foods, dependence on pharmacists as a major source of information regarding prescribed and over-the-counter medications, and issues related to doctor visits, such as access related to lack of insurance, perceived discrimination and communication barriers.

Implications: By increasing our understanding of the factors affecting Somali Bantu refugee parents' treatment of their children's non-emergency illnesses, healthcare providers and educators can provide information and resources more effectively for this population. In addition, this study emphasizes the need for nurses to work with pharmacists and interpreters when caring for this vulnerable population.

References:
Leininger, M. (2002). Culture care theory: A major contribution to advance transcultural nursing knowledge and practices. *Journal of Transcultural Nursing, 13,* 189-192.
Merriam, S. B. (2009). Qualitative research: A guide to design and implementation. San Francisco, CA: Jossey-Bass.

CHILDREN AND ADOLESCENTS' HEALTH

Using the "Newest Vital Sign" (NVS) to Assess Health Literacy in Children

Martha Driessnack, PhD, PNP-BC
Assistant Professor
College of Nursing
The University of Iowa
Iowa City, IA

Sophia Chung, MA, RN
Doctoral Student
College of Nursing
The University of Iowa
Iowa City, IA

Elena Perkounkova, PhD
Statistician
College of Nursing
The University of Iowa
Iowa City, IA

Maria Hein
Data Manager
College of Nursing
The University of Iowa
Iowa City, IA

Purpose: To explore using the Newest Vital Sign (NVS) instrument to assess health literacy in children.

Background: Improving health literacy has emerged as a national priority because of its potential not only to improve health care outcomes, but also to reduce persistent health disparities. To date, research efforts have focused primarily on adults and/or parents, with some interest now developing in adolescent health literacy. There is no research or mechanism focused on children's health literacy. The Newest Vital Sign (NVS) is an existing health literacy screening tool based on a standardized Nutrition Facts label. The NVS correlates (r=.59, p=.001) with the *Test of Functional Health Literacy in Adults* (TOFHLA). The NVS involves 6 questions, takes < 3 minutes to complete, and requires basic reading and numeracy skills. Accordingly, it may be feasible for children 7 -12 years of age.

Methods: Following IRB approval, we sought a broad cross section of healthy parent/child dyads to complete the NVS, Household Health Discussion Worksheet, and Demographic Inventory. All data were collected onsite at a large metropolitan Science Center and then entered into REDCap, exported, and analyzed using SAS 9.3.

Results: 47 parent/child dyads participated. Children were evenly distributed by sex/age. Just over half (62%) of the children were White, 77% attended public school, and 38% qualified for reduced/free lunch. Children were able to complete the NVS without difficulty. The majority of children (81%) and parents (77%) had NVS scores revealing adequate health literacy levels, with no significant differences between the two groups' mean scores (4.8). Moderate correlations were noted between: 1) child's age and NVS score (r_S=.43, p=.003), and 2) child and parent's NVS scores (r_S=.35, p=.017). Multiple discrepancies were noted between parent and child reports of household discussion topics and frequency.

Implications: Having a means to assess child health literacy levels will help in assessing inter-generational communication of health-related information for family-based interventions, the effectiveness of health education for school-based interventions, and the identification of health literacy gaps that exist within and/or across specific populations. Linking health literacy levels to reported household discussion topics allows for insight into misunderstanding between family members and avenues for focused intervention.

Home ◀ ▶ go to PG.

Postoperative Pain Management in Adolescents Undergoing Nuss Procedure

Yuting Lin, RN
Master's Student
School of Nursing
University of Washington
Seattle, WA

Michelle Barnes, MD
Instructor
Anesthesiology & Pain Medicine
Seattle Children's Hospital
Seattle, WA

Jeffery Avansino, MD
Assistant Professor
Pediatric Surgery
Seattle Children's Hospital
Seattle, WA

Assaf Oron, PhD
Senior Statistician
Children's Core for
Biomedical Statistics
Children's Research Institute
Seattle, WA

Anjana Kundu, MBBS, DA
Associate Professor
Anesthesiology & Pain Medicine
Seattle Children's Hospital
Seattle, WA

Ardith Doorenbos, PhD, RN, FAAN
Associate Professor
School of Nursing
University of Washington
Seattle, WA

Purpose: To explore pain management outcomes in adolescents undergoing minimally invasive repair (Nuss procedure) for pectus excavatum comparing epidural analgesia with a combination of local anesthetic and opioid (EDA) and epidural analgesia with local anesthetics only plus Intravenous Patient-Controlled Analgesia (EDA+PCA).

Background: Surgical correction for pectus excavatum, a chest wall deformity involving the sternum, is associated with intense post-operative pain and residual pain, which greatly impacts patient satisfaction and patient's perception of pain intensity and pain-related disability. However, an optimal strategy for pain control remains unclear from the current published literature. There is support of the use of epidural analgesia for surgical repair of pectus excavatum and other thoracic surgeries, but a clear consensus about the ideal analgesic regimens has yet to be established. There are arguments for use of epidural analgesia and also for PCA to deliver opioids in order to provide adequate pain control after chest wall surgeries.

Methods: A retrospective medical record review was conducted in patients undergoing Nuss procedures for pectus excavatum correction at Seattle Children's Hospital from 2007 to 2011. Demographics, analgesic technique, anesthesia duration, surgical duration, pain scores, daily cumulative opioid dose and side effects were collected through post-operative day 3 for each patient. Subjective pain scores were assessed by visual analogue scale and were further summarized as daily value, mean and maximum. Opioids used were scaled to morphine-equivalents to calculate the daily and cumulative opioid dose. Comparison between groups was performed by multiple linear regressions on continuous outcomes and by Fisher's exact test on binary outcomes.

Results: A total of 44 patients with an age range of 11-19 years (male= 36, female=8) were included. Twenty-six patients received epidural infusion with local anesthetics and opioids (EDA group), while 19 received epidural infusion with local anesthetics plus intravenous opioids via patient controlled analgesia (EDA+PCA group). The cumulative opioid doses in the EDA group were significantly lower ($P<0.01$), with less morphine-equivalent consumption (over 100 mg). The EDA group was also associated with lower daily average pain score ($p=0.13$) and maximum pain scores ($p=0.05$) on post-op day 1-3, fewer side effects of nausea/vomiting ($p=0.06$). Constipation was common among both the groups.

Implications: Our results suggest that for adolescents undergoing Nuss procedure, a continuous epidural infusion of local anesthetic combined with an opioid provides more effective post-operative pain relief compared with an epidural infusion of only local anesthetic and intravenous opioid patient-controlled analgesia in terms of less cumulative opioid consumption, lower pain intensity, and fewer side effects. Despite a higher cumulative opioid dose, the intravenous patient-controlled analgesia (IV PCA) failed to provide adequate pain relief in this patient population. Therefore, it may be helpful for nurses to further explore the patterns of PCA use among adolescents using a prospective study design.

Funding: National Institute of Health/National Cancer Institute grant # CA141875.

Home ◀ ▶ go to PG.

CHILDREN AND ADOLESCENTS WITH DISABILITIES

Moderator:
Claudia M. Davis
PhD Candidate
School of Nursing
University of California, Los Angeles
Los Angeles, CA

CHILDREN WITH DISABILTIES' FAMILIES: SIBLING RELATIONS AND CAREGIVER BURDENS

Diane Allred, Barbara Mandleco, Susanne Roper,
Donna Freeborn, Tina Dyches

WORK OF MANAGING PHENYLKETONURIA AND BREASTFEEDING

Sandra A. Banta-Wright, Gail M. Houck, Nancy A. Press,
Sheila M. Kodadek, Kathleen A. Knafl

HOW CAN NURSE PRACTITIONERS ASSIST PARENTS RAISING CHILDREN WITH TYPE 1 DIABETES?

Donna Freeborn, Carol Loucks, Barbara Mandleco,
Susanne Roper, Tina Dyches

ADOLESCENT CONCUSSION: SYMPTOM ANALYSIS AFTER COGNITIVE CHALLENGE

Traci R. Snedden

A COLLABORATIVE APPROACH FOR ATTENTION DEFICIT AND HYPERACTIVITY DISORDER

Hsin-Yi (Jean) Tang, Emily Thomas, Jennifer Martinson

Home

◀ ▶ go to PG.

Children with Disabilties' Families: Sibling Relations and Caregiver Burden

Diane Allred, Barbara Mandleco Susanne Roper, Donna Freeborn, Tina Dyches
College of Nursing, School of Family Life, School of Education
Brigham Young University, Provo, UT

Purposes/Aims: To examine sibling relationships and caregiver burden in families raising children with disabilities (CWD) to (a) determine if differences exist in sibling relationships and caregiver burden according to parent gender and type of disability and (b) identify if sibling relationships are linked to caregiver burden.

Background: Information regarding sibling relationships in families rearing a CWD is ambiguous; most research is limited to mothers' or siblings' ratings of the relationships and do not include fathers. In addition, even though some studies examine effects of living with a CWD on siblings, the focus has been on sibling outcomes/problems, rather than sibling relationships. Caregiver burden refers to perceived stresses associated with caring for a CWD and the impact caregiving has on caregivers. It is affected by the CWD's developmental delays, health complications, and cognitive/physical/behavioral impairments. Some information exists on sibling relationships and caregiver burden in families raising CWD; but little is known if ratings differ according to parent gender or type of disability or how these variables are linked.

Methods: After IRB approval, 166 families living in the west and raising typically developing (TD) children or a CWD participated. Disabilities included autism (A); Down syndrome (DS); multiple disabilities (MD) comprised of both cognitive and physical disabilities; and other disabilities (OD) such as developmental delay, emotional disability, hearing/communication impairment, or ADHD. After consenting, both parents independently completed the 28-item Schaefer Sibling Inventory of Behavior, which ranked sibling behaviors in relation to kindness, involvement, empathy, and avoidance, and a revised version of the Caregiver Strain Index (Robinson, 1983), measuring hassle and frequency of burden. Mothers completed a demographic questionnaire. Analyses included descriptive statistics, a MANOVA and correlations.

Results: Least avoidant behaviors were reported by fathers in siblings of CWOD and by mothers in siblings of CWDS. Fathers reported highest empathy ratings in siblings of CWDS; mothers reported highest empathy ratings in siblings of CWMD. Mothers rated frequency/hassle of burden between sometimes and a lot; fathers rated frequency/hassle of burden between rarely and sometimes. Parents of CWA had the highest frequency/hassle of burden; mothers of TD children, and fathers of CWDS had the least frequency/hassle of burden. Correlational analyses revealed positive relationships between parents' frequency/hassle of burden and empathy, kindness, and involvement. A negative relationship exists between parents' ratings of avoidance and empathy/kindness/involvement. All caregiver burden variables were positively related to avoidance. Hassle of burden for both parents and frequency of burden for fathers were negatively related to empathy, kindness and involvement; whereas mothers' ratings of frequency of burden were negatively related to kindness.

Implications: Siblings of CWA, CWMD and CWOD may benefit from information regarding these disabilities in order to decrease avoidance behaviors. It would also be important to provide interventions/information about respite care and other appropriate community resources to parents of CWA in order to help decrease the frequency/hassle of burden they experience. Finally, parents of CWD may benefit from information regarding the effect their perception of frequency/hassle of burden has on relationships between the child and siblings.

Funding: Supported by a grant from the Brigham Young University Graduate Studies Office.

Home ◀ ▶ go to PG.

Work of Managing Phenylketonuria and Breastfeeding

Sandra A. Banta-Wright, PhD, RN, NNP-BC
Postdoctoral Fellow, School of Nursing
University of Washington, Seattle, WA

Gail M. Houck, PhD, RN, PMHNP[1]
Nancy A. Press, PhD[1],
Sheila M. Kodadek, PhD, RN[2]
[1]Professor, [2]Professor Emeritus
Oregon Health & Science University
School of Nursing, Portland, OR

Kathleen A. Knafl, PhD, FAAN
Professor & Associate Dean
School of Nursing
University of North Carolina
Chapel Hill, NC

Background: Phenylketonuria (PKU) is a rare inborn error of metabolism disorder that if left untreated leads to a life-threatening increase in phenylalanine (Phe) levels. Breastfeeding (BF) an infant with PKU is possible, but requires mastering a complex management routine that combines BF with a special formula to maintain therapeutic Phe levels and reflects mothers' efforts to continue BF in this unique and challenging situation. Although BF and PKU have been discussed in the literature, there is a lack of research describing mothers' experiences BF infants with PKU, which seriously limits the evidence base for developing and testing interventions that support BF in this unique context.

Purpose: To describe the unique demands of BF in the context of PKU and mothers' efforts to manage the complex feeding regimen.

Methods: We present findings from the qualitative phase of a mixed methods study of mothers' experiences feeding infants with PKU in the US and Canada. Participants met the inclusion criteria: 1) at least twenty-one years of age, 2) able to read and write in English, 3) had a child less than thirty-six months of age with PKU who was breastfeeding/breastfed, and 4) lived in the US or Canada. Twenty-two mothers expressed a willingness to be interviewed and 10 were purposively selected to reflect a broad range of BF experiences. Mothers were interviewed via the telephone using a semi-structured interview guide. Following transcription, thematic analysis was used to identify key aspects of BF in the context of PKU. The theme, "Work of Managing PKU and BF," which addressed mothers' perceptions of managing the complexities and the added workload of BF infants with PKU, is the focus of this presentation.

Results: Mothers reported BF an infant with PKU was more complex and labor intensive than feeding a normal healthy infant, since BF had to be combined with Phe-free formula feedings. They described two major components of the special effort needed to breastfeed their infants: monitoring Phe levels and balancing BF versus Phe-free formula feeding. Phe levels in the infant's blood had to be closely monitored, since high Phe levels overtime result in irreversible cognitive deficits; heel-stick blood samples were drawn in-home once to twice weekly and sent to a laboratory for Phe level analysis. With the Phe results, adjustments were made in how much breastmilk/BF versus Phe-free formula was given to the infant. Serial Phe levels required mothers to individualize the treatment plan for their infants in order to maintain metabolic control with appropriate Phe levels while at the same time adapting BF to their unique situation.

Implications: This study provided the first detailed description from mothers' perceptions of their experiences BF infants with PKU and begins to address understanding the central concerns of mothers' BF infants with PKU. Results provide important information for clinicians regarding the challenges mothers face and the kinds of support they need.

Funding: F31-NR-010963: Ruth L. Kirschstein National Research Service Award, NIH, Bethesda, MD.

CHILDREN AND ADOLESCENTS WITH DISABILITIES

How Can Nurse Practitioners Assist Parents Raising Children with Type 1 Diabetes?

Donna Freeborn, Carol Loucks, Barbara Mandleco, Susanne Roper, Tina Dyches
College of Nursing, School of Family Life, School of Education
Brigham Young University, Provo, UT

Purpose: To (a) discover parental concerns of raising a child/adolescent with type 1 diabetes (T1DM) and (b) provide information on how nurse practitioners can address and assist parents in dealing with their concerns.

Background: T1DM in children/adolescents is a life-altering condition requiring lifestyle changes including diet modification, blood glucose monitoring, carbohydrate counting, and admisistering administration, and leading to family psychological and behavior adaptations. Parents often report feelings of stress, fear, grief, sorrow, and self-doubt, and a sense of being overwhelmed by their child's disease.

Methods: Six separate focus groups, held over a four month period in 2010, included a total of 20 parents representing 16 children with T1DM. The groups were conducted by an experienced qualitative researcher and guided by open-ended questions, designed to stimulate discussion about participants' experiences raising a child/adolescent with T1DM. Questions focused on challenges the parents faced while raising a child/adolescent with T1DM and the ways T1DM affected their family. Discussions were audio recorded, transcribed verbatim, and analyzed for common themes. Transcripts were analyzed line by line for codes which revealed major and minor themes. As major themes emerged, they were identified and coded by the first author and verified by other members of the research team.

Results: Themes, related to parental perceptions of developmental, physical, behavioral and emotional facets, were subdivided into: (a) understanding and accepting T1DM; (b) T1DM management; and (c) desire to know others with T1DM. Parents in all groups wanted their child/adolescent to understand T1DM and accept the necessary life-style changes and gain knowledge about T1DM during their initial hospital stay. Management concerns ranged from young children running and hiding when it was time to check their blood glucose to preadolescents who didn't seem to care. One mother stated, "I honestly think that he just doesn't care… "He doesn't want to get checked. He doesn't want to give himself a shot. He's so tired. He doesn't want to do his homework. Would you want to poke your finger every single time you had to eat?" Parents of both children and adolescents stated their offspring expressed a strong desire to know someone with T1DM. The father of an eight year old son described how, when the new baby was hypoglycemic shortly after birth, the child "was so excited, he said, 'He's gonna be diabetic! He's gonna be diabetic!'"

Clinical Implications: T1DM is a life-long condition requiring numerous life-style changes, which can be challenging for children/adolescents and their families. Nurse practitioners caring for children/adolescents with T1DM should acquaint themselves with resources provided by the American Diabetes Association. Numerous resources, found at www.diabetes.org, can address parental challenges and concerns. For instance, *Planet D* found at http://www.diabetes.org/living-with-diabetes/parents-and-kids/?loc=DropDownLWD-forparents teaches specifics about blood glucose monitoring, insulin administration, and meal planning that can assist children/adolescents gain knowledge about T1DM and learn about self-management. *Planet D* also introduces D-People, famous and not famous people with T1DM, provides a Message Board for registered users to connect with each other, and encourage children and adolescents to participate in Diabetes Camp.

Funding: Supported by a grant from Brigham Young University College of Nursing's research committee.

CHILDREN AND ADOLESCENTS WITH DISABILITIES

Adolescent Concussion: Symptom Analysis after Cognitive Challenge

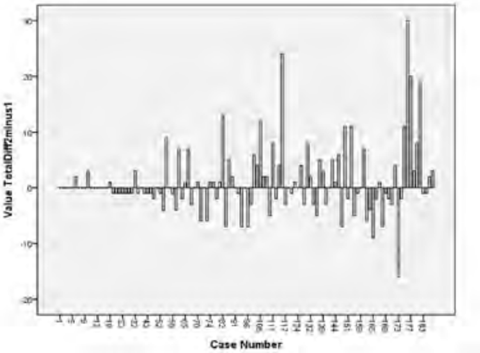
Traci R. Snedden, MS, RN, CPNP
PhD Nursing Student
College of Nursing
University of Colorado – Anschutz Medical Campus
Aurora, CO

Purposes/Aims: The purpose of this analysis was to examine whether the completion of a computer-based neurocognitive test, as a cognitive challenge, would elicit worsening symptoms in adolescents who have sustained a concussion.

Rationale/Conceptual Basis/Background: Current pediatric practice guidelines for return-to-play and return-to-school are a product of an expert panel of the 3rd International Conference on Concussion in Sport (Zurich, 2008). Although not grounded in evidence, more so in concern for the growing pediatric brain, these conservative guidelines emphasize “cognitive rest” as an early intervention in recovery due to the complex pathophysiological and biochemical processes of this mild traumatic brain injury.

Methods: Study Design and Protocol: This exploratory investigation is a secondary data analysis of an established dataset (Lovell, 2012). Individuals who sustained a concussion and agreed to participate in the original study completed computer-based demographics, a pre-symptom analysis, the neurocognitive test (ImPACT®), and concluded with a post-symptom analysis. A random sample contained 120 de-identified predominantly Caucasian (80%) male and females (50% distribution) aged 14-18 years with the majority representing the 8th and 9th grade (60%). Sports most commonly and equally represented in both genders included lacrosse (36.5%) and soccer (18.3%), in addition to softball in females (12.2%). Data Analysis: Descriptive statistics, parametric and non parametric related group analysis were performed. When analyzing pre- and post total symptom score differences, nonparametric procedures (Wilcoxon signed ranks test) were utilized to accommodate the resulting non-normal data.

Results: There was no significant (p>.05) difference between gender in relation to age, days since injury, or number of concussions. However, primary sport did yield statistical significance (p<.05) as males participated in more contact sports. The difference between pre- and post- scores showed no statistical significance at the total symptom score level (p=.068). However, closer examination showed significance (p<.05) in increased individual symptom scores pre- and post-completion of the cognitive challenge, for headache (mean=.158), dizziness (mean=.175), fatigue (mean=.333), and memory (mean=.267). Further examination of the change in total symptom score illustrated clear variability in individual results, showing some participants improved, while others worsened (figure).



Implications: Despite the assumption that the cognitive challenge would elicit worsening symptomatology in all participants, dramatic variability was seen. Details regarding the study limitations, these results, and their application to current “cognitive rest” practice guidelines will be further described.

Acknowledgement: The author wishes to thank Dr. Mark Lovell for access to this data set and Dr. Paula Meek for guidance with this inquiry.

Home
go to PG.

CHILDREN AND ADOLESCENTS WITH DISABILITIES

A Collaborative Approach for Attention Deficit and Hyperactivity Disorder

Hsin-Yi (Jean) Tang,
PhD, ARNP
Associate Professor
College of Nursing
Seattle University
Seattle, WA

Emily Thomas,
MSN, ARNP
College of Nursing
Seattle University
Seattle, WA

Jennifer Martinson,
MSN, ARNP
College of Nursing
Seattle University
Seattle, WA

Purpose: The purpose of the study was to understand the etiology of Attention Deficit and Hyperactivity Disorder (ADD/ADHD) in the view of naturopathic physicians versus nurse practitioners, and the adopted treatment modalities.

Background: ADD/ADHD is a common psychological disorder that affects 2 million children and 9 million adults in the United States. Due to the complexity of the disorder, pharmacological approach alone has not been successful in managing the symptoms. In addition to the conventional medicine, many ADD/ADHD patients seek non-conventional approaches, such as naturopathic medicine, for symptom management. However, there is a lack of literature of naturopathic medicine's philosophy and treatment approaches for ADD/ADHD. In addition, there is no practice guideline for treating adults with ADD/ADHD for conventional medicine providers. This gap poses a challenge for healthcare providers across disciplines to provide effective, safe, and holistic care.

Method: This was a descriptive online survey study. The questionnaire consists of 44 items that takes approximately 30 minutes to complete. Open-ended questions were attached to several items to solicit qualitative information. The questionnaire was based on the conceptual framework of a previous study. The inclusion criteria were naturopathic physicians and nurse practitioners who currently practice, and may see patients with ADD/ADHD in the United States. The secured online survey was distributed to potential participants through 1) the national registry of naturopathic physicians, and 2) email listserv of nurse practitioner professional organizations. Participants were required to review the informed consent statement and agreed to participate prior to entering the survey. The data collection period was eight months during 2011-2012.

Results: 110 practitioners (majority age range 46-65 years old; 91% female; 80% White) and 75 naturopathic physicians (age range 36-45 years old; 69% female; 88% White) completed the survey. The findings indicated that naturopathic physicians' first line approach was nutritional therapy (47%, 51%), followed by life style modification (36%, 36%) for treating both children/adolescents and adults, respectively. Some naturopathic physicians used nutraceuticals (13%) as the first line approach for treating adults but not for children/adolescents. For nurse practitioners, stimulants (31%, 27%) were reported to be the first line treatment modality, followed by lifestyle modification (23%, 26%) for treating children/adolescents and adults, correspondingly. Atypical antidepressant was used by 21% of the nurse practitioner respondents as the first line treatment for adults, but not for treating children/adolescents. The qualitative data revealed that naturopathic physicians did not consider ADD/ADHD as a disorder; rather it is a sign of nutrition imbalance; whereas nurse practitioners' approach reflects the theory of convention medicine that neurotransmitter imbalance is the underline etiology for ADD/ADHD.

Implications: The findings showed that there was a difference in the view of etiology, and yet similarity in treatment approaches between naturopathic physicians and nurse practitioners. The link between nutrition and neurotransmitter imbalance is still to be explored. ADD/ADHD is a complex disorder and promising patient outcomes can only be achieved through a multidisciplinary approach. Future research should investigate the benefits of collaborative care in the treatment of ADD/ADHD.

Home ◀ ▶ go to PG.

CULTURAL STRENGTHS AND RESPONSIVE NURSING CARE

Moderator:
Sharon K. Favazza, MSN, RN
Assistant Professor, PhD Nursing Student
Azusa Pacific University
Azusa, CA

SPIRITUALITY AND CHRONIC ILLNESS: SALUTOGENIC AND ADAPTIVE BEHAVIORS OF BUDDHIST NUNS

Sunny Wijesinghe, Mark Parshall, Shihan Wijesinghe

PREVALENCE OF TYPE 2 DIABETES IN THE ARUMERU DISTRICT OF NORTHERN TANZANIA

Benjamin J. Miller, Lorna Schumann, John Roll,
Cynthia Corbett, Robert Short

ADAPTING THE KOREAN PARENT TRAINING PROGRAM USING FAITH-BASED AND COMMUNITY-BASED PARTICIPATORY RESEARCH

Eunjung Kim, Doris Boutain, Sangho Kim, Jin-Joo Chun, Hyesang Im

IMPACT OF DIABETES SELF-MANAGEMENT EDUCATION ON GLUCOSE LEVELS

Zarmine Naccashian

DEVELOPING A CULTURALLY-TAILORED PRENATAL EDUCATION PROGRAM FOR KOREAN IMMIGRANTS

Kyoung-Eun Lee

Home ◀ ▶ go to PG.

Spirituality and Chronic Illness: Salutogenic and Adaptive Behaviors of Buddhist Nuns

Sunny Wijesinghe, MS, MPH, RN
PhD Candidate, Nursing
University of New Mexico
Albuquerque, NM

Mark Parshall, RN, PhD
Associate Professor, Nursing
University of New Mexico
Albuquerque, NM

Shihan Wijesinghe, BSC
Research Assistant
Middlesex University
London, United Kingdom

This research aimed to explore the role of Buddhist spiritual practice in the lives and health of Sri-Lankan Buddhist nuns living with a chronic illness.

The concept of spirituality has emerged recurrently in research as a "meaning-making process" to cope with illness. There are, however, several unanswered questions with regard to spirituality research; first, opinions on what constitutes spirituality and how this concept relates to or differs from religion vary widely. Second, most of these studies have concentrated on themes related to the Judeo-Christian God. Third, studies that do mention conditioning of human mind as in practices based on the Buddhist psychology such as mindfulness/vipassana, mindfulness-based stress reduction focus only on the aspect of meditation, which too is often extracted from its interrelated Buddhist concepts. Buddhism, as observed in Buddhist countries includes a strong sense of Buddhist community and in addition to meditation, a significant component of rituals and ceremonies. There is a paucity of published research that examines how Buddhist practice, in its entirety, with its ritual and ceremony, influences coping in chronic illness. Moreover, Buddhism covers several sects, and even within the same sect practices vary dependent on each individual socio-cultural environment. Thus, any attempt to study Buddhism's role in chronic illness requires isolating not only a sect, but also a country in which it is practiced. Focus on Sri Lankan Buddhism is important because it is generally believed that the oldest classic form of Theravada Buddhism is still preserved only in Sri Lanka. The choice of the Buddhist nun serves the pragmatic purpose of allowing a female researcher access to conduct interviews in privacy.

In order to ground the findings in the data, this descriptive ethnology followed the iterative, recursive, and systematic linguistic approach of Spradley (1979, 1980). The thirty primary participants, Sri Lankan Buddhist nuns with a chronic illness, were selected through a snow-ball sampling strategy. Twenty secondary informants were identified to shed light on the topic from health-care, lay-Buddhist, and Buddhist-scholar perspective. Participant observation and semi structured interviews were used to explore cultural domains, clarify each domain with taxonomies, and finally to uncover cultural themes. The repeating cultural theme identified the role of Buddhist spiritual practice in nuns' life as "managing responsibilities". Their responsibilities ranged from those to the Buddha, social circle, and toward maintaining the monastery/domicile. The role of spiritual practice in their health was mediated by the priority of their responsibility/ies and the strength of their social links. The two main behaviors identified were "Health-seeking", and "adaptive". Incorporation of the viewpoints of secondary informants' indicated these behaviors to reach beyond Buddhist circles to be able to compare with the existing theories of Salutogenesis (Antonovsky, 1979) and transcendence (Charmaz, 1983).

These findings have implications to nursing practice, education, research and policy in that nurses can be the first contact point to explore, identify, and inform where the chronically ill can find meaning (spiritual or otherwise) as well as social resources. It behooves us as nurses to understand the bigger picture of health and propagate this knowledge.

Home

◀ ▶ go to PG.

Prevalence of Type 2 Diabetes in the AruMeru District of Northern Tanzania

Benjamin J. Miller, PhDc, APRN, Washington State University
Lorna Schumann, PhD, ARNP, Washington State University
John Roll, PhD, Washington State University
Cynthia Corbett, PhD, Washington State University
Robert Short, Washington State University

Purpose/AIMS: This cross sectional observational study identifies the current prevalence rates of type 2 diabetes mellitus (T2DM) in rural Tanzania and identifies risk factors for the development of diabetes for people living in rural communities. The aims are to:

1. Describe the prevalence of T2DM in eight randomly selected rural villages in the AruMeru district of Tanzania.
2. Describe the correlation between demographic and anthropometric data in rural Tanzanians with T2DM.
3. Describe the correlation between lifestyle behaviors and the presence of T2DM in a rural Tanzanian population.

Background: Diabetes in sub-Sahara Africa is expected to increase by 161% in the next 15 years. Considered a disease of developed nations, diabetes is increasing in prevalence in all countries of sub-Sahara Africa. Globalization, urbanization, and adoption of western lifestyles have a significant role in type 2 diabetes. The best estimates suggest the prevalence of diabetes is 4.8% in east Africa. The last reported diabetes epidemiologic study reported in Tanzania was published in the year 2000 estimating the prevalence rate at 1.4%.

Methods: The proposed study is a cross sectional observational design to describe the prevalence rates of diabetes in 7 randomly selected rural villages. Residents age 18 or older will be invited to participate by providing background information regarding socioeconomic status (SES), past medical history, and consumption of tobacco, alcohol, and sweet drinks. Anthropometric measurements will be assessed along with a fasting plasma glucose levels.

Prevalence rates of diabetes and pre-diabetes will be determined using the 2003 WHO guidelines. The chi-square statistics will describe the frequency of diabetes compared to SES, BMI, and WHR. Multi-variant regression will describe the relationship between tobacco, alcohol, sweet beverages use and diabetes / pre-diabetes.

Results: 645 people were selected from 7 rural villages in the AruMeru district of northern Tanzania. The direct prevalence rates for prediabetes and T2DM are 7.6% and 7.8% respectively, 66% of people with diabetes had not been diagnosed previously. Wealth has an increased association with and obesity (chi-square (23.45, df=6, p=0.001) and obesity has an association with T2DM (Chi-square 14.45, df=6, p=0.025); however there is no association between wealth and T2DM. Higher consumption rates of sweet beverages is associated with higher rates of T2DM and there is a linear association between frequency of sweet drink consumption and fasting plasma glucose levels (F=4.46, df=1,643, p=0.035). When controlling for wealth and for BMI, frequency of sweet drinks had a direct interaction in the development of T2DM (F=3.99, df=7, p= <0.005).

Conclusions: Many reports have suggested that diabetes is predominantly an urban health issue in developing countries. This study demonstrates an increase in prevalence in T2DM in rural northern Tanzania, increasing from 1.4% to 7.5% between the years 2000-2012. The increasing rate of obesity is multifactorial but has a significant risk for the development of T2DM. There is a direct relationship between sweet drink consumption and the development of T2DM.

CULTURAL STRENGTHS AND RESPONSIVE NURSING CARE

Adapting the Korean Parent Training Program Using Faith-Based and Community-Based Participatory Research

Eunjung Kim, PhD, ARNP
Associate Professor
University of Washington
Seattle, WA

Doris Boutain, PhD
Associate Professor
University of Washington
Seattle, WA

Sangho Kim, PhD
Pillsbury College & Seminary
Seattle, WA

Jin-Joo Chun, BA
Community Research Associate
University of Washington
Seattle, WA

Hyesang Im
University of Washington
Seattle, WA

Background: To improve the health of ethnic minorities, it's recommended researchers use community-level interventions targeting sociocultural factors because they are cost-effective and can sustainably address disparities. Community-based participatory research (CBPR) is one approach that empowers faith communities and researchers to develop community-level prevention efforts together that will last. As faith communities and researchers partner, they learn and account for the sociocultural factors impacting the health of that community.

Purpose: The purpose of this study was to use a faith-based CBPR method with Korean churches for the purposes of revising a prototype intervention program.

Methods: This study used Delphi Survey, community theatre, and focus groups. The study sample was 18 Community Advisory Board (CAB) members representing 6 partner churches. Each church had 3 levels of representation on the CAB: (1) a parent, (2) a natural leader, and (3) a KPTP trainee. Parents had children between 3 and 8 years of age. Natural leaders were respected individuals in their church who were interested in parent training. KPTP trainees were individuals who had expressed an interest in leading a future KPTP program.

Results: CAB members wanted to add Christian content to the program to increase its relevancy to KA families. Specifically, the CAB wanted to: ground the role of parenting within a Christian context; have participants create a genogram; have participants write a letter of forgiveness/thanks to their mother and father, separately; have participants develop new family traditions; and use two new prayers (the Serenity and 4 R prayer) to provide inspirational support to participants. Input from CAB members also led to changes in the standardized tools utilized in the prototype KPTP curriculum. The new program emphasizes healthy stewardship parenting, combines effective direction with sticker charts, and turned emotion coaching from 5 into 4 steps. The use of family meetings as a family management tool was replaced with the development of daily routines.

Implications: Revisions made KPTP more sensitive to Korean culture and faith, and promoted program acceptability. The findings indicate the importance of working with a CAB to learn and use faith-based and community sensitive health promotion interventions targeting minority communities.

Funding: This paper was supported by NIH NIMHD R21 MD005932 given to the first author.

Home

go to PG.

Impact of Diabetes Self-Management Education on Glucose Levels

Zarmine Naccashian, PhD, MN, GNP, RN, CDE
zarmine.naccashian@csun.edu

Objective: (1) To measure the impact of diabetes self-management education (DSME) classes taught in Armenian by a registered nurse/certified diabetes educator (CDE) of Armenian descent on HbA1c (A1c) levels in ethnic Armenians. (2) To empower the participants through the DSME to implement self-management strategies to control the disease. (3) To study the psychometric properties of the Armenian translation of the Diabetes Empowerment Scale (DES) and the revised version of the Armenian Ethnic Orientation Questionnaire (AEOQ-R).

Background: No research has been done on the impact of DSME classes delivered in native language on improving disease outcome in ethnic Armenians.

Methodology: Nine hours of DSME classes were offered to clients at Daylight Adult Health Day Care centers in Glendale and Los Angeles over a 6-week period. The attendees of these two centers are mostly first generation immigrants of Armenian descent who are age 65 years and older. The classes were offered in Armenian language by a CDE of Armenian descent.

The impact of DSME on A1c levels and perception of empowerment in ethnic Armenians was studied. The impact of acculturation, age, gender, and number of years of diabetes was explored. The sample was homogeneous with respect to ethnicity, age group, and health insurance. The subjects were obtained by convenience sampling. The researcher performed a quasi experimental before and after one group design to assess the impact of education on A1c levels and 8-item DES scores.

Findings: 75 participants completed the study. A paired t-test was used to compare the difference in A1c and DES scores. Analysis of variance (ANOVA) was used to test the mediating effect of acculturation on both A1c and DES. Seventy-five participants completed the study. The results of the paired sample t-test indicated that the mean of the post-A1c ($M = 6.86$, SD = 1.03) was significantly lower than the pre-A1c levels ($M = 7.19$, SD = 1.25, $t(74) = 2.415$, $p < .05$. The mean of the post-DES ($M = 4.36$, $SD = 0.52$) was significantly greater than the mean of pre-DES ($M = 4.05$, SD = 0.55), $t(74) = -4.225$, $p < .05$.

Conclusion: The findings demonstrated the efficacy of the educational program in improving diabetes self-care management skills.

Developing a Culturally-Tailored Prenatal Education Program for Korean Immigrants

Kyoung-Eun Lee, PhD, RN, WHCNP
College of Nursing, Texas Woman's University
Dallas, TX

Aim: The purpose of this study was to describe the process of developing a culturally-tailored prenatal education program (CPEP) for childbearing Korean immigrant couples in the U.S.

Background: Experiencing childbirth can be intensively challenging and stressful for immigrants largely due to differences in health beliefs, health care system, and socio-cultural context. Increasing body of literature has been showing the effectiveness of culturally tailored intervention programs on promoting immigrant population's health by providing more culturally congruent health care. Korean-born immigrants are the 4th largest Asian immigrant population in the U.S. Despite the rapidly increasing Korean population as health care clients in the U.S., research on their childbirth experience in the U.S. and interventions to improve maternal-child health outcomes has been seriously lacking.

The contents of childbirth education classes have been traditionally determined solely by health care professionals. However, childbearing parents have their own expectations and educational needs that play an important role in their childbirth experience. The findings in the researcher's recent study on Korean immigrant couple's perinatal health needs showed that they had multi-dimensional socio-culturally specific health needs while they experienced childbirth in the U.S. Those needs included difficulties in communication with U.S. health care providers and obtaining health information, frustration from different expectations, misunderstanding U.S. health delivery system, health literacy, and desire for Korean origin health care providers. The study revealed that Korean immigrants experienced health disparities with limited access to health care inform while they experienced childbirth in the U.S. Therefore, the study suggested that the gap of health disparities experienced by Korean immigrant couples would be reduced by developing a Culturally Tailored Prenatal Education Program (CPEP) targeting childbearing Korean immigrants.

Methods: Resnicow et al.'s two dimensions that need to be considered in the development of culturally tailored interventions for ethnic minority populations provided a theoretical framework for this study. Three steps were taken to develop a CPEP targeting childbearing Korean immigrants. First, literature on the existing prenatal education class and the immigrants' perinatal health education needs during childbirth period, focusing Korean immigrants, were evaluated. Second, Korean immigrant couples' perinatal health information and education needs were directly assessed by two small focus group interviews with six Korean childbearing immigrant couples in each group, recruited from a local Korean community in North Texas area. Lastly, the ordinary prenatal education program was culturally tailored in its contents, settings, and delivery methods.

Results: The contents of the developed CPEP targeting Korean childbearing immigrant couples included education on the commonly used perinatal English vocabularies and information on the differences in health culture, health delivery system, health insurance system, and postpartum health practices. The settings for the CPCP need to be a community-based local facility with easy access and available childcare support. The CPEP should be delivered in small group size allowing an interactive and actively engaging education by Korean immigrant health care provider who is bilingual and familiar with both host and home country's perinatal health culture and care delivery system.

Conclusion/Implication: A CPEP targeting Korean immigrant childbearing couples was developed by translating the existing evidence on prenatal education and health needs of immigrant populations and directly assessing the target population's perinatal education needs. Further research is required to evaluate the impact of the developed CPEP on improving the targeted population's perinatal knowledge and health outcomes. This study would provide a theoretical framework to guide the development of a CPEP targeting a specific cultural group of childbearing immigrant population with specific step by step description of the process.

Home ◀ ▶ go to PG.

EDUCATIONAL ISSUES

Moderator:
Susan Matt, PhD, JD, MN, RN
Assistant Professor
Seattle University
Seattle, WA

SIMULATION TO FILL THE GAPS IN PRELICENSURE CLINICAL EDUCATION TARGETING

Susan Pauly-O'Neill

PRELICENSURE PAIN MANAGEMENT COMPETENCIES

Jennifer M. Mongoven, Heather M. Young, Debra Bakerjian, Scott Fishman

---

FRIENDLY OR (UN)FRIENDLY: CLASSROOM CONNECTIVITY USING FACEBOOK

Patricia Frohock Hanes

USE OF A BLENDED-LEARNING FLIPPED-FORMAT DESIGN TO TEACH PATHOPHYSIOLOGY

Carrie J. Merkle, Shu-Fen Wung, Sharon Hom

DEBRIEFING SIMULATION IN NURSING EDUCATION: COMPARISON OF TWO DEBRIEFING TYPES

Shelly J. Reed

Home ◀ ▶ go to PG.

Simulation to Fill the Gaps in Prelicensure Clinical Education Targeting

Susan Pauly-O'Neill, RN, PNP-BC, DNP
Assistant Professor and Chair of Undergraduate Nursing
School of Nursing and Health Professions, University of San Francisco
San Francisco, CA
paulyoneil@usfca.edu

Purpose/Aims: In order to develop the most effective and efficient combination of clinical hours and simulation within a clinical course, it is important to identify the experiences that are actually available to prelicensure students during their rotations. Are students exposed to all 6 QSEN competencies and are they able to participate in critical situations? Using direct observation and survey collection, we identified gaps and built simulations that supplement the missing experiences.

Rationale/Background: Pediatric clinical rotations are becoming increasingly difficult to secure, with even fewer opportunities for students to master assessment and procedural skill with acutely ill patients. New graduates are expected to be competent in recognizing deteriorating patient condition, yet as students they may not have had those experiences during their assigned clinical hours. They are also expected to be proficient in the 6 QSEN competencies, yet opportunities to practice all of them in the clinical area are often limited as well.

Description of Best Practice: Survey collection and direct observation of students in both the clinical area and in the simulation lab were directed at:

- time-on-task in QSEN activities[1]
- participation during episodes of deteriorating patient condition[2]

Through these data collections, gaps in clinical experiences were identified and simulation was revised to better augment the rotation. Scenarios were enhanced to include acute patient status changes and rapid recognition and response expectations because students were not exposed to them during their acute care rotation. For example, a well-baby scenario was replaced by anaphylaxis; stable asthma was revised to include asthma refractory to bronchodilators; and pyelonephritis was replaced with hemolytic uremic syndrome with critical lab values. Additionally, the QSEN competencies were woven throughout the 7 cases ensuring that all 6 areas were covered.

Outcomes: Although students were placed at a variety of large, busy, tertiary care facilities, the survey results indicated that they had essentially no experience with acute changes in patient status while on these pediatric inpatient units. Direct observation revealed a lack of opportunity to practice 3 of the QSEN competencies (evidence-based practice, quality improvement, informatics). The new simulation scenarios directly and specifically address those gaps.

Conclusions: Simulation as a supplement to authentic patient care is an effective instructional strategy. Questions remain, however, regarding which patient events should be simulated. Best practice includes assessing the clinical landscape and developing simulations that enhance the actual patient care experience.

References:

[1] Pauly-O'Neill, S., Prion, S., & Lambton, J. (2012) How often do BSN students participate in pediatric critical events during simulation and hospital rotations? *Clinical Simulation in Nursing*. In press.

[2] Pauly-O'Neill, S., Prion, S., & Nguyen, H. "Comparison of student QSEN experiences during pediatric clinical and simulation rotations" submitted to *Journal of Nursing Education*.

Home ◀ ▶ go to PG.

Prelicensure Pain Management Competencies

Jennifer M. Mongoven, MPH
Program Manager
Betty Irene Moore School of Nursing
UC Davis Health System
Sacramento, CA

Heather M. Young, PhD, RN, FAAN
Associate Vice Chancellor for Nursing and Dean
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Debra Bakerjian, PhD, FNP, RN
Assistant Adjunct Professor
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Scott Fishman, MD
Professor of Anesthesiology and Pain Medicine
Chief, Division of Pain Medicine
UC Davis School of Medicine
Sacramento, CA

Purpose: The purpose of this project was to develop core competencies in pain management for prelicensure clinical education that can serve as a framework in the development of comprehensive and effective pain care management curricula.

Background: Pain is a complex health issue that can impact multiple facets of an individual's life. Chronic pain affects over 100 million U.S. adults, resulting in an estimated economic cost of approximately $600 billion annually. While there is ample evidence supporting effective pain management, many health care professionals lack the knowledge necessary to adequately assess and treat pain. There is momentum within the nursing community to strengthen pain care; however, there is no agreement on the basic core competencies each beginning nurse should possess to effectively manage pain. Nursing is not unique in this regard. Health professional curricula are generally inadequate in addressing pain management competencies that ensure basic skills, knowledge and values necessary for optimal care. This project sought to address this gap.

Methods: An interprofessional Executive Committee (EC), comprised of internationally recognized experts in education science and pain management, convened to lead a consensus-building process for developing pain management competencies. The EC reviewed the literature to synthesize existing pain management competencies and curricula across professions. Through an iterative process, the EC drafted competencies and engaged a 23-person interprofessional Competency Advisory Committee (CAC) to critique. A facilitated two-day summit that consisted of both large and small group discussions was held so that consensus could be reached between groups.

Outcomes: The interprofessional consensus derived pain management core competencies were categorized within four domains: multidimensional nature of pain, pain assessment and measurement; management of pain, and context of pain management. The competencies address the fundamental concepts and complexity of pain; how pain is observed; collaborative approaches to treatment options; and application of competencies in the context of various settings, populations and care teams. A set of core values and guiding principles that are embedded within each domain was also identified.

Conclusion: These prelicensure competencies developed through an interprofessional consensus process can serve as a foundation for developing, defining, and revising nursing and other health professional curricula, as well as a resource in the creation of interprofessional training activities designed to advance a culture of team-based care that effectively responds to pain and suffering.

Funding: This project was funded by the Mayday Fund (no grant number).

Home

go to PG.

Friendly or (Un)Friendly: Classroom Connectivity Using Facebook

Patricia Frohock Hanes, PhD, MSN, MAED, RN, CNE
Associate Professor
School of Nursing
Azusa Pacific University
Azusa, CA

Purpose: To describe the repurposing of Facebook as a progressive, collaborative learning management system (LMS) in graduate and undergraduate classes in a school of nursing.

Background/Rationale: Current learning management systems being used by the university were inefficient, unreliable, and difficult to use. They were ineffective to communicate with multiple class sections and unresponsive to students' need for feedback. Other electronic communications strategies (email, Google Groups) were cumbersome. Students were dissatisfied with their inability to rapidly communicate with each other and with the professor. Facebook was chosen as the LMS because it was scalable and students were most comfortable with it. Secondary functions and security systems allowed Facebook to be repurposed as a class tool. Conceptual frameworks: diffusion of innovations theory, social learning theory, and change theories.

Methods: A class poll revealed that students preferred using Facebook over other methods of communication; all students had smart phones and were accustomed to using social media. Students assisted the instructor to develop a class Facebook page, construct a private class group, and to populate the site with "friends" (e.g., class members). Students needed no direction on how to use Facebook but were instructed that they could use their current page or could develop a new one for privacy. The instructor did not give students access to her private Facebook page and informed students of the reasons for not doing so. File sharing and security functions were customized. Students enthusiastically posted pictures of themselves and the professor on the site. Assessments were conducted through informal surveys and student interviews.

Outcomes Achieved: Five minutes after site construction, students were posting questions and answers; within 10 minutes, 36/45 students in two class sections had already been "friended". Students were immediately sharing resources between sections. Initially, 95% of undergraduates had existing Facebook pages and 44/45 students chose to use those pages; 100% reported increased satisfaction and better understanding of class material with the new LMS. Graduate students were slower to access the technology as 66% had an existing Facebook site but were able to share information and conduct discussions within one class session. All reported that the site was interesting and effective as a classroom tool. All students could view the main page; individual class pages were private.

Conclusions/Implications: Students and faculty need LMS that are nimble and efficient. Facebook allows for rapid, collaborative communication between class sections and class levels, allowing undergraduate and graduate students to work with each other. Faculty and students can communicate immediately outside of class and keep records of their exchanges. Use of social media allows faculty to achieve differential instruction in a way not feasible with older technology such as websites and email and is a best practice.

Home ◀ ▶ go to PG.

EDUCATIONAL ISSUES

Use of a Blended-Learning Flipped-Format Design to Teach Pathophysiology

Carrie J. Merkle, PhD, RN, FAAN
Associate Professor, College of Nursing
The University of Arizona
Tucson, AZ

Shu-Fen Wung, PhD, ACNP, FAHA, FAAN
Associate Professor, College of Nursing
The University of Arizona
Tucson, AZ

Sharon Hom, PhD, RN
Clinical Instructor, College of Nursing
The University of Arizona
Tucson, AZ

Purpose: The purpose of this abstract is to describe the use of a blended-learning flipped-format design to replace traditional face-to-face teaching of pathophysiology.
Background: For over two decades, the 3 unit undergraduate pathophysiology course has been offered to our nursing students as 75 minute face-to-face lectures twice per week for 15 weeks. Lectures consisted of podium slide presentations with the instructor in front of the classroom reviewing pathophysiological concepts. With constraints posed by clinical slot competition, the only available time for the pathophysiology class in the Fall 2012 was a 165 minute block late Friday afternoons, which was a suboptimal time for engaging students in complex concepts. Consultation with John J. Doherty, PhD at the Northern Arizona University e-Learning Center led to piloting of a blended-learning flipped-format design in order to maintain student engagement and facilitate optimal learning. Blended learning is "the thoughtful fusion of face-to-face and online learning experiences" with the underlying principle that the strengths from each format can be optimally integrated to develop a "unique learning experience congruent with the context and intended educational purpose" (Garrison, 2008). The concept of a "flipped" format means that activities traditionally performed in the classroom occur at home, while activities traditionally done as homework occur during class time (Bergmann, 2012).
Description: A 6 minute video was developed and posted online to describe the new format, rationale for this undertaking, expectations and student responsibilities, and grading. Within the online D2L platform, weekly content is posted as modules with objectives, PowerPoint slides, videos, websites, and text chapters as resources. Students are instructed to study materials and take graded quizzes consisting of 3 items randomly selected from banks of 13 to 15 items prior to face-to-face meetings on Fridays. Based on weekly quiz performance, the instructor provides 45 to 75 minutes of informal, yet highly in depth, presentations covering concepts that more than 10% of the students miss on the quizzes. During the presentation, student understanding of difficult "muddied" content is reevaluated using clicker response technology. During the remaining 75 minutes of class time, students work in small groups on discussion-based clinical scenario assignments to apply pathophysiological concepts to hospital- and clinic-based scenarios. Every 4 weeks, 75 minute exams consisting of 50-item multiple-choice questions are administered in class.
Outcomes: Mean exam scores from the blended-learning flipped-format (84%) are similar to those of the previous 3 semesters with traditional teaching (range 81.9 % to 84.8%). The mean online quiz scores range from 85.5 to 94.5%. Attendance of the face-to-face sessions on Friday afternoons is high, as only 4 unexcused absences have occurred.
Conclusions: A blended-learning flipped-format design provides opportunities to incorporate applied learning experiences and in depth explanation of difficult concepts, while easy-to-grasp concepts are learned at home. As evidenced by exam performance and attendance, the new design appears to be as effective as traditional teaching.

References: Bergmann, J., and Sams, A. (2012). *Flip Your Classroom* International Society for Education; Garrison, D.R., and Vaughan, N.D. (2008). *Blended Learning in Higher Education* Jossey-Bass.

Home ◀ ▶ go to PG.

Debriefing Simulation in Nursing Education: Comparison of Two Debriefing Types

Shelly J. Reed, DNP, APRN
Associate Teaching Professor
Brigham Young University College of Nursing
Provo, UT

Purpose: The purpose of the comparative descriptive study was to compare nursing student experiences between two different debriefing types: discussion-only debriefing versus debriefing discussing a videotaped simulation scenario.

Rationale: The use of simulation in nursing education has expanded greatly over the past decade. Debriefing, the reflective period after a simulation, generally involves discussion of the enacted scenario. Learning generally results from the reflection that occurs during debriefing. However, little research exists examining the best way to debrief to enhance nursing student learning. This study contributes additional knowledge concerning two debriefing types; discussion-only debriefing and debriefing discussing a videotaped simulation scenario performance, comparing student experiences with each.

Methods: IRB approval was obtained from Brigham Young University for the study. Following enactment of four intensive-care simulation scenarios, students were randomized as student groups to two types of debriefing: discussion-only and discussion of a videotaped simulation performance. At the completion of the debriefing session, students were invited to participate in the research study. Informed consent was obtained, and students agreeing to participate in the study (64/64) filled out the Debriefing Experience Scale (DES). Statistical analysis using IBM SPSS version 19.0 in the form of an independent sample t-test was performed on the 20 item scale. Demographic data was analyzed using SPSS frequency tables.

Results: Students identified learning occurred with both debriefing types. No significant differences between the two debriefing types were found on 17 out of 20 items of the DES. Statistically significant higher scores were found in debriefing discussing a videotaped performance over discussion-alone debriefing in two items; one related to student learning, and the other related to the debriefing facilitator. In contrast, statistically significant higher scores were found with discussion-only debriefing over debriefing discussing a videotaped performance with one item concerning the session facilitator. In addition, although not statistically significant, there was a difference in a learning category item; higher for discussion-alone debriefing than debriefing discussing a videotaped simulation performance.

Implications: The results of this study show students identify learning as part of their debriefing experience with both discussion-only and debriefing discussing a videotaped simulation performance. Neither of the two debriefing types were identified by students as providing a superior debriefing experience. While this study justifies debriefing is an important part of the simulation learning experience, more research is needed to identify which type of debriefing best contributes to student learning.

EXPLORING MENTAL HEALTH TOPICS

Moderator:
LisaMarie Turk, MSN, RN
Research Assistant/PhD Student
University of New Mexico
Albuquerque, NM

EXPLORING THE PHENOMENON OF SELF-MUTILATION AMONG ADULT MALES IN A CORRECTIONAL SETTING: A QUANTITATIVE AND QUALITATIVE INQUIRY

Yolanda M. Morales

ADHERENCE TO PHYSICAL ACTIVITY IN ADULTS WITH SERIOUS MENTAL ILLNESS

Heeyoung Lee, Irene Kane

MOTIVATIONAL INTERVIEWING TO REDUCE MENTALLY ILL ADULTS' RISKY SEXUAL BEHAVIORS

Katharine M. Frissora, Angela Chia-Chen Chen

FAMILY NURSING IN MENTAL HEALTH WITH FAMILY AS THE UNIT OF ANALYSIS

Karen G. Schepp, Heeyoung Lee

EXPLORING MENTAL HEALTH TOPICS

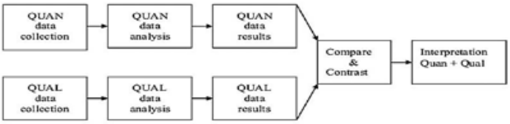
Exploring the Phenomenon of Self-Mutilation among Adult Males in a Correctional Setting: A Quantitative and Qualitative Inquiry

Yolanda M. Morales, PhD, PMHCNS, BC
University of New Mexico Hospital Psychiatric Center
Albuquerque, NM

Purpose: The overall aim of this mixed method inquiry was to increase understanding of self-mutilation by adult males in a correctional setting. This study explored the self-mutilating attributes such as type, and motivational factors, to identify factors associated with self-mutilation among adult males in a correctional setting.

Rationale/Background: Self-mutilation has classically been associated with adolescents and females, however, behind the walls of many correctional institutions, adult males are engaging in self-mutilating (SM) behavior. SM among adult males can be brutally disfiguring, physically debilitating, emotionally exhausting, or result in death. SM by this population can have serious health consequences, impact the safety of the institution, and also have fiscal consequences. While this remains a serious *forensic* issue, there is a paucity of research concerning the types and extent SM behaviors and the motivating factors linked with these behaviors in men.

Methods: Design: A *mixed method triangulation design* (figure) was chosen for this study because it provides more comprehensive evidence for studying a research problem that can- Clark, 2007). This approach used both quantitative and qualitative methods, targeting different but complementary data that can effectively explore, understand, and capture the phenomenon of self-mutilation among this populations of adult males who are incarcerated. Approach: The initial phase of the study was quantitative using 2 instruments: the Deliberate Self-Harm Inventory (DSHI) that measures 16 different types and frequency, and the Self-Injury Motivational Scale (SIMS) that measures 6 different motivational factors. Both questionnaires were investigator administered. The second phase used a visual ethnographic approach that integrated a photo-elicitation technique. During the next phase the quantitative and qualitative analysis was carried out separately with the results triangulated (figure). Sample: Forty two males age 20 to 50 years, participated in both phases of the investigation. The sample was Ethnically 40% Hispanic with Race 76% white.



Results: Fifteen of the 16 forms of self-mutilation were endorsed by at least one of the participants. Using the DSHI, the most predominate type of SM reported was cutting, followed by head banging and sticking self with sharp objects. This quantitative finding was also supported by the ethnographic interviews. Thirty-nine of the 42 participants required medical attention or hospitalization due to self-mutilation behaviors. Thirty nine (93%) reported engaging in "cutting" in a combined sample total (lifetime events) of 2,746 times with one individual reporting having cut over 700 times in his life time. Motivational factors associated with "cutting" were predominately *mood dysregulation*, *communication* and *addictive* quality. With the merged data, the motivational factor identified as a key impetus for SM behaviors was mood modulation.

Conclusions: Cutting, the most common SM behavior in this sample, was motivated by the individual's attempt to modulate his mood. Self-mutilating behaviors produce significant changes, not only to the physical exterior of the body but to the entire individual's mood and demeanor. Self-mutilation is not just a female malady, nor does it occur only in adolescents, but a disfiguring and life threatening behavior among adult males as well.

Photo 1. Participant who reported over 300 cuts on his arms bilaterally with an additional 400 over the rest of his body.

Adherence to Physical Activity in Adults with Serious Mental Illness

Heeyoung Lee, PhD, PMHNP-BC
Assistant Professor
University of Pittsburgh
School of Nursing
Pittsburgh, PA

Irene Kane, PhD, RN, CNAA, HFS
Assistant Professor
University of Pittsburgh
School of Nursing
Pittsburgh, PA

Purpose: The purpose of this pilot study was to examine the effectiveness of a pedometer-based walking program to achieve and maintain Physical Activity (PA) and to explore PA association with clinical outcomes (stress, BMI, blood pressure, waist circumference, fasting glucose, and fasting lipid profiles) in adults with Serious Mental Illnesses (SMI).

Background: Established evidence of the role of Physical Activity (PA) as an important contributor to improved mental and physical health in various populations indicates that regular PA is a legitimate adjunctive intervention to prescribe for adults with SMI diagnosis. However, adults individuals with SMI tend to be physically inactive compared to the general population because of multiple factors (e.g. side effects of medication, lifestyles) and they are frequently excluded from controlled PA studies.

Methods: The study design was a randomized experimental design employing repeated measures. Adults between the ages of 18 and 60 years were recruited from a local outpatient mental health clinic. Subjects in the treatment group received a pedometer (Yamax Digiwalker CW-701), a step log for self monitoring, and PA walking instructions for 8 weeks which included telephone calls (approximately 10-15 minutes involving behavioral counseling, goal setting, and feedback on goal achievement.). Subjects in usual care received written information regarding PA with instructions to maintain their normal activity habits throughout the study period. Data were collected at baseline and 12 weeks. Descriptive statistics were used to analyze data.

Results: Twenty two subjects were recruited. The mean age was 44.09 years (SD=7.6) and 14 (64%) were African American; 54.5% were male (n=12) and 45.5% were female (n=10). Twelve subjects were assigned to the pedometer-based exercise treatment group and 10 subjects were assigned to a control group. Seven treatment group subjects achieved and maintained the walking PA prescription, while one subject exhibited low PA walking (< 30min) over 12 weeks. Four treatment group subjects dropped out at intervention outset. Treatment group exhibited significantly increased walking activity between baseline and 12weeks (Z=-2.37, P=0.02) while control group did not (Z=-1.61, P=0.11). However, no statistically significant changes in clinical outcomes were observed (Ps>.05).

Implications: This pilot study provided fundamental information for the positive feasibility and preliminary effectiveness of prescription of PA for adherence in adults with SMI. However, the dose of walking in this study was not enough to cause measurable health benefits (e.g., changes in BMI, Lipid panel). A more strenuous PA prescription accompanied with nutritional counseling should be considered in future studies to obtain significant health benefits.

Funding: University of Pittsburgh, Central Research Development Fund (CRDF).

Home

◀ ▶ go to PG.

Motivational Interviewing to Reduce Mentally Ill Adults' Risky Sexual Behaviors

Katharine M. Frissora, BSN, RN
DNP student
Arizona State University
College of Nursing & Health Innovation
Phoenix, AZ
kfrissor@asu.edu

Angela Chia-Chen Chen, PhD, RN, PMHNP-BC
Associate Professor
Arizona State University
College of Nursing & Health Innovation
Phoenix, AZ
angela.ccchen@asu.edu

Purpose: The purpose of this review was to synthesize existing research of Motivational Interviewing (MI) and its effect on reducing risky sexual behaviors among adults with mental illnesses and/or substance abuse disorders.

Background: A high percentage of adults with mental illness engage in risky sexual behavior. Unplanned pregnancies and sexually transmitted infections disproportionately affect these adults compared with the general population. MI is an evidence-based practice shown to be effective in decreasing risky sexual behaviors (e.g., having sex without a condom, having sex with multiple partners whose sexual history is unknown, and/or having sex without using contraception when there is no intention of becoming pregnant) among adults with mental illness.

Method: A comprehensive literature review was conducted utilizing the Cochrane Library, PsychINFO, Pubmed, and Cummulative Index to Nursing and Allied Health Literature (CINAHL). Keywords and phrases applied to the database searches were risky sexual behavior, motivational interviewing, mentally ill, substance abuse, and contraception. Only studies published in English after 2005 were considered for inclusion, with one exception: a landmark publication in 2004. Inclusion criteria were (a) indicated the use of MI, (b) included a comparison group, (c) had risky sexual behavior as an outcome variable, and (d) targeted adults with mental illness and/or substance abuse disorders. Eight randomized controlled trials and one literature review that met all inclusion criteria were selected for this synthesis.

Results: Six of the nine studies reported that MI was an effective therapy to reduce risky sexual behaviors among adults with mental illness; three studies suggested that MI was effective in reducing risky sexual behavior among adults with substance abuse disorders.

Implications: MI has showed promising effects in reducing risky sexual behavior in this population. To promote sexual health among these adults, mental health care providers can use MI as part of the treatment. Clinical practices and future research should also assess sexually transmitted infections and unplanned pregnancies in addition to risky sexual behavior to understand the effects of MI on reducing these undesired health outcomes among adults with mental illness and/or substance abuse disorders.

EXPLORING MENTAL HEALTH TOPICS

Family Nursing in Mental Health with Family as the Unit of Analysis

Karen G. Schepp, PhD, RN, PMHCNS-BC, FAAN
Associate Professor/Interim Chair for Psychosocial & Community Health
University of Washington
Seattle, WA

Heeyoung Lee, PhD, RN, PMHNP-BC
Assistant Professor
University of Pittsburgh
School of Nursing
Pittsburgh, PA

Purpose: The purpose of this paper is to present the results of a study where family was the unit of analysis. The purpose of the study was to improve the level of functioning of the family as a whole.

Background: Family systems theory maintains the importance of balance and equilibrium in families. When a crisis strikes, the balance within the family often shifts and the automatic reaction is to right the wrong in order to maintain the normal level of functioning. When a family member is ill , efforts shift to regain balance within the family system. Ideally, families will come through this crisis functioning at a higher level than before the crisis and therefore, able to provide a more therapeutic environment in the home.

Methods: This study was a two-group randomized clinical trial with 40 families with an adolescent aged 15 to 19 with severe mental illness. The treatment was a symptom management program for the families. The subjects were the 40 families. The unit of analysis was the family rather than the individual. The families were comprised of the mentally ill youth, siblings, parents, and extended family members. Of the 40 families, 24 were in the treatment group and 16 in the control group. The treatment consisted of 12 2-hour sessions with 6 intense weekly sessions followed by 6 monthly booster sessions. Data were collected at 4 points in time . Family functioning measures including the Family Apgar and the Family Adaptability & Cohesion Scale II (FACES II). Cronbach's alphas were > 70 for both scales. Data from the measures were aggregated for each family and a total family mean score and standard deviation were computed. Analysis included t-tests between T 1 and 14 months later for T 4.

Results: There was a significant difference for aggregated family data for all 40 families from T1 to T4 for the FACES II but not the APGAR. Significant differences were noted across time on FACES II data with mean aggregated data for a) teens, parents, and siblings(n=107) for T1 mean =92.8 (SD=15.9) to T4 mean =97.4(SD=16.8); t-test=-1.95 (p=.06); and for b) teen, parent, sibling, other adult family members n=136); T1 mean=93.7 (SD=15.6) to T4 mean =93.7 (SD=16.1); t-test =-1.98 (p=.06); and for c) teen and sibling (n=67), TI=90.95 (SD=16.7) to T4 =99.3(SD=18.1)=t-test=-.2.8 (p=.01). Although there was no significant difference between treatment and control groups , the aggregated family data did show families improved in their level of functioning over time.

Implications: Data collection at each time point may have provided an intervention to all families which could account for why there was no significant difference between treatment and control groups but a significant difference for all families over the 14 months time. In considering the pros and cons of individual versus family scores, the findings suggest aggregated data may outperform the individual scores. Family Apgar was shown to be an indicator for individuals' perception of their family and FACES II was an indicator for family as a whole.

Funding: NIMH R01-MH56580.

Home

go to PG.

IDENTIFYING HEALTH RISKS AMONG ASIAN POPULATIONS

Moderator:
James E. Kohl, DNP, APRN
Critical Care, Assistant Teaching Professor
Brigham Young University
Provo, UT

IDENTIFYING CHINESE AT HIGH RISK FOR ANTIHYPERTENSIVE MEDICATION NON-ADHERENCE

Wen-Wen Li, Erika S. Froelicher

EVER SCREENED VS. NEVER SCREENED CHINESE IMMIGRANT WOMEN

Frances Lee-Lin, Thuan Nguyen, Nisreen Pedhiwala, Usha Menon

PARENTAL, PEER, AND MEDIA INFLUENCES ON TAIWANESE TEENS' INTENDED SEXUAL BEHAVIOR

Angela Chia-Chen Chen, Marguerita Lightfoot,
Shu-Min Chan, Pamela Wadsworth

SELF-CARE SELF-EFFICACY OF CHINESE CANCER PATIENTS

Fang-yu Chou

IDENTIFYING HEALTH RISKS AMONG ASIAN POPULATIONS

Identifying Chinese at High Risk for Antihypertensive Medication Non-Adherence

Wen-Wen Li, RN, MS, PhD
Assistant Professor
School of Nursing
San Francisco State University
San Francisco, CA

Erika S. Froelicher, RN, PhD, FAAN
Professor Emeritus
Schools of Nursing and Medicine
University of California, San Francisco
San Francisco, CA

Purpose: To establish a stratification, using cultural predictors, for identifying Chinese immigrants at high risk for non-adherence to antihypertensive medications.

Background: Limited studies were done on establishing a stratification for identifying Chinese immigrants who are at risk for non-adherence.

Methods: A cross-sectional design was used. Questionnaires on cultural factors and medication adherence were self-administered to 200 Chinese immigrants in San Francisco Bay Area. Medication adherence was defined as ≥80% of the highest score of the modified Morisky et al.'s scale. SPost (STATA 11.0) was used to analyze probability of non-adherence.

Results: Participants' mean age was 70.6 (±10.3) years. Majority were married (70.0%). Half had less than a high school education (50.0%). Half had blood pressure (BP) control (51%) and 74.5% were adherent to antihypertensive medications. Three out of eight cultural factors were significant predictors for non-adherence: Lower Perceived Susceptibility in General (PSG) (OR= 4.57, 95% CI:1.79, 11.71); lower Perceived Benefit of Western Medication (PBWM) (OR=3.16, 95% CI:1.30, 7.70), and longer Length of Stay (LOS) in the US (OR=2.49, 95% CI:1.19, 5.19). The probability of non-adherence was 77.3%, 61.8% and 57.3% for lower PSG, longer LOS and lower PBWM, respectively. A combination of lower PSG and longer LOS predicted 83.7% of non-adherence and lower PSG with lower PBWM predicted 81.0%. All three risk factors combined predicted 86.5%.

Conclusions and Implications: Three cultural factors were associated with non-adherence: Lower PSG, lower PBWM and longer LOS. Patients with all three risk factors had the highest risk (nearly 90%) for non-adherence. The 2nd risk groups were patients with lower PSG and those with lower PSG combined with any of other two risk factors (≥80%). With the limited budgetary plans in most health care settings, establishing a stratification for identifying patients at high risk for non-adherence is an essential and critical step to help nurses target the high-risk Chinese immigrants to improve the effectiveness of health education and nursing intervention in optimizing blood pressure control.

Funding: John A Hartford Claire M. Fagin Fellowship; Sigma Theta Tau Alpha Chapter, University of California, San Francisco; and Sigma Theta Tau International Small Grant.

Home ◀ ▶ go to PG.

Ever Screened vs. Never Screened Chinese Immigrant Women

Frances Lee-Lin, RN, PhD, OCN, CNS
Associate Professor, School of Nursing
Oregon Health & Science University (OHSU)
Portland, OR

Thuan Nguyen, PhD
Assistant Professor
School of Public Health
OHSU
Portland, OR

Nisreen Pedhiwala, MS
Research Associate
School of Nursing
OHSU
Portland, OR

Usha Menon, PhD, RN, FAAN
Vice Dean and Professor
College of Nursing
Ohio State University
Columbus, OH

Purposes/Aims: We tested a randomized controlled study guided by the efficacy of a theory-based culturally-responsive breast cancer screening education program in increasing mammogram screening among Chinese American (CA) immigrant women. This report is on the differences between women who had never been screened versus those who have been screened, in demographics, cultural and health beliefs, and intervention effect.

Rationale/Conceptual Basis/Background: The Asian American Pacific Islander (AAPI) population is the fastest-growing racial/ethnic population in the U.S., and CA are the largest AAPI sub-group. Breast cancer continues to be the most commonly diagnosed cancer among CA women, however, mammogram screening remains at least 20% under the Healthy People 2020 projected goal of 81%. Women who have never been screened in their lives may respond differently to education programs compared to women who have been screened but are non-adherent with annual mammography.

Methods: CA immigrant women who were non-adherent with mammography in the past 12 months (N=300) completed a baseline questionnaire in Portland, Oregon. Of these, eighty-three women (27.7%) had never had a mammogram in their lives.

Results: Women who had never had a mammogram in their lives experienced higher perceived barriers (2.81 vs. 2.48, $p=0.0002$), reliance on others (3.33 vs. 3.00, $p=0.01$), and belief in the use of eastern medicine (3.33 vs. 3.00, $p=0.05$) scores when compared with women who had at least one mammogram in their lives. Women who had never had a mammogram were also less likely to have a regular health care provider ($p< 0.001$), not told to have a mammogram by provider ($p <0.001$), and reported no insurance coverage for mammogram ($p<0.001$). In the intervention group ($n=147$), at 12 months post-intervention, mammogram completion was not significantly different among women who were never screened compared with those who had been screened in the past (73.3% vs. 67.4%; $p= 0.52$). The intervention worked for women regardless of their mammography screening history. However, in the brochure only control group ($n=153$), significantly more women with a history of screening completed a mammogram post-intervention compared with those who were never screened (44.8% vs. 24.3%; $p = 0.03$).

Implications: When women received an intensive in-person intervention, screening history was not a factor in post-intervention mammogram completion. However, for those only receiving a brochure, women with no screening history were less likely to respond. Given that many public programs use educational materials such as print media, it is important for practitioners to differentiate the effects of such material based on women's historical experiences with mammography. Targeted approaches based on such understanding will go a long way towards decreasing the breast cancer screening disparity among CA women.

Funding: This study was supported by the American Cancer Society (MRSGT-09-090-01-CPPB).

Home ◀ ▶ go to PG.

Parental, Peer, and Media Influences on Taiwanese Teens' Intended Sexual Behavior

Angela Chia-Chen Chen[1], PhD, RN, PMHNP, Associate Professor, angela.ccchen@asu.edu
Marguerita Lightfoot[2], PhD, Professor, Co-Director
Shu-Min Chan[1], PhD Candidate
Pamela Wadsworth[1], RN, WHNP-BC, Doctoral Student

[1]Arizona State University, College of Nursing & Health Innovation, Phoenix, AZ
[2]Center for AIDS Prevention Studies, University of California, San Francisco, Department of Medicine, San Francisco, CA

Purpose: This study aims to examine parental, peer, and media influences on Taiwanese adolescents' intended sexual behavior.

Background: Risky sexual behavior among youth is of national and international concern because of the detrimental consequences that influence adolescent health, such as sexually transmitted infections and HIV and their associated psychological and social consequences. Evidence suggests that premarital sexual behavior is now more acceptable among Taiwanese adolescents than among previous generations. The percentage of Taiwanese adolescents who intend to engage and who have engaged in sexual behaviors has rapidly increased in the last two decades. Given the changes in Taiwanese adolescents' sexual attitudes, intentions and behaviors, it is important to understand the direct and indirect influences exerted by parents, peers, and the mass media.

Methods: We conducted a cross-sectional survey of Taiwanese adolescents aged 13-15 recruited from two middle schools. After receiving parental consent and adolescent assent, eligible adolescents were invited to fill out an anonymous survey. We measured their sexual behaviors and the factors associated with these behaviors using Chinese version of instruments validated in the primary author's prior research. Parental influence was measured by three questions related to adolescents' communication with parents about physical changes and sex-related issues and one question about parental attitudes towards premarital sex. Perceived peer sexual behavior was used to measure peer influence. Media influence was measured by the adolescents' perception about whether media promotes premarital sex.

Results: The sample included 186 Taiwanese adolescents (mean age 14 [*SD* = .89]); 58.6% were females. About 56% of the sample had never discussed physical changes or sex-related issues with their fathers, and about 30% had never discussed these issues with their mothers. Only about a quarter perceived that their fathers and mothers had disapproving attitudes towards premarital sex most or all of the time. Regarding peer influence, about 21% of the sample reported one or more of their friends engaged in sex. More than half of the sample (51%) said that media promoted premarital sex. About 4% of the sample reported being sexually active, and 21% reported that they would probably or definitely engage in sexual practices in the next year.

In regression analyses, controlling for age and gender, the Taiwanese adolescents who perceived that the friends engaged in premarital sex (B = .22) and perceived that the media promoted premarital sex (B = .16) reported a higher level of intention to engage in sexual behavior in the next year. Neither communication with parents about physical changes and sex-related issues nor perceived parental disapproval attitudes towards premarital sex showed a significant influence on the adolescents' intention concerning sexual engagement.

Implications: The findings suggest that Taiwanese adolescents' intention to engage in sexual behavior was greatly influenced by perceived peer sexual behavior and messages delivered by the media. The non-significant parental influence on adolescents' intention to engage in premarital sex may suggest ineffective communication between parents and their children or that parents have unclear expectations about premarital sex. Future research focusing on improving parent-child communication about sex-related issues is warranted.

Home ◀ ▶ go to PG.

IDENTIFYING HEALTH RISKS AMONG ASIAN POPULATIONS

Self-Care Self-Efficacy of Chinese Cancer Patients

Fang-yu Chou, PhD, RN
Associate Professor
School of Nursing
San Francisco State University
San Francisco, CA
fchou@sfsu.edu

Purpose/Aim: This paper analyzed the level of self-care self-efficacy of Chinese cancer patients diagnosed with breast or GI-tract cancer.

Background: Chinese is the world's largest ethnic group and the number of global Chinese-speaking population continues to grow. Cancer has been the leading cause of death in Chinese. Patients' efficacious self-care is imperative in minimizing symptoms and complications for cancer patients.

Methods: Chinese cancer patients (N = 159) were recruited at cancer treatment infusion units of a metropolitan medical center in Northern Taiwan (breast n = 105, GI n = 54). Participants were asked to complete questionnaires after they consented to be in the study. The level of self-care self-efficacy was measured by Lev's SUPPH-29 instrument. The Chinese version was developed by forward and backward translation method.

Results: The average age of the sample was 53 years old (*SD* = 9.45). Eighty-three percent of participants were females. About half of the sample had college education and above. The internal consistency reliability of total scale was .98. The internal consistency reliability of subscales (Positive Attitude, Stress Reduction, Making Decisions) were .95, .96, and .93, respectively. Participants reported moderate level of self-care self-efficacy with average total scale score of 86.05 (*SD* = 29). T-tests, ANOVA tests, Pearson Correlation were analyzed to compare the subscale differences by variables of personal characteristics. The results showed that the subscale score of Making Decisions was significantly different between Breast and GI cancer patients, among disease stages, and significantly correlated negatively with age. The subscale score of Positive Attitude was significantly different between genders. The Karfnosky Performance Score significantly correlated positively with all three subscales of self-care self-efficacy.

Implications: The study results provided additional reliable questionnaire which can be used for Chinese-speaking cancer patients. Further research can include developing strategy and intervention to enhance self-care self-efficacy among culturally-diverse cancer patients.

Funding: J. William Fulbright Foreign Scholarship (PI: Chou FY); Yamagiwa-Yoshida Memorial International Cancer Study Grant (PI: Chou, FY); Office of Research and Sponsored Program, San Francisco State University (PI: Chou, FY).

INNOVATIONS IN GRADUATE EDUCATION

Moderator:
Lauri Linder, PhD, APRN, CPON
Assistant Professor
University of Utah
Salt Lake City, UT

PROVIDING MASTER'S LEVEL NURSING PRACTICE IN A REAL-WORLD CONTEXT

Marjorie C. Dobratz, Christine Stevens

GROWING OUR OWN: PREPARING NON-NURSING COLLEGE GRADUATES AS APRNS AND NURSE EDUCATORS

Felicitas dela Cruz, Marilyn Klakovich, Shirley Farr, Phyllis Esslinger

---

CLINICAL NURSE SPECIALIST PROFESSIONAL SOCIALIZATION: A CONCEPT ANALYSIS

Terri L. Ares

PILOT FOR INTER-PROFESSIONAL LEARNING OF ADVANCED ASSESSMENT SKILLS

Marylou V. Robinson

FACULTY OF COLOR IN ACADEMIC NURSING AND MEDICINE: A FOCUS ON RECRUITMENT AND RETENTION

Dena Hassouneh, Kristin Lutz, Ann Beckett

Home ◀ ▶ go to PG.

INNOVATIONS IN GRADUATE EDUCATION

Providing Master's Level Nursing Practice in a Real-World Context

Marjorie C. Dobratz, RN, DNSc
Professor and Graduate Program Coordinator, Nursing Program
University of Washington, Tacoma
Tacoma, WA
mdobratz@u.washington.edu

Christine Stevens, RN, PhD
Associate Professor
Nursing Program
University of Washington, Tacoma
Tacoma, WA
cstevens@u.washington.edu

Purpose/Aims: The end-point of master's nursing (MN) education is a required, supervised practice experience in which students apply learned theoretical concepts and acquired skills. The *Essentials of Master's Education in Nursing* (American Association of Colleges of Nursing [AACN], 2011) specify fifteen competencies that are requisites for master level nursing practice (MLNP). The purpose of this project is to describe how these competencies are integrated into MN students' fieldwork experiences and to provide exemplars of students' fieldwork projects that evidence skill attainment.

Rationale/Background: The course titled: *Advanced Fieldwork* was revised in fall 2011 to adhere to the AACN competencies. While there were overall course objectives that addressed practice goals, teaching/learning activities changed with from quarter to quarter with each assigned faculty.

Brief Description: For two consecutive quarters (180 hours) of fieldwork, advanced generalists students are supervised by both an assigned faculty and an on-site fieldwork facilitator, and MLPN goals are approved by chairs of students' supervisory committees and Fieldwork Facilitators. Students meet three times during a quarter, write midterm and final progress reports that address how they met fieldwork goals, and complete weekly on-line assignments that integrate the competencies. For example, in week 2 first quarter students write and post their philosophy of nursing. The next week they then reflect on how their values and beliefs changed with MN education.

Outcomes Achieved: Exemplars of students' MLPN work in hospital-based settings include an EBP protocol to manage wound care, review of Safe Patient Handling training tools for patient transfers, revision of documents on oral chemotherapy administration, and synthesis of data to develop an assessment tool to determine the root cause of quality variance. At the community level, students' projects included staff training opportunities and patient resources in regards to transitional care, and developing a manual of community resources for diabetes management. Other students worked with nursing faculty in community colleges to prepare classes on the documentation and charting of electronic medical records and a pharmacology module.

Conclusion: With evidence the MN fieldwork projects influence care delivery graduate faculty need to assure that MN graduates of advanced specialist programs are armed with the competencies that they need to impact and change healthcare outcomes across a variety of settings.

Growing Our Own:
Preparing Non-Nursing College Graduates as APRNs and Nurse Educators

Felicitas dela Cruz, RN, DNSc
Professor
School of Nursing
Azusa Pacific University
Azusa, CA

Marilyn Klakovich, RN, DNSc
Program Evaluator

Shirley Farr, RN, MSN
Director, ELM Azusa

Phyllis Esslinger, RN, MSN
School of Nursing Recruiter

Purpose: This presentation describes the curricular innovations designed to prepare second career students as APRNs and nurse educators and to feature resulting outcomes. **Background:** To address the nationwide nursing shortage in 2004, the School of Nursing launched an entry-level master's (ELM) program for non-nursing college graduates, pioneering an educational innovation in the greater Los Angeles area. **Methods:** The Logic Model provided the structure to establish a culture of assessment in the ELM program. Both quantitative and qualitative evaluation methods were used during all program phases to provide comprehensive data for program improvement. Schlossberg's transition theory of moving in, moving through, and moving out guided the strategies used to prepare the students as professional registered nurses and subsequently APRNs and educators. The moving in strategies involved enhancing collaboration by employing a cohort model, increasing ethnic and gender diversity, peer-to peer and community-based mentorship, and course modularization. The program implemented faculty development for teaching adult college graduates undertaking a second degree. For moving through, the program's 65-unit prelicensure phase culminated in an intensive (252 hour) clinical residency and the awarding of a BSN degree to actualize the professional nursing role while enhancing employment opportunities. Students were socialized to think and behave like nurses through the formal and informal curriculum, with faculty modeling the teaching role in the classroom, in the clinical areas, and in extra-curricular activities. A faculty mentor/ advisor facilitated the students' navigation of the accelerated program, along with the robust mentoring program. Moving out strategies shifted students' perspectives from RN to APRN, strengthening their confidence as advanced practice nurses. Several students chose to also enroll in the 12-unit nursing education course. **Outcomes:** Nine cohorts (N=238) have been admitted: 88% have completed the pre-licensure phase and 22% have graduated with an MSN. Critical structural and programmatic changes have stabilized and enhanced the quality of the program. These changes resulted in a 90% retention rate, an NCLEX pass rate ranging from 88% to 100%, and 85% employed as registered nurses. Many ethnic and male students have received scholarship grants and service loans. Residency sites serve as the main student employers. An unexpected but applauded outcome is the infusion of new nursing faculty: 36% of our graduates are employed as faculty. All MSN graduates are certified by the state as APRNs. **Conclusions:** Both health reform and the Institute of Medicine Future of Nursing reports mandate an increase in advanced practice nurses and educating all nurses at the highest possible level. Our program innovations have produced not only APRNs but also nurse educators.

Home ◀ ▶ go to PG.

Clinical Nurse Specialist Professional Socialization: A Concept Analysis

Terri L. Ares, MSN, RNC-NIC, CNS-BC
PhD Candidate and Jonas Scholar 2012-2014
College of Nursing
Villanova University
Villanova, PA

Aim: The established concept of professional socialization does not apply to graduate-level education of nurses for new roles. The reason is that the concept addresses generalist nursing practice and not specialized or advanced roles. The aim of this paper is to describe the concept of CNS professional socialization.

Concept Definition: CNS professional socialization is a process whereby a registered nurse acquires the advanced practice nursing skills, knowledge, and behaviors that result in an internalization of professional values and attitudes to assume the role and identity of the CNS.

Analysis Approach: Walker and Avant's method was employed for this concept analysis. Information sources included established definitions of professional socialization, socializing factors identified in the literature involving students in nursing and professional schools, publications of CNS role attributes and competencies, and Hinshaw's model of nursing professional socialization and re-socialization. Antecedents that must occur prior to CNS professional socialization were identified as: initial socialization into the nursing profession, workplace socialization, anticipatory socialization to develop a generalized concept of the CNS role, and individual factors/traits of the nurse. Critical attributes of the concept emerged including: (a) the acquisition of advanced nursing knowledge, skills, and competencies for CNS practice; (b) internalized CNS values and attitudes such as a CNS professional self-concept which involves both identity and self-esteem; and (c) CNS professional behaviors including clinical expertise in a specialty, leadership, collaboration, consultation, professional activities, ethical conduct, and professional citizenship. The consequences of professional socialization depend on the level of socialization achieved. Positive consequences were identified as role competence, role satisfaction, CNS stewardship or advocacy, and a well developed CNS identity. Negative consequences were identified as feelings of professional inadequacy, poor performance or productivity, low job satisfaction, attrition, increased role ambiguity, and lack of professional involvement.

Link of Concept to Nursing Education and Research: Conceptual clarity resulting from this analysis should benefit nursing education and research. With an understanding of the critical attributes, nurse educators could improve planned socialization efforts. The concept could also be used as a CNS program outcome measure. Researchers could design studies to measure the current state of CNS professional socialization by selecting variables to represent the concept attributes or to explore relationships between antecedent, attribute, and consequence variables.

Conclusion: Though research involving graduate-level nursing role socialization has been conducted, researchers have selected random variables and attributes. This concept analysis contributes a systematically developed definition and description of CNS professional socialization to be used in future research and academic program evaluation efforts.

Home ◀ ▶ go to PG.

Pilot for Inter-Professional Learning of Advanced Assessment Skills

Marylou V. Robinson, PhD, FNP
Assistant Professor of Nursing
University of Colorado College of Nursing
Aurora, CO

Project Aim: To explore student perceptions and reveal logistical considerations associated with combining the parallel Physical Assessment (PA) courses currently taught by the College of Nursing (CON) and the School of Medicine (SOM).

Rationale: The IOM report (2010) calls for transformation of teaching and learning in discipline-specific silos to a shared experience to foster team building, inter-professional (IP) communication and mutual respect. Current PA courses on this campus use the same small-group Standardized Physical Exam Teaching Associates (SPETA) and grading rubrics with equal outcomes. This pilot extends the concept of IP at the campus to technical classroom experiences and provides an avenue for students to gain insight into the shared commonalities of practice. The literature warns that combining disciplines into one classroom makes sense; however, it steps on the toes of tradition, professional isolation and academic territoriality (Goodman, 2012; Spickard, 2012).

Methods: The SOM and CON instituted an eight week pilot project mixing 11 CON volunteer advanced practice students with 33 SOM peers. The Foundations of Doctoring faculty chose to randomly incorporate one RN into SOM 3 person groups. The teaching outlines and testing rubrics were the same as in the simultaneously taught traditional courses with an additional 40 CON and 130 SOM students. The RN students had to start class one week early and also rotate class dates to meet the academic schedule of the SOM. Pre and post administration of The Readiness for Intra-Professional Learning (RIPL) survey was supplemented with post experience focus groups for the pilot students. Discipline-specific groups allowed full disclosure of true perceptions. Prior to the start of the semester, the IRB determined the project to be exempt educational research.

Outcomes: Similar to national reports and the campus historical experience with other IP courses, the RIPL scores were highly skewed to be favorable toward IP education; hence, the post experience comments from the participants were more valuable. The SOM students were impressed by the knowledge and professionalism of the nurses. They also appreciated the clinical insights the RNs brought to class. Anecdotally, they reported some non-pilot SOM students felt “left out”. The CON students were happy that future physicians were open to sharing learning experiences with them and felt they were informal instructors. Negative comments centered on the irregular class hours and feeling separated from their graduate student peers. Both groups voiced concerns that non-participating colleagues received a different experience. Matching the two academic schedules and keeping to one class day was strongly suggested.

Conclusions: The national momentum is for IP education as the way all health professionals will be taught in the future. These findings and logistical issues are informing the consideration of a fully integrated course in Fall 2013. The plan is to gather data for an economy of scale evaluation for teaching the courses together.

Funding: Intramural President’s Teaching and Learning Collaborative Grant 2012.

Home ◀ ▶ go to PG.

Faculty of Color in Academic Nursing and Medicine: A Focus on Recruitment and Retention

Dena Hassouneh, PhD
Associate Professor, School of Nursing
Oregon Health & Science University
Portland, OR

Kristin Lutz, PhD
Assistant Professor
School of Nursing
Oregon Health & Science University
Portland, OR

Ann Beckett, PhD
Assistant Professor
School of Nursing
Oregon Health & Science University
Portland, OR

Purposes/Aims: The purpose of this study was to develop a substantive grounded theory of the experiences of faculty of color (FOC) in predominantly Euro-American schools of nursing and medicine. In this presentation we highlight findings pertaining to FOC recruitment and retention.

Rationale/Background: Nursing and Medical FOC are a vital resource for increasing the number of health professionals of color in the workforce, decreasing health disparities, and improving the quality of academic environments. Despite the importance of FOC and a stated commitment to diversity on the part of health professions schools and professional organizations, FOC continue to be underrepresented. In addition to being underrepresented, anecdotal reports suggest that FOC face numerous barriers to contributing to and benefiting from academic environments due to the deeply entrenched problem of racism. To begin to address this problem we conducted a critical grounded theory study of the experiences of FOC in predominantly Euro-American schools of nursing and medicine.

Methods: To date 52 FOC from across the country have participated in the study. Data were collected via face-to-face and telephone interviews. Data analysis began with open coding followed by substantive open coding. The final stages of the analysis consisted of theoretical sampling and selective and theoretical coding to form the emerging theory.

Results: Findings indicate that participant experiences occurred within micro-contexts ranging from exclusionary to inclusive and that these micro-contexts mediated the extent to which FOC were subjected to *Patterns of Exclusion and Control*. *Patterns of Exclusion and Control* served to limit FOC's influence on academic environments resulting in oppression and isolation, posing a threat to faculty retention. In contrast, more inclusive school cultures were intentional about recruitment and retention efforts resulting in a greater number of individuals of color on faculty and higher satisfaction compared to participants from more exclusionary micro-contexts. The core theoretical process, *Surviving, Resisting, and Thriving,* describes FOC's response to *Patterns of Exclusion and Control* as they struggled to progress in their careers and influence their environments. We posit that teaching FOC Surviving, Resisting, and Thriving coping processes may have potential for improved retention. The final outcome was *FOC Having Influence.* Despite the barriers many FOC faced, they were able to have significant influence in their schools and communities, including influencing recruitment and retention of students and other faculty of color at their institutions.

Implications: These findings document the complex ways that racism operates within predominately Euro-American schools of nursing and medicine and highlight the importance of deliberate recruitment and supportive efforts in promoting the survival and success of FOC in health professions education.

Funding: Supported by Sigma Theta Tau International, OHSU School of Nursing, the OHSU Foundation, and the Josiah Macy Foundation.

Home ◀ ▶ go to PG.

METHODOLOGICAL ISSUES

Moderator:
Kerryn W. Reding, PhD, MPH
Assistant Professor
University of Washington
Seattle, WA

DEVELOPMENT OF AN INSTRUMENT TO MEASURE CAM HEALTH LITERACY

Jean Shreffler-Grant

QUALITATIVE CAFÉ AS A RESEARCH FORUM

Jennifer B. Averill

IMPROVING RESPONSE RATES FOR SURVEYS OF RURAL COMMUNITY DWELLING OLDER ADULTS

Linda S. Edelman, Rumei Yang, Maughan Guymon, Lenora Olson

DESCRIBING 10+ YRS. OF PROSTATE CANCER SURVIVOR HEALTH STATUS WITH GROWTH CURVE ANALYSIS

Patricia K. T. Pothier, Michael Galbraith, Matt Riggs

CONSTRAINTS TO PHYSICAL ACTIVITY IN A SAMPLE OF MID-LIFE WOMEN

Jewel Bishop, Pauline Komnenich, Michael J. Belyea, Barbara Ainsworth

Home ◀ ▶ go to PG.

METHODOLOGICAL ISSUES

Development of an Instrument to Measure CAM Health Literacy

Jean Shreffler-Grant, PhD, RN
Professor
Montana State University
College of Nursing
Bozeman, MT

Purpose: In this presentation, an instrument to measure health literacy about complementary and alternative therapies (CAM) will be described as well as the eight step process used to create and evaluate the new instrument.

Background: Health literacy is both an essential and complex skill that enables consumers to take an active role in health care decision-making. The expanding availability and use of CAM adds to the complexity. Our research team conducted a series of studies on use of CAM among older rural residents and found considerable CAM use particularly among those with chronic health conditions. Participants primarily used self-prescribed CAM and often had limited health literacy about therapies they used. The need for education to improve CAM health literacy in this population was evident. An appropriate health literacy measure to evaluate the effectiveness of an educational intervention was not available, thus the team developed and evaluated a new instrument specific to health literacy about CAM.

Methods: The process used to develop and evaluate the new measure involved eight steps: determining constructs and concepts, generating an item pool, determining measurement format, reviewing by experts and focus groups, administering to a large development sample, assessing validity, evaluating items, and optimizing scale length.[1] Each step will be described as well as specific results from psychometric and validation assessments.

Results: The MSU CAM Health Literacy Scale is a first generation instrument with 25 items and 4 response options ranging from Agree Strongly to Disagree Strongly. The original conceptualization of CAM health literacy was modified during psychometric evaluation. In the final instrument, items that measure the empirical indicators of Dose, Effect, and Safety were retained, while items that measure indicators of Availability were deleted. Reliability and exploratory factor analyses and conceptual considerations were used to determine which items to retain or delete. The final instrument has a Cronbach's alpha of .85 and 31.98% explained variance. Twenty three of 25 items loaded at .3 or greater on three conceptually discrete factors; the remaining two were items retained for conceptual considerations. A validity assessment comparing scores on the MSU CAM Health Literacy Scale and a standard health literacy measure revealed a statistically significant correlation at $p < .001$.

Implications: The MSU CAM Health Literacy Scale is a psychometrically sound measure that can be utilized in future research and clinical endeavors. Our ultimate goal is to promote and improve health literacy about CAM among older rural adults, particularly those with chronic health conditions. Informed use of CAM can help support well-reasoned decision-making regarding self-care for older rural adults living with chronic illnesses. It is anticipated that the new instrument will also have scientific and clinical application for assessing health literacy in other health care decision-making situations.

Funding: NIH/NCCAM NIH R15 AT095-01, R15 T006609-01; NIH/NINR 1P20NR07790-01; MSU College of Nursing Block Grant.

Reference:

[1] DeVellis, R.R. (2003). *Scale development. Theory and applications*. (2nd ed.). Thousand Oaks: Sage.

METHODOLOGICAL ISSUES

Qualitative Café as a Research Forum

Jennifer B. Averill, RN, BS, ADN, BSN, MSN, PhD
Associate Professor
College of Nursing
The University of New Mexico
Albuquerque, NM

Purpose/Aims: The Qualitative Café was conceived and launched at the University of New Mexico (UNM) College of Nursing (CoN) in 2001. Its purpose was to provide a permanent forum for qualitative researchers who were faculty members and/or graduate students at the UNM Health Sciences Center (HSC). Eleven years later it remains a critical part of the scientific community, engaging qualitative researchers at various stages of their work throughout not only the HSC, but also the entire UNM campus.

Rationale/Background: In 2001, several new CoN tenure track faculty had successfully defended NINR-funded qualitative dissertations elsewhere and were launching their own research programs. Few resources or mentors existed for the qualitative work they did, and the forum was developed as a mechanism to share research ideas, challenges, and potential projects. At the time most HSC research concerned either bench science or quantitative/statistical work at the time. By publicizing their efforts, the group attracted other qualitative researchers at the HSC who joined the monthly dialogues.

Description—Approach, Methods, Process: The Cafe began with small discussions among 3-4 people. Soon an email list was circulated at each monthly Brown Bag session to enhance publicity for the gathering. In the first year the core group expanded, and a website was created. Word of mouth also drew additional members of the HSC/UNM research community. Operating continuously since its start, the Cafe now utilizes all available publicity outlets at UNM for the monthly Brown Bags and other special events. Topics include current studies/grants/projects, projects-in-planning, methods presentations, journal clubs, software usage, and collaborative/mixed methods investigations highlighting qualitative expertise.

Outcomes Achieved: Outcomes to date include permanently scheduled monthly forums (10-12 per year) for a variety of topics related to qualitative research, an email list of approximately 70 investigators/students, a website within in the CoN URL, inclusion as a Research Cluster for a UNM School of Medicine P20 Health Disparities Center grant from NIH, an established presence in the Resource Section for all CoN research grant applications, several CoN faculty achieving tenure for funded qualitative research, and 1-2 PhD students per year choosing to do qualitative dissertations because of faculty strength in qualitative methods.

Conclusions, Implications and Recommendations: Qualitative inquiry is a valuable component of research, giving voice and perspective to people, calling attention to health inequities across cultures/settings, and showcasing the human experience of health, illness, and disparity. Promoting rigorous qualitative work alongside other strategies is key to improving health outcomes for all citizens. The Qualitative Café has become a vital member of UNM's diverse research community, with its participants added to projects, grants, and work groups to develop collaborative, interdisciplinary, mixed methods initiatives. It is an example of excellence in interdisciplinary partnership.

Home ◀ ▶ go to PG.

Improving Response Rates for Surveys of Rural Community Dwelling Older Adults

Linda S. Edelman, PhD, RN
Assistant Professor
College of Nursing
University of Utah
Salt Lake City, UT

Rumei Yang, MS, RN
Visiting Scholar
College of Nursing
University of Utah
Salt Lake City, UT

Maughan Guymon, BS
Director
Southeastern Utah
Area Agency on Aging
Price, UT

Lenora Olson, PhD
Professor
Intermountain Injury Control
Research Center
University of Utah
Salt Lake City, UT

Purpose: To compare two recruitment strategies for an injury risk perceptions survey of older rural adults.

Rationale: Older adults and rural residents are both considered vulnerable populations in regards to health status and injury risk. In general, rural areas have higher proportions of older adult residents who are often poorer and less educated than their urban counterparts. Health care and community resources for rural older adults are limited and spread over large geographical areas. Engaging community dwelling older adults from rural areas in research can be challenging. Therefore, we worked with community partners to design a method comparing two different survey recruitment strategies.

Methods: All older adults participating in a rural county's home delivered meals program were randomized into one of two recruitment strategies for a survey of injury risk perceptions. The first strategy used the US Postal Service and involved a three-contact recruitment approach which included mailing pre-survey notification letters, survey packets, and post-survey reminder cards. The second strategy utilized home meal delivery drivers to hand deliver the survey packets. Survey packets were identical for both groups and included self-addressed and stamped return envelopes.

Results: 139 survey packets were delivered; 70 by the U.S. Postal Mail Service and 69 by hand. A significantly higher proportion of hand delivered surveys were returned (57% versus 31%; x^2=11.38, p<0.05). Hand delivered survey respondents were significantly older than mailed survey respondents (81 versus 74 years; p<0.05, *t*-test). The percentage of survey respondents who gave permission for the researcher to contact them regarding a second phase of the study was similar for both groups. Mailed surveys cost $3.50 for delivery and return compared to $1.30 for hand-delivered surveys.

Implications: The cost of survey recruitment increases when response rates are low; efforts to improve response rates save money and increase study success. Our findings suggest that older adults living in rural areas are more likely to respond to a survey if they are recruited by someone they know. Engaging rural community partners in the research process can help researchers better understand the values of the community and provide a personalized approach to recruiting older adult research participants.

Funding: Supported by The John A. Hartford Foundation and Atlantic Philanthropies Claire M. Fagin Fellowship.

METHODOLOGICAL ISSUES

Describing 10+ yrs. of Prostate Cancer Survivor Health Status with Growth Curve Analysis

Patricia K. T. Pothier, PhD, RN, Loma Linda University, Loma Linda, CA
Michael Galbraith, PhD, RN, University of Colorado, Aurora, CO
Matt Riggs, PhD, California State University, San Bernardino, CA

Purpose: The purpose of this study was to describe the health status of prostate cancer survivors living 6.5 to 10.5 years after treatment for early stage prostate cancer. Health status measures included health-related quality of life and prostate cancer-treatment specific symptoms.
Rationale: Study rationale was based on the premise that health status and health-related quality of life is complex and comprised of physical, social/emotional, and functional factors. Long term survivors experience symptoms that impact their health status years after treatment has been completed.
Methods: A long-term longitudinal follow-up survey design was used. A total of 148 men representing seven different treatment groups provided annul responses to mailed survey measures. Five groups had some form of radiation including conventional external beam radiation, proton beam therapy, and three different forms of mixed beam radiation (a combination of external beam and proton beam therapy); low-dose mixed beam (70 Gy, standard mixed beam (74-75 Gy), and high dose mixed beam (75 Gy). A sixth group received surgery and a seventh group was place in watchful waiting.
Findings: The sample was mostly Caucasian, though the conventional radiation group contained more minorities. Almost 90% were married, and most reported having attended some college. Age differences among treatment groups have diminished over time, (71.5 to 75.6). Growth curves analyses (GCA) was applied to key dependent measures. GCA is the optimal choice for longitudinal data when data are missing. Only two data points are needed for each participant in order to establish and intercept (starting point) and slope (rate and direction of change) for measures over time. For overall Quality of Life, the low dose mixed beam treatment group had the highest intercept, and this point was significantly higher than the proton and standard mixed beam treatment groups. Across the four years of data collection, there were no significant changes (slope) in quality of life for any of the seven groups. In reference to different specific areas of functioning, the low beam mixed group again started at the highest level for all measures but one. Slopes did vary somewhat by groups, but slopes generally were more negative for physical functioning, physical role functioning, and vitality. Mental health, general health, and reports of bodily pain were relatively stable over time across most groups except for the surgery group which appears to have the largest average negative slope across these three measures. For treatment specific symptoms related to urinary, gastrointestinal and sexual outcomes, the low dose mixed beam treatment group did better, having the lowest intercepts for two of the three measures. Slopes for all symptoms were relatively flat, though the largest average increase across groups was reported in reference to sexual symptoms.
Implications: Men tend to experience symptoms years after they have completed treatment for prostate cancer. However, they seem relatively stable in general health, pain, and mental health while experienced declining health in the other domains. Treatment specific symptoms were also relatively stable though the average increase in concern was related to sexual symptoms.

Home ◀ ▶ go to PG.

METHODOLOGICAL ISSUES

Constraints to Physical Activity in a Sample of Mid-Life Women

Jewel Bishop, RN, PhD
Hearst Foundation Post-Doctoral Scholar
College of Nursing & Health Innovation

Pauline Komnenich, RN, PhD
Professor
College of Nursing & Health Innovation

Michael J. Belyea, PhD
Research Professor
College of Nursing & Health Innovation

Barbara Ainsworth, PhD
Professor
School of Nutrition and Health Promotion

Arizona State University
Phoenix, AZ

Purposes/Aims: The health enhancing effects of physical activity are well documented in the literature. However, women continue to report less physical activity than men and sociocultural factors such as family support impact women's physical activity behavior. The purpose of this study was to test a scale developed to assess constraints to physical activity experienced by African American and Native American women over 40 years old.

Rationale/Conceptual Basis/Background: The Physical Recreation Questionnaire is an 18 item likert scale that measures the frequency of reported constraints to physical activity and the successful negotiation of physical activity behavior. The unidimensional construct of constraints was defined as factors that limit, inhibit, or prohibit participation and enjoyment in physical activity. The researchers hypothesized that the underlying factor structure of the Physical Recreation Questionnaire supported at least two factors.

Methods: This secondary data analysis examined a scale developed in a 1995 study (Ainsworth, et al., 1999). Exploratory factor analysis was conducted in M*plus* 6.0 testing a two factor and three factor model. Maximum likelihood estimation method and geomin rotation were used to estimate the model.

Results: The study participants (N=140) included 76 Native American and 64 African American women. The exploratory two factor model was a poor fit [x^2 = 240.84 (118) $p < .005$; RMSEA=0.086 (90% CI 0.071-0.102), CFI=0.84, TLI=0.79]. The fit of the exploratory three factor model was favorable [x^2 = 138.60 (102) p =.009; RMSEA=0.051 (90% CI 0.026-0.071), CFI=0.95, TLI=0.92].The three factor model in the confirmatory analysis supported the presence of three latent variables [x^2 = 203.75 (132) $p < .005$; RMSEA=0.062 (90% CI 0.045-0.079), CFI=0.906, TLI=0.892]. The latent variables were hypothesized as: enjoyment, constraint, and negotiation of constraints. Inter-factor correlations in the 3 factor model were moderately strong and ranged from -.33 to -.52 with the second factor and .50 between factor 1 and 3.

Implications: Nurses promoting activity for health can use instruments such as the Physical Recreation Questionnaire to engage women in an ongoing dialogue to identify constraints to physical activity and articulate strategies to increase enjoyable activity participation. Physical activity beyond exercise or structured sports is part of a holistic schema to contextualize chronic disease prevention in mid-life women from diverse populations.

Reference:
Ainsworth, B. E., Irwin, M.L., Addy, C.L., Whitt, M. C., & Stolarczyk, L. M., (1999). Moderate physical activity patterns of minority women: The Cross Cultural Activity Participation Study. *Journal of Women's Health & Gender Based Medicine, 8,* 805-813.

MINDFULNESS AND HEALTH

Moderator:
Joy Kiviat, PhD, MSN, RN, (OCN)
Clinical Instructor
The University of Arizona
Tucson, AZ

PROMOTING THE HEALTH OF NURSES THROUGH A WEB-BASED PEDOMETER INTERVENTION

Kim L. Paxton

INTERNET-DELIVERED MANTRAM REPETITION PROGRAM FOR BURNOUT IN HEALTHCARE WORKERS

Sheryl Leary, Jill Bormann, Tom L. Smith, Jane Georges, Taylor Andrews

---

MANTRAM REPETITION PROGRAM FOR QUALITY OF LIFE AND MINDFULNESS IN VETERANS WITH PTSD

Jill Bormann, Steven Thorp, Ann Kelly

SUSTAINABILITY OF MANTRAM REPETITION PRACTICES IN VA HEALTHCARE WORKERS

Jill Bormann, Sheryl Leary, Taylor Andrews

Home ◀ ▶ go to PG.

Promoting the Health of Nurses through a Web-Based Pedometer Intervention

Kim L. Paxton, DNP, ANP-BC, APRN
Assistant Professor of Nursing
Cardinal Stritch University
Milwaukee, WI

Purpose: The objective of this intervention is to evaluate the effectiveness of a web-based pedometer intervention in addressing the health promotional behavior of physical activity among nurses and their perceived barriers to achievement.

Background: Of the 3 million nurses in the United States, 56% of this population is reported as being overweight or obese with coronary disease exceeding the national incidence. It has also been found that executing preventative prescription is lacking for nurses and their patients. Contributing factors are associated with silo core curriculum knowledge deficits related to physical activity and the barrier of time. These compounding factors add to the increasingly unhealthy image being portrayed to the public by nurses. This image change is negatively impacting professional role modeling, credibility and consumer trust in nurse derived patient education. This impaired image extends beyond the consumer and negatively impacts the advanced practice nurse role as an authoritative source in the care continuum of preventative health care.

Methods: A pilot 12 week web-based pedometer step tracking intervention (STeP -Self Tracking Exercise Program) was offered to practicing registered nurses who were recruited from a Midwest college of nursing and healthcare system. The *Health Promotion Model* provided the theoretical framework for development along with the *2008 Physical Activity Guidelines for Americans* for implementation and goal setting of the pilot intervention. Participants tracked and recorded their steps daily utilizing a web-based activity/nutrition program with an interactive avatar. Immediate feedback was given to each participant from the web-based pedometer program allowing participants to address barriers and evaluate changes for effectiveness expediently. Three educational fitness sessions (aerobic. strength and resistance training) were also incorporated into the intervention. Exercise self-efficacy was measured using the General Self-Efficacy for Exercise Scale (SEE) and health promoting beliefs by the Health-Promoting Lifestyle Profile II (HPLP-II).

Outcomes Achieved: There was no significant differences in step engagement, HPLP-II or SEE responses among subjects in relationship to age, nursing specialty or educational background. All participants increased physical activity from baseline with 40% achieving a 50% step increase. 87.5% meet or exceeded national guideline recommendations for sustained physical activity. Overall participant SEE demonstrated a moderately significant alpha equaling 0.1. HPLP-II demonstrated a 50% increase in health responsibility and 75% increase in physical activity belief about behavior.

Conclusion: The web-based pedometer produced positive behavioral changes associated with physical activity. Self-efficacy produced mixed response and inference's can be drawn that more than just tracking and monitoring is necessary to address the diversity of the participant needs. Barriers need to be identified and reduced and while electronic support was found to be helpful, direct in person education is preferred. The STeP intervention was found to be feasible and warrants further application with a larger sample size to establish true validity in nurse environments and its longitudinal effects on the health promotional act of physical activity.

Key Words: physical activity, nurses, health promotion, technology

Home ◀ ▶ go to PG.

Internet-Delivered Mantram Repetition Program for Burnout in Healthcare Workers

Sheryl Leary, PhD(c), RN
VA San Diego Healthcare System
University of San Diego
San Diego, CA

Jill Bormann, PhD, RN
Research Nurse Scientist
VA San Diego Healthcare System
San Diego, CA

Tom L. Smith, PhD
Principal Statistician
University California, San Diego
San Diego, CA

Jane Georges, PhD, RN
Associate Professor
University of San Diego
San Diego, CA

Taylor Andrews, BS
Research Assistant
VA San Diego Healthcare System
San Diego, CA

Purposes/Aims: The primary purpose of this study was to evaluate the efficacy of an internet-delivered, stress management course called the Mantram Repetition Program (MRP) on burnout in a self-selected group of healthcare workers (HCWs).

Rationale/Background: The negative effects of workplace stress and burnout can lower patient satisfaction, compromise patient safety, and be costly to healthcare organizations. With a severe staffing shortage and predictions of increased patient acuity, finding ways to minimize burnout in HCWs is needed to maintain safe patient care delivery. Research on the MRP has provided empirical evidence of its value in reducing the stress response and improving spiritual wellbeing in face-to-face group delivery.

Methods: The MRP was delivered in 6 sessions over 3 months and was evaluated for efficacy in reducing burnout and improving wellbeing using a quasi-experimental, within subjects, repeated measures design. Fifty-four Veterans Affairs (VA) HCW's participated in completing online assessments at baseline, post-course and 3-month follow-up using the Maslach Burnout Inventory-General Survey (MBI-GS). Outcomes were analyzed using repeated measures analysis of variance (ANOVA) with time as the repeated measure. Additional analyses included mixed design ANOVAs using demographic variables testing for group (e.g. gender, age, and prior meditation practice) by time interaction effects.

Results: Participants completing all surveys were 39 HCWs (87% females; 80% white) with mean age of 51 (SD = 8.6) ranging from 27 to 67 years. There were statistically significant effects of the MRP showing a decrease in the MBI-GS exhaustion subscale across the three time points [$F(2,76)=3.93$, $p<.04$] and a quadratic effect for professional efficacy subscale showing an initial increase followed by a decrease [$F(1,38) = 6.54$, $p<.02$]. No significant change was found in the cynicism subscale.

Implications: The MRP was effective in reducing exhaustion and improving professional efficacy, elements of burnout, in a group of HCWs. The findings will be of interest to those seeking innovative, portable methods to reduce burnout among healthcare workers. The MRP has the potential to improve symptom management and increase quality of life in HCWs. Additional controlled, longitudinal research is warranted.

Funding: Partially funded by Hahn School of Nursing Dean's Scholar Award, Sigma Theta Tau- Gamma Gamma Research Award, and Nurses Educational Fund Isabel Hampton Robb Scholarship, and supported with resources from the VA San Diego Healthcare System.

Home ◀ ▶ go to PG.

Mantram Repetition Program for Quality of Life and Mindfulness in Veterans with PTSD

Jill Bormann, PhD, PMHCNS-BC, RN
Associate Nurse Executive/Research
VA Center of Excellence for Stress and Mental Health (CESAMH)
VA San Diego Healthcare System
San Diego State University
San Diego, CA
jill.bormann@va.gov

Steven Thorp, PhD
Clinical Director of PTSD Clinic
Center of Excellence for Stress and Mental Health
VA San Diego Healthcare System
University of California, San Diego
San Diego, CA

Ann Kelly, MSN, PMHCNS-BC, RN
Assistant Professor
Department of Nursing
National University
San Diego, CA

Purpose/Aim: The primary purpose of this investigation was to explore whether the Mantram Repetition Program (MRP), a spiritually-integrated intervention, could improve quality of life and mindfulness in Veterans with posttraumatic stress disorder (PTSD). The secondary purpose was to identify ways the program was applied to manage PTSD.
Rationale/Conceptual Basis/Background: The MRP is theoretically based on the relaxation response which is used to interrupt unwanted thoughts and emotions. The MRP has already demonstrated clinically significant reductions in self-reported and clinician assessed PTSD symptoms in Veterans with military trauma compared to usual care controls. Our hypotheses were that the MRP would improve quality of life and mindfulness.
Method: A randomized clinical trial using mixed-methods with a two group (treatment and control) by two time (pre-treatment and post-treatment) repeated measures design was conducted in 146 outpatient Veterans with military trauma. Human subjects' approval and informed consents were obtained. Participants were randomly assigned to usual care (i.e., medication and case management) (n=75) or to usual care plus the MRP treatment (n=71) delivered in 6 weekly group sessions. Primary outcomes included Quality of Life Enjoyment and Satisfaction Questionnaire (Q-LES-Q) and Mindfulness Attention Awareness Scale (MAAS). Intent-to-treat repeated measures analyses of variance (ANOVA) were performed. Qualitative interviews at 3 months post-treatment were also conducted to identify how MRP was used and to validate quantitative findings.
Results: Results indicated significant group by time interactions showing significantly greater increases in quality of life enjoyment and satisfaction in the MRP group (n=71) compared to controls [$F(1,144)=8.17$, $p=.005$, $\eta p^2=.05$]. Levels of mindfulness were significantly increased in the MRP group whereas mindfulness decreased in the control group [$F(1,144)=12.98$, $p=.001$, $\eta p^2=.08$]. Bivariate correlations resulted in significant positive relationships between quality of life and mindfulness. The most common symptoms managed by MRP tools were hyper-arousal and irritability.
Implications: The MRP, a non-pharmacological, spiritually-integrated group intervention was found to improve quality of life enjoyment and satisfaction, and mindfulness in Veterans with PTSD. If disseminated widely, it could help improve the lives of Veterans and their families.

Funding: This study was funded by Department of Veterans Affairs, Office of Research and Development, Nursing Research Initiative (04-041) and supported with resources from the VA San Diego Healthcare System and Center of Excellence for Stress & Mental Health (CESAHM).

Sustainability of Mantram Repetition Practices in VA Healthcare Workers

Jill Bormann, PhD, PMHCNS-BC, RN
Associate Nurse Executive/Research
VA Center of Excellence for Stress and Mental Health (CESAMH)
VA San Diego Healthcare System
San Diego, CA
jill.bormann@va.gov

Sheryl Leary, PhD(c), RN
VA San Diego Healthcare System
University of San Diego
San Diego, CA

Taylor Andrews, BA
Research Assistant
VA San Diego Healthcare System
San Diego, CA

Purposes/Aims: The primary purpose of this study was to assess the sustainability of Mantram Repetition Program (MRP) self-management tools over time in a convenience sample of Veterans Affairs (VA) healthcare workers (HCWs). Mantram is a spiritually-based word or phrase to be repeated silently at any time or place to train attention. Slowing down and one-pointed attention are also taught as supportive practices that together, have been found to reduce burnout and improve spiritual well-being in nurses (Yong et al., 2011).

Rationale/Conceptual Basis: The stress response in HCW's is often generated by negative thoughts and increased feelings of time pressure, especially when there is short staffing and high patient acuity. Complementary practices are popular for stress management, but few have been studied for their sustainability over time in the workplace.

Methods: The MRP was delivered in 6 sessions over 3 months and included instruction on how to (1) choose and use a mantram, (2) practice slowing down to reduce time pressure, and (3) implement one-pointed attention whenever possible. Participants were evaluated using electronic surveys for baseline demographics and practice frequency at post-treatment and 3 months follow-up. Questions included, for example, "Are you using your mantram at work? (yes/no)" and, "How frequently in the past 7 day week have you practiced slowing down?" Significant changes over time were evaluated using the Wilcoxin test and the dependent t-test.

Results: Participants completing all surveys were 39 HCWs (87% females; 80% white) with mean age of 51 (SD = 8.6) ranging from 27 to 67 years. There were significant decreases in the number who practiced mantram at work ranging from 100% at post-treatment to 77% at 3 month follow-up, Wilcoxin z = -3.00 (p=.003). However, the numbers of those practicing slowing down (87%) and one-pointed attention (from 92% to 87%) did not change significantly over time, Wilcoxin z = -1.4 (p=.16). Frequency of days of mantram use ranged from an average of 6 (SD=5.13) days per week at post-treatment to 3 (SD=2.65) days per week at 3 month follow-up (t=5.59, df=38, p<.001).

Implications: The majority of HCW's in this sample continued using their MRP practices at work up to 3 months follow-up. Such portable self-care strategies may assist HCW's in managing burnout and in turn, improving patient care. More studies with larger random samples are needed to further validate these findings.

Funding: Partially funded by Hahn School of Nursing Dean's Scholar Award, Sigma Theta Tau- Gamma Gamma Research Award, and Nurses Educational Fund Isabel Hampton Robb Scholarship, and supported with resources from the VA San Diego Healthcare System Center of Excellence for Stress and Mental Health (CESAHM).

Home ◀ ▶ go to PG.

NEUROLOGICAL HEALTH

Moderator:
Mo-Kyung Sin, DSN, RN
Assistant Professor
Seattle University
Seattle, WA

BRAIN COOLING FOR HYPOXIC ISCHEMIC ENCEPHOLAPATHY: FOUR YEARS IN REVIEW

Sheila Kaseman

NEURON DEGENERATION IN A MODEL OF CHEMOTHERAPY-INDUCED CENTRAL NERVOUS SYSTEM INJURY

Carrie J. Merkle, Ida M. (Ki) Moore, Adam K. Ross,
Ashley M. Humphrey, David W. Montgomery

GENE EXPRESSION IN A MODEL OF CHEMOTHERAPY-INDUCED CENTRAL NERVOUS SYSTEM INJURY

Ida M. (Ki) Moore, Carrie J. Merkle,
Adam K. Ross, David W. Montgomery

THE LINK BETWEEN NEUROGLOBIN AND CEREBRAL INFARCT FOLLOWING ASAH

Pei-Ying Chuang, Samuel Poloyac, Elizabeth Crago, Paula Sherwood

Home ◀ ▶ go to PG.

NEUROLOGICAL HEALTH

Brain Cooling for Hypoxic Ischemic Encepholapathy: Four Years in Review

Sheila Kaseman, MS, RN-NIC
Clinical Practice Specialist
Neonatal Intensive Care Unit
Children's Hospital Colorado
Aurora, CO

Purposes/Aims: The presentation will include a brief review of the evidence to support the use of hypothermic therapy for the treatment of hypoxic ischemic encephalopathy in the newborn infant. This main goal of this presentation will be to review the last four years of patient data unique to the experience of one organization. This data will describe the population of infants treated with brain cooling for hypoxic ischemic encephalopathy (HIE). The data will include clinical criteria for cooling, clinical assessment characteristics and outcomes of this population**.**

Rationale/Background: Perinatal asphyxia and resulting ischemic encephalopathy (HIE) occur in 1 to 3 per 1000 births in the United States. Transient severe hypoxia-ischemia can precipitate a complex biochemical cascade of events leading to delayed neuronal loss in the newborn. There is now strong experimental and clinical evidence that mild to moderate cooling can interrupt this cascade, and improve the number of infants surviving without disability at 18 months of age (Gunn & Gluckman, 2007). Clinical and experimental evidence suggest that head cooling can allow effective brain cooling to be achieved with less systematic hypothermia (Tooley, Satas, Porter, et al, 2003; Gunn, Gluckman, Gunn, 1998). Data suggests that although induced head cooling is not protective in a mixed population of infants with neonatal encephalopathy, it could safely improve survival without severe neurodevelopmental disability in infants with less severe aEEG changes (Gluckman, Wyatt, Azzopardi, et al, 2005).

Methods: The FDA approved the use of brain cooling to provide hypothermia for the treatment of hypoxic ischemic encephalopathy in March of 2007. The Vermont Oxford Network (VON) began the Neonatal Encephalopathy Registry to identify demographic characteristics, associated risk factors, medical treatments, co-morbidities and outcomes. Data from this unique patient population will be reviewed.

Outcomes Achieved: The neonatal intensive care environment may benefit from a standardized, evidenced based approach and plan of care for infants who meet criteria for brain cooling for the treatment of hypoxic ischemic encephalopathy. Early identification, assessment and treatment will be essential as we continue to investigate the outcomes of cooling for the treatment of HIE. Hypothermic therapy is becoming the standard of care in Neonatal Intensive Care Units. This presentation will promote a deeper understanding of this population of infants.

Conclusions: Hypothermic therapy in the NICU is a relatively newer therapy to promote improved developmental outcomes in the infant diagnosed with HIE at birth. Close review of the data surrounding this population will be instrumental to the future care provided in NICU's.

Home

◀ ▶ go to PG.

Neuron Degeneration in a Model of Chemotherapy-Induced Central Nervous System Injury

Carrie J. Merkle, PhD, RN, FAAN
Associate Professor, College of Nursing
The University of Arizona
Tucson, AZ

Ida M. (Ki) Moore, DNS, RN, FAAN
Professor, College of Nursing
The University of Arizona
Tucson, AZ

Adam K. Ross, BS
Research Technician, College of Nursing
The University of Arizona
Tucson, AZ

Ashley M. Humphrey, BSN, RN
Staff Nurse
Southern Arizona VA Health Care System
Tucson, AZ

David W. Montgomery, PhD
Research Professor, College of Nursing
The University of Arizona & Southern Arizona VA Health Care System
Tucson, AZ

Purpose: The purpose was to identify specific regions and mechanisms of brain injury associated with chemotherapy treatment of the central nervous system (CNS) for childhood acute lymphoblastic leukemia (ALL) using a rat model.

Background: Chemotherapeutic CNS treatment with intrathecal methotrexate (MTX) for childhood ALL is essential for preventing relapse in the brain and long-term disease-free survival. Many children with ALL experience long-term cognitive and academic problems that have been linked to CNS treatment. We now describe a rat model that facilitates achievement of our goal to understand, hence prevent, MTX-induced CNS injury in children with ALL.

Methods: Male Fischer 344 rats (4 to 5 weeks old) were randomly assigned to MTX treatment, artificial CSF, or perfusion control groups. Rats in the MTX and artificial CSF groups received surgical placement of an osmotic pump into the left lateral ventricle in the brain. Rats in the perfusion control group did not have osmotic pumps placed. Rats were euthanized after control conditions or MTX treatment, and brains were formalin-fixed in situ, removed and processed for histology. Neuronal degeneration was quantified in 2 specific regions of the hippocampus (dentate gyrus and CA3), and in 3 regions of the cortex (superior, medial, and inferior), areas associated with learning. Criteria for assessing neuronal degeneration included reduction in cell body size, eosinophilic staining, and loss of identifiable organelles. Data were analyzed using descriptive statistics, t-tests and one-way ANOVA with post-hoc contrasts.

Results: After 3 days of MTX treatment, there was a significant increase in neuronal degeneration (38%) compared to controls (8% in perfusion and 14% in artificial CSF controls) in the dentate gyrus of the hippocampus. In the medial region cortex, the percentage of degenerating neurons was greater in the treatment versus control groups. Contrary to expectation, in the inferior region, there were fewer degenerating neurons in the treatment group compared to controls.

Implications: We successfully developed and utilized a rat model of chemotherapy-induced CNS injury to identify specific regions of the brain that were vulnerable to MTX treatment. We found that the dentate gyrus in the hippocampus and medial region of the cortex were particularly vulnerable to MTX-induced cell injury as evidenced by significant increases in neuronal degeneration. Future studies are needed to determine if these areas are involved in the cognitive decline seen among children treated for ALL. Further studies are also needed to determine underlying mechanisms of neuronal degeneration.

Funding: We thank Alex's Lemonade Stand Foundation for supporting this research. We acknowledge the Southern Arizona VA Health Care System for use of the Animal Research Facility.

Home ◀ ▶ go to PG.

Gene Expression in a Model of Chemotherapy-Induced Central Nervous System Injury

Ida M. (Ki) Moore, DNS, RN, FAAN
Professor, College of Nursing
The University of Arizona
Tucson, AZ

Carrie J. Merkle, PhD, RN, FAAN
Associate Professor, College of Nursing
The University of Arizona
Tucson, AZ

Adam K. Ross, BS
Research Technician, College of Nursing
The University of Arizona
Tucson, AZ

David W. Montgomery, PhD
Research Professor, College of Nursing
The University of Arizona & Southern
Arizona VA Health Care System
Tucson, AZ

Purpose: The purpose was to investigate gene expression changes in a rat model of methotrexate (MTX)-induced brain injury designed to mimic central nervous system (CNS) treatment for childhood acute lymphoblastic leukemia (ALL).

Rationale: ALL is the most common pediatric cancer, and long-term survival is approximately 85%. Aggressive intrathecal treatment with MTX is used to prevent metastasis of leukemia cells into brain tissue. However up to 40% of ALL survivors have persistent impairments in memory, attention, processing speed, visual spatial skills, and academic math abilities. Despite considerable evidence that intrathecal MTX treatment is associated with cognitive and academic problems, far less is known about mechanisms of CNS injury. Evidence in the literature supports oxidative stress and apoptosis as potential factors thought to be important to chemotherapy-induced injury. Furthermore, we were interested in exploring the potential effects of MTX on neuronal protection, synaptogenesis, and apoptosis. Examination of gene expression is one approach to begin identifying mechanisms involved in MTX-induced brain injury so that strategies for protection can be developed and tested.

Methods: Male Fischer 344 rats (4 to 5 weeks old) were randomly assigned to MTX treatment, artificial CSF, or perfusion control groups. Rats in the MTX and artificial CSF groups received surgical placement of an osmotic pump into the left lateral ventricle in the brain. Rats in the perfusion control group did not have osmotic pumps placed. Rats were euthanized after control conditions or MTX treatment, and brains were formalin-fixed in situ, removed and processed for histology. Tissue sections were prepared for laser capture microdissection (LCM). LCM was used to collect tissue from the dentate gyrus region of the hippocampus and from the caudate putamen. RNA was extracted, purified, and quantified for gene expression studies. We designed custom 96 well gene array plates that were constructed by Qiagen. Real-time reverse-transcription PCR was used to amply purified RNA. Gene expression analysis detected changes in 11 genes that have a role in oxidative stress/oxidant defense, apoptosis/inflammation, or protection from neuronal injury. Four housekeeping genes were also included in order to normalize data.

Results: In the dentate gyrus we found a significant increase in 3 genes involved in oxidative stress/apoptosis, while a decrease was seen in a gene involved in synaptogenesis. However, in the caudate putamen we found a significant decrease in 2 genes involved in oxidative stress, 2 genes involved in apoptosis, and 1 gene involved in protection from neuronal injury.

Implications: The hippocampus is important for memory, whereas the caudate putamen is an important structure for coordinating messages and regulating signals needed for learning. Findings suggest changes in gene expression associated with MTX treatment involved in CNS injury and the underlying cognitive declines in children with ALL.

Funding: We thank Alex's Lemonade Stand Foundation for supporting this research. We acknowledge the Southern Arizona VA Health Care System for LCM support.

The Link between Neuroglobin and Cerebral Infarct following aSAH

Pei-Ying Chuang, PhD, RN, Assistant Professor, College of Nursing[1]
Samuel Poloyac, PharmD, PhD, Associated Professor, Pharmaceutical Science[2]
Elizabeth Crago, PhD, RN, Associate Researcher, School of Nursing[2]
Paula Sherwood, PhD, RN, CNRN, Professor, School of Medicine/Nursing[2]
[1] *University of Colorado, Aurora, CO*
[2] *University of Pittsburgh, Pittsburgh, PA*

Background: Cerebral infarct leads to secondary brain injury, such as cerebral vasospasm and delayed cerebral ischemia, which induces high mortality and morbidity risk in post-aneurysmal subarachnoid hemorrhage (aSAH). General therapeutic options are largely limited to treating and possible reducing impaired neurological function. Discovery of a biologic indicator associated with delayed cerebral ischemia may diminish neurological ischemic deficits by providing for better assessment and quicker treatment.
Problem/Purpose: Neuroprotective biomarkers may play a role in preventing neuronal damage and in stimulating biochemical function. Neuroglobin (NGB), an endogenous neuroprotector, may be such a biomarker. NGB increases oxygen in case of cerebral ischemia and binds with more toxic substances in neurons. This study investigates NGB protein function during the critical hours after aSAH. The hypothesis guiding this investigation is that NGB concentration is associated with cerebral infarct in the critical hours immediately after the insult. An additional hypothesis is that NGB can predict neurological outcomes.
Methods: Design: This study was a prospective biobehavioral correlational design with a healthy control group (n=25). Forty-nine consecutively selected from subjects were enrolled between 2004 and 2009 using the following inclusion criteria: 1) adults (ages 21-75 years) diagnosis with severe aSAH from a ruptured cerebral aneurysm and; 2) Hunt & Hess grade $\geq$ 1 and/or Fisher score $\geq$ 2. The patients were admitted to the Neuro-Vascular Intensive Care Unit (NV-ICU) at the University of Pittsburgh Medical Center (UPMC). The study was approved by the University of Pittsburgh Institutional Review Board. Sample: Subjects were primarily of female, Caucasians, mean age 53 years with damage to in the posterior communicating artery; Glasgow Coma Scores of 13-15; Hunt & Hess grade 3; and Fisher score of 3. Measures: Cerebral spinal fluid (CSF) samples were obtained from all subjects 120 hours after admission to NV_ICU. Outcomes were assessed by Glasgow Outcomes Scale (GOS), National Institute of Health Stroke Scale (NIHSS), and Modified Rankin Scale (MRS). Analysis: Laboratory techniques included the Pierce BCA Protein, human NGB ELISA kit, an Odyssey Infract Imaging System with Western Blot were used. Descriptive statistics, independent t-tests, and chi-square were used.
Result: Total protein concentrations in the CSF were significantly (t(48) =7.562, p< 0.01) higher in aSAH subjects compared to health control (3595.73±2017 ng/ul vs. 318.43±196 ng/ul) over time. NGB concentrations were higher between 36-60 hours after the aSAH insult, with the highest peak (9ng/dl) and decreasing at hours 120 hours (3ng/dl). Fifteen aSAH subjects with severe infarct showed higher NGB than non-infarct subjects. Those with lower NGB had better neurological outcomes including the GOS, NIHSS, and MRS at months 3 and 12.
Conclusions: NGB was found to be elevated with in the first 24 to 72 hours decreasing by 120 hours after aSAH. There were greater levels associated with more severe infarct size/volume. NGB may play a role in the dynamic of cerebral ischemia. Further investigation is needed, but screening individuals for NGB may permit early targeted intervention in the future.

NURSING LEADERSHIP IN THE WORKPLACE

Moderator:
Lisa A. Jensen, APRN
Deputy Nurse Executive
VA Medical Center
Salt Lake City, UT

EFFECT OF NURSE MANAGER TEAMBUILDING SKILLS ON MEDICATION SAFETY PRACTICES

Linda Flynn, Joel Cantor, Yulan Liang

RETIREMENT AND THE REGISTERED NURSE: AN INTEGRATED LITERATURE REVIEW

Shanna Keele, Patricia T. Alpert

IMPACT OF A NURSE MANAGER DEVELOPMENT PROGRAM

Linda Flynn, Teri G. Lindgren

EDUCATION, FORMAL TRAINING, AND NURSING LEADERSHIP PRACTICES: A DESCRIPTIVE STUDY

Lesly Kelly, Teri Wicker, Richard Gerkin

CREATING A DIVERSE WORKFORCE: ENHANCING SUCCESS OF DISADVANTAGED BSN STUDENTS

Christine L. Latham

Home
◀ ▶ go to PG.

NURSING LEADERSHIP IN THE WORKPLACE

Effect of Nurse Manager Teambuilding Skills on Medication Safety Practices

Linda Flynn, PhD, RN, FAAN
Professor
College of Nursing
University of Colorado, Denver, Anschutz Medical Campus
Aurora, CO
Linda.Flynn@ucdenver.edu

Joel Cantor, ScD
Director and Professor
Center for State Health Policy
Rutgers University
New Brunswick, NJ

Yulan Liang, PhD
Associate Professor
School of Nursing
University of Maryland
Baltimore, MD

Aims:

1. To quantify the effects of unit factors such as teamwork and characteristics of the work environment on staff nurses' medication safety practices.
2. To determine the mechanisms through which nurse managers' teambuilding skills affect staff nurses' medication safety practices.

Background/Theoretical Rationale: Despite a growing awareness of the need to improve patient safety, it is estimated that the average inpatient still experiences approximately one medication error per day. Although Aiken's Nursing Organization and Outcomes Model theoretically proposes that skilled front line managers promote patient safety by positively influencing nurses' care practices, there is little evidence to support this association. Therefore, this study was designed to address this gap in the evidence.

Methods: This multi-site study recruited a convenience sample of 225 staff nurses from 53 medical/surgical units located across 16 acute care hospitals in the mid-Atlantic region. Reliable and valid instruments measured staff nurses' ratings of their manager's teambuilding skills, teamwork on the unit, the practice environment on the unit, and their own medication safety practices. Multi-level regression models, accounting for clustering of nurses within units and units within hospitals, were estimated. Mediation models were tested to identify the operant mechanism by which manager's teambuilding skills influence medication safety practices.

Results: Manager's teambuilding skills, unit teamwork, and the unit practice environment were significantly associated with nurses' medication safety practices. The practice environment fully mediated the effect of managers' teambuilding skills on mediation safety practices, and teamwork on the unit partially mediated the effect of managers' teambuilding skills on medication safety practices.

Implications for Nursing: Findings identified two specific paths by which nurse managers' teambuilding skills promote nurses' medication safety practices: (1) by enhancing unit teamwork and by (2) contributing to a supportive work environment. Implications include confirmation of the importance of a skilled, competent front line manager to safe nursing practices, and the need to ensure that front line managers receive training and development opportunities to enhance their teambuilding skills.

Funding: This study was funded by research grant # 68224 awarded to Drs. Flynn & Cantor (dual PIs) by the Robert Wood Johnson Foundations INQRI initiative.

Home ◀ ▶ go to PG.

NURSING LEADERSHIP IN THE WORKPLACE

Retirement and the Registered Nurse: An Integrated Literature Review

Shanna Keele, MSN, FNP-BC
PhD Student
Urban Sustainability: Health Program
University of Nevada, Las Vegas
Las Vegas, NV

Patricia T. Alpert, DrPH, MSN, FNP-BC, PNP-BC, CNE, FAANP
Chair: Physiologic Nursing Department
School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV

To investigate the sustainability of the Registered Nurse workforce, an integrative literature review examined Registered Nurse retirement literature and implemented Whittemore and Knafl's theoretical framework to ensure methodological rigor. Once the literature was accessed, data were isolated for analysis and integration. Each study was systematically evaluated. Major themes and conclusions were identified for each paper. A total of 145 papers were initially identified. After inclusion and exclusion criteria were applied, 17 papers were included in the review. Of these, seven were qualitative studies and 10 were quantitative studies.

Each qualifying paper was evaluated on methodological features. Quantitative studies were evaluated on 18 criteria and qualitative studies on 14 criteria. Scored points were then summed for a grand total of between 1-18 points with 14-18 points scored as a Grade 3 (high quality [*n*=7]), 9-13 points as a Grade 2 (medium quality [n=9]) and 1-8 points as a Grade 1 (poor quality [n=1]).

Data from the included studies were organized, categorized, and summarized to construct a rational summary. This review revealed three knowledge gaps including: the incomplete discussion of the economic impact on RN retirement, RN demographics and retirement, and the lack of prospective longitudinal RN workforce studies which may significantly impact RN workforce retention and recruitment measures.

Impact of a Nurse Manager Development Program

Linda Flynn, PhD, RN, FAAN
Professor
College of Nursing
University of Colorado, Denver, Anschutz Medical Campus
Aurora, CO

Teri G. Lindgren, PhD, RN
Assistant Professor
College of Nursing
Rutgers, The State University
Newark, NJ

Aims: (1) To translate evidence into practice settings by implementing an evidence-based, frontline nurse manager development program; (2) To describe, from the perspective of participating nurse mangers, the impact of the development program on skill building, team building, and patient safety practices.

Background/Theoretical Rationale: Although a report from the Institute of Medicine emphasizes the importance of frontline nurse managers' leadership skills to patient safety, research findings indicate that many nurse managers lack the skills and training needed for their leadership activities. Derived from the principles of Crew Resource Management and the theoretical propositions of the Nursing Organization and Outcomes Model, this project designed, implemented and evaluated an evidence-based nurse manager development program.

Methods: Following protocol approval by the Institutional Review Board, a total of 36 frontline nurse managers were recruited from 14 acute care hospitals to participate in the program, which consisted of five full-day workshops scheduled one month apart. Individual, qualitative, ethnographic interviews were conducted within a purposive sample of 10 nurse manager participants approximately three months following the conclusion of the workshop series. Interviews were recorded, transcribed verbatim, and subjected to analysis using a qualitative analytic software program. Emerging, thematic patterns were coded and labeled.

Results: Themes were categorized under processes, outputs, and outcomes. A key process impacted by the development program was the utilization of enhanced communication techniques by managers. Resulting outputs included improved conflict management, teambuilding, and team work on the unit as well as an increase in decision-making and engagement by staff. Managers described outcomes as including stronger leadership skills, more active engagement and innovation of staff related to patient safety initiatives, and a perceived decrease in adverse patient events on their units.

Implications for Nursing Practice and Education: Nurse managers participating in this development program described their specific processes, outputs, and outcomes that they perceived were due to program participation. Healthcare facilities and educational institutions should ensure that nurse managers receive the training needed to develop their leadership skills.

Funding: Research award # 68224 awarded to Dr. Flynn by the Robert Wood Johnson Foundation's INQRI program.

Home ◀ ▶ go to PG.

Education, Formal Training, and Nursing Leadership Practices: A Descriptive Study

Lesly Kelly, PhD, RN, Nurse Researcher, Assistant Research Professor[1, 2]
Teri Wicker, PhD, RN, Director of Professorial Practice[3]
Richard Gerkin, MD, MS, Director, GME Research[1]
[1]*Banner Good Samaritan Medical Center, Phoenix, AZ*
[2]*Arizona State University, Phoenix, AZ* [3]*Banner Heart Hospital, Mesa, AZ*

Purpose: The purpose of this research study was to describe and analyze leadership practices of three levels of frontline nurse leadership in a large 23-hospital health system.
Background: Acute care nurses are often promoted in to leadership positions without formal training or education to manage operations and staff. As a result, informal learning occurs and can result in poor leadership practices, which can be detrimental to the nurses' work environment. Positive leadership practices have been operationalized through the development of Kouzes and Posner's (2001) five structure model of exemplary leadership behaviors and measured through the corresponding Leadership Practices Inventory (LPI) survey tool. A decade's worth of research has demonstrated that leaders who institute these practices have strong communication, meet organizational values, and have a high level of impact. Yet, it remains unknown whether formal training for nurse leaders improves frontline nurse leadership practices at entry, mid, or higher leadership levels. To our knowledge, this is the largest study to describe the relationship of nursing leadership practices to leadership training and demographic predictors.
Methods: We conducted a descriptive cross-sectional survey study in a large acute care 23-hospital health system in the Western United States. A three part pen-and-paper survey was administered to nurse leaders at each hospital's monthly nursing leadership meeting. The survey included 1) demographics, 2) report of amount of leadership training received, and 3) self-assessment of leadership practices, as measured by the LPI.
Results: We received 518 responses (overall 53% response rate) from three standardized levels of nursing leadership: Clinical Managers (n=284, 45% response rate), Senior Clinical Managers (n=143, 90% response rate), and Directors (n=91, 83% response rate). As would be expected, demographic characteristics increased with each level of title, including age, tenure, education, and amount of leadership training. The LPI was analyzed as a total score and in the highly reported and reliable five subscale structure. Directors had the highest total scores and highest subscale averages, followed by senior clinical managers and then clinical managers. The nurse's leadership title was understandably correlated with education and tenure as a nurse leader. In regression analysis, we found the nurse's leadership title was a significant predictor of higher performance on the subscales, indicating that those in higher positions engage in a high level of leadership practices. Nevertheless, we found leadership training while controlling for title to be a significant predictor of total LPI score and two of the five subscales, signifying that in addition to experience, leadership training is a significant contributor to higher level of leadership practices. Importantly, we found having a Masters degree or higher was a highly significant predictor of exemplary leadership practices in three of the five subscales and total LPI score.
Implications: Our findings describe leadership practices of frontline nurse leaders at three levels and provide a wealth of data as to how to develop, improve, and enhance nursing leadership training. Additionally, we provide evidence to the recommendation of having Master's prepared nurses in leadership positions to improve leadership practices.

Reference:
Kouzes, J.M. & Posner, B.Z. (2001). Leadership practices inventory (LPI). Revised 2nd ed. online version participants workbook. San Francisco: Jossey-Bass/Pfeiffer.

Funding: Funding for this research was provided by the American Organizations of Nurse Executives (AONE) Foundation research seed grant award.

NURSING LEADERSHIP IN THE WORKPLACE

Creating a Diverse Workforce: Enhancing Success of Disadvantaged BSN Students

Christine L. Latham, DNSc, RN, Professor, California State University, Fullerton, CA

Purposes/Aims: A multi-dimensional approach was used to address key, previously-identified factors that limit underrepresented student academic success. The approach was based on established principles (NRSA, Sept, 2012), factors related to racially-bound images of nursing (Reiskin & Haussler, 1994), and the lack of support and understanding of diversity in ethnocentric educational systems that may use cultural collectivism and high-context views that are in conflict with individualism and low-context views. Higher education is perceived differently by students from various cultures and socio-economic circumstances. These student may experience a lack of a faculty-student connection, inhibited communication if English is limited, and poor support from other students (peers), teachers, university system, family and friends. If unresolved, new psychosocial barriers may develop, including intrapersonal anxiety, lack of confidence, perceived significance and pressure, self-induced perfectionism, extreme self- consciousness, and sensitivity (Xu & Davidhizar, 2005).

Rationale/Background: Nationally, underrepresented and disadvantaged students continue to take a longer time to graduate, and in some cases, do not successfully complete baccalaureate degree programs (McClure, 2012; U.S. House of Representatives, 2012). A nationally recognized Hispanic-Serving Institution that planned to initiate a new, generic RN program found that the overall retention rates of underrepresented ethnic minorities in the established RN-BSN Nursing Program from 2000-2006 averaged 56.7% (455/1241) with wide, annual fluctuations for underrepresented groups. For example, typical graduation rates for each group included Hispanic (50-70%), African American (53%), Native American (50%), Pacific Islanders (50%), and Underrepresented Asian students (65%). This is dismal data, given that these were academically qualified, licensed RNs who voluntarily returned to school to receive a baccalaureate degree after successfully completing intensive diploma or associate degree programs in nursing.

Undertaking/Best Practice/Approach/Methods/Process: Proactive interventions included establishing a comprehensive pre-nursing freshman program with courses targeting academic advisement, learning communities, and an overview of college resources and other college requirements. Admitted nursing students were able to use a new writing center that was devoted to improving students' writing skills, a peer mentoring program, and a faculty-student mentoring program. Faculty instructional approaches and student-faculty governance became a focus following student focus group work that informed the faculty and administration, and new strategies to improve student perceptions about academic support and learning were instituted.

Outcomes Achieved/Documented: Tools used over three years of the above interventions included the READI instrument that measures students' capabilities to incorporate technology, the School Success Factor Index(SSFI) that estimates overall student academic capabilities, and the Perceived Family and Friends Social Support (PSS) instrument to determine student perception of support while in school. The READI and SSFI indicated that students had low academic attributes for success in school. The trend in numbers of students not having sufficient academic skills decreased from 89% (17 of 19)of students in year 01, 54% (15/28) in year 02, to only 25%(8/32) in year 03. Finally, the peer mentoring program improved low PSS scores of high-risk students who perceived non-supportive family and friends.

Conclusions: This project provided cost-effective and sustainable support programs for baccalaureate nursing students from disadvantaged and underrepresented ethnic backgrounds.

Funding: The "Workforce Improvement Project" is supported by $948,027 in funds from the Division of Nursing (DN), BHPr, HRSA, Department of Health and Human Services (DHHS) under Nursing Workforce Diversity Grant number D19HP14616. The information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any official endorsement be inferred by, the DN, BHPr, HRSA, DHHS, or the US Government.

NURSING OUTREACH AND ADVOCACY FOR FAMILIES

Moderator:
Tiffany J. Hommes, DNP, RN, CNP
Assistant Professor of Nursing
Bemidji State University
Bemidji, MN

PRENATAL CARE: OREGON HEALTH PLAN AND THE INVERSE CARE LAW

Angie Docherty, Alison Johnston

REACHING RENTERS AND LOW-INCOME FAMILIES IN THE WAITING ROOM

Laura S. Larsson

PUBLIC HEALTH POLICY AND RADON EXPOSURE

Laura S. Larsson

FORCES OF CHANGE COMMUNITY ASSESSMENT

Nancy Nivison Menzel

PRELIMINARY EFFECTIVENESS OF HOME VISITATION MODELS: MOMS ORANGE COUNTY

Yuqing Guo, Pamela Pimentel, Ellen Olshansky,
Yvette Bojorquez, Julie Rousseau

Home ◀ ▶ go to PG.

NURSING OUTREACH AND ADVOCACY FOR FAMILIES

Prenatal Care: Oregon Health Plan and the Inverse Care Law

Angie Docherty, NursD, MPH, PHN, RN
Assistant Professor
School of Nursing
Oregon Health Science University, Monmouth
Monmouth, OR

Alison Johnston, PhD
Assistant Professor
School of Public Policy
Oregon State University
Corvallis, OR

Background & Rationale: The prenatal period is one stage in a women's life when they seek the support and advice of health professionals. Care during this period, and during the first trimester in particular, underpins healthy fetal development and provides an important arena for public health intervention. Yet, uptake of first trimester prenatal care has dropped significantly in Oregon over the past ten years (Indicators Northwest 2012). From a 2005 rate in excess of the Healthy People 2020 target (DHS 2012), Oregon now has a rate well below the 2020 target. To help explain this trend we explored the association between key maternal determinants and the uptake of first trimester prenatal care in Oregon.

Method: Using 2000-2010 data from all Oregon counties, a first-difference, fixed effects regression model assessed the influence of determinants known to influence access to first trimester care (such as ethnicity, education, smoking status, physician rate, and insurance coverage).

Results: The key explanatory variable was Medicaid (Oregon Health Plan) insurance coverage. Counties who witnessed *increases* in OHP coverage (in terms of payment of delivery) were significantly more likely to witness *decreases* in first-trimester care access (p0.005). These results were not sensitive to the inclusion of the other maternal determinants.

Conclusion: There appears to be a robust inverse relationship between OHP (Medicaid) coverage and access to first trimester care. We offer two possible explanations for this relationship: denied early access due to declining physician reimbursement rates; and delayed early access due to a failure to quickly transfer low-income women to enhanced benefits in the first trimester. Access to health insurance, such as Medicaid, is an important safety net for the most vulnerable in society. However, there are policy challenges inherent in the provision of care funded through this system that may be underpinning an inverse care paradox: women most likely to be in need of prenatal care may be least likely to receive it.

Implications: There is limited time for women to seek first trimester care and therefore, in this period of health care reform, we urge nurses and practitioners to develop a proactive approach to ensuring early access to care for all women. We recommend:

- Outreach, care navigation and education in low-income areas.
- Advocacy (such as for presumptive eligibility for pregnant women) at strategic policy level.

References:

Indicators Northwest. (2012) State Highlights[Internet].Retrieved from http://www.indicatorsnorthwest.org/.

Department of Health & Human Services (2012) Healthy People 2020. Washington: Department of Health & Human Services. 2012.

NURSING OUTREACH AND ADVOCACY FOR FAMILIES

Reaching Renters and Low-Income Families in the Waiting Room

Laura S. Larsson, PhD, MPH, RN
Assistant Professor, College of Nursing
Robert Wood Johnson Foundation Nurse Faculty Scholar
College of Nursing
Montana State University
Bozeman, MT

Purposes/Aims: To test the efficacy of an education intervention delivered in the Women Infant and Children (WIC) waiting-room via digital signage technology (DST) for increasing radon-program participation by low-income families and families who rent their homes.

Rationale: Baseline evaluation of the county radon program showed that 88.2% of people who purchased radon test kits owned their home compared to a 26.3% home ownership rate among Gallatin County WIC participants. Radon related lung cancer is responsible for 21,000 deaths in the U.S. each year. Residential testing campaigns, health behavior research and radon-testing policy have only focused on testing for home owners. One-third of Americans rent their homes so environmental health outreach efforts must be tailored for and delivered to this audience.

Method: A pre-post design was used to compare sociodemographic characteristics of radon program participants before and after the DST radon animation was displayed in the WIC waiting room. Radon program bulletin boards and hand cards, defined as the standard-of-care, were available in both the pre- and post-intervention phases. Survey data was collected for eligible participants at the time of purchase.

Results: Radon program participants (n = 212) all lived in a radon Zone 1 designated Montana county. A crosstabs analysis was conducted to evaluate the hypothesis that the proportion of renters participating in the radon program would increase with the intervention. Pearson $\chi 2_{(1,\ 212)} = 4.7$, p = .029, Cramer's V = .15 indicated that the intervention was associated with a significant increase in participants who rented their home. The proportion of renters in the program in the twelve months before the intervention was 13.9% (n = 16) and in the 12 months of the intervention the proportion increased to 25.8% (n = 25). Additional indices that the intervention broadened the reach of the county radon program were a significant increase in first time testers ($\chi 2_{(1,\ 212)} = 11.99$, p = .002, Cramer's V = .24) and current WIC participants ($\chi 2_{(1,\ 162)} = 4.26$, p = .039, Cramer's V = .16) representing an increase from four WIC clients pre-intervention to 29 WIC clients post-intervention. Approximately one-third (33%, n = 33) of the 97 post-intervention participants said they learned of the radon program from the DST message.

Implications: A visually engaging and theoretically-grounded message displayed in a WIC waiting room was effective in increasing radon program participation by renters and low-income families. DST shows promise for delivering health information while people wait and does not increase the demand on limited provider-client interaction time. The tool needs to be further tested on a variety of topics and with a variety of audiences.

Funding: Robert Wood Johnson Foundation Nurse Faculty Scholars Program Grant ID# 68034.

Home ◀ ▶ go to PG.

Public Health Policy and Radon Exposure

Laura S. Larsson, PhD, MPH, RN
Assistant Professor, College of Nursing
Robert Wood Johnson Foundation Nurse Faculty Scholar
College of Nursing
Montana State University
Bozeman, MT

Purposes/Aims: Inventory and analyze the regulatory policies addressing indoor radon exposure in public and private buildings and residential structures. Compare and contrast the policies for protecting vulnerable groups from radon exposure.

Rationale: The architects of Healthy People 2020 have narrowed the focus of radon-related health objectives to Radon Resistant New Construction (RRNC). At the federal level, cuts to the State Indoor Radon Grant budget have been proposed on the grounds that “states are ready to stand on their own” to reduce radon risks. As high-radon states consider strategies to reduce radon exposure they should be guided by an assessment and analysis of current statutory approaches.

Method: A policy inventory was conducted using LexisNexis Academic of each state in the U.S. for statutory, administrative or constitutional statutes, codes and regulations concerning radon. A search criterion was that the policy had to have at least five occurrences of the word radon to filter out policies where radon was incidental. Results were organized into categories separating policies governing radon professionals from those that directly address indoor air quality for vulnerable populations (e.g., children, renters).

Results: States ranged from 0 – 53 radon policies across ten categories including RRNC, protection for children, tenants, or public employees. Only two states in the union had policies that addressed radon in the rented environment; one more likely to promote testing and prevent lung cancer than the other. More than a dozen states required disclosure of known radon results in a real estate transaction; none of them actually required testing. Of the six that required schools and daycares to periodically test these environments for radon only one state, Rhode Island, required the results be reported to parents. It is noted in the Rhode Island Statute that this provision has been associated with an increase from 40% to 87% of mitigation in high-level homes. Nebraska, Illinois, Maine, and New Jersey have either adopted RRNC policies or are considering them in the 2012 legislative session. An analysis of the differences in these policies within the categories of RRNC, tenants’ rights, and children’s environments revealed critical differences in the potential to improve public health.

Implications: The art of crafting a well-written policy is underscored in the findings from this research. There are currently very few states with a strong set of public health policies to protect vulnerable groups from radon exposure. As states consider responding to the Healthy People 2020 objectives for RRNC and to mandates to address health disparities in lung cancer, an analysis of the strengths and weaknesses of existing policies may help guide their efforts.

Funding: Robert Wood Johnson Foundation Nurse Faculty Scholars Program #68034.

Home ◀ ▶ go to PG.

Forces of Change Community Assessment

Nancy Nivison Menzel, PhD, RN
Associate Professor
Psychosocial Nursing
University of Nevada, Las Vegas
Las Vegas, NV

Purposes: The project completed the Forces of Change Assessment, one of four assessments in the Mobilizing for Action through Planning and Partnerships (MAPP) framework for strategic planning for improving community health. MAPP was developed by a national public health organization and is used by health departments nationally. This phase identifies forces such as legislation, technology, and other impending changes that affect the context in which the community and its public health system operate. It answers the questions: “What is occurring or might occur that affects the health of our community or the local public health system?” and “What specific threats or opportunities are generated by these occurrences?”

Background: Clark County, Nevada includes Las Vegas and surrounding areas, with a combined population of approximately 2 million (and 36 million visitors a year). The Las Vegas area fares poorly in most health indicators, such as high school graduation rate, chronic disease morbidity and mortality, suicides, tobacco use, and access to health care. The Southern Nevada Health District (SNHD) partnered with the University of Nevada, Las Vegas (UNLV) to complete parts of a comprehensive community assessment as a foundation for improving population health.

Methods: The researcher conducted one large brainstorming session, a smaller focus group, and four interviews with key informants (n=48) using a standardized worksheet. Responses were recorded, transcribed, and entered into NVivo9 for qualitative analysis.

Results: Major forces identified were: Access to Care (Affordable Care Act), Economics (high unemployment), Education (inadequate state budget), Environment (climate change, water shortages), Health Care/Providers (shortage of health professionals, hospital quality), and Government (people want services but are unwilling to pay for them). All posed threats to community health, but some also provided opportunities. The Affordable Care Act would create an opportunity to reduce the number of uninsured and develop medical tourism, but its status is uncertain. Climate change can increase drought and air pollution but also provide an opportunity to increase sustainable transportation and recreation (e.g., “Neon to Nature” trails), as well as ecotourism. With state support lagging, local agencies and groups can partner with each other and the university to improve health care and increase the supply of primary care providers. Environmental action has begun with “Convene for Green” movement to increase sustainability.

Implications: The SNHD will use these findings along with those from the other assessments to identify strategic issues to improve quality of life. In the absence of increased state or federal funding, grassroots efforts will be needed to address these threats and opportunities. This project is an example of a local government agency partnering with a school of nursing to conduct needed research within its limited budget, an academic-practice partnership.

Funding: This research was supported by a subaward from the Southern Nevada Health District from its grant awarded by NACCHO (National Association of County & City Health Officials).

Home go to PG.

NURSING OUTREACH AND ADVOCACY FOR FAMILIES

Preliminary Effectiveness of Home Visitation Models: MOMS Orange County

Yuqing Guo, PhD, RN, Assistant Professor[1]
Pamela Pimentel, RN, Chief Executive Officer[2]
Ellen Olshansky, PhD, RN, WHNP-BC, FAAN, Professor and Director[1]
Yvette Bojorquez, RN, Chief Program Officer[2]
Julie Rousseau, PhD, RN, CNM, Assistant Clinical Professor[1]

[1]*Program in Nursing Science, University of California, Irvine*
[2] *MOMS Orange County*

Purpose: The purpose of this research was to provide preliminary evidence about the effectiveness of the MOMS Orange County home visit program on birth outcomes and infant development.

Background: MOMS Orange County (MOMS) is a community-based home visitation program. Each year MOMS provides access to prenatal care, health screenings, health education, and referral services to more than 3,500 low-income, at-risk pregnant women in underserved communities. MOMS has established a coordinated model of home visitation services that is characterized by two essential elements: (1) highly trained araprofessionals serve as home visitors and are closely supervised by RNs; and (2) pregnant women who need higher levels of service are referred promptly to public health nurses. Despite the tremendous contribution to the community over 20 years, the effectiveness of the MOMS program on birth outcomes and infant development has lacked rigorous investigation.

Methods: This study implemented an academic and community partnership approach. During 2009-2010, 2,769 pregnant women who participated in the MOMS program were assessed during a series of prenatal and postnatal home visits. MOMS provided a de-identified 2009-2010 dataset. UCI's Program in Nursing Science was responsible for conducting relevant analyses of the MOMS data. Descriptive statistics were used to describe the birth and infant outcomes. Hierarchical multiple and logistic regression analyses were conducted to examine the associations between the number of MOMS prenatal home visits and birth and infant development outcomes, controlling for maternal education and age, and family income.

Results: For the clients in the MOMS program, 7% of babies were born prematurely, 0.7% had a very low birth weight, and 6% spent time in an NICU. Ninety-three percent of the MOMS program babies received breast milk following delivery, 99% had a medical home, 86% completed immunizations, and 90% scored within normal limits on the Ages and Stages Questionnaire developmental screening. It was found that pregnant women who received more MOMS prenatal home visits were more likely to have healthier birth outcomes.

Implications: This study provided preliminary evidence that the MOMS model, in which highly trained paraprofessionals make home visits under the close supervision of registered nurses, is an effective model. Research using rigorous design is needed to further establish the effectiveness of the MOMS program.

Funding: This project was funded by the Campus-Community Research Incubator Program (CCRI) at the UCI Institute for Clinical Translational Science.

Home

◀ ▶ go to PG.

NURSING STUDENT OUTCOMES

Moderator:
Suzan Kardong-Edgren, PhD, RN, ANEF
Associate Research Professor
Boise State University
Boise, ID

JOURNEYING WITH STUDENTS THROUGH OPENING UP TO LEARNING: A TEACHING-LEARNING THEORY

Pamela H. Cone

NURSING STUDENT SATISFACTION WITH THE BACHELOR OF SCIENCE IN NURSING PROGRAMS

Hsiu-Chin Chen

UNDERGRADUATE CLINICAL EDUCATION INNOVATIONS: MEASURING HEALTH OUTCOMES

Heather Voss, Launa Rae Mathews

THE MEANING OF STUDENT NURSES' CLINICAL EXPERIENCES WITH DIVERSE POPULATIONS

Mary Jo Stanley

Home ◀ ▶ go to PG.

NURSING STUDENT OUTCOMES

Journeying with Students through Opening up to Learning: A Teaching-Learning Theory

Pamela H. Cone, PhD, RN, CNS
Associate Professor, School of Nursing
Azusa Pacific University
Azusa, CA
pcone@apu.edu

Aim/Purpose: The purpose of this presentation is to introduce a teaching/learning theory based on qualitative research using classic grounded theory methodology, which resulted in two substantive theories that are integrated in order to promote spiritual care education in nursing schools.

Description of Theory: "Journeying with Students through Opening up to Learning" is a teaching/learning theory that describes the process of how nurse educators help nursing students learn how to provide spiritual care. The linked **Teacher/***Learner* phases of this theory include: **1-Raising Awareness/***Preparing*, **2-Assisting & Supporting/***Connecting & Supporting*, and **3-Mentoring/***Reflecting*. This iterative process continues as students learn and grow throughout the nursing program.

Analytical Approach Used: A Glaserian Grounded Theory study was conducted in 2008-2009 to identify how nursing students learn to provide spiritual care and how teachers promote their learning. Five teacher and eight student focus group interviews were conducted among nursing teachers (N=19) and students (N=42) from three university colleges in Bergen, Norway. Open, selective, and theoretical coding identified two iterative processes that resolve the main concerns of the teachers and students related to spiritual care. Constant comparative analysis of transcribed interviews continued until emergent categories were saturated. Each of the substantive theories, "Journeying with Students through Maturation" and "Opening up to Learning Spiritual Care", has three phases that are congruent with each other and support forward momentum through these basic social processes of teaching and of learning. Further in-depth analysis of these emergent substantive theories combined them to form a teaching-learning theory.

Linking Theory to Practice: Examination of the current literature on spiritual care education reveals that there is limited research from the teachers' and students' perspectives related to learning how to give spiritual care. Research develops theory and theory informs practice; thus, "Journeying with Students through Opening up to Learning" can promote nursing education in the spiritual domain and help nurses to provide more effective spiritual care in various health care settings.

Conclusion & Implications for Practice: Nursing education should prepare nurses to provide spiritual care to their patients in any setting. Although further research should to be done to test this theory, "Journeying with Students through Opening up to Learning" is grounded in rigorous qualitative research. Therefore, this integrated teaching/learning can provide direction and structure to the spiritual care content taught in nursing schools around the world.

Home ◀ ▶ go to PG.

NURSING STUDENT OUTCOMES

Nursing Student Satisfaction with the Bachelor of Science in Nursing Programs

Hsiu-Chin Chen, PhD, RN, EdD
Associate Professor
Department of Nursing
Utah Valley University
Orem, UT

Purposes: To conduct a national survey study in the US to understand student satisfaction with the Bachelor of Science in Nursing (BSN) programs in areas of curriculum and teaching, professional social interaction, and environment.

Background: The widespread demands from healthcare institutions and consumers for greater accountability in nursing education have obtained unprecedented attention. Accountability indicators, such as overall student satisfaction, have provided critical information regarding the attractiveness of the college to students. There is a need for using a standardized instrument to comprehensively examine areas that students are mostly satisfied with the BSN program. Yet, little evidence has been provided to demonstrate a consistent evaluation of reliability and validity of an instrument used for measuring BSN student satisfaction. Moreover, no national studies are comprehensively conducted to investigate the BSN student satisfaction in the US.

Methods: This cross-sectional nationwide survey study was conducted using the Nursing Student Satisfaction Scale (NSSS) to gather student satisfaction data from the BSN programs accredited by the Commission on Collegiate Nursing Education (CCNE) in the US during 2010 and 2011. In total, 48 states having 639 schools in the US were eligible for participation. The method of proportional stratified random sampling was used to ensure representativeness of all states according to the number of the BSN program in each state. The sampling ratio was 2: 5, in which two of every five schools in each state were randomly selected for participation. In total, 287 BSN programs were randomly selected for participation. The nursing students who were in the last semester either of fall 2010 or spring 2011 in the BSN program were invited to participate in this nationwide survey, and the questionnaires were anonymous and were completed once during a regularly scheduled nursing class.

Results: Of the 287 BSN programs invited, 23 states offering 29 BSN programs participated in this study. The participating students included 92.4% (n = 981) females and 7.6% (n = 81) males. The nursing students perceived higher levels of satisfaction with the curriculum and teaching, and were less satisfied with the environment. Nursing students who were in RN to BSN completion programs were significantly more satisfied with the nursing program than the students who were either in the generic BSN programs or in the second degree to BSN programs [F (2, 1057) = 7.11, p = .01]. The hierarchical multiple regression was used to identify to what extent the three subscales predicted the overall student satisfaction. The results indicated that the nursing curriculum and teaching, and professional social interaction significantly and positively predicted the overall student satisfaction with the BSN program, after controlling the demographics and program type and state size (t = 15.89, $p < .01$; t = 17.31, $p < .01$, respectively). The curriculum and teaching contributed 58.9 % of the variation in the overall student satisfaction.

Implication: The NSSS measuring factors that influence student satisfaction provides faculty with information necessary to enhance students' educational experiences, and an evaluation of psychometrics of the NSSS has been consistently assessed and validated.

Undergraduate Clinical Education Innovations: Measuring Health Outcomes

Heather Voss, MSN
Clinical Assistant Professor
School of Nursing
Oregon Health & Science University
Ashland, OR

Launa Rae Mathews, MN
Clinical Assistant Professor
School of Nursing
Oregon Health & Science University
Portland, OR

Aims/Purpose: Present a framework for ongoing evaluation of impact of undergraduate nursing student service learning projects on health behaviors and health outcomes.
Rational/Background: The 2010 Affordable Care Act represents the broadest health care overhaul since 1965. According to an IOM report, nurses are unable to fully participate in the evolution of health care in the United States. Nurses at all levels, whether they practice in schools, community and public health centers or acute care settings may face barriers which limit them in fully participating or contributing to health policy and meaningful change to improve health outcomes (Institute of Medicine, 2011). Engaging students in community participatory exploration to identify health outcomes as evidence supporting program and policy development in the prevention of disease and the promotion of health are foundational in preparing future nurses. Nursing faculty across the nation have adopted service learning as a clinical activity providing students an opportunity to fulfill course outcomes, engage in client centered care, policy development and system level change while contributing meaningful service to communities. Undergraduate nursing students enrolled at Oregon Health and Sciences University (OHSU) School of Nursing, Ashland campus, have engaged in service learning projects designed to improve health in Jackson and Josephine Counties in southern Oregon since 2008. Tangible evidence related to program development and community engagement has been documented. However, methods and processes to measure improvement of health behaviors and health outcomes attributed to student service learning projects and interventions do not exist.
Description of Undertaking: Two Oregon Health & Science University (OHSU) School of Nursing faculty in collaboration with three community clinical partners piloted a project to identify a methodology for assessing impact of student led projects on health behaviors and health outcomes in two rural Oregon counties in 2012. During phase one of the pilot project processes for measurement were created by the faculty and community partners. In phase two, six undergraduate nursing students piloted the process for measurement using a mixed method design during their population based care course.
Outcomes Achieved: Four themes emerged as a result of the pilot project: access, feasibility, metrics and consistency. These four themes serve as a conceptual framework for ongoing evaluation of impact of nursing student service learning projects on health behaviors and health outcomes.
Conclusion: Nurse Educators are in the best position to spearhead national initiatives which best prepares nursing students for the rigorous expectations of current and future health care delivery systems. Clinical curriculum should include activities which engage students to actively evaluate health outcomes of the clients they serve.

Reference:
Institute of Medicine. (2010). *The Future of Nursing: Leading Change, Advancing Health.* Washington, D.C., Retrieved from http://www.iom.edu/Reports/2010/The-Future-of-Nursing-Leading-Change-Advancing-Health/Recommendations.aspx.

Funding: Oregon Health & Science University Betty Gray Rural Development Fund.

Home

◀ ▶ go to PG.

NURSING STUDENT OUTCOMES

The Meaning of Student Nurses' Clinical Experiences with Diverse Populations

Mary Jo Stanley, PhDc, RN
Assistant Professor
University of Northern Colorado
Greeley, CO
maryjo.stanley@unco.edu

Purpose: The purpose of this narrative study was to examine students' perceptions of diverse populations as experienced through their clinical environments in nursing school and the meaning these experiences hold for them. Limited research exists that examines student nurse's perceptions of diverse populations. A description of the meaning that clinical experiences hold for students can assist in helping students develop the requisite knowledge and skills that will guide them in their practice. Students' perceptions of diverse populations can provide a baseline in cultural understanding so teaching strategies can be developed that meet the learners' needs.

Rationale: The increase in cultural diversity within the United States necessitates that healthcare professionals have a greater understanding of cultural competence. To meet the health care needs of diverse ethnic and racial communities, student nurses must provide care that is responsive to clients' needs and respectful of personal, cultural, and belief practices. To prepare nurses for this challenge, schools of nursing must provide foundations for students to effectively provide this care. The American Association of Colleges of Nursing (AACN, 2008) has called for greater understanding and respect related to populations culturally and ethnically diverse from dominant society and designated essentials for nursing education that embrace this focus in nursing curricula. Instruction through a curriculum that integrates the skills, knowledge, and values that support cultural competence is necessary. Student nurses will encounter racially and ethnically diverse populations in practice; understanding the values, beliefs, customs, and cultural factors that influence clients' health behaviors must be considered when providing care.

Method: For this study, use of a qualitative narrative design provided further inquiry into students' perceptions of diverse groups/individuals as experienced through their clinical environment(s). Narrative research captured details of their stories as well as experiences related to single or multiple events, providing a perspective unique to the participant that might best be presented through qualitative design. Interviews and journaling helped students identify their own perceptions of diversity as students shared stories related to their clinical experiences in nursing school (N=8). The following research question guided this study: What are senior level undergraduate nursing students' perceptions related to diversity as experienced through their clinical environments in nursing school?

Results: The storyline *Is Knowledge Enough?* captured students' perceptions of cultural diversity and presents a process of learning that moved beyond educational preparedness and was inclusive of the nursing students' personal lived experiences and own belief system. Three themes emerged from students' shared stories: *Need to See the Bigger Picture, Culture Doesn't Fit in a Box*, and *A Sense of Social Justice*.

Implications: Stories indicated classroom and clinical experiences were not sufficient for students to meet diversity situations with confidence in their abilities. Research findings support continued experiences that expose students to diverse populations. Teaching strategies that promote individualized care and social justice might offer students the tools necessary to be competent when caring for clients who are culturally diverse.

OBESITY: NATIVE HAWAIIAN AND AFRICAN AMERICAN POPULATIONS

Moderator:
Jill K. Mount, RN
Faculty
Western Washington University
Bellingham, WA

BMI & WEIGHT GAIN DURING PREGNANCY IN WOMEN WITH AND WITHOUT EATING DISORDER TRAITS

Brenda Beverly Broussard

PACIFIC ISLANDERS' HEALTH LITERACY, DIET/ACTIVITY RECALL, AND SELF-EFFICACY

Jane H. Lassetter, Lauren Clark, Lora Beth Brown, Gwen Van Servellen,
Sharla Morgan, Katrina Duncan, Samantha Curtis, Brooke Alleger,
Jaclyn Coleman, Shem Miyamoto, Va Mounga, Roger Goodwill,
Jonathan Cummings, Barbara Hanohano

DIET AND EXERCISE AMONG ASIAN AND PACIFIC ISLANDERS WITH TYPE 2 DIABETES

Jan Yomogida, Jillian Inouye, Richard Arakaki, James Davis

REDUCING OBESITY AMONG AFRICAN AMERICAN WOMEN: AN EVIDENCE-BASED INTERVENTION

Patience Onyegbule, Barbara Sarter, Richard Butcher

SECONDARY ANALYSIS OF RISK FACTORS ASSOCIATED WITH ELEVATED BMI AMONG NATIVE HAWAIIANS

Merle R. Kataoka-Yahiro, Kamomilani Abduha Wong, Julaine Ching

Home ◀ ▶ go to PG.

BMI & Weight Gain during Pregnancy in Women with and without Eating Disorder Traits

Brenda Beverly Broussard, PhD, RN, IBCLC
Associate Professor
Maternal/Child and Family Nursing
Seattle University College of Nursing
Seattle, WA

Aims: Study objectives were to examine preliminary data on body mass index (BMI) and weight gain during pregnancy in women with and without self-report psychological and behavioral traits associated with eating disorders.

Background: Eating disorders affect 5.9% of women of childbearing age, yet little is known about those who have an undocumented eating disorder during pregnancy. Research examining pre-conception BMI and weight gain suggests an increase in untoward effects for women and/or infants when either under or overweight prior to pregnancy onset; or if weight gain fell outside the parameters of “adequate” for the woman’s initial BMI. Women classified as obese or gain more than IOM recommendations experience greater rates of cesarean delivery, large-for-gestational age infants, and longer postpartum hospitalizations. Women who are underweight or do not gain a sufficient amount are at greater risk for preterm birth. A growing body of literature on women with a current or documented history of eating disorders reports similar findings. Therefore, it is important to better understand undocumented eating disorders in the obstetric population.

Methods: A retrospective descriptive design was used to collect self-report eating disorder traits among a convenience sample of 54 postpartum women 19 to 43 years from a large hospital in the Pacific Northwest. Participants voluntarily completed a demographic form and Eating Disorder Inventory-3 (EDI-3) prior to discharge. EDI-3 risk scale scores (EDRS) were used to identify probable eating disorders. Medical records were reviewed for eating disorder history, pre-pregnant BMI, and weight gain during pregnancy.

Results: Fifteen (27.8%) participants’ EDRS suggested the presence of an eating disorder, while one of the 54 medical records (1.85%) documented a past eating disorder. Women with self-report traits associated with eating disorders and complete medical records (n = 10) had a mean BMI of 29.6 ± 7.2 (clinically overweight), and ranged from 21.1—46.8. Most of these women had a BMI classified as overweight/pre-obese (40%, n = 4) followed by class I obese (30%, n = 3), normal weight (20%, n = 2), and class III obese (10%, n = 1). Participants without self-report traits and complete medical records (n = 28) had a mean BMI of 24.5 ± 4.1 (normal weight), and ranged from 19.2—38. The majority of these participants had BMI’s that were considered normal weight (64.3%, n = 18) followed by overweight/pre-obese (25%, n = 7), class I obese (7.1%, n = 2), and class II obese (3.6%, n = 1). Weight gain during pregnancy among those with (n = 15) and without (n = 39) self-report traits was 30.26 and 32.25 pounds respectively.

Implications: Pre-pregnant BMI and weight gain during pregnancy may not be indicative of an eating disorder. Eating disorders tend to be secretive, life-long health concerns with potentially serious consequences during childbearing. Health providers caring for women should assess for eating disorders prior to and throughout pregnancy regardless of past medical history, pre-pregnant BMI, or adequate weight gain.

Funding: Seattle University College of Nursing Small Research Grant program.

Home ◀ ▶ go to PG.

OBESITY: NATIVE HAWAIIAN AND AFRICAN AMERICAN POPULATIONS

Pacific Islanders' Health Literacy, Diet/Activity Recall, and Self-Efficacy

Jane H. Lassetter, PhD, RN; Lauren Clark, PhD, RN, FAAN**; Lora Beth Brown, EdD, RD*; Gwen Van Servellen, PhD, RN, FAAN*; Sharla Morgan, MS, FNP*; Katrina Duncan, MS, FNP*; Samantha Curtis, BSN, RN*; Brooke Alleger, BSN, RN*; Jaclyn Coleman, BSN, RN*; Shem Miyamoto, BSN, RN*; Va Mounga, MS, RN*; Roger Goodwill, DA^; Jonathan Cummings^ and Barbara Hanohano^*
**Brigham Young University, Provo, UT; ** University of Utah, Salt Lake City, UT;*
^ Brigham Young University-Hawaii, Laie, HI

Purpose: We explored relationships between health literacy, diet and activity recall, self-efficacy, and body mass index (BMI) in Native Hawaiian and Pacific Islanders (NHPIs).
Background: NHPIs have high rates of obesity and related health problems, including diabetes and cardiovascular disease. Factors contributing to obesity are complex, requiring multi-faceted interventions. A better understanding of the relationships between NHPIs' health literacy, diet and activity patterns, self-efficacy, and BMI may help nurses effectively focus interventions to prevent and treat obesity among NHPIs.
Methods: 364 NHPI adults in Utah (n=155) and Hawaii (n=209) participated. We collected data at NHPI events in Utah and at grocery stores and a preschool in two Hawaiian Islands. Our questionnaire included: (1) an adult health literacy measure, Newest Vital Sign (NVS) (2) questions about diet and activity within their families, and (3) questions about self-efficacy in serving and eating healthy food and exercising. Participants were weighed and measured, and measurements were used to calculate BMIs. Measures of central tendency were used to describe the sample. Correlation coefficients were used to calculate the relationships between variables.
Results: 25.8% of participants were overweight (BMI=25.0-29.9), and 58.5% were obese (BMI>30), including 16.7% morbidly obese (BMI≥40). 14.6% had healthy BMIs (≥18.5 but <25), and 1.1% were underweight (BMI <18.5) As BMI increased, NVS scores decreased (p=0.027, r=-0.116), and BMI decreased as the number of days participants had at least 30 minutes of physical activity increased (p=.003, r=-.156). NVS was significantly associated with how many of the last seven days participants sat at least four hours (p=.002, r=.164). Participants' self-efficacy to feed their families healthy meals was not significantly related to BMI (p=.075, r=.-94). However, self-efficacy to feed their families healthy meals and was significantly related to: (1) how many of the last three days they reportedly fed their children five or more servings of fruits and vegetables (p=.000, r=.264); fatty foods, such as full fat dairy (p=.014, r=-.129); and foods high in sugar, such as candy or cake (p=.019, r=-.123), (2) their self-efficacy to encourage their children to be physically active (p=.000, r=.433), (3) how many of the last seven days participants had encouraged their children to be physically active for at least 30 minutes (p=.000, r=.215), and (4) how many of the last seven days participants had at least 30 minutes of physical activity (p=.001, r=.167).
Implications: NHPIs experience a high rate of overweight and obesity. Nurses can work with families and communities to minimize obesity risks across literacy levels and BMI categories. Interventions to improve adult NHPIs' health may be most effective if they address the need for their own regular physical activity, healthy family meals, health literacy, and ways to encourage their children to be physically active. We recommend physical activity be included as part of the intervention to promote socialization between participants so they can encourage one another.

Funding: Brigham Young University grants: two Graduate Mentoring Grants, Elaine Dyer Award, and Mentoring Environment Grant.

OBESITY: NATIVE HAWAIIAN AND AFRICAN AMERICAN POPULATIONS

Diet and Exercise among Asian and Pacific Islanders with Type 2 Diabetes

Jan Yomogida, MA, RD
School of Nursing and Dental Hygiene
University of Hawaii at Manoa
Honolulu, HI

Jillian Inouye, PhD, APRN
School of Nursing and Dental Hygiene
University of Hawaii at Manoa
Honolulu, HI

Richard Arakaki, MD
John A. Burns School of Medicine
University of Hawaii at Manoa
Honolulu, HI

James Davis, PhD
John A. Burns School of Medicine
University of Hawaii at Manoa
Honolulu, HI

Aim: The aim of this project was to assess dietary and exercise behaviors among Asian Americans and Pacific Islanders with Type 2 Diabetes (T2D).

Methods: Using existing data from The ENHANCE Project (Inouye, 2005), a two-arm randomized clinical trial (n=207), data at two points were analyzed to describe the dietary and exercise patterns of the groups. All participants were given a 3-day diet recall and pedometer to monitor diet and exercise behaviors.

Results: Findings revealed that at baseline, the intervention and control groups consumed 1681 and 1538 kcals respectively. While not statistically significant, the intervention group increased in the median number of total calories at the end of one year by only 18 kcals per day, whereas the control group increased by 156 kcals per day. The intervention group averaged 4721 steps per day at baseline and increased by 563 during the study while the control group averaged 5355 at baseline and became less active by 211 steps. As age increased, both calories and exercise levels decreased. Participants of Hawaiian ancestry consumed less calories than Asians and showed significantly lower exercise levels ($p<0.04$). Females had a lower total caloric intake and exercise level than males.

Conclusions: The findings are consistent with improved diet and exercise in the intervention group, although none of the comparisons reached statistical significance. Due to the complexity of diabetes management and the urgency to maintain diabetes control, more research is needed to better understand how to address diet and exercise behaviors among these high-risk populations.

Funding: This project was supported by grants from the National Institute of Nursing Research (NINR) (R01NR007883, P20NR010671), and the National Institute on Minority Health and Health Disparities (NIMHD) (U54MD007584) from the National Institutes of Health.

Home ◀ ▶ go to PG.

OBESITY: NATIVE HAWAIIAN AND AFRICAN AMERICAN POPULATIONS

Reducing Obesity among African American Women: An Evidence-Based Intervention

Patience Onyegbule, FNP-C, DNP(c)
Hahn School of Nursing
University of San Diego, CA
ponyegbule@sandiego.edu

Barbara Sarter, APRN, D-horn
Faculty Chair, Associate Professor
Hahn School of Nursing
University of San Diego, CA

Richard Butcher, MD
Clinical Mentor
Alliance Health Clinic
San Diego, CA

Background: The number of obese and overweight African American women has reached epidemic proportions in the United States affecting their health status by resulting to complications such as cardiovascular disease, diabetes, osteoarthritis, certain cancers, and, reduced fertility (Ogden et al, 2010). More than 40 million African Americans are obese accounting for 70% of co-morbidities and deaths seen in African American women (NIH, 2006). The contributing factors in this population are genetic predisposition, decreased physical activity, increased caloric intake and, low socio-economic position (James et al, 2006). Moderate to vigorous exercise with improved dietary knowledge can reduce weight gain and subsequent co-morbid conditions (NIH, 2006; Baskin et al, 2010).

Aim/Purpose of the Project: To reduce weight by implementation of NIH recommended physical activities and dietary educational strategies in obese African American women seen in a southern California primary care clinic.

Design and Methods: This evidence-based project employed a quasi-experimental pre/post test design to determine the efficacy of NIH obesity management guidelines among African American Women. Participants were educated on food choices and physical activities, dietary knowledge, activity levels, and lipids panel. The weight, nutritional knowledge, waistline measurement, records of diet, exercises and, total cholesterol were monitored at intervals for evaluation of progress and program goals.

Results and Outcomes: A total of 30 participants were recruited, 28 participants completed the program resulting in a retention rate of 95%. All participants (N=28) completed the pre- and post implementation questionnaires. The 28 participants who completed the program gained an average of 40 points on the dietary post scores (95% confidence interval, -.113, and 6.613). The mean Nutritional pre-test score was 66.58 (SD=8.393, range=45-78), and mean post-test score was 83.83 (SD=8.458, range=59-79). Ninety percent of participants lost up to 12 pounds and 82% showed a waist-line reduction of 6 inches or more. Participants experienced a 25% reduction of total cholesterol within six months into the program. The percentage of participants that scored 80% or higher on post nutrition knowledge tests were above 80%.There is a correlation of improved scores with continued participation in the program.

Implication: Positive findings necessitate the need to continue the program at the clinic. Further research will be needed to demonstrate its effectiveness in maintaining healthy behaviors. The utility of the program in other primary care settings and with other populations hit hard by obesity require supportive campaigns.

Home

◀ ▶ go to PG.

OBESITY: NATIVE HAWAIIAN AND AFRICAN AMERICAN POPULATIONS

Secondary Analysis of Risk Factors Associated with Elevated BMI among Native Hawaiians

Merle R. Kataoka-Yahiro, DrPH, APRN
Associate Professor
School of Nursing and Dental Hygiene
University of Hawaii at Manoa
Honolulu, HI

Kamomilani Abduha Wong, MSN, APRN, FNP-BC
School of Nursing and Dental Hygiene
University of Hawaii at Manoa
Honolulu, HI

Julaine Ching, BSN, MSN
School of Nursing and Dental Hygiene
University of Hawaii at Manoa
Honolulu, HI

Purpose: To describe the risk factors of elevated BMI among Native Hawaiians who attended the National Kidney Foundation of Hawai'i (NKFH) Kidney Early Detection Screening (KEDS) Program.

Rationale/Conceptual Basis/Background: A total of 921 participants were enrolled in the NKFH KEDS Program between 2006-2009. An unadjusted and adjusted odds ratio of BMI to demographic characteristics (age, gender, and ethnicity) and risk factors (high BP, diabetes, high cholesterol, and smoking) using disaggregated data of Asian Pacific Islander subgroups was completed. The unadjusted predicted probability of being overweight/obese was higher for Native Hawaiians vs. Caucasians (p=.000). There was a significant association between Native Hawaiians and BMI (p=.000); BMI for Native Hawaiians ranged from Normal - 18.6-24.9 (16.5%), Overweight - 25.0 – 29.9 (28.7%), Obese to Extreme Obesity - 30.0 > (54.5%).

Methods: A secondary analysis of 170 self-identified Native Hawaiians from the program evaluation data set of 921 participants was further analyzed. 170 Native Hawaiian participants were women (64%) and men (34%), ages 18 to 75 or greater (χ= 49 years; SD=17) with an average total risk factor of 2.5 (1.8) of 7. The three most identified risk factors were blood relative with diabetes (64.7%), blood relative with heart disease (37.6%), and high blood pressure (52.4%).

Results: A linear regression model (.05 criteria) was used to include the dependent variable BMI and independent variables gender, age, total risk score, glucose serum blood level, systolic and diastolic blood pressure, and microalbuminuria (F=4.03; p=.001, df=7). Total risk score was found significant (p=.03) in this model. Total risk score was further analyzed as individual risk scores (blood relative with diabetes, blood relative with heart disease, blood relative with kidney disease, high blood pressure, diabetes, high cholesterol, and smoking) and added into the model; high blood pressure was significant (p=.04).

Implications: The findings of this secondary analysis provides trends in Chronic Kidney Disease (CKD) related diseases and risk factors associated with elevated BMI in a select ethnic group, Native Hawaiians. There are limitations to secondary analysis, however, the findings are supported in the literature and validate the need for BMI and hypertension screening for Native Hawaiians in the NKFH KEDS program.

Funding: The project described was supported by Award No. U54RR026136 from the National Center for Research Resources (NCRR) & Award No. U54MD007584 from the National Institute of Minority Health and Health Disparities (NIMHD), National Institute of Health (NIH).

Home ◀ ▶ go to PG.

PATIENT SAFETY: INPATIENT AND OUTPATIENT ISSUES

Moderator:
Nnenna Weathers, PhD
Assistant Professor
California State University, Los Angeles
Long Beach, CA

RISK FACTORS FOR INJURIOUS FALLS AND THEIR PREVENTABILITY

Huey-Ming Tzeng, Chang-Yi Yin

THE EVALUATION OF SAFE BED HEIGHT AND SIDE RAIL USE: PHASE I: DEVELOPMENT OF A MODEL

Janice M. Morse, Andrew Merryweather, Alexa Doig, Donald Bloswick

PRESSURE ULCER PREVENTION AS SAFETY GOAL: INDIVIDUAL AND ORGANIZATIONAL FACTORS

Mary E. Dellefield, Jennifer L. Magnabosco, Ann Kelly

RISK OF READMISSION IN DELIRIUM AND NON DELIRIUM OLDER ADULTS

Jacqueline Jones

Risk Factors for Injurious Falls and Their Preventability

Huey-Ming Tzeng, PhD, RN, FAAN
Professor of Nursing and Associate Dean for Academic Programs
College of Nursing
Washington State University
Spokane, WA

Chang-Yi Yin, MA
Professor
Department of History
Chinese Culture University
Taipei, Taiwan

Purpose: This study was designed to identify the most frequently observed risk factors for injurious falls as perceived by RN staff for adult inpatients in acute hospital settings. This multihospital cross-sectional survey explored the underlying grouping structure of the nurse-perceived risk factor frequency items. Based on the ranking of the mean values for the risk factor frequency groups, we identified the group with the most frequently observed risk factors and compared the ranking of the risk factor preventability groups (on the same set of 81 risk factors) using the same grouping structure. **The research question** was: What are the most frequently observed risk factors as perceived by RN staff for adult inpatients in acute hospital settings?

Background: RNs' unique body of knowledge are rarely reflected in the literature because most of the previous fall studies have used data abstracted from charts and fall incident reports for analyses. These data are subject to limited documentation and omissions for details. Establishing evidence-based strategies for preventing injuries due to falls has been challenging. This study was guided by Donabedian's structure, process, and outcome model for health care organizations. The risk factor frequency and preventability items are conceptualized as structure indicators.

Methods: Conducted in 5 health systems/69 adult inpatient critical and acute care units for adult inpatients, from July 2011 through February 2012. 595 RNs who have employed as staff nurses for at least 12 months in the study units completed the surveys. Participation was completely voluntary. The survey tool was developed by the authors; Part I of the survey (81 risk factors on two 5-point scales; 1 = rarely, 5 = always, and 1 = never, 5 = always) with expert content review. SPSS was used for factor and descriptive analyses.

Results: The principal components factor analysis revealed the presence of 4 groups according to the Scree plot. The third risk factor frequency group (24 items) has the highest mean value. However, the same group of risk factors was perceived as the least preventable group. The most frequently observed risk factors were: confusion, disorientation, impulsiveness, impaired balance, agitation, altered mobility, impaired muscle strength, short-term memory loss, inability to follow safety instructions, anxiety, fall history, vertigo, a desire for independence, gender as male, gender as female, age $\geq$ 85 years, increased toilet needs, Alzheimer's disease, patients with lines or tubes, age $\geq$ 65 years and $<$ 85 years, postural hypotension, syncope, incontinence, and visual impairment.

Implications: Nursing leaders and managers need to identify frequently observed risk factors for injurious falls and their preventability on a regular basis, as patient characteristics may change over time and vary by speciality areas. Using a tool like the one developed for this study is one way to identify frequently observed risk factors for injurious falls in practice and to understand their preventability. Nurse leaders and managers need to communicate these findings with RNs in a systematic way to generate strategies and prioritize interventions to prevent injurious falls.

Home ◀ ▶ go to PG.

PATIENT SAFETY: INPATIENT AND OUTPATIENT ISSUES

The Evaluation of Safe Bed Height and Side Rail Use: Phase I: Development of a Model

Janice M. Morse, RN, PhD (Nurs),
PhD (Anthro), FAAN
Professor and Presidential Barnes Chair
College of Nursing

Andrew Merryweather, PhD
Assistant Professor
Mechanical Engineering

Alexa Doig, RN, PhD
Associate Professor
College of Nursing

Donald Bloswick, PhD
Professor
Mechanical Engineering

University of Utah
Salt Lake City, UT

Purposes/Aims: Patient movements when entering, exiting and moving about the bed have not been explored. The objectives of this presentation are threefold:

- Using ergonometrics to identify the circumstances related to the bed height that contribute to risk of falling when patients are entering and exiting a hospital bed;
- To examine the use of side rails for patient in bed positioning and bed exiting;
- To develop a model for Phase II, quantitative testing.

Background: Despite that fact that studies have reported that 40-80% of the patient falls occur at the bedside, and the extraordinary cost of patient falls nationwide, hospital beds are still constructed with a "one size fits all" design. We have not calculated the optimal and safe height of the hospital bed, according to patient disability and height.

Methods: Participants included the following: 10 elderly person with a normal gait; 20 persons with a MFS >45 (Inpatients, home care, outpatients, and fall clinic patients). Data were recorded in a laboratory, constructed with an instrumented bed (force places connected to the side rails) and on a floor platform; a frame surrounding the room, supporting 18 monitors; and a video camera. Patients were prepared for the trial by placing 80 luminescent markers on all major osteological landmarks.

Bed conditions were randomized by side rail (mgf #1; mgf #2 and no side rails), and bed height (high, normal and low), for a total of 9 trials for each participant. Patients, sitting on a chair, were asked to stand, walk a few paces turn and sit on the side of the bed; to lie down on the bed, turn to each side, to exit and return to the chairs. Software (Capture 2D) transformed data into a mobile skeleton, that enable qualitative observation of gait, balance, inbed mobility, use of side rails. Data from the participant with a normal gait were compared with the impaired gait patients.

Results: Principle risk points were identified:

Low bed: Some patients lack of control on descent to sitting on the low bed. Standing requires greater effort, especially for the weak and obese patients. In the side rail trials, the person uses these rails for support, holding them and leaning back as they move forward, thereby decreasing sway, but increasing rotation-imbalance.

High bed: Some have difficulty sitting securely on the side of the bed. Moving from sit to stand, often one leg reaches to the floor. The patient's trunk may move forward with increased velocity and ahead of the feet, forcing the person to take a large compensatory step.

Those with an impaired gait cannot take this step, and may stumble. These major points in the Phase II data set (total 100 trials) will be quantitatively examined and modeled.

Funding: Linkages between the safety of the hospital bed, patient falls and immobility (J Morse PI) AHRQ 1R01HS018953-01. Direct or indirect support for the research emanated from VA, in resources (providing facilities or patients), and as a result of the investigators' *without compensation* (WOC) appointment.

Pressure Ulcer Prevention as Safety Goal: Individual and Organizational Factors

Mary E. Dellefield, PhD, RN, Researcher, VA San Diego Healthcare System
Jennifer L. Magnabosco, PhD, Investigator, VA Greater Los Angeles Healthcare System
Ann Kelly, MSN, PMHCNS-BC, RN, Researcher, VA San Diego Healthcare System

Purpose: To describe nurses' perceptions of individual and organizational factors related to pressure ulcer prevention in nursing homes from a patient safety perspective.

Rationale/Conceptual/Background: Pressure ulcers (PU) are largely preventable. Yet, it has been difficult to sustain PU prevention programs in NHs in spite of widely disseminated and evidence-based guidelines and toolkits. Effective PU prevention and treatment remain one of The Joint Commission's National Patient Safety Goals. Using principles of patient safety that are customized to the practice of PU prevention may support sustained implementation of PU prevention programs. Given the intricate connection between basic nursing practice and PU prevention, nurses need to better understand how perceptions of individual and organizational factors associated with PU prevention are described from a patient safety perspective.

Method: A convenience sample of two Veterans Health Administration (VHA)-affiliated Community Nursing Homes (CLCs), previously referred to as Nursing Home Care Units, was used. Sites provided both short-stay and long-stay care, including palliative care, dementia care, rehabilitation, and traditional long-term care. They were known to be high-performing sites for PU prevention and treatment. A purposeful convenience sample of CLC nursing staff of all levels of education and certification was used, including nursing assistants (NAs), licensed vocational nurses (LVNs), and registered nurses (RNs) employed at least 90 days working any shift. Individual structured in-person or telephonic interviews 45-60 minutes in length were conducted and audio-recorded.

The interview protocol contained 44 questions; 10 required yes/no or 1-10 rated responses. Codes were selected a priori; they included specific evidence-based recommendations for PU prevention and evidence-based domains of patient safety culture contained in the Nursing Home Survey on Patient Safety Culture (NHSPSC). Transcripts were transcribed verbatim, compared to audiotapes to assess their descriptive validity. Content analysis and descriptive statistics were used to analyze responses.

Results: Sixteen nursing staff (9 NAs, 4 LVNs, and 3 RNs) participated. The majority were from the day shift (81%), mostly female (88%), middle-aged (average age 50 years), ethnically diverse (white/non-white), experienced (average 16 years/nursing, and stably employed at the VA (average 7 years). Descriptions of individual staff perceptions of performing specific evidence-based care practices for PU prevention were analyzed. PU prevention was highly valued and prioritized by the individual and organization. It was associated with promotion of resident quality of life. Subject valued resident and family involvement in PU prevention and care. Variation was noted among staff in language used to describe preventive care and its objective. Teamwork, an effective wound team, and communication were identified as core components to unit success. Descriptions of individual and organization factors linked with NH patient safety culture domains included: supervisor expectations and actions promoting safety; training and skills; management support for safety; teamwork; feedback and communication about incidents; communication openness; compliance with procedures; and organizational learning.

Implications: Given the importance of patient safety principles, we need to better understand how patient safety culture principles may be customized to promote effective implementation of PU preventive care in NHs from an individual and organizational level.

Home ◀ ▶ go to PG.

PATIENT SAFETY: INPATIENT AND OUTPATIENT ISSUES

Risk of Readmission in Delirium and Non Delirium Older Adults

Jacqueline Jones, PhD, RN, FRCNA
Associate Professor, College of Nursing
University of Colorado, AMC
Aurora, CO

Specific Aims: The aim of this presentation is to: (1) Describe the relative risk of re-admission in dementia free community-dwelling older adults with and without delirium. (2) Identify the time to re-admission risk period for incident delirium.

Rationale: Cognitive function may be impaired during the period of recovery following incident delirium and therefore it is imperative to take this into consideration when making treatment or living arrangement decisions after discharge.

Methods: A matched case (delirium) –control (non-delirium) sample was selected from the longitudinal PharMetrics (IMS LifeLink) June 2011 claims database from 61 million members in the United States. Readmission data were analyzed from June 2000 to May 2010. Variables of interest were identified from diagnoses codes using the International Classification of Diseases-Clinical Modification, 9th Revision (ICD-9-CM), and procedures codes using the Current Procedural Terminology-4 and Healthcare Common Procedure Coding System. **Inclusion:** All the data from the June 2011 10% sample were considered, and patients with an inpatient stay (index confinement) between June 31, 2000 and May 1st, 2010 were included; coverage 6 months prior and 12 months after the index confinement; Patients >50 years of age; ICD 9- 780.09 and 293.10/293.1. **Exclusion:** Patients from nursing homes; and patients with dementia before or during the confinement. **Control group and matching** Case and control (random selection ratio of 1:4) are:1) the same gender, 2) <3 years apart in age at the time of admission, 3) dates of admission are 15 days apart.

Results: There were n=17,945 patients hospitalized during the confinement period. There were 3,589 patients with delirium matched to 14,356 without delirium. Delirium patients had less favorable prognostic profile compared with non-delirium patients. Delirium was more common in patients with an ICU stay than non ICU stay (31.54 vs 14.47; $p<0.0001$), more likely in patients who suffer from congestive heart failure (CHF) (33.99 vs 21.89; $p<0.0001$) and patients who had COPD (41.35 vs 34.15; $p<0.0001$). On a multivariable analysis, patients with delirium were more likely to be readmitted within 30 days (OR 2.74 (2.37-3.16)), after adjusting for other variables. The risk of readmission immediately after discharge for delirium patients was 2.6 times more than non-delirium. At 30 days the hazard ratio of readmission is 2.49 and at 365 days is 1.18.

Implications: In non-institutionalized older adults altered cognitive function may precipitate discussions regarding the person's ability to manage living independently if sufficient anticipatory guidance is not provided or adequate time allowed for potential recovery or improvement to occur. Delirium poses a risk to independence. This study provides evidence of the role of delirium itself on readmission risk and this can inform anticipatory guidance regarding complex decision making and rehabilitation support on discharge.

RISKS TO HEALTHY PREGNANCY

Moderator:
Jo Ann Dotson, PhD
Assistant Professor
Washington State University
Spokane, WA

EFFECTS OF ALTITUDE AND SLEEP ON PERINATAL OUTCOMES

Gayle Kipnis, Kathryn Lee, Mary Barger, Cynthia Beckett

VITAMIN D LEVELS REMAIN LOW AMONGST PREGNANT WOMEN LIVING AT A NORTHERN LATITUDE

Doria K. Thiele, Cindy M. Anderson

DEVELOPMENT OF A MOBILE PHONE-BASED PHYSICAL ACTIVITY PROGRAM IN PREGNANT WOMEN

JiWon Choi, Yoshimi Fukuoka, Kathryn A. Lee

PREVALENCE OF PRE-PREGNANCY OBESITY IN URBAN AND RURAL TEXAS

Elizabeth Restrepo, Fuqin Liu, Rebecca Meraz

GESTATIONAL WEIGHT GAIN IN MEXICAN WOMEN IN LOS ANGELES

Ruth Mielke, Nicholas Gorman

Home ◀ ▶ go to PG.

RISKS TO HEALTHY PREGNANCY

Effects of Altitude and Sleep on Perinatal Outcomes

Gayle Kipnis, PhD
Assistant Professor, School of Nursing
California State University
Chico, CA
gkipnis@csuchico.edu

Kathryn Lee, PhD
Associate Dean of Research
School of Nursing
University of California
San Francisco, CA

Mary Barger, PhD
Assistant Professor
School of Nursing
University of California
San Francisco, CA

Cynthia Beckett, PhD
Director of Research
Department of Research
& Evidenced-Based Practice
Northern Arizona Healthcare
Flagstaff, AZ

The aim of this research was to ascertain whether late pregnancy sleep quality and quantity, for women living at moderate altitude, was associated with length of labor or mode of delivery (vaginal/cesarean). Prior to this study, associations between sleep during late pregnancy and perinatal outcomes had only been studied at sea level or low altitudes.

An extensive literature review revealed that higher altitudes can elicit physiologic challenges to pregnant women and to their sleep. It was hypothesized that sleep during late pregnancy for those living at moderate altitude may be associated with the perinatal outcomes of length of labor and mode of delivery. This study was based on a combination of theories; the Symptom Management Theory, the Theory of Integral Nursing & Lee's Conceptual Model of Impaired Sleep.

A prospective, descriptive study was conducted in Flagstaff, Arizona (elevation 6910 ft.) from February-July 2011 with a convenience sample of 50 nulliparous women who had complete 35 gestational weeks of pregnancy. IRB and CHR approvals were obtained and all participants signed informed consent. Sleep booklets were completed during the last five weeks of pregnancy. Participants were contacted by phone 2-4 weeks post-delivery to collect birth information. Analyses included Pearson product-moment correlation coefficient, hierarchical multiple regression to explore relationships between sleep and length of labor, and logistic regression to predict mode of delivery from sleep parameters. After controlling for infant birth weight, length of labor was associated with self-reported sleep onset latency. Together, infant birth weight, maternal weight, age, income, sleep onset latency, hours of sleep, sleep disturbance, and sleep quality accounted for 51.6% of the variance in length of labor. Each additional minute it took to fall asleep, length of labor increased by 12 minutes. In this sample, utilizing the same variables and covariates in a logistic regression, late pregnancy sleep parameters were not predictive of mode of delivery.

Since length of labor can be influenced by sleep disturbance at moderate altitude, obstetrical health care providers should advise women in late pregnancy to practice healthy sleep hygiene measures that include minimal stimulation prior to bedtime, creating a soothing sleep environment, and making sleep a priority in preparation for childbirth. Additional research needs to be conducted at higher elevations to expand on these findings and include objective measures of sleep characteristics.

Home ◀ ▶ go to PG.

Vitamin D Levels Remain Low amongst Pregnant Women Living at a Northern Latitude

Doria K. Thiele, MN, CNM, IBCLC
Instructor
School of Nursing
Oregon Health & Science University
Monmouth, OR

Cindy M. Anderson, PhD,
WHNP-BC, FAAN
Associate Professor
College of Nursing
University of North Dakota
Grand Forks, ND

Purpose: To obtain pilot data regarding circulating vitamin D (25-hydroxyvitamin D [25(OH)D]) levels amongst women in the early third trimester in a northern US state.

Background: Vitamin D deficiency during pregnancy is associated with increased risk of gestational diabetes and preeclampsia in pregnant women, and with atopic disease and bone disorders in their offspring. Increased prevalence of vitamin D deficiency amongst pregnant women is being noted around the globe due to reduced sun exposure, the primary method for intrinsic vitamin D production. High rates of vitamin D deficiency have been noted in areas considered sun-rich, including California, South Carolina, and North Carolina. Pregnant women at higher latitudes are at greater risk due to poor sun exposure during much of the year. Prenatal vitamins alone do not achieve the current intake recommendations as they contain only 400 IU of vitamin D. Controversies regarding what constitutes a sufficient circulating vitamin D level remain, however prominent researchers in the field consistently use ≥ 80 nmol/L as sufficient. Determining rates of vitamin D deficiency despite prenatal vitamin use will help inform clinical practice and policy regarding changes in vitamin D supplementation recommendations during pregnancy.

Methods: Using a cross-section study design, a total of 16 women were enrolled from an obstetric practice in the northern plains from July through September. Inclusion criteria were pregnancy between 24 and 28 weeks and maternal age greater than 18. Women with preexisting type 1 or type 2 diabetes, hypertension, parathyroid disease or uncontrolled thyroid disease were excluded as well as those using vitamin D supplements beyond a prenatal vitamin in the last 6 months. Institutional Review Board approval was received from all participating organizations. Blood samples were obtained through venipuncture and serum analyzed for 25[OH]D quantification. Descriptive statistics (mean ± standard deviation) were utilized for data analysis.

Results: Participants had a mean age of 29 ± 5.7 years. 100% of the participants in the study self-identified as white and reported daily prenatal vitamin intake. Mean gestational age at time of blood draw was 28 weeks 2 days ± 1 week. The mean 25[OH]D serum level was 82.05 ± 12.7 nmol/L. Of the 16 participants, 7 had serum 25[OH]D levels defined as sufficient (44%), while 9 had serum 25[OH]D levels that did not meet the level of sufficiency (56%).

Implications: Recruitment took place during the time period in which we would expect to see the highest 25[OH]D levels based on access to sun light. Despite this, a majority of participants did not attain circulating vitamin D levels associated with sufficiency. Additionally, participants reported daily prenatal vitamin intake, suggesting that the vitamin D content of prenatal vitamins plus that achieved through sun exposure leaves a majority of women vitamin D insufficient. Nurses and nurse practitioners should be aware of the increased prevalence of vitamin D deficiency and possible implications for maternal and infant health.

Funding: Funding: Robert Wood Johnson Foundation Nurse Faculty Scholar Award (Anderson, 64202), Association of Women's Health, Obstetric and Neonatal Nurses Novice Researcher Award (Thiele).

Home ◀ ▶ go to PG.

RISKS TO HEALTHY PREGNANCY

Development of a Mobile Phone-Based Physical Activity Program in Pregnant Women

JiWon Choi, PhD, RN
Assistant Adjunct Professor
Institute for Health & Aging
University of California, San Francisco
San Francisco, CA

Yoshimi Fukuoka, PhD, RN
Associate Professor
Institute for Health & Aging
University of California, San Francisco
San Francisco, CA

Kathryn A. Lee, PhD, RN, FAAN
Professor and Associate Dean of Research
Dept. of Family Health Care Nursing
University of California, San Francisco
San Francisco, CA

Purpose: To demonstrate the process of developing a mobile phone-based physical activity program in overweight and obese pregnant women.

Background: Obesity among pregnant women and excessive weight gain during pregnancy is associated with numerous adverse outcomes for both mother and baby. Over 60% of overweight women gain more than the recommended weight gain during pregnancy. Regular physical activity is recommended to maintain healthy weight gain for pregnant women, but the majority of pregnant women do not engage in regular physical activity. Since almost every American adult (96%) have cell phones and the number of mobile-only households is increasing (18% in 2009 to 26% in 2011), mobile phone use has the potential to effectively deliver a physical activity intervention to pregnant women.

Methods: The process of developing an iPhone Application for the MoTHER (**Mo**bile **T**echnologies to **H**elp **E**nhancing **R**egular Physical Activity) Trial will be presented.
Results: Mobile phone-based physical activity program applications (e.g., daily message, video clip, weight diary, physical activity diary) were developed and the content were targeted to physically inactive overweight and obese pregnant women.

Implications: The presentation provides opportunities for audience to understand the key elements of activities that take place for the development of the MoTHER Trial.

Funding: Applying Mobile-Persuasive Technologies to Increase Physical Activity in Women, Grant #3R01HL104147-02S1, National Institute of Health-National Heart, Lung, and Blood Institute. The MoTHER (Mobile Technologies to Help Enhancing Regular Physical Activity) Trial: A Pilot Study for Overweight and Obese Pregnant Women, Grant #UL1 RR024131, NIH/NCRR UCSF-CTSI.

Prevalence of Pre-Pregnancy Obesity in Urban and Rural Texas

Elizabeth Restrepo, PhD, RN
Associate Professor
Texas Woman's University College of Nursing
Denton, TX

Fuqin Liu, PhD, RN
Assistant Professor
Texas Woman's University
Denton, TX

Rebecca Meraz, MS, RN
Doctoral Student
Texas Woman's University
Denton, TX

Purpose: To evaluate the prevalence of pre-pregnancy obesity in urban and rural Texas.

Background: Previous research reveals that pre-pregnancy obesity adversely impacts maternal and neonatal outcomes. Growing evidence indicates that complications of pregnancy increase with severity of maternal obesity. Texas births account for approximately 10% of annual US births. More than 70% of the 254 counties in Texas are located in rural areas. However, the prevalence of pre-pregnancy obesity and its relationship to maternal and neonatal outcomes have not been carefully evaluated in terms of geographic location, specifically in rural versus urban areas.

Methods: This is a retrospective cohort design. Study data were derived from merged Texas birth and infant death certificates. The population represents women delivering in Texas from 2005 through 2009, inclusive (> 2 million births). We used birth certificate data to identify maternal pre-pregnancy weight and height in order to calculate pre-pregnancy BMI. Based on pre-pregnancy BMI, we classified the population as underweight, normal weight, overweight, obese, and super obese. We also categorized women by age group, ethnicity, and rural or urban residency. We then evaluated the prevalence of pre-pregnancy obesity in the rural and urban populations. We conducted statistical analyses using SPSS (version 19) and used descriptive statistics to examine pre-pregnancy obesity and selected maternal and neonatal outcomes.

Results: The largest ethnic group in our population was Hispanics, representing 50.4%, which was greater than the percentage of Caucasians (34.2%) and African Americans (11.2%) combined. Analyses revealed that 89.3% of our population of mothers resided in an urban county, with 10.7% residing in a rural county. The overall prevalence of obesity was higher among rural residents, however. For urban residents, the overweight prevalence fluctuated slightly around 24.4% from 2005 to 2009 and the prevalence of obesity trended upward from 18.8% in 2005 to 21.0 % in 2009. The prevalence of super obesity in the urban population, which was 0.3% in 2005, increased to 0.4% in 2007 and remained constant for 2008 and 2009. For rural residents, the overweight prevalence increased from 24.8% in 2005 to 25.2% in 2009. The prevalence of obesity trended upward from 23.5% in 2005 to 26.0 % in 2009 and the prevalence of super obesity rose from 0.4% to 0.5% over the five-year period. Rates of preeclampsia were consistently higher in the rural population (fluctuating between 5.1% and 5.3%) than in the urban population (fluctuating between 4.4% and 4.6%), and the rates of antibiotic use for suspected sepsis were higher in rural newborns than in urban newborns for each year examined.

Implications: Pre-pregnancy obesity is an immense health burden in Texas. Over a five-year period, mothers in the rural population experienced higher prevalence and greater increase in rate of pre-pregnancy obesity than their urban counterparts. Effective interventions are needed to prevent obesity and provide care for obese pre-pregnant women in rural Texas. Policy efforts on state and national levels should address urban and rural pre-pregnancy obesity disparity in order to improve maternal and neonatal outcomes in the US.

Home ◀ ▶ go to PG.

Gestational Weight Gain in Mexican Women in Los Angeles

Ruth Mielke, CNM, PhD
Assistant Professor
School of Nursing
California State University, Fullerton
Fullerton, CA

Nicholas Gorman, MPH, EdD
Assistant Professor
School of Nursing
California State University, Fullerton
Fullerton, CA

Purpose/Aims: The purpose of the study was to: (a) describe the prevalence of inadequate, appropriate, and excessive gestational weight gain in Mexican and Mexican American women in Los Angeles and (b) compare biologic, sociocultural and behavioral characteristics of women with inadequate, appropriate, and excessive gestational weight gain (GWG) in order to (c) suggest a model of GWG specific to this population.
Rationale: Achieving appropriate GWG is critical to optimize both fetal and maternal outcomes. Both inadequate and excessive GWG are associated with negative outcomes of perinatal mortality, preterm birth, and suboptimal/excessive infant birth weights. In the longer term, extremes of weight gain may alter the fetal intrauterine environment and result in obesity, Type 2 diabetes and atherogenic profiles in adulthood. Negative maternal outcomes of excessive gain include delivery complications, postpartum weight retention and subsequent development of obesity. Women of ethnic minorities may be more vulnerable to the effects of inadequate and excessive GWG and may be less likely to gain adequately due to socioeconomic and cultural factors. In the United States, Hispanics are the fastest growing ethnic minority and Mexican Americans comprise its largest subgroup. As Mexican Americans have the highest fertility and birthrates of all women, but have been studied least often, focused study of factors associated with GWG is critical.
Methods: The study design was an analysis of data extracted from patient records at a federally qualified health center in Los Angeles, California. 1257 charts with a Hispanic surname and a postpartum visit in 2007 through 2009 were screened for entry into the study. Inclusion criteria were birthplace in Mexico or self-identified Mexican origin, entry into prenatal care by 28 weeks gestation, and term gestation ($\geq$ 36 weeks gestation). Exclusion criteria were preexisting metabolic conditions (thyroid disease or diabetes) and multiple gestation. Variables for analysis were selected based on the review of the literature.
Results: Using 2009 Institute of Medicine guidelines, GWG in the sample (n=684) was inadequate in 153 (22.4%), appropriate in 225 (32.9%), and excessive in 306 (44.7%). More often, women with inadequate gain were multiparous, and had gestational diabetes, while women with excessive gain were primigravidas, overweight, and more acculturated. Multinomial regression showed five factors that predicted GWG (R^2 =. 23); inadequate gain (nulliparity [protective]) and excessive gain (overweight or obese pre-pregnancy body mass index, hypertension, gestational diabetes, nulliparity, and snacks [protective]).
Implications: Only one third of Mexican American women had appropriate GWG. Identification of characteristics and predictors associated with inadequate and excessive GWG in Mexican Americans will assist nurses to design strategies that will promote appropriate GWG and thereby improve perinatal and intergenerational health.

Funding: California State University, Fullerton and Azusa Pacific University.

Home ◀ ▶ go to PG.

STIGMA, PERCEPTIONS AND DISABLING CONDITIONS

Moderator:
Diane N. Solomon, MSN, CNM, PMHNP
Doctoral Student
Oregon Health & Science University
Portland, OR

DISABILITY PERCEPTION IN NICARAGUA: IMPLICATIONS FOR THE FUTURE

Susan B. Matt

EFFECT OF RENAL REHABILITATION ON QUALITY OF LIFE AMONG DIALYSIS PATIENTS

L. Eilean Victoria, A. Porkodi, N. Gayathripriya,
Linda Eaton, Ardith Z. Doorenbos

STIGMA EXPERIENCES ASSOCIATED WITH URINARY INCONTINENCE

Phyllis A. Heintz, Ridhima Softa, Cheri DeMucha

DEAF ADULTS AND CULTURAL BELONGING

Kate G. Sheppard

Home

go to PG.

STIGMA, PERCEPTIONS AND DISABLING CONDITIONS

Disability Perception in Nicaragua: Implications for the Future

Susan B. Matt, PhD, JD, MN
Assistant Professor
Seattle University College of Nursing
Seattle, WA

Purposes/Aims: The purpose of this research study was to explore Nicaraguan parents' perceptions of disability and their aspirations for the future of their children with disabilities. Secondarily, the research looked at these parents' awareness of resources for their children and their utilization of health care and rehabilitation services.

Rationale/Conceptual Basis/Background: Nicaragua is recognized as the poorest country in Central America. For individuals born with disabilities, there is either a shortage of or no availability of either educational or therapeutic options that will allow them to integrate into society and be self-sufficient. More than 15% of Nicaraguans suffer from some form of disability, brought on by deficiencies in perinatal care, along with limited medical resources during and following pregnancy. As recently as 2008, families with children who had disabilities were keeping them hidden from the community, providing them with no medical care or education. No research on parental perceptions of the nature and cause of disability has been done in Nicaragua.

Methods: A qualitative descriptive design using face-to-face semi-structured interviews was utilized. The sample consisted of 11 mothers and two grandmothers of children with disabilities. Interviews were conducted in Spanish with an interpreter. Data were analyzed using NVivo software.

Results: Three themes emerged with respect to disability: a person is not as capable as a normal person; a person with a disability is dependent on others; and a person with a disability lacks a limb or mental capacity. Respondents reported biomedical or religious causes, as well as maternal behaviors or experiences during pregnancy for the cause of their children's disabilities. Some included multiple causes simultaneously. With respect to awareness of resources, 12 of the 13 informants were aware of a clinic in Managua, but seven had never taken their children to the clinic. Reasons for not taking them were transportation costs primarily. All respondents had taken their children to physicians or clinics, but two did not regularly take them to a provider. Themes emerged regarding aspirations for the future: earning a living, normalcy, and the difficulty they will face without the parents. Most thought the children would work, several thought they might marry, and only four thought the children would not have children of their own.

Implications: Increased involvement of the global health care community and volunteers to expand health care options and vocational training for children with disabilities in rural areas of Nicaragua is needed. There are opportunities for physicians, nurses, physical and occupational therapists, and special education specialists to improve the quality of life for these children and increase their chances for a productive future.

Effect of Renal Rehabilitation on Quality of Life among Dialysis Patients

L. Eilean Victoria, PhD, RN, Reader, Medical Surgical Nursing[1]
A. Porkodi, PhD, RN, Reader, Medical Surgical Nursing[1]
N. Gayathripriya, PhD, RN, Reader, Obstetrics & Gynecological Nursing[1]
Linda Eaton, MN, RN, AOCN, Instructor[2]
Ardith Z. Doorenbos, PhD, RN, FAAN, Associate Professor[2]
[1]*Sri Ramachandra University, College of Nursing, Chennai, Tamil Nadu*
[2]*Biobehavioral Nursing & Health Systems, U. of Washington, School of Nursing, Seattle*

The purpose of the study was to optimize health, improve quality of life among dialysis patients and to develop an information booklet on "Coping with End-Stage Renal Disease".
Rationale/Background: End-stage renal disease patients undergoing dialysis experience a great deal of stress. To optimize health and improve quality of life, rehabilitation of renal patients is a necessity. Renal rehabilitation includes physical, social, psychological, and vocational elements. The specific combination of supportive education and focus on quality of life has not been tested. Empirical evidence in support of this nursing strategy will improve the delivery of renal rehabilitation. The organizing model for this study was the Roy's Adaptation model.
Methods: A randomized controlled trial was used for this study. Approval for this study was obtained from the institutional ethics committee. The convenience sample was 150 patients (75 intervention and 75 control participants) with end-stage renal disease receiving dialysis. The intervention group received renal rehabilitation which consisted of computer-based education on adherence to treatment options, dialysis, diet, drug, exercise, employment counseling and encouragement. Knowledge and quality of life were measured using a knowledge questionnaire and the RAND health-related kidney disease quality of life questionnaire at baseline, one month and two months post intervention with reinforcement on the same topics at each visit. The control group received usual care. SPSS was used for the statistical analysis.
Results: There was a statistically significant improvement in the mean scores for knowledge about end-stage renal disease (ESRD) among the intervention group compared to the control group ($p<0.001$). The mean scores of the QoL sub-scales of Physical Functioning, Role-physical, Bodily Pain, General Health, Vitality, Social Functioning, Role-emotional, and Mental Health were also statistically significant ($p <0.001$). The sub-scale scores of Energy Fatigue among the intervention group and control group were not statistically different. The mean scores for the Kidney Disease QoL sub-scales (Symptom/ Problem list, Effects of Kidney Disease, Burden of Kidney Disease, Cognitive Function, Sexual Function, Sleep, Social Support, Dialysis Staff Encouragement, Overall Health, and Patient Satisfaction) among the intervention group compared to the control group were statistically significant ($p<0.01$). The Quality of Social Interaction and Work Status were not statistically significant.
Implications: Early education about renal disease, its treatments, and the potential to live long and productively can aid in overall adjustment and decision making for people on dialysis. More specifically, learning about topics including kidney failure, treatment choices, medications, and the renal diet can help dialysis patients maintain a sense of control, a factor linked to improved adherence and life satisfaction. Education was shown to be a positive predictor of physical and mental health for people on hemodialysis. Patients who are encouraged to learn about their treatment have better outcomes and improved quality of life. Such patients may take more responsibility for things they can control, including exercise, remaining actively engaged in life, and adhering to the renal meal plan.

Home
◀ ▶ go to PG.

Stigma Experiences Associated with Urinary Incontinence

Phyllis A. Heintz, PhD, MN, RN, Endowed Chair in Gerontology
Ridhima Softa, Student Nurse
Cheri DeMucha, Student Nurse
Department of Nursing
California State University, Bakersfield
Bakersfield, CA

Purpose: The primary purpose of this systematic review is to describe the stigma experienced by women with urinary incontinence.

Background: The stigma associated with urinary incontinence signifies something lost or abnormal. A stigmatized identity is based on "an attribute that makes one different from others…and of a less desirable kind" (Goffman, 1963, p. 3). Societal norms assume urinary continence, thus, incontinence demonstrates a lack of self-control. Urinary incontinence can affect self-esteem, cause distress, and lead to isolation. It is an invisible problem made visible by multiple trips to the bathroom or a detectible odor.

Methods: A systematic review of the nursing, sociology, and psychology literature was conducted with the assistance of nursing students. The databases searched included: CINAHL, PubMed, Science Direct, Social Sciences Full Text, Sociology Abstracts, and Psychology Info as well as the Cochrane Collection and Cochrane Library. Search terms used included urinary incontinence and stigma. A total of 13 articles focused on urinary incontinence and the associated stigma. Studies were excluded that dealt with fecal incontinence, dementia, women under the age of 45, children under age of 18, and men.

Results: A plethora of evidence appears in the literature regarding physiologic treatments of urinary incontinence symptoms. In contrast, scarce evidence exists regarding social slights that may deter women from seeking treatment for their perceived socially embarrassing condition. The importance of conducting a systematic review was to establish a foundation for the existing body of knowledge related to urinary incontinence stigma.

Implications: *Practice:* An estimated 51% of women experience urinary incontinence at some point in their life, yet only 38% of those with symptoms spoke to their healthcare providers about the condition (Bogner, Gallo, Sammel, Ford, Haroutune, & Eaton, 2002). Reasons for avoiding treatment for urinary incontinence are largely due to embarrassment related to social stigma. The condition is often invisible; only half of women suffering from urinary incontinence talk with others beside their primary care providers (Bogner, et al., 2002). This lack of disclosure causes unique challenges when managing urinary incontinence. Urinary incontinence stigma may be characterized by the psychological distress women experience by suffering in silence which can deter a woman from seeking treatment that could improve her quality of life.

Nursing Research: Although ample evidence suggests effective physical treatments for urinary incontinence exist, further studies are needed to examine how nurses become a barrier to care by not screening both the physical and psychological aspects of urinary incontinence. Treating the psychological damage arising from stigma can substantially increase the quality of life for these women. The ability to understand women's experiences with urinary incontinence will relieve and comfort them when they realize that they are not alone. This could ease psychological distress, build self-efficacy, and provide courage to seek treatment.

References:

Bogner, H., Gallo, J., Sammel, M., Ford D., Haroutune, A., Eaton, W. (2002). Urinary incontinence and psychological distress in community-dwelling older adults. *Journal of the American Geriatrics Society*, *50*(3), 489-95.

Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. New York: Prentice Hall.

Home ◀ ▶ go to PG.

Deaf Adults and Cultural Belonging

Kate G. Sheppard, PhD, RN, FNP, PMHNP-BC, FAANP
Clinical Assistant Professor
The University of Arizona, College of Nursing
Tucson, AZ
kgsheppard@nursing.arizona.edu

Purpose: Elucidate the meaning of cultural belonging from the perspective of Deaf adults, before and after attaining membership in the Deaf culture.

Rationale/Background: Approximately one in 1000 infants are born deaf; 90% of these are born to hearing parents and most will undergo evaluations and possibly interventions to correct the deafness. Many proponents believe that interventions such as cochlear implants will lead to earlier communication skills and successful mainstreaming. Opponents to implants feel the choice is being made without regard to the Deaf culture, and propose that cochlear implants will cause the demise of the culture. Culturally Deaf adults typically lost their hearing at early ages, self-identify as members of the Deaf culture, and communicate in the visual language of American Sign Language (ASL). Deaf children gain more sense of identity from their culturally Deaf peers than from their hearing parents. Members of the culture are bound together by the experience of deafness. It is not the deafness that isolates, but without a common means of communication deaf individuals often lose critical social ties with family, friends, and community.

Method: This was part of a larger qualitative, phenomenological study that explored depressive symptoms among Deaf adults. Three interviews were conducted with nine participants. Interviews lasted 30-60 minutes each, and were videotaped to capture facial expressions and body language. Certified ASL interpreters aided communication, and reviewed videotapes for accuracy of interpretations. Narratives were generated from text, which led to thematic analysis and meaning.

Findings: Every participant related feeling different for most of his or her young life, and described feeling different even within the family. All chronicled being a witness to rather than a participant in family events or interactions as children. In each case, there was no common means of communication within the family or with younger peers. Most parents and educators believed the visual language would impede success, so seven participants learned ASL secretly. The first true sense of belonging occurred as participants became fluent in ASL and became enmeshed with the Deaf culture. Statements included “Deaf, not stupid”, “Deaf, not disabled”, and “Deaf – not broken”; membership in the Deaf culture was a tremendous source of pride. As communicated by several, “Deaf membership made me feel whole.” Most are partnered with a Deaf adult, and all want Deaf children because “Deaf kids never leave me.” Several long to help hearing people understand what it means to be Deaf, and to help other deaf people see that they are not broken.

Implications: As nurses, we strive to improve health conditions and reduce the impact of disease. Consequently, it may be difficult to relate to Deaf parents who want deaf babies or who believe cochlear implants are a threat to the culture. However, it may be helpful to consider the pride, self-esteem, and belonging associated with membership in the Deaf culture. In order to develop a trusting relationship, we must be willing to consider the perspective of our patients, to honor their cultural beliefs, and to mutually create the health care experience.

THE CARE ENVIRONMENT: RESOURCES AND STRUCTURES

Moderator:
Kimberly Shea, PhD, RN
Assistant Professor
The University of Arizona
Tucson, AZ

THE RELATIONSHIPS BETWEEN RAPID RESPONSE TEAM INTERVENTIONS AND PATIENT HEALTH OUTCOMES

Gail Gobbato Salvatierra

CALIFORNIA'S NURSE-TO-PATIENT RATIOS: EIGHT YEARS LATER, WHAT DO WE KNOW?

Teresa Serratt

THE COST OF IMPLEMENTING A PERSON-CENTERED MEAL DELIVERY SYSTEM IN NURSING HOMES

Neva L. Crogan, Alice E. Dupler, Grace Heaton

HANDOFF PRACTICES AND THE CLINICAL ENVIRONMENT: CHALLENGES IN CONSTRUCTING THE STORY

Patricia Birmingham, Martha Buffum, Mary A. Blegen, Audrey Lyndon

---

COORDINATION IN AMBULATORY ONCOLOGY CLINICS

Charlotte T. Lee

Home ◀ ▶ go to PG.

The Relationships between Rapid Response Team Interventions and Patient Health Outcomes

Gail Gobbato Salvatierra, PhD
Washington State University
October 2012

Chair: Kenneth B. Daratha

Few studies examining the relationship between implementation of RRTs and health outcomes have been performed in the United States, and *no* studies have explored the relationships between RRT interventions and patient health outcomes among multiple, geographically contiguous hospitals. The aim of the study was to describe the differences in patient health outcomes before and after the implementation of RRTs within Washington State tertiary hospitals.

Patients hospitalized at 12 tertiary hospitals were assigned to either a pre-RRT (*n*=258,843) or post-RRT (*n*=269,015) cohort based on the RRT implementation timeframe of the individual institutions. Study outcomes included cardiac arrests, cardiac arrest deaths, and in-hospital mortality, prolonged length of stay and 30-day hospital readmission. Binary logistic regression controlling for age, sex, payer, comorbidity, previous hospitalization, primary diagnosis category, and length of stay were completed.

A statistically significant improvement was observed in patient health outcomes in the post-RRT cohort when compared to the pre-RRT cohort; in-hospital mortality (OR=0.89; 95%CI=0.86-0.92; $p<0.001$), cardiac arrest rates (OR=0.88; 95%CI=0.83-0.93; $p<0.001$), cardiac arrest deaths (OR=0.75; 95%CI=0.64-0.88; $p<0.001$), prolonged length of stay (OR=0.89; 95%CI=0.88-0.91; $p<0.001$), 30-day re-hospitalization (OR=0.97; 95%CI=0.95-0.98; $p<0.001$).

This is the first study to demonstrate the relationship between implementation of an RRT and improvement in patient health outcomes within multiple, geographically contiguous hospitals. The results of this study provide the most statistically valid evidence to date that RRTs are effective in improving patient outcomes.

RRTs have become an expected standard of care and nurses are a core element in the majority of RRTs in the U.S. From this realization comes the understanding that what happens in terms of RRT utilization is most likely to have a major impact on nursing, *and* patient outcomes in the U.S.

Home ◀ ▶ go to PG.

California's Nurse-to-Patient Ratios: Eight Years Later, What Do We Know?

Teresa Serratt, RN, PhD
Assistant Professor
Orvis School of Nursing,
The University of Nevada, Reno
Reno, NV

Purposes/Aims: Based on the public discourse of the potential effects, both positive and negative, of implementing nurse-to-patient ratios in California's hospitals, a policy impact study was conducted. This study identifies and describes the current state of knowledge focusing on findings related to outcomes at the nurse, hospital and patient levels.

Background: Assembly Bill (AB) 394 passed the California legislature in 1999. This bill required the California Department of Health Services to establish specific nurse-to-patient ratios that were to be implemented in general acute care hospitals, acute psychiatric hospitals and special hospitals beginning January 2004. Several entities submitted their recommendation for the specific ratios. During the public hearing stage, there was much speculation among various stakeholders as to the effects this regulation would have on nurses, hospitals and patients. Despite having been in place for over eight years, little is known about the negative and positive effects the ratios have actually had on nurses, hospitals and patients.

Methods: A search of newspaper articles and other popular print media between 1998 and 2012 was conducted via LexisNexis Academic database and Google to identify concerns (past and present) expressed by those opposed to and advocates for nurse-to-patient ratios. These articles were divided into three categories: opposition, advocate or both and then further sub-categorized as concern or benefits were expressed at the nurse, hospital or patient level. Next, a search of the empiric literature was conducted utilizing a combination of search terms which included California, nurse, patient, ratios, staffing, outcomes and hospital in PubMed and CINAHL from the time the ratios were implemented (2004) until present.

Results: Twenty-two empiric studies meeting the inclusion criteria were identified. Of these, eight studies explored nurse level outcomes, eight explored hospital level outcomes and 10 investigated patient level outcomes. The majority of the studies exploring nurse level outcomes focused on changes in nurse staffing and job satisfaction. All found nurse staffing levels improved and that job satisfaction increased after the ratios were implemented. While two studies found support staff had been reduced, three other studies did not find such a reduction. Findings suggest few empirical studies have been conducted to assess the impact the ratios have had on access to care; a hospital level outcome. Increased labor costs were noted in three studies and two found a reduction services. Although several studies have been conducted to determine the affect of the ratios on patient level outcomes, findings have been mixed. Three of 10 studies found positive significant differences while two studies found significant negative differences. The other five studies found no significant changes in patient level outcomes.

Implications: Further research is needed to provide empirical evidence of the impact that California's policy that mandates specific nurse-to-patient ratios have had on nurse, hospital and patient level outcomes. The next wave of empiric studies need to validate and clarify the relationship between nurse-to-patient ratios and nurse, hospital and patient level outcomes; in order to better to inform those who are evaluating the benefits and risks of this type of policy.

THE CARE ENVIRONMENT: RESOURCES AND STRUCTURES

The Cost of Implementing a Person-Centered Meal Delivery System in Nursing Homes[1]

Neva L. Crogan, PhD, GCNS-BC, GNP-BC, FNGNA, FAAN
Professor
Gonzaga University
Spokane, WA

Alice E. Dupler, JD, ARNP-BC
Associate Professor
Gonzaga University
Spokane, WA

Grace Heaton, RN
Research Associate
Gonzaga University
Spokane, WA

Quality of life or "culture change" in nursing homes is fast becoming a national focus as nursing homes embrace evolution from institution-like models of care to nurturing environments that are person-directed or person-centered.[2] Many nursing homes are struggling to evolve their meal service away from the traditional approach to a more person-centered approach. Implementation is difficult and often impossible secondary to cost and budget constraints.

The purpose of this paper is to describe the costs associated with implementing the Eat Right Food Delivery System. Eat Right is a multi-level, two-component delivery system. Component one systematically changes and updates menus to include food residents like to eat; while Component two supports resident food choice by using a select menu and a buffet-style dining program in the dining room. Using a two-group, repeated measures design the intervention was tested in one nursing home while a second nursing home acted as the comparison.

To determine the intervention costs, health care resource unit costs were collected throughout the entire 6-month intervention period. First, all unit costs associated with providing non-intervention care was determined for both intervention and comparison sites. Next equipment, training, and labor costs related to the intervention were calculated and actual monthly foods purchase costs were determined for each nursing home.

The average cost per week for the intervention was not significantly different from baseline ($6,434.40 vs $6,451.53) and remained significantly less than the average cost from the comparison nursing home ($p<.05$). For elders in nursing homes, food and meal service are important features of life, thus impacting their quality of life. Empirically tested, cost neutral interventions such as Eat Right are needed to help nursing homes provide care that is both person-centered and resident focused.

Funding:
[1] Study funded by the Alzheimer's Association Foundation IIRG-10-169412.

Reference:
[2] Koren, M.J. (2010). Person-centered care for nursing home residents: The culture-change movement. *Health Aff, 29*, 1-6.

Handoff Practices and the Clinical Environment: Challenges in Constructing the Story

Patricia Birmingham, PhD, RN
Clinical Reviewer, San Francisco VA
San Francisco, CA

Martha Buffum, PhD, RN, PMHCNS-BC
Associate Clinical Professor, UCSF
San Francisco, CA

Mary A. Blegen, PhD, RN, FAAN
Professor Emeritus, UCSF
San Francisco, CA

Audrey Lyndon, PhD, RNC, CNS-BC, FAAN
Assistant Professor, UCSF School of Nursing
San Francisco, CA

Purpose: To examine interactions between the clinical environment and nurses' handoff practices in promoting or hindering patient safety.

Background: At the end of every shift, nurses exchange critical information with the next nurse so that patient care continues safely with minimum interruption. Nurses' critical thinking skills, including having a clinical grasp of "what is going on" with the patient, are necessary to provide safe ongoing patient care. A review of the literature suggests that the quality of handoff information is problematic, nurses' ability to remember information is limited, and information quality varies regardless of handoff method. Handoffs are typically conducted in interruptive and noisy locations but the impact of the handoff environment on patient safety remains ill-defined. Little is known about the interactions between the clinical environment and nurses' handoff practices in promoting or hindering patient safety.

Methods: Using grounded theory methodology in a study of two medical-surgical units in an academic hospital in the western United States. Twenty one nurses were interviewed and 87 handoff observations were conducted. Data collection and analysis were conducted using theoretical questioning, constant comparison, and positional maps.

Results: As nurses' navigated a pressured clinical environment in their daily work, they were actively developing their clinical grasp by constructing the story of each patient. With successful story construction, they arrived at the end of their shift with a good grasp of the patient's situation. Nurses identified three practices for constructing the story: assessing patients, cueing in, and writing it down. Receiving a good handoff report from the previous nurse was critical to patient safety because the information helped nurses prioritize assessments, anticipate risks, and detect changes in patients' conditions. However, nurses identified several barriers to constructing the story. Barriers included receiving a poor report from the previous nurse, unpredictable patient flow, and strained nursing resources. If nurses failed to gather and synthesize sufficient information to construct the story, they arrived at the handoff with a poor grasp of the patient. This situation posed risks for patient safety because the next nurse may in turn leave the handoff with insufficient information to accurately prioritize their work, anticipate risks to patients, and identify clinical deterioration.

Implications: Conditions in the clinical environment impact nurses' handoff practices posing risks for patient safety. Future research needs to examine handoff practices on units with good and poor clinical environments and patient outcomes.

Home ◀ ▶ go to PG.

Coordination in Ambulatory Oncology Clinics

Charlotte T. Lee, RN, OCN, PhD
Assistant Professor
Program in Nursing Science
University of California, Irvine
Irvine, CA

Purpose: The purpose of this study is to evaluate coordination in ambulatory oncology clinics.

Background: Coordination, the process of achieving unity of action among interdependent activities, is a vital component in health care provision and teamwork. The need for better coordination is particularly prominent in outpatient setting where patients assume the primary responsibility to follow-up on their own health care, especially when treatment is complex and lengthy in duration.

In oncology, treatments often involve multiple modalities with numerous diagnostic tests between treatment cycles. With the exception of surgery, a majority of treatment plans lasts for more than one month, followed by frequent follow-up schedules which often involve numerous diagnostic tests. As a result, oncology care services may be particularly difficult to navigate, and health care providers have the responsibility to ensure various aspects of health services are being coordinated during clinic visits. Recent establishment of the nurse navigator role in many cancer centers validates needs for coordinating care in this population. Yet, there is a dearth of literature that evaluates how physicians and nurses coordinate their work in oncology outpatient clinics.

Methods: A cross-sectional survey design was used to assess informal and formal coordination. Staff nurses and physicians (N=250) were recruited from ambulatory clinics in two University affiliated cancer centers in Toronto (Canada), following the approval of research ethics boards. Study variables were measured using previously validated instruments. Formal coordination was assessed by surveying the frequency of team meetings, the use of routines and boundary spanners. Informal coordination was assessed by the relational coordination questionnaire. Study surveys were sent to 138 nurses and 223 physicians at 198 ambulatory clinics (response rate=69.3%). Participants were given the option to complete the survey either in paper format or electronic format. Follow-up reminders were sent at approximately 3, 5 and 7 weeks after the initial distribution of the surveys.

Results: Descriptive statistics was used to describe the study sample and ratings of coordination. The overall ratings were positive for all coordination variables. Multivariate analysis of variance revealed a profession by site effect on the ratings for routine, boundary spanner and informal coordination [$F(2, 243)=6.94$, $p<0.001$; Wilk's $\lambda=0.92$]. Follow-up one-way analysis of variance with adjusted alpha showed that physicians perceived higher frequency of team meeting than nurses [$F(1,248)=49.11$; $p<0.001$]; and participants from one center rated higher levels of informal coordination than another [$F(1,248)=15.27$; $p<0.001$].

Implications: Nurses are at the forefront of patient-centered care and are participants in health care teamwork. Coordination is a crucial component within both concepts. Findings suggest that coordination in ambulatory oncology clinics is affected by contextual factors, such as professional silos and work environment. These issues can be addressed by interprofessional team development initiatives and interprofessional education, and nurses should be engaged in these activities.

Funding: This study is supported by funding from the Co-Investigator Small Grant Award at the Nursing Health Services Research Unit, University of Toronto.

VITAL FUNCTIONS: SUPPORTING CHRONICALLY ILL ADULTS

Moderator:
Barbara B. Cochrane, PhD, RN, FAAN
Associate Professor
University of Washington
Seattle, WA

EFFECT OF NURSE-LED CARDIAC REHABILITATION AMONG HEART FAILURE PATIENTS

A. Porkodi, N. Gayathripriya, L. Eilean Victoria,
Linda Eaton, Ardith Z. Doorenbos

A CASE STUDY OF THE DEVELOPMENT OF SELF IN THE CONTEXT OF CHRONIC PULMONARY ILLNESS

Lisa J. Taylor-Swanson, Alan Fogel, Nancy Fugate Woods

ASSOCIATION BETWEEN SOCIAL SUPPORT AND SELF-CARE BEHAVIORS IN PATIENTS WITH COPD

Zijing Chen, Jungeun Lee, Vincent Fan, Huong Q. Nguyen

A QUALITATIVE STUDY OF WHAT LIES AHEAD FOR HEART FAILURE PATIENTS AND THEIR CAREGIVERS

Jacqueline Jones

HEART FAILURE SELF-CARE BEHAVIORS ARE WORSE WITH DEPRESSION IN BOTH WOMEN AND MEN

Quin E. Denfeld, Christopher S. Lee

Home

◀ ▶ go to PG.

Effect of Nurse-Led Cardiac Rehabilitation among Heart Failure Patients

A. Porkodi, PhD, RN, Reader, Medical Surgical Nursing[1]
N. Gayathripriya, PhD, RN, Reader, Obstetrics & Gynecological Nursing[1]
L. Eilean Victoria, PhD, RN, Reader, Medical Surgical Nursing[1]
Linda Eaton, MN, RN, AOCN, Instructor[2]
Ardith Z. Doorenbos, PhD, RN, FAAN, Associate Professor[2]
[1]*Sri Ramachandra University, College of Nursing, Chennai, Tamil Nadu*
[2]*Biobehavioral Nursing & Health Systems, U. of Washington, School of Nursing, Seattle*

Purpose/Aims: To determine the effectiveness of a nurse-led cardiac rehabilitation program on knowledge, quality of life, and physical function among heart failure patients.

Rationale/Background: Cardiovascular disease is the leading cause of disability and death in the world and is an increasing problem in India. Heart failure negatively affects quality of life. Cardiac rehabilitation improves physical function, relieves symptoms, enhances quality of life and promotes positive lifestyle changes among heart failure patients. Lack of adherence to cardiac rehabilitation leads to frequent hospitalization among patients with end stage cardiac disease. The organizing model for this study was Pender's Health Promotion Model.

Methods: A randomized controlled trial of 200 patients (n = 100 in intervention group and n = 100 in control group) was used for this study. Approval for this study was obtained from the institutional ethics committee. Patients were recruited from one university hospital in South India. A three-session, 30-minute nurse-led cardiac rehabilitation program was provided to the intervention group and only routine care was provided to the control group. The rehabilitation program consisted of 1:1 bedside teaching on disease, medication, exercise, diet, and follow-up care. Additionally, the "Healthy Way for Healthy Life" information booklet was given to intervention group participants. Every two weeks for three months after discharge, patient knowledge was reinforced by a phone call with the investigator. At baseline, demographic and clinical variables were measured and the following questionnaires were completed: Knowledge on Heart Failure questionnaire, Six Minute Walk Test, SF36 V2 and the Minnesota Living with Heart Failure Questionnaire. The questionnaires were also completed at 30 days and 90 days post intervention. At the conclusion of the study, control group participants received the information booklet. Data were analyzed using Repeated Measures of ANOVA.

Results: The Repeated Measure ANOVA revealed an improvement in overall heart failure knowledge for the intervention group compared to the control group ($p < 0.001$). The intervention group had a greater improvement than the control group in their overall six minute walking distance ($p < 0.001$). The intervention group's quality of life significantly improved compared to the control group as indicated by the SF36 V2 physical ($p=0.022$) and mental ($p=0.001$) subscales. The Repeated Measure ANOVA revealed a significant improvement on disease specific quality of life for the intervention group compared to the control group ($p=0.001$).

Implications: The nurse-led cardiac rehabilitation program for patients with heart failure may be successfully implemented by nurses working in hospitals, clinical and community settings. The "Healthy Way for Healthy Life" booklet on cardiac rehabilitation developed by the investigator can be used to educate heart failure patients. The continuous practice of rehabilitation may be advised to maximize physical, psychological, and social functioning and the six minute walk test can be used as an objective measurement to measure functional capacity. The combination of the interventions of structured teaching, cardiac rehabilitation information booklet, and telephone reinforcement are capable of increasing the adherence behavior for cardiac rehabilitation and thereby improving the quality of life among patients with heart failure.

Home ◀ ▶ go to PG.

A Case Study of the Development of Self in the Context of Chronic Pulmonary Illness

*Lisa J. Taylor-Swanson, MAcOM, EAMP**
*Alan Fogel, PhD***
*Nancy Fugate Woods, PhD, RN, FAAN**

**University of Washington; **University of Utah*

Aims: This project aims to analyze and describe an individual’s changing sense of self in the contexts of changing and chronic pulmonary illness, Complementary and Alternative Medicine (CAM) and conventional care.

Background: Idiopathic Pulmonary Fibrosis (IPF) is a type of interstitial pneumonia and is characterized by a relentlessly deteriorating course, often marked by episodes of acute exacerbation; median survival after diagnosis is 2.8 years and curative biomedical treatment is non-existent. CAM has been documented to support pulmonary function but is not known to be curative of IPF either.

Methods: One patient was recruited and consented to participate. She was interviewed by the author who is her Acupuncturist in a private Traditional Chinese Medicine outpatient clinic. The digitally recorded semi-structured interview was transcribed. The clean transcription was analyzed using a thematic content analysis. Labs and biomedical records were obtained and analyzed. The patterns of themes and their emergence, amplification, and dissipation were noted and the narrative was divided into four developmental periods. Developmental periods are whole systems of interrelationships between themes related to the patient’s life, health status and her care environment.

Results: In 2002, ground glass opacity was observed and she was diagnosed with Idiopathic Pulmonary Fibrosis (IPF). During **Period 1,** “Diagnosis,” negative feelings were related to the themes of poor biomedical care received and shock at the diagnosis. Another theme was listening to one’s intuition. **Period 2**, 2003-3005, the theme of “CAM saved my life” was marked by the patient’s intuition about the effects of CAM. Negative emotions were amplified with the theme of depression and purposelessness. A Ventilation /Perfusion scan in 2005 showed washout in the right lung - consistent with COPD - but her diagnosis was unchanged. **Period 3**, “ICU times 2,” contained themes of crisis and significant restructuring in the entire system. There was a worsening of her condition in 2006 with new “diffuse opacity” observed in previously healthy areas of the left lung. **Period 4**, “Relocation,” is a time in which the patient relocated from the southwest to the northwest in 2006, and the theme of physical wellness re-emerges, the negative emotions theme dissipates, the theme of intuition is strong, and a new theme of deep calm emerges. The patient, previously diagnosed with pulmonary fibrosis, is presently diagnosed with asthma and walks several miles daily without oxygen and has traveled to Ireland without incident.

Conclusions: This case study documents one individual’s journey from negativity and disempowerment to transformation and wellness in relation to CAM and biomedical care. A longitudinal prospective multiple case study is proposed to examine the microgenetic change processes within and between themes of self development during chronic illnesses. This would deepen our understanding of how change processes actually occur over time.

Home ◀ ▶ go to PG.

Association between Social Support and Self-Care Behaviors in Patients with COPD

Zijing Chen, BSN
PhD Student, School of Nursing
University of Washington
Seattle, WA

Jungeun Lee, MSN, RN
PhD Student, School of Nursing
University of Washington
Seattle, WA

Vincent Fan, MD, MPH
Associate Professor
University of Washington
Seattle, WA

Huong Q. Nguyen, PhD, RN
Associate Professor
University of Washington
Seattle, WA

Introduction: Higher perceived social support has been shown to be associated with better quality of life and functioning in chronic obstructive pulmonary disease (COPD). However, less is known about the relationship between social support and self-care behaviors essential to optimal management of COPD, e.g. flu and pneumonia vaccinations, participation in education classes on COPD, regular exercise, daily monitoring for signs of chest infections, and medication adherence. The purpose of this project is to determine if higher perceived social support is associated with greater engagement in self-care behaviors by patients with moderate to very severe COPD.

Methods: This was an exploratory analysis from an ongoing longitudinal observational study of the biological causes and functional consequences of depression in patients with COPD. The dependent variable of self-care behaviors was based on self-reported response to five yes/no questions: receipt of flu (in the last year) and pneumonia (in the past) vaccinations, participation in COPD classes, currently exercising at least 3x/week for 15 minutes at a time, and monitoring for signs of a chest infection on a daily basis. In addition, inhaler medication behavior was measured with six questions about carelessness, forgetting, stopping use, and using more or less of the inhalers as prescribed in the past 3 months using a 1 (most of the time) to 5 (none of the time) point Likert scale; a composite index was created from these six questions. The independent variable of perceived social support was measured with the Medical Outcomes Social Support Scale (MOSSS) which has four dimensions (emotional and informational support, tangible support, affectionate support, and positive social interaction) in addition to a total score. Descriptive statistics, independent t-tests, and Pearson correlations were used to analyze the data.

Results: The characteristics of the 202 participants were: mean age of 67 ± 9; 25% females, and FEV1%predicted of 43.2 ± 16%. While there were no differences in the level of perceived support between those with and without an annual flu vaccinations, higher social support across all four dimensions was related to receipt of the pneumovax ($p<.05$). Higher emotional and informational support was associated both with participation in classes about COPD ($p=.005$) and daily self-monitoring ($p=.058$). Social support had no bearing on regular exercise. Nearly 80% of subjects reported minimal deviation from their COPD inhaler medication regimen. Social support was not related to inhaler medication use ($r=.026$ to $.12$, $p>.05$).

Conclusions: Higher perceived social support appears to be associated with more frequent preventive self-care behaviors such as receipt of pneumonia vaccination, participation in COPD classes and daily self-monitoring but not with exercise. Previous studies have shown that exercise-specific support is more effective than general social support for exercise. The lack of association between social support and inhaler medication behavior may be due to the limited variance in medication behavior in this sample.

Funding: Support in part by: R01HL093146-01A2.

Home ◀ ▶ go to PG.

A Qualitative Study of What Lies ahead for Heart Failure Patients and Their Caregivers

Jacqueline Jones, PhD, RN, FRCNA
Associate Professor, College of Nursing
University of Colorado, AMC
Denver, CO

Specific Aims: The aim of this presentation is to describe perceptions of the future as experienced by older adults living with heart failure and their informal (family) caregivers; and to define transitions experienced on their illness journey.

Rationale: Uncertainty of what the future may look like for patients with chronic disease such as Heart Failure (HF) can cause distress to patients and their caregivers. Transition theory[1] offers a lens to view the landscape of living with HF and can help identify what to expect and how to adapt to their evolving illness.

Methods: As part of a study designed to identify the role of palliative care and unmet needs in HF care,[2] individual semi structured qualitative interviews lasting 60-90 mins were conducted with HF patients and their self-identified informal caregivers to explore how they think about and navigate 'the future'. **Interview schedule:** (a) When you think about your heart condition and what lies ahead for you (in the next months or 1-5 years), what comes to mind for you? What have you thought about the future of your condition? (b) Do you talk with anyone about this? Who do you talk with? Could you tell me a little about those conversations? How helpful or not helpful have the conversations been for you? (c)What would it look like if you did talk with your family? Who would be there? Where would it take place? Would someone from your health care team be there? What things get in the way of talking about this?

Patients were purposively selected from internal medicine and senior clinics to ensure variation in age, severity of illness, and gender. Qualitative theme analysis was applied to the textual data about the anticipated future related to living with their condition. Transitional elements such as milestones, transition points, change and difference were then used as an interpretive lens to analyze how what lies ahead might be influenced by transition experiences.

Results: HF patients (n=33) and their informal caregivers (n=20) talked about 'advance life planning' needs in their future and often described the 'mutual caring' that takes place between patient and caregiver. Four transition domains and milestones they achieved on their illness journey were identified: 1) the shock of first being diagnosed with heart failure, 2) learning to adjust to life with heart failure, 3) reframing and taking back control of one's life and 4) understanding and accepting death is inevitable.

Implications: The findings augment understandings of how 'what lies ahead' can be viewed differently depending on where patients and their caregivers are at on their illness journey. The study offers new perspectives on how to approach complex decision making when uncertainty and flux is inevitable for many patients. Tailored conversations about the future can enhance 'transition agility' for patients and caregivers as they negotiate roles, relationships, symptom management and self-identity reconstruction.

References:

1. Meleis A.I, Sawyer LM, Im EO, Hilfinger M, DeAnne K & Shumacher K 2000 Experiencing transitions: An emerging middle range theory, Advances in Nursing Science, 23,1:12-28.
2. Bekelman DB, Nowels CT, Retrum JH, Allen LA, Shakar S, Hutt E, Heyborne T, Main DS and Kutner JS, 2011 Giving Voice to Patients' and Family Caregivers' Needs in Chronic Heart Failure: Implications for Palliative Care Programs. Journal of Palliative Medicine, 14: 1317-1324.

Home ◀ ▶ go to PG.

Heart Failure Self-Care Behaviors Are Worse with Depression in Both Women and Men

Quin E. Denfeld, BSN, RN, CCRN, CSC
PhD Student
School of Nursing
Oregon Health & Science University
Portland, OR

Christopher S. Lee, PhD, RN
Assistant Professor
School of Nursing
Oregon Health & Science University
Portland, OR

Purpose: To determine the influence of gender on the relationship between depression and heart failure (HF) self-care behaviors.

Background: HF is the fastest growing cardiovascular condition and the most common reason for hospitalization among older adults. Self-care in HF is an important component in the management of this chronic condition and has been shown to reduce hospitalization rates. Depression is the most frequent mood disturbance among adults with HF and may pose a barrier to adequate self-care behaviors. We hypothesized that the relationship between depression and HF self-care behaviors would differ by gender.

Methods: We performed a secondary analysis of data collected during a study of symptoms in adults with moderate to advanced HF. Self-care behaviors were measured with the Self-Care of HF Index (SCHFI) maintenance and management scores (range 0-100, higher scores indicate better self-care) and the European HF Self-Care Consulting Behaviors scale (EHFScCB; range 4-20, lower scores indicate better self-care). Depression was measured with the Patient Health Questionnaire (PHQ-9, range 0-27); subjects were classified as having moderate depression if PHQ-9 Score ≥ 10. Hierarchical regression modeling was performed to examine the moderating effect of self-identified gender on the relationship between depression and self-care behaviors.

Results: Our sample ($n = 219$) of mostly NYHA Class III/IV HF (60%) was 47% women with a mean age of 56±13 years. There were approximately equal rates (25%) of moderate depression in women and men. Higher PHQ-9 score ($\beta = -.72$, $p = .007$) and male gender ($\beta = -8.79$, $p = .008$) were associated with worse self-care maintenance behaviors. Neither PHQ-9 score ($\beta = -.06$, $p = .89$) nor gender ($\beta = 5.55$, $p = .31$) was significantly associated with self-care management behaviors. Higher PHQ-9 score ($\beta = .20$, $p = .006$) and male gender ($\beta = 2.33$, $p = .01$) were associated with worse consulting behaviors. The relationship between depression and all self-care behaviors did not differ by gender (all $p>0.05$).

Implications: Depression is associated with equally poor self-care behaviors in women and men with moderate to advanced HF. Assessing and managing depression in all adults with HF may lessen an amenable barrier to effective self-care behaviors.

Funding: This research was supported by the Office of Research on Women's Health and the National Institute of Child Health and Human Development through the Oregon BIRCWH program (HD043488-08 (LEE)) and by the Oregon Health & Science University School of Nursing Hartford Center of Geriatric Nursing Excellence (DENFELD).

Home ◀ ▶ go to PG.

Abstracts of Poster Presentations

ACUTE CARE

EARLY MOBILIZATION OF THE ICU PATIENT: A NURSE DRIVEN PROTOCOL

Aimee L. Skrtich, Frank G. Ricci, Toni Heinen

A VULNERABLE POPULATION: FAMILIES OF PATIENTS IN ADULT CRITICAL CARE

Nancy Baumhover, Kathleen May

REDUCING IV INFILTRATIONS WITH ADMINISTRATION OF IV CONTRAST

Michele Yellen

IMPLEMENTATION OF PAIN RESOURCE NURSE & PAIN CHAMPION PROGRAM IN A NEUROSURGICAL UNIT

Emma Cuenca, Linda D. Urden

IMPLEMENTING A FEVER PRACTICE GUIDELINE IN A GENERAL SURGERY DEPARTMENT

Paul R. Russo, Matthew Hannon, Joseph Burkard

ENHANCING DECISION-MAKING AND DELEGATION SKILLS WITH SIMULATION AND INFORMATICS

Ann Butt, Jayne Josephsen

EVALUATION OF MINDFULNESS-BASED STRESS REDUCTION PROGRAM FOR VA STAFF

Joan I. Cohen

Home ◀ ▶ go to PG.

THE INFLUENCE OF INTERMITTENT VS. CONTINUOUS BLADDER CATHETERIZATION AFTER AN EPIDURAL

Diane R. Rauschenbach, Barbara L. Wilson

PREVENTING GASTROSTOMY TUBE-RELATED HOSPITAL ACQUIRED PRESSURE ULCERS

Jean McCormack

MEDICAL-SURGICAL NURSES' PERCEPTIONS OF THE ELECTRONIC MEDICAL RECORD HANDOFF TOOLS

Triverr Gray

EARLY MOBILITY IN THE ICU: CHANGING UNIT CULTURE AND IMPROVING PATIENT OUTCOMES

Amy Doroy, Gail Easter

CATHETER-ASSOCIATED URINARY TRACT INFECTION (CAUTI) MAINTENANCE BUNDLE SPINAL CORD INJURY

Marla Weiss, J. Ghoniem, Mary Jo Clark

POLY TRAUMA CLINICAL TRIAD: INCREASING PROVIDER KNOWLEDGE AND IMPROVING PATIENT CARE

Anne Monroe, Joseph Burkard

NURSE STAFFING MATTERS… EVERY SHIFT

Lori A. Loan, Ashley Salazar, Mary S. McCarthy,
Gordon West, Patricia A. Patrician

MEDICATION ADMINISTRATION AFTER INTRODUCING BAR CODE SCANNING TECHNOLOGY

Lory J. Maddox

DATA, INFORMATION, KNOWLEDGE AND WISDOM IN NURSING CHANGE OF SHIFT REPORTS

Susan A. Matney, Lory J. Maddox, Nancy Staggers

USE OF AN ALGORITHM TO DISSEMINATE EBP AND PREVENT DEVICE-RELATED PRESSURE ULCERS

Sandi Nishimura

CAN EARPLUGS IMPROVE THE PATIENT'S PERSPECTIVE OF INCREASED SLEEP IN THE ICU?

Ryan Treat

IMPACT OF DELIRIUM IN THE ICU ON PATIENT LOS AND MORTALITY: A MULTI-CENTER EPIDEMIOLOGY STUDY

Peggy Kalowes, Louise DuBos, Martha Gadberry, Karen Benavides,
Myrna Cyzplecki, Eugenia Lupisan, Brent Lopez, Hyunsoon Park,
Dana Sipin, Lynda Steele, Kimberly Driscoll, Timothy Horttor,
Dionne Perry, Hesna Taban, Tanya Vernon

EXPLORING ORGANIZATIONAL CULTURE AND PREVALENCE OF PHYSICAL RESTRAINTS

Peggy Kalowes, Jessica Deloviar, Michael Hernandez, Melissa Dyo

---

THE IMPACT OF STAFF SAFETY ATTITUDE ON REDUCTION IN URINE SPECIMEN IDENTIFICATION ERROR

Flora Tomoyasu, Peggy Kalowes, Mary Krages, Janice McKinzie

BMI CHANGES POST RESECTION OF A PITUITARY ADENOMA IN PATIENTS WITH ACROMEGALY

Christine Yedinak

PATIENTS' AND HEALTH CARE PROVIDERS' PERCEPTION OF STRESSORS IN CRITICAL CARE UNITS

Alham Abuatiq, Mary Jo Clark, Joseph F. Burkard

HANDOFF PRACTICES THAT PROMOTE PATIENT SAFETY: PAINTING A FULL PICTURE

Patricia Birmingham, Martha Buffum, Mary A. Blegen, Audrey Lyndon

---

EFFECTS OF BODY TEMPERATURE ALTERATIONS FOLLOWING TRAUMATIC BRAIN INJURY

Lori Kennedy Madden

THE EFFECT OF TRAINING ON AAC USE IN ACUTE CARE

Margaret Vento-Wilson, Anthony McGuire, Jennifer Ostergren

Early Mobilization of the ICU Patient: A Nurse Driven Protocol

Aimee L. Skrtich, BSN, RN, CCRN, Clinician
Frank G. Ricci, MSN, RN, CCRN, Unit Director
Toni Heinen, BSN, RN, Professional Staff Nurse
Medical Intensive Care Unit, UPMC Mercy Hospital, Pittsburgh, PA

Patients in the Intensive Care Unit (ICU) are at high risk for many immobility related complications such as Deep Vein Thrombosis (DVT), muscle atrophy, Ventilator Associated Pneumonia (VAP), and pressure ulcers. Prolonged stays in the ICU can also be attributed to increased morbidity, mortality, and cost of care. Early mobilization in this population is the most effective way to decrease complications.

In the Medical ICU at UPMC Mercy, we have developed a Progressive Mobility Protocol to ensure that our patients receive mobility interventions early in their admission. We have educated staff about the steps involved in the Progressive Mobility Protocol through a PowerPoint and quiz, staff meetings, journal articles, and daily rounding. We have encouraged staff to take ownership of the project by engaging them in the mobilization decision making process. We have worked with our physicians to limit bed rest orders to patients with legitimate contraindications to progressive mobilization, such as: cardiovascular, neurologic, and respiratory instability.

The Progressive Mobility Protocol is initiated based on patient's status and level of deconditioning. Mobility progresses from elevating the head of the bed to 45 degrees to walking independently, in 7 steps Progressive mobilization occurs 2- 3 times per day unless patient meets exclusion criteria. Tolerance to activity is evaluated and the patient is then progressed to the next step.

Anticipated benefits of the protocol are: decreased complications of bed rest, length of stay, and incidence of VAP and increased patient satisfaction and quality of life. To measure the effectiveness of the protocol we plan to evaluate average length of stay of patients beginning with ICU day 1 and track ventilator days and VAP rates before and after initiation of project and report data gathered.

Research shows that the mean cost of an ICU stay was $31,574 (+/-$ 42,570) for patients requiring mechanical ventilation and $12,931 (+/- $20,569) for those not requiring mechanical ventilation. Daily costs were greatest on ICU day one (mechanical ventilation, $10,794; no mechanical ventilation, $6,667). We hope that the initiation of this mobility protocol will not only maintain or restore patient's baseline functional status, but can also lead to decreased in LOS and overall decreased cost of care. These goals and outcomes are applicable to institutions of any size and location.

References:

[1] Chiang, L., Wang, L., Wu, C., Wu, H., & Wu, Y. (2006). Effects of physical training on functional status in patients with prolonged mechanical ventilation. *Physical Therapy, 86,* 1271-1281.

[2] Dasta, J. F., McLaughlin, T.P., Mody, S.H., & Piech, C. T. (2005). Daily cost of an intensive care unit day: the contribution of mechanical ventilation. Critical Care Medicine. 33(6), 1266-71.

[3] Hildreth, A. N., Enniss, T., Martin, R. S., Miller, P. R., Mitten-Long, D., Gasaway, J., (2010). Surgical intensive care unit mobility is increased after institution of a computerized mobility order set and intensive care unit mobility protocol: A prospective cohort analysis. *The American Surgeon, 76* (8), 818-822.

[4] Morris, P. E., Goad, A., Thompson, C., Taylor, K., Harry, B., Passmore, L., et al. (2008). Early intensive care unit mobility therapy in the treatment of acute respiratory failure. *Critical Care Medicine, 36 (*8), 2238-2243.

[5] Needham, D. M., Korupolu, R., Zanni, J. M., Pradhan, P., Colantuoni, E., Palmer, J. B., et al. (2010). Early physical medicine and rehabilitation for patients with acute respiratory failure. *Archives of Physical Medicine and Rehabilitation, 91*, 536-542.

[6] Perme, C., & Chandrashekar, R. (2009). Early mobility and walking program for patients in Intensive Care Units: Creating a standard of care. *American Journal of Critical Care, 18*(3), 212- 221.

[7] Rapp, J., Paz, J. C., McCallum, C., Cole, J., & Steffey, L. (2010). The effects of a physical therapy triage system on the outcomes of ICU patients with respiratory failure. *Journal of Acute Care Physical Therapy, 1* (1), 21-29.

[8] Schweickert, W. D., Pohlman, M. C., Pohlman, A.S., Nigos, C., Pawlik, A. J., Esbrook, C. L. et al. (2009). Early physical and occupational therapy in mechanically ventilated, critically ill patients: a randomized controlled trial. *The Lancet, 373,* 1874-82.

[9] Thomsen, G. E., Snow, G. L., Rodriguez, L., & Hopkins, R. O. (2008). Patients with respiratory failure increase ambulation after transfer to an intensive care unit where early activity is a priority. *Critical Care Medicine, 36* (4), 1119-1124.

ACUTE CARE

A Vulnerable Population: Families of Patients in Adult Critical Care

Nancy Baumhover, MSN, RN, CCRN, CNE
Doctoral Student
College of Nursing
The University of Arizona
nbaumhover@nursing.arizona.edu
Tucson, AZ

Kathleen May, PhD, RN, PHCNS-BC
Clinical Associate Professor
College of Nursing
The University of Arizona
Tucson, AZ

Background: The concept of vulnerability continues to be underdeveloped in adult critical care literature despite the prevalence of its use. The nursing and health care literature reflects this concept mainly in the context of family health nursing. Families of patients in adult critical care are susceptible to: physiological symptoms, emotional distress, persuasion, burden, and postintensive care syndrome-family (PICS-F) as defined in 2011 by the Society of Critical Care Medicine.

Aims: The specific aims of this paper are to: 1) Describe the state-of-the-science regarding the concept of vulnerability of families of patients in adult critical care through an analysis and synthesis of relevant literature; 2) Explore resources available to reduce or prevent vulnerability of this population; and 3) Propose considerations for research with this population.

Method: Walker and Avant (2011) concept analysis and synthesis strategies supported the definition of this concept through a review of literature to describe antecedents, defining characteristics, and consequences of the vulnerability of families of patients in adult critical care.

Results: The identified antecedents of the vulnerability of families of patients in adult critical care are: family system disruption due to a critical illness or injury of a family member, powerlessness, helplessness, lack of proximity to the patient, and lack of access to information. The defining characteristics or attributes of the vulnerability of families of patients in adult critical care are: defenseless, unprotected, susceptible or open to harm, injury, neglect or persuasion, and exposed to burden. The positive consequences of the vulnerability of families of patients in adult critical care are: the opportunity for growth and change, endurance, empowerment, autonomy, resilience, satisfaction with needs met, protection, security, safety, strength, strengthened religious faith, and stronger family ties. The negative consequences for the vulnerability of families of patients in adult critical care are psychological, physiological, and social in nature.

Discussion: The authors present the state-of-the science regarding the concept of vulnerability of families of patients in adult critical care. The authors also present resources for families and health professionals, recommendations for potential collaborative efforts to reduce risks and promote the health of this vulnerable population, and recommendations for research.

Home ◀ ▶ go to PG.

Reducing IV Infiltrations with Administration of IV Contrast

Michele Yellen, RN
Radiology Nurse Clinician
VA San Francisco
Mill Valley, CA

Purpose: The purpose of this quality improvement project is to reduce the number of peripheral intravenous (PIV) contrast infiltrations during Computed Tomography (CT) and Magnetic Resonance (MR) scanning.

Background: Intravenous radiographic agents are administered to improve the visibility of internal bodily structures for CT and MR imaging. With the advances in technology, the timing of contrast delivery has become critical to obtaining optimal images. Power injectors enable the contrast to be delivered at controlled speeds. Flow rates have doubled from 2-3ml/sec to 4-5ml per second over the last four years. These higher infusion flow rates have also increased IV contrast infiltration rates in Radiology Departments. Extravasation is a well-known complication of radiographic contrast material injection, occurring when appropriate IV injections techniques are applied. In the Radiology Department in 2010 the number of infiltrations totaled 21 (.73% complication rate) with 2,889 IV starts. In 2011 the number of infiltrations totaled 10 (0.4% complication rate) with 2,463 IV starts. In a current published research study of over 69,000 patients undergoing IV contrast administration, there is an average extravasation rate of 0.7 to 0.9%. The majority of extravasation injuries is limited to the adjacent soft tissue and resolve without adverse effect and are mild. A very small percent, 0.1% can be severe and develop into tissue necrosis, skin ulceration and compartment syndrome. Patients at-risk patients for infiltrations include the elderly patient over 70 years of age, patients with a history of intravenous drug abuse or multiple chemotherapy infusions and those patients with decreased venous integrity. The goals of this quality improvement project were to decrease the infiltration rate by 50%.

Methods: The Radiology nurses developed new protocols to include patient participation during infusions, not allowing access into the hand, using larger bore needles 18g and 20g catheters. An IV Team Nurse with skills in using an ultrasound device was consulted for “difficult access” patients. The Radiology nurses requested a power injector with added capabilities for a “saline test bolus”, infiltration detection and automatic “shut-off” of infusion. If a saline test bolus failed, the IV’s were discontinued and restarted before the injection of contrast. Patients were encouraged to participate in their care by calling out loud to “stop” if they felt any pain at the injection site during the infusion of contrast. All IV’s required a “mandatory blood return”, a “double check” by second nurse, and if any doubt the IV’s were restarted. Monthly meetings were held to update nurses on the number of infiltrations with the numbers of adequate IV starts to reinforce the improvement.

Results: From Jan 2012 to Aug 2012: The total number IV starts from January to July was 3082 and the numbers of infiltrations was 6. After the new protocol was initiated the infiltration rate dropped to 0.2% from the previous year of 0.4%.

Conclusion: Implementation of the new protocol reduced the number of IV contrast infiltrations by 50% in the Radiology Department. The new protocol is safe, reduced patient extravasation injuries, and improved patient access to procedures.

Home ◀ ▶ go to PG.

Implementation of Pain Resource Nurse & Pain Champion Program in a Neurosurgical Unit

Emma Cuenca, MSN, RN,
CCRN-CSC, CNS
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA

Linda D. Urden, DNSc, RN, CNS,
NE-BC, FAAN
Professor and Director
Master's and International Programs
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA
urden@sandiego.edu

Background: Pain management remains a challenge in many areas of healthcare. Studies continue to indicate that 50–75% of surgical patients experience moderate to severe postoperative pain (Bell& Duffy, 2009, Mac Lellan, 2004; McGrath B. et al, 2004). In spite of available clinical practice guidelines, gaps still exist in appropriately and adequately managing patient's pain (Richards & Hubbert, 2007; Paice, Barnard, Creamer, Omerod, 2006). The Joint Commission (JC) has acknowledged the importance of pain management and assessment by incorporating it in their accreditation process (JC, 2008). Pain has negative effects on patients. It induces a "fight" or "flight" endocrine stress response that increases mortality and morbidity, particularly in very vulnerable patient populations, such as the young, the very old, and the critically ill (Erstad, 2009; Hutchison, 2007; Yeager, 2004). Pain induces increased myocardial oxygen consumption, tachycardia, immunosuppression and cancer cell proliferation, increased muscle breakdown for protein metabolism, poor wound healing, inadequate sleep, exhaustion, disorientation and anxiety, psychological disorders, and avoidance of movement which contributes to deep vein thrombosis and pulmonary embolism (Erstad, 2009). This can translate to prolonged hospital length of stay and decreased patient satisfaction.

Aim/Purpose of the Project: The aim of this project was to evaluate the effectiveness of Pain Resource Nurse (PRN) and Pain Champion (PC) Programs implementation in a 16-bed neurosurgical unit (NSU) of a tertiary medical center in metropolitan Los Angeles. The goals were to improve patient satisfaction with pain management assessed by HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) score and improve scores on the Nurses' Knowledge and Attitude Survey Regarding Pain (NKASRP) by 20%.

Design and Methods: This quality improvement project was designed to replicate the processes of published successful PRN programs in improving patient satisfaction with pain management. A quasi-experimental time series design was used to evaluate its effects. HCAHPS pain satisfaction scores, and NKASRP scores were obtained before and 3 months after program implementation. A PRN was a nurse who has completed a comprehensive 3-day PRN training at the City of Hope Hospital. A Pain Champion was a nurse who completed a one-day pain management training in this medical center. In preparation for program implementation, all the NSU Clinical Nurse Coordinators and identified staff nurses were mandated to attend a one-day Pain Champion workshop. They are the first official pain champions in NSU. The NSU staff nurses attended a mandatory 2-hour pain management training incorporated in the 8-hour annual update. Unit activities specific to the PRN/PC roles were: daily monitoring of nurses documentation of pain management, weekly patient interviews regarding pain management, biweekly pain huddle on specific pain facts/issues, quarterly newsletter development, attendance at monthly PRN/PC meetings & bimonthly staff inservice on pain topics.

Results and Outcomes: In progress.

Implications and Conclusions: To be determined following review and final analysis of results. It is expected that patient satisfaction scores and nurses' knowledge of and attitudes towards pain management will improve after program implementation.

ACUTE CARE

Implementing a Fever Practice Guideline in a General Surgery Department

Paul R. Russo, DNP(c), FNP
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA

Matthew Hannon, MD
Attending Surgeon
Acute Care Surgery Service
Naval Medical Center San Diego
San Diego, CA

Joseph Burkard, DNSc, CRNA
Associate Professor
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA

Background: Hospital costs and patient acuity continue to increase at an astounding rate. Ordering unnecessary tests can contribute to increased costs. The evaluation of patients with fever and leukocytosis (FAL) for a source of infection often results in many laboratory and radiographic tests being ordered. The average cost of a positive FAL workup ranges from $2,200 - $5,600, while the lack of a systematic workup approach drives the cost higher than necessary. The research regarding FAL workups is clear; a systematic algorithmic approach to FAL workups can expedite diagnostic decisions, reduce overall hospital costs, and decrease hospital length of stay.

Aim/Purpose of the Project: This project was to evaluate the differences in using the usual method of FAL workups and performing FAL workups using an established fever practice guideline. Time to treatment and overall costs of fever workups using the two methods were compared.

Design and Methods: This evidence-based project used a retrospective electronic chart review of former adult surgery patients who had undergone FAL workups in a large military treatment facility (MTF) general surgery service. EHR data programmers were able to identify adult general surgery patients who had temperatures meeting study criteria during the preceding two years. The project was then implemented in two phases. **Phase I:** After all data point information was collected and the determination of which fever workup was utilized, an analysis of each FAL workup with laboratory/imaging studies, etc. was conducted. Next, the time of initial fever presentation to the time of treatment was determined. The total cost per individual fever evaluation was determined utilizing current average market costs. **Phase II:** Utilizing the same 80 electronic patient charts, the established fever practice guideline was implemented using the same data points. Results using the fever practice guideline (FPG) workups were compared to the actual fever evaluations derived from the EMR. An analysis of cost differences and the time to treatment differences was completed comparing the two data sets.

Results and Outcomes: In progress.

Implications and Conclusions: By using a standardized fever practice guideline, the FAL workup can be streamlined according to individual clinical indications for each patient. A FPG will guide practitioners in expediting fever workups and implementing treatment modalities while simultaneously reducing fever workup costs.

Home ◀ ▶ go to PG.

Enhancing Decision-Making and Delegation Skills with Simulation and Informatics

Ann Butt, MS, RN, PCCN, CNE
Clinical Assistant Professor
School of Nursing
Boise State University
Boise, ID

Jayne Josephsen, MS, RN, CHPN
Assistant Professor
School of Nursing
Boise State University
Boise, ID

Purposes/Aims: In an effort to enhance senior student preparation for their final clinical preceptorship, a learning activity including multi-patient electronic health records and a videotaped simulation was developed for a baccalaureate nursing program. Traditional simulation activities that utilize a group of 8 to 10 students were not feasible due to timing, faculty availability, and simulation space. The purpose of this project was to ascertain if this innovative informatics and group-based simulation experience would enhance student preparation in identified decision-making and delegation competencies.

Rationale/Background: Curriculum design at this university is organized in such a way that the students entering their preceptorship clinical have been out of a medical surgical rotation for at least one semester. This has led to increasing anxiety on the students' part regarding their preparation for the cumulative preceptorship experience. The project goal was to engage all students entering the preceptorship clinical in active learning strategies that would stimulate knowledge recall and application, promote collaborative knowledge construction, and encourage data evaluation and synthesis to direct patient care.

Methods: Students were required to complete an electronic health record simulation that involved reviewing records for three patients and developing a plan of care. Once this was completed individually, students participated in a group viewing and discussion of a video simulation involving the same three patients and the RN providing care for them. Upon completion of the learning activity, the students were sent a link to a web-based survey that was anonymous and had institutional review board approval. The survey results were analyzed for trends in student responses related to the efficacy of the learning activities and the ultimate goal of student preparation for their preceptorship experience. Specific areas of analysis included student perception of their ability to critically think about and develop a plan of care, care coordination, prioritization and delegation skill development, and if the activity supported Quality and Safety Education for Nurses (QSEN).

Outcomes: Initial results indicated that these learning activities were useful in preparing students for their preceptorship experience. Students rated areas in enhancing critical thinking, planning patient care, and care coordination in the "agree" to "strongly agree" categories. The students rated areas of skill development related to delegation and prioritization in the "agree" category. Overall, the students rated the activities as effective in addressing the QSEN competencies of patient centered care, teamwork and collaboration, safety, and informatics.

Conclusions: The initial results of this pilot multi-patient informatics and simulation project indicate that it is a useful educational tool to help enhance development of decision-making and delegation skills and improve readiness for preceptorship. Plans to develop the project into a live multi- patient simulation are in progress. Further research is needed to determine whether students gain as much or the same information in an electronic health record simulation versus a group viewing of a simulation versus individual student participation in a multi-patient simulation.

Home ◀ ▶ go to PG.

Evaluation of Mindfulness-Based Stress Reduction Program for VA Staff

Joan I. Cohen, PhD, RN, MFT, PMHCNS-BS
Community Faculty
Nursing Research and Education
Greater Los Angeles Veterans' Administration Healthcare System
Los Angeles, CA

Aims: Evaluate an evidence-based Mindfulness-Based Stress Reduction program (MBSR) implemented for Veterans' Healthcare Administration System (VHA) staff.

Rationale: Increased stress in the workforce among healthcare employees often manifests in burnout and compassion fatigue, and can lead to errors in clinical judgment that may negatively impact patient care. MBSR is a validated program in reducing stress and increasing compassion.

Methods: A program of 8 two-hour MBSR classes plus one four-hour retreat was offered to staff at the Greater Los Angeles VHA in 2011. The sample consisted of VA staff who requested to attend an MBSR class. Participants were surveyed for demographics, work history, and meditation practice at baseline. Three valid and reliable outcome measures including the Perceived Stress Scale (PSS), the Compassion satisfaction/Fatigue Scale, (CS/CF) and the 5-Facet Mindfulness Questionnaire (5-M) were surveyed at baseline and post-program. To evaluate pre-post changes of an outcome measure, Chi-square tests were used for individual items and t-tests for aggregated scores of items.

Outcomes: Thirty-nine participants enrolled in the program and completed the baseline survey; thirty-five completed the post-program surveys. Eighty percent of the participants were female. Mean age was 45 years (S.D. = 10 years). Mean time working at VHA was 8 years (S.D. = 9 years). Sixty percent were clinicians. Participants worked at a variety of departments including nursing, primary care, mental health, research, and administration. Fifty percent had no prior meditation experience. Out of the ten PSS items, program improved 4 items: able to control life (pre=33%, post=66% post, p-value= .005), never nervous (pre=5%, post= 26%, p-value=.01), able to cope (pre=31%, post=66%, p-value=.003), never angered because things outside control (pre=21%, post=57%, p-value=.001). Aggregated score of all ten PSS items was significantly improved (p-value=.004). For the 5-M outcome measure, program improved its aggregated scores of "observe" items (pre=3.3, post=4.1, p-value=.0001), "describe" items (pre=3.7, post=4.1, p-value=.02), "act with awareness" items (pre=2.9, post=3.2, p-value=.04), "nonjudge" items (pre=3.6, post=4.0, p-value=.03), and "nonreact" items (pre=3.1, post=3.7, p-value=.001). Finally, program improved compassion satisfaction aggregated score from 4.0 to 4.5 (p-value=.01); however, no significant change in compassion fatigue.

Conclusion: Program improved all outcome measures except for compassion fatigue, which was not very high at baseline. Program was particularly effective in reducing anger and anxiety, increasing a sense of control, and raising awareness of participants' bodily senses. Future work will include implementation and evaluation of MBSR on VHA patients.

Funding: VA T21 Innovations in Patient Centered Care Training Grant.

The Influence of Intermittent vs. Continuous Bladder Catheterization after an Epidural

Diane R. Rauschenbach, BSN, RNC
Program Manager: Service Excellence
Maternal Child Health
Mercy Gilbert Medical Center
Gilbert, AZ

Barbara L. Wilson, PhD, RNC
Associate Dean for Academic Programs
College of Nursing
University of Utah
Salt Lake City, UT

Project Summary: Epidural anesthesia used during childbirth has been linked with urinary retention, prolonged second stage of labor, and an increased likelihood of operative assisted births. Although an acceptable standard of care includes the insertion of an indwelling catheter following epidural placement, recent studies have questioned the use of continuous bladder catheterizations (CC) during labor. CCs have been linked with an increased risk of infection (urinary tract infections) during labor even though the catheters are in place for a relatively short period of time. However, the findings on whether continuous versus intermittent catheterizations (ICs) influence labor duration are contradictory.

Purpose: To determine the influence of ICs vs. CCs on; (a) duration of second stage of labor; (b) total number of catheterizations; and (c) incidence of postpartum UTIs.

Proposed Methodology: Using the Iowa Model of Evidence-based Practice as the guide, we obtained approval to study term-gestation primiparous women (18 and older) with a singleton birth requesting an epidural. Once eligible patients agree to participate, they were randomized into one of two groups to receive either CCs or ICs. Patients in both groups were encouraged to void prior to epidural placement. The ultimate sample size will include 105 in each group over a six month period, allowing for statistical significance. Patients in each group will also be assessed for similarities in such demographics as maternal age, weeks gestation, cervical status, and fetal birth weight.

Study is currently underway.

Home ◀ ▶ go to PG.

Preventing Gastrostomy Tube-Related Hospital Acquired Pressure Ulcers

Jean McCormack, BS, RN, CWOCN, CFCN
Staff Nurse IV
Wound and Ostomy Department
Stanford Hospital and Clinics
Stanford, CA

Purpose/Aims: The purpose of this evidenced based practice (EBP) improvement project was to develop and implement a best practice protocol for managing gastrostomy tubes (G-tubes) in the acute hospital environment to prevent gastrostomy tube related hospital acquired pressure ulcers (HAPUs).

Rationale/Background: According to the literature one third of all HAPUs are medical device related pressure ulcers (MDRPUs), in addition, patients with a medical device are 2.4 times more likely to develop a pressure ulcer of any kind (Black, 2010). If MDRPUs were prevented the overall incidence and prevalence rates of hospital acquired pressure ulcers would be significantly reduced. At one academic medical center, wound and ostomy nurses noticed an upward trend in the incidence of MDRPUs and noticed a gap between best practices in then literature and actual practice. During 2011 three ICU patients developed full thickness gastrostomy tube related pressure ulcers; ICU RNs indicated an absence of care standardization.

Methods: Following a comprehensive review of the best practice literature, an updated protocol regarding caring for gastrostomy tube was developed. Key aspects of the protocol involved physician and nursing practice across multiple departments; procedural and inpatient. This project focused on the protocol standardization and nurse education. After a pre-test, education on the newly developed evidence based gastrostomy tube care protocol was delivered to ICU nurses via staff in-services. To assess the effectiveness of knowledge transfer, a post-test was included in the training experience. A secondary review of MDRPUs quality reports was also completed to better understand the occurrence of gastrostomy tube related hospital acquired pressure ulcers.

Outcomes Achieved: Overall, the nurses scored higher on the post-test following the education program. Identical pre and post tests were administered consisting of eight questions with a total possible score of 16, total sample size N=81 (pre-test n=75, post-test n= 81). The data was analyzed using a t-test. On average, participants knowledge related to MDRPU was lower on the pre-test (M=11.47, SE=.332) compared to the post-test (M=14.56, SE=.172). The difference was statistically significant $t(154)=-8.94$, $p<.05$. The results indicate a significant change in knowledge on average after participants received the in-service training. Additional observations were: the absence of California Department of Public Health reportable medical device related HAPUs and an increase in wound ostomy nurse consults.

Conclusions: Nursing education about the new protocol was deemed effective and expanded hospital wide. The development and implementation of an evidence based gastrostomy tube protocol may lead to the elimination of gastrostomy tube hospital acquired pressure ulcers and impact monitoring is being conducted. Ongoing monitoring will be required to determine sustainability of the intervention. The EBP literature review and best practice protocol also influenced physician preference resulting in the elimination of routine suture of G-tubes to the skin.

Home ◀ ▶ go to PG.

Medical-Surgical Nurses' Perceptions of the Electronic Medical Record Handoff Tools

Triverr Gray, RN, BSN, MHA
Administrative Director of Clinical Business Operations
Bon Secours St. Francis Medical Center
Midlothian, VA

Problem: Technology innovation is growing rapidly and imposing many challenges for hospitals. The integration of computers require nurses to change their workflow and methods on how they delivery care. An Electronic Medical Record (EMR) can add a degree of complexity for nurses. Many Medical Surgical nurses observe the change from paper charting to the EMR as difficult. Nurses are skeptical concerning the actual report about how the EMR will increase the nurse's time at the bedside and decrease their workload. Since the implementation of the EMR, physicians, nurses and other disciplines have identified the tool as a barrier to telling the patient's story.

Purpose: The purpose of the study is to identify the medical surgical nurse's documentation workflow and assess the perceptions of nurses regarding the EMR handoff tools as a form of communication. The aim of the study is to evaluate the nurse's perception concerning the usefulness and the preferred handoff method available in the EMR.

EBP Question: What are the available handoff methods? What is the frequency of use for each method? What is the perceived usefulness of the available methods? Is there a relationship in the age, years of experience, educational level and the chosen handoff method?

Methods: The study sites will be Bon Secours Health System's acute care facilities located in Central Virginia, who has implemented EPIC. Targeted participants for the study will be registered nurses who are employed by the organization that currently work on a Medical Surgical Unit. Sample size will be 50-200 participants. Data will be collected from the survey addressing the nursing factors, the available handoff tools, and the nurses' perceptions of using the EMR for handoff communication.

Outcomes: Measure the utilization of handoff tools that communicates the patient's plan of care to the interdisciplinary team members.

Significance: Through a survey the study will attempt to address the nurse's attitude on the usefulness of available handoff methods in the EMR, assesses the actual impact on nursing practice and address patient safety handoff communication.

Home ◀ ▶ go to PG.

Early Mobility in the ICU: Changing Unit Culture and Improving Patient Outcomes

Amy Doroy, RN, MS
Nurse Manager
Early Mobility Project Co-Lead
Tower 6 Medical Intensive Care Unit
University of California, Davis
Sacramento, CA

Gail Easter, RN, MSN
Early Mobility Project Lead
Assistant Director of Nursing, PCS
University of California, Davis
Sacramento, CA

Purpose: This project seeks to reduce post-ICU physical and cognitive morbidities, hospital length of stay, and facilitate early ventilator liberation through focused interventions. Patients in the ICU are exposed to deep sedation and prolonged immobility with physical therapy not occurring until the patient moves out of the ICU. The detrimental physical effects of bed rest include insulin resistance, thromboembolic disease, and atrophy of muscle. The cognitive deficits reported by ICU survivors include difficulty planning/organizing, paying attention, and memory loss.

Description: The Moore Foundation has awarded UCDMC an ICU-Awakening and Breathing Coordination, Delirium Monitoring, and Exercise/Early Mobility (ABCDE) Grant. This evidenced based practice intervention supports ICU patients to be place in a protocol that includes sedating patients less deeply when possible, frequently assessing them for pain and signs of delirium in addition to getting patients up and moving early in the hospitalization to help rebuild their mental and physical health. ICU nurses initiate the ABCDE bundle with newly admitted critically ill patients via a decision support system in the electronic health record. Using a dropdown menu, the RN may enroll the patient in the intervention program or if the patient's condition is too unstable, defer the decision for 12 hours. When the RN determines the patient clinical appropriateness of the treatment, and selects the patient to be included in the IHI based ABCDE bundle, an electronic order set is initiated by the RN and notification sent to the multidisciplinary team members. Once the patient is enrolled in the program, the patient receives daily physical therapy while in the ICU and their progress is monitored daily by the multi-disciplinary early mobility team. The Early Mobility program is currently being tested in three of UCDMC's adult intensive care units.

Evaluation and Outcomes: Between April and August 2012, there were a total of 78 discharges directly home compared to only 62 during the time period the previous year. The average length of stay during this time dropped from 14.7 days to 11.4 days. There was a net gain in revenues of $576,725 during this four month time period in comparison to the same four months the previous year. Data analysis is currently underway to assess time to liberation from ventilator, rates of benzodiazepine infusions, and incidents of delirium pre and post intervention.

Funding: Gordon and Betty Moore Foundation Grant # 3058.

Home

◀ ▶ go to PG.

Catheter-Associated Urinary Tract Infection (CAUTI) Maintenance Bundle Spinal Cord Injury

Marla Weiss, MSN, FNP-C
DNP Student
Hahn School of Nursing
San Diego, CA

J. Ghoniem, MD
Urologist Medicine Physician
VA Long Beach Healthcare System
Long Beach, CA

Mary Jo Clark, PhD, RN
Associate Professor
University of San Diego
San Diego, CA

Background: Neurogenic Bladders occurs in most individuals with Spinal Cord Injury (SCI), requiring long-term indwelling urinary catheterization for bladder drainage. The indwelling urinary catheter is a central part of long-term bladder management since voiding function is impaired due to nerve damage (Consortium for SCI Medicine, 2006). As a result of long-term catheter duration in this population, Catheter Urinary Tract Infections (CAUTIs) are often a challenging medical complexity for both patients and clinicians due to recurrent and increasingly resistant bacterial strains, placing great demand on resources and usually requiring frequent and prolonged hospital stays.

CAUTI is the most frequent type of healthcare-acquired infection (HAI), accounting for 36% of all HAIs in the United States. Evidenced-based studies suggest the strongest predictor for bacteriuria is the duration of the urinary catheter, at a risk rate of approximately 3% to 10% per day of catheterization (Fekete, 2010). It is not possible to prevent all CAUTIs, especially in those with neurogenic bladder dysfunction who need long-term bladder drainage (Hooten, 2010). Proper management of the urinary catheter can minimize the rates of CAUTIs by maintaining a sterile, closed urinary drainage system to prevent microorganism colonization of the catheter (Meddings, 2010). Other effective bladder practices such as positioning the drainage tubing so it is free of kinks or any kind of obstruction or back-flow of urine and ensuring the collection system always remains below the bladder level to prevent urine reflux reduce CAUTIs (CDC, 2010).

Aim/Purpose of the Project: The purpose of this project is to implement a Catheter Associated Urinary Tract Infection (CAUTI) Maintenance Bundle guideline to reduce infection rates for Veterans with spinal cord injury.

Design and Methods: Implementation of a standardized CAUTI Maintenance Bundle guideline for SCI Veterans who are managed with short-term and long-term urinary catheters. The study will be conducted using a quasi-experimental study design through retrospective chart review 6 months after bundle initiation.

Results and Outcomes: In progress.

Implications and Conclusions: To be determined following review and analysis of results. It is expected that implementing the bundle will reduce CAUTI rates and hospital stay length, thereby improving patient quality of life. In summary, it is hypothesized that adopting effective bladder management practices for long-term catheterization such as adherence to closed urinary drainage by trained personnel will promote better bacteriuria control measures for SCI patients with neurogenic bladder dysfunction, reducing the incidence of CAUTIs rates.

Home ◀ ▶ go to PG.

Poly Trauma Clinical Triad: Increasing Provider Knowledge and Improving Patient Care

Anne Monroe, BSN, RN
DNP Student
Hahn School of Nursing
and Health Sciences
University of San Diego
San Diego, CA

Joseph Burkard, DNSc, CRNA
Associate Professor
Hahn School of Nursing
and Health Sciences
University of San Diego
San Diego, CA

Background: Advances in life-saving treatments combined with changes in how warfare is conducted have produced an epidemic of co-morbid psychological and physiological trauma in Operation Iraqi Freedom and Operation Enduring Freedom veterans. Evidence-based clinical outcomes indicate a high prevalence of more than one trauma-related diagnosis among injured military personnel, with chronic pain, post-traumatic stress disorder (PTSD), and persistent post concussive syndrome (PPCS) presenting in 81.5%, 68.2%, and 66.8%, respectively. This comorbid trend is known collectively as the poly trauma clinical triad.

Purpose: This evidence-based project will educate providers in the poly trauma clinical triad resulting in increased knowledge and identification of comorbid disease and treatment modalities.

Methods: This three-day provider curriculum will be held in January 2013. The focus of this project is to educate providers and introduce a new treatment guideline for poly trauma clinical triad diagnosis. A pre and post quasi-experimental design will be used to assess changes in knowledge in the areas of PTSD, PPCS, and chronic pain.

Results: In progress.

Implications for Practice: This educational intervention will be used in a wide range of practice settings to improve the identification and treatment of the comorbid diagnoses.

Conclusions: Positive results will be clinically significant because they underscore the complexity of presenting complaints in returning service members and veterans and support the importance of a multidisciplinary team approach to these patients' assessment and treatment.

Home ◀ ▶ go to PG.

Nurse Staffing Matters… Every Shift

Lori A. Loan, PhD, RN, FAAN
Chief

1LT Ashley Salazar, AN
Staff Nurse

Mary S. McCarthy, PhD, RN
Senior Nurse Scientist

Center for Nursing Science & Clinical Inquiry
Madigan Healthcare System
Tacoma, WA

MAJ Gordon West, AN
Doctoral Student, Uniformed Services
University of the Health Sciences
Bethesda, MD

Patricia A. Patrician, PhD, RN, FAAN
Associate Professor
University of Alabama, Birmingham
Birmingham, AL

Purpose: The goal of this poster is to use empirical findings to demonstrate how the number, experience and mix of nursing staff influences the quality of patient care during a shift. This knowledge will allow staff nurses to apply staffing effectiveness research findings to real life situations, and better advocate for the patients they serve.

Background: Research demonstrates that nurse staffing matters – specifically that poorly staffed hospitals have higher mortality and adverse event rates. Unfortunately, translating these research findings into everyday practice is daunting. Our original study evaluated staffing and outcomes on over 115,000 shifts and found that decreased staffing on a shift was associated with increased probability of patient falls, medication errors, and staff needle-stick injuries (Patrician, Loan, McCarthy, Fridman, Donaldson, Bingham & Brosch, 2011).

Best Practice Scenarios: Imagine you are responsible for making patient care assignments, but even before the shift begins, one nurse calls in sick and three patients are waiting to be admitted to your unit. What should you do? You rationalize that with hard work you can make it through the day, but is this the best decision from the perspective of patient safety? This poster describes several realistic nurse staffing scenarios. The impact of staff experience and mix, as well as census and patient turnover, are explored in the scenarios and evidence-based solutions aimed at decreasing the likelihood of adverse events are presented.

Outcomes: Analyses from the original study were performed separately for medical-surgical, step-down and critical care units. Results from hierarchical logistic regression modeling reported in the literature were outlined using odds ratios and 95% confidence intervals. In this poster, we convert these results into tables describing associations between staffing and adverse events. These tables provide the basis for the scenarios presented. For example, study results found a 10% drop in Registered Nurse (RN) skill mix was associated with a 21% increased likelihood of a fall on medical-surgical units. Our scenario describes how this probability pans out when one RN calls in sick and is replaced by a Licensed Practical Nurse. Likewise, a 10% drop in the percentage of experienced staff on a shift was found to be associated with a 67% greater likelihood of nurse administered medication errors in step-down units. A scenario using a low census shift and a call-off day for an experienced nurse will be described.

Conclusions: Nurses must recognize that for every shift, staffing decisions may increase the potential for errors. It is their responsibility to work with leaders to modify conditions and ensure availability of an adequate number and mix of nursing staff in order to provide safe and high quality care for patients.

Funding: TriService Nursing Research Program (grants N02-P06 and N03-P07).

Home ◀ ▶ go to PG.

Medication Administration after Introducing Bar Code Scanning Technology

Lory J. Maddox, MSN, MBA, RN
Senior Clinical Consultant & PhD Student
Clinical Operations & College of Nursing
Intermountain Healthcare & University of Utah
Salt Lake City, UT

Purpose & Aims: The purpose of this study is to examine key relationships, social worlds and relative positions of those elements that influence medication administration practices by nurses in an acute care environment and to describe how bar code scanning technology and electronic medication administration records may be used to promote patient centric medication administrative practices. **Aim 1:** From the nurses' perspective, what are the benefits, barriers and inhibitors of Bar Code Medication Administration (BCMA) and electronic Medication Administration Records (eMAR) to safe medication administration practices? **Aim 2:** From the patients' perspective, could they collaborate with nursing staff to safety receive medications in acute care hospitals that use BCMA and eMARS and, if so, how?

Background: E-iatrogenisis defined as medical errors attributed to healthcare information system or healthcare information technology and represent 1% of all medical errors (Ash, Kilo, Shapiro, et. a., 2011). e-iatrogenic medication errors represents 10% of the 100,000 to 200,000 medical errors (Seidman,2012) that harm patients and cost more than $2 billion per year in the United States and harm patients (IOM, 2006).

The proliferation of healthcare information systems and technology including electronic health records, computerized physician order entry and bar code medication administration has had the unexpected consequence of creating new pathways to adverse drug events (Patterson, Cook & Render. 2002). Despite investments in healthcare information systems, technology, implementation and education programs, two conclusions are drawn: 1) Medication medical errors continue to be problematic in healthcare and 2) the introduction of healthcare information systems and technology constitute an additional source of medication errors.

Methods: This ethnographic study will use situational analysis wherein, according to Clarke (2005), the situation itself becomes the unit of analysis. This study will be situated in acute care unit(s) within a nonprofit hospital system located in the western United States.

Results: Data collection will occur over an extended time in the field and include observations, open-ended interviews, formal and informal interactions with key informants and field notes. This data will be used to develop a series of four maps--situational, relational, social world/ arena map and positional map. These maps situate the context and influencing elements of medication administration process by nurses using bar code scanning technology and electronic medication administration records that may be used for further narrative, visual or historical discourse analysis.

Implications: Nurses experience tension between technology dominated workflows and nursing actions directed toward safe, efficient patient care. Nurses are well aware of, and often caught in a paradox and experience tension resulting from building, testing and implementation of healthcare information systems and technology. Through their actions, nurses balance technology and clinical demands in an effort to maintain patient safety in hospitals. Nursing actions taken by nurses to maintain safety in the sustainability phase of medication management technology need further description. The nurse, patient, eMAR and BCMA medication administration process need further explanation to continue our progress toward improved patient safety and patient centric medication administration.

References:

Ash, J., Kilo, C., Shapiro, M., Wasserman, J., McMullen, C., Hersh, W. (2011) Roadmap *for Provision of Safer Healthcare Information Systems: Preventing e-Iatrogenesis.* Institute of Medicine.

Clarke, A. (2005) Situational Analysis: Grounded theory after the postmodern turn. Thousand Oaks, CA: Sage.

Patterson, E. S., Cook, R. I., & Render, M. L. (2002). Improving patient safety by identifying side effects from introducing bar coding in medication administration. *J Am Med Inform Assoc, 9*(5), 540-553.

Home ◀ ▶ go to PG.

Data, Information, Knowledge and Wisdom in Nursing Change of Shift Reports

Susan A. Matney, MSN, RN, FAAN
Medical Informaticist & PhD Student
HDD Team & College of Nursing
3M & University of Utah
Salt Lake City, UT

Lory J. Maddox, MSN, MBA, RN
Senior Clinical Consultant & PhD Student
Clinical Operations & College of Nursing
Intermountain Healthcare
& University of Utah
Salt Lake City, UT

Nancy Staggers, PhD, RN, FAAN
Professor
School of Nursing
University of Maryland
Baltimore, MD

Purposes/Aims: The specific aims of this qualitative study include: 1) What components of DIKW are represented in nursing handoffs; 2) Is there evidence of knowledge and/or wisdom exchange between nurses in handoff reports; and 3) What are the distinguishing attributes of knowledge transfer in handoffs?

Background: A critical component of nursing care is the exchange of information during patient handoffs. Inadequate handoffs have been linked to gaps, errors and prolonged shift reports in nursing. Moreover, current informatics support for this activity is not optimal. Nursing informatics defined the Data, Information, Knowledge, Wisdom (DIKW) Framework as the foundational model for the field. How nursing handoffs might reflect the DIKW framework is not yet known.

Methods: This study was a secondary data analysis using 25 narrative transcripts from handoffs on medical and surgical units at two acute care facilities. The transcripts represent 93 unique handoffs in facilities with full electronic health records. Two informatics experts first defined DIKW within the context of nursing handoffs and then analyzed the data using deductive analysis. Iterative dialogues and comparative coding assured inter-rater reliability during the coding process. A codebook was developed which included boundaries and examples for each DIKW category. The codebook acted as a living document that reflected our iterative analysis and discussion. After coding transcripts individually, we compared our level of consensus on the same transcripts and found substantial agreement between researchers.

Results: Our findings demonstrate a high frequency of information, limited knowledge, and essentially no data or wisdom transferred during change of shift reports between nurses. In most cases, nurses provide historical information regarding interventions conducted during their shift without connecting these interventions to patient problems, goals and/or outcomes. An exception was in the area of pain management where nurses' change of shift report provided more knowledge exchange. Additional findings included inconsistent information structure by the outgoing and the oncoming nurse had the burden of clarifying and integrating patient information to plan appropriate care and priorities for the upcoming shift.

Implications: Implications include methods for better NI support for handoffs to improve knowledge representation and links to multidisciplinary patient goals and problems.

Home ◀ ▶ go to PG.

Use of an Algorithm to Disseminate EBP and Prevent Device-Related Pressure Ulcers

Sandi Nishimura, MSN, RN
Nursing Quality Management Coordinator
Nursing Administration
Stanford Hospital & Clinics
Stanford, CA

Background: One of three pressure ulcers are related to medical devices. Often there is a gap between current practice and evidence of best practice supported in the literature to reduce pressure ulcers. Systems are essential to close this gap between professional practice behavior and evidence from research literature to drive a reduction in hospital acquired pressure ulcers (HAPUs).

Objective: To close the practice-research gap by developing an evidence-based practice (EBP) algorithm to guide decision-making and professional practice for the prevention of device related HAPUs.

Method: Development of a skin barrier product algorithm as a method to guide decision-making. Participants completed a pre- and post- survey before and after exposure to the algorithm. A paired sample t-test analysis was used to determine whether a significant difference exists between the pre- and post- test scores.

Results: 100% of participants reported agreement or strong agreement with the use of an algorithm as an effective method to guide EBP for product selection. On average, participants experienced significantly greater knowledge regarding skin product selection after exposure to the algorithm (M=2.750, SE=.796, t(7)3.45, p<.05).

Conclusion: The use of an algorithm may be an effective tool to guide best practice in clinical decision-making. Research is needed on the use of algorithms as a vehicle to rapidly disseminate evidence-based best practices.

Can Earplugs Improve the Patient's Perspective of Increased Sleep in the ICU?

Ryan Treat, RN, BSN, CCRN
Critical Care Unit (CCU)
Northern Arizona University
Flagstaff, AZ

Project/Best Practices Poster Session: Work in progress.

Purpose/Aim: To examine adult patients' self-reported experiences of sleep perception during the night hours comparing the use of earplugs and not using earplugs in the intensive care environment using the delirium assessment model.

Rationale/Background: Critical care patients experience varying interruptions in sleep patterns for a myriad of reasons including excessive care interventions, illness complications, and environmental distractions such as lights and noise. This has prompted an analysis that rest and sleep may be improved through a perceived perception of a quieter environment from the patient's perspective through the use of soft disposable earplugs.

Methods: A pre/post intervention delirium assessment model questionnaire will be utilized (n = 50) to examine the self perceived impact or non-impact of implementation of earplugs within the intensive care unit. Voluntary participants (n = 50) will be randomly selected from those who have stayed at least one night without the use of sedative drugs in the previous 24 hours and do not fail the delirium assessment model (CAM-ICU scale developed by S. Inouye, J. Francis, and R. Hart, 2001) from a 40 bed critical care unit. After Internal Review Board approval half of the patients will receive the standard issue of care. The second group will receive earplugs to reduce the perception of noise on the intensive care unit. A subjective data collection feedback form will comprise of three elements: (1) two five-level Likert scale questionnaires rating perception of quality and quantity of sleep, (2) five item data collection tool comprised of four closed end questions and one open-ended question, (3) demographic information.

Conclusions: Anticipatory findings are noise will present a significant hindrance to sleep with both intervention and nonintervention groups. Anticipatory results are that the intervention group will perceive earplugs as being helpful in reducing noise and promoting sleep on the intensive care unit. An intervention as simple as utilizing soft disposable earplugs can be a valuable intervention in increasing sleep on the intensive care unit. The recommendation for future practice is earplugs can be a useful additional inexpensive device in the promotion of sleep in the intensive care unit.

Home ◀ ▶ go to PG.

Impact of Delirium in the ICU on Patient LOS and Mortality: A Multi-Center Epidemiology Study

Peggy Kalowes, RN, PhD, CNS, FAHA, Principal Investigator;
Louise DuBos, RN, BSN; Martha Gadberry, RN, BSN, CCRN, Sub-Investigators;
Study Nurses: Karen Benavides, RN, MSN, CNS; Myrna Czaplicki, RN, BSN;
Eugenia Lupisan, RN, BSN, CCRN; Brent Lopez, RN, BSN;
Hyunsoon Park, RN, MN, CNS, CCRN; Dana Sipin, RN, BSN
Long Beach Memorial Hospital, Long Beach, CA

Lynda Steele, RN, BSN, Sub-Investigator
Study Nurses: Kimberly Driscoll, RN, BSN, CCRN, Timothy Horttor, RN, BSN, CCRN;
Dionne Perry, RN, BSN, CCRN; Hesna Taban, RN; Tanya Vernon, RN
Orange Coast Memorial Hospital, Fountain Valley, CA

Purpose: The primary aim of this study is to examine the epidemiology of delirium (prevalence/duration) and the impact on relevant clinical outcomes among critically ill patients. A secondary aim is to investigate demographic and predisposing factors that may serve as predictive variables for the development of delirium (age, sex, medical diagnosis, severity of illness, and medications received).

Background: Delirium, or acute brain dysfunction, is a serious, potentially preventable neuropsychiatric disorder that is of epidemic proportion in the ICU, grossly under diagnosed, yet it affects up to 80% of critically ill patients. Moreover, an estimated 4-6 billion dollar costs are associated with delirium, along with increased use of restraints, sedation, and falls. Research has shown that delirium is an independent predictor of increased mortality, increased hospital length of stay, medical complications, and costs. The high prevalence and seriousness of these adverse outcomes should establish delirium as a major concern for ICU staff, thus understanding the epidemiologic nature and predictive risk factors will assist the ICU team to implement evidence based strategies to prevent and treat delirium.

Methods: This prospective, multi-center, observational study will measure the epidemiology of delirium among ICU patients and examine the impact on patient outcomes. The study will take place in the intensive care units at a 569-bed academic tertiary care hospital (31-bed ICU); and a 220-bed community hospital (21-bed ICU).

A convenience sampling method will be used to enroll a total of 430 (N=250) and (N=180) at each respective site. Patients are study eligible if: 1) admitted for ≥ 24 hours; 2) Age ≥ 18 years; 3) English or Spanish speaking. Patients were excluded if: 1) receiving EOL comfort care or withdrawal of treatment; 2) history of severe mental illness, admission with an alcohol-related delirium, and admission for aphasic stroke.

Measurement: Delirium monitoring will be done using the Richmond Agitation Sedation Scale (RASS) and the CAM-ICU, chosen for its high sensitivity (94-100%) and specificity (90-95%), strong validation, and its use among non-verbal intubated patients. Charlson Comorbidity Index (CCI) will be used as a measure of illness severity and mortality prediction. Demographic/study variables will be collected through the hospital record.

Descriptive statistics will be used to describe the sample population. Baseline characteristics will be compared between patients who ever had delirium and never had delirium using Fisher's exact tests and Wilcoxon rank sum tests. Univariate and multivariate logistic regression will be used to identify factors associated with hospital mortality. Multiple linear regression will be used to evaluate the association between delirium; LOS and cost after controlling for additional covariates.

Implications: Delirium is a frequent complication of critical care, developing in approximately two-thirds of critically ill patients. Despite the high prevalence, without active monitoring, it goes undiagnosed in up to 72% of cases. Delirium is associated with significantly higher mortality and ICU/hospital costs. This research has profound implications for identifying an essentially invisible clinical syndrome and re-focusing medical and nursing interventions to meet the needs of a significant patient population, who are at risk for delirium.

Home ◀ ▶ go to PG.

ACUTE CARE

Exploring Organizational Culture and Prevalence of Physical Restraints

Peggy Kalowes, RN, PhD, CNS, FAHA
Nursing Research Director
Nursing Research Department
Long Beach Memorial Medical Center
Long Beach, CA

Jessica Deloviar, RN, BSN
Performance Improvement Coordinator
Performance Improvement
Community Hospital Long Beach
Long Beach, CA

Michael Hernandez, RN, BS
Emergency Department Director
Emergency Department
Community Hospital Long Beach
Long Beach, CA

Melissa Dyo, RN, PhD, NP
Assistant Professor
School of Nursing
California State University, Long Beach
Long Beach, CA

Purpose: To explore the organizational culture which influences the nurse and physician decision-making process in applying restraints and to examine the patient characteristics and prevalence of physical restraint use in a community hospital.

Background: Physical restraints have been known to cause physical and emotional injuries to patients, negatively affect staff, and even cause death. Due to the negative effects of restraints, organizations are moving towards restraint-free environments. In this community hospital, data is inconsistently gathered regarding patient characteristics, prevalence, and factors that determine nurse and physician decisions to apply physical restraints. Nationally, the Collaborative Alliance for Nursing Outcomes (CALNOC) benchmark concerning restraint prevalence ranges from 3.6 to 4.5 % of in-patients. Anecdotal data regarding physical restraint use at this hospital appears to trend from 2.9% to 7.4% of in-patients. In order to adopt an evidence-based culture and compliance with regulatory standards, baseline data is needed to understand the hospital's restrained population and the organizational culture surrounding physical restraint use.

Methods: A prospective, descriptive exploratory design will be used to explore the organizational culture influencing staff decision making processes in applying physical restraints. Nurses and physicians currently employed will be surveyed online to assess the organizational and demographic factors influencing restraint use by completing the Reducing Seclusion and Restraint—Organizational Questionnaire (RSROQ).

Medical records of adult patients who are physically restrained in the Emergency Department, Medical/Surgical/Telemetry units, Intensive Care Unit, and the Behavioral Health Unit will be reviewed for restraint prevalence and basic demographic information.

Results: Bivariate and multivariate statistics will be used to examine differences in RSROQ items between staff subjects. Descriptive statistics will be used to describe the sample population characteristics related to physical restraint prevalence.

Implications: Measuring organizational, staff, and patient factors influencing restraint use is essential to planning performance improvement activities that will enhance patient safety.

Home ◀ ▶ go to PG.

The Impact of Staff Safety Attitude on Reduction in Urine Specimen Identification Error

Flora Tomoyasu, RN, BSN, PHN, MSN, CNS, Clinical Nurse Educator
Emergency Services
Saddleback Memorial Medical Center
Laguna Hills, CA
Ftomoyasu@memorialcare.org

Peggy Kalowes, RN, PhD, CNS, FAHA
Nursing Research Director
Nursing Research Department
Long Beach Memorial Medical Center
Long Beach, CA

Mary Krages, RN, BSN
Staff Nurse, Intensive Care Unit
Saddleback Memorial Medical Center
Laguna Hills, CA

Janice McKinzie, RN, BSN
Charge Nurse, Emergency Services
Saddleback Memorial Medical Center
Laguna Hills, CA

Purpose: The purpose of this intervention research is to examine the effectiveness of an educational intervention on improving the nurse's safety knowledge, thus reducing patient identification errors related to urine specimen labeling. A pre-and-post survey design will be used to examine baseline and post intervention knowledge after safety awareness education. We are postulating it will be significantly higher in the intervention group compared to the control group. Our goal is to improve the work environment and create a culture of safety.

Background: Medical Errors are the eighth leading cause of death in the United States, with almost 100,000 annual deaths and financial costs $38 billion (AHRQ 2010). Laboratory testing of specimens is important to diagnose and treat patients. Errors with patient identification (ID) and laboratory specimen labeling remains one of the most common errors in healthcare. More than 160,000 adverse medical events per year have been suspected in the United States because of misidentification of patient or laboratory specimen (2). Inaccurate identification of a patient during specimen labeling can lead to treatment errors, misappropriate use of resources, increased length of stay, incorrect financial costs, decreased patient satisfaction, and increased use of staff time related to correction of incorrect specimen identification.

An environment that supports a culture of safety will provide staff with the strategies necessary to overcome patient ID confirmation bias thereby decreasing patient identification errors. One study showed a small but significant increase in safety climate that correlated with process improvement and adherence to selected safety indicators (3) after education on safety. Identifying a staff's attitude towards patient safety and re-enforcing it with patient safety awareness education can promote better compliance with patient safety initiatives.

Methods: This is a prospective non-experimental comparative study designed to effect change in the Emergency Department (ED) staff's attitude towards safety. It will be conducted in a 225 bed community hospital. The Women's Hospital staff will be the control group and the intervention group will be the ED staff. A Safety Attitude Questionnaire (SAQ) will be completed by nurse's pre and post intervention.The ED will participate in Safety Awareness Education to reinforce compliance to safety initiatives. Data on urine specimen errors will be tracked for 90 days after the Safety Awareness Education (Intervention). Urine patient ID errors in both departments will be compared during the data collection time frame and analyzed to determine if the there is a significant change. A decrease in the urine specimen error rate in the ED will support the hypothesis.

Implications: In light of the growing trend of laboratory specimen mislabeling and the risk for poor patient outcomes as a result of unsafe patient identification practices in the ED, findings from this study will help to determine whether a process change is needed in order to enhance the quality, appropriateness, and cost effectiveness of healthcare delivered to patients. The Safety Awareness Education can be replicated for any hospital unit with patient safety issues and could promote better staff compliance to patient safety initiatives.

Home ◀ ▶ go to PG.

BMI Changes Post Resection of a Pituitary Adenoma in Patients with Acromegaly

Christine Yedinak, DNP, FNP, MN, BSN, RN
Assistant Professor
Department of Neurosurgery
Oregon Health & Science University
Portland, OR

Background: Clinical reports indicate that patients post resection of a growth hormone (GH) producing pituitary adenoma (Acromegaly), experience significant hunger and weight gain. This is currently unsupported by objective data. An adverse anthropometric risk profile has been demonstrated for this population when compared to age and gender matched subjects, despite normalization of GH. Vascular disease continues to be a significant risk factor for mortality, despite controlled disease. Likewise, obstructive sleep apnea can persist, causing glycemic metabolic disturbance and sympathetic activation which elevates levels of circulating vasoactive hormones. It's unclear if this is related to persistent soft tissue hypertrophy as a result of Acromegaly or related to other factors such as post operative weight gain.

Aim: To evaluate BMI changes for patients with Acromegaly after surgical resection of growth hormone producing pituitary adenomas.

Method: A retrospective chart review was conducted of all patients diagnosed with Acromegaly who underwent transsphenoidal resection of a growth hormone producing, pituitary adenoma between 2004 and 2012 at our institution. BMI was compared immediately prior to surgery and at six months post operatively. Paired samples t test was used to compare pre and post surgical means and one sample t test was used to determine if there was a significant difference between genders in the change of BMI. Patients with concomitant malignancies and ongoing glucocorticoid use were excluded from this study.

Results: Sixty two patients were included in the study: 45 females/17 males with a mean age of 50 years (range 21-80). One female patient experienced no weight change. 44(70%) of patients (31F/13M) experienced an average weight gain of 2.7kg (range .22-11.17) and 13/62 (21%) lost on average 1.3kg (range 0.3-4.2kg). There was a significant overall difference between pre treatment and post treatment values (p=>0.00) with a greater difference for females than males (p=0.001 vs p=0.032). Both weight gain and weight loss groups experienced significant BMI changes (p=0.000). Although males had significant post treatment weight gain (p=0.005), there was no significant difference in pre and post treatment weight loss (p=0.171). Results were independent of exercise, diet, normalization of growth hormone levels or the number of pituitary deficiencies.

Conclusion: Surgical treatment of Acromegaly is accompanied by significant weight gain. Further evaluation of the mechanisms and of management of post operative weight gain is warranted.

Home ◀ ▶ go to PG.

Patients' and Health Care Providers' Perception of Stressors in Critical Care Units

Alham Abuatiq, PhDc, MSN, RN, University of San Diego
Mary Jo Clark, PhD, MSN, RN, Professor, University of San Diego
Joseph F. Burkard, DNSc, CRNA, Associate Professor, University of San Diego

Purpose: The purpose of this study was to investigate intensive care patients' perceptions of stressors, to investigate the provider's perception of what constitutes a stressor from their patient's perspective, and to describe how health care providers manage their patients' stressors. This study is a replication of Cornock (1998) study of stress in the intensive care setting.

Background and Significance: A person's mental state and stress level affect his or her overall wellbeing and recovery from illness, and statistics suggest that stress actually causes 80% to 90% of illnesses. The presence of machinery, noises, smells, light, lack of privacy, separation from family, and immobility all contribute to a stressful environment in critical care units. It is important to describe these experiences in order to provide feedback to health care providers and improve the quality of care. Based on literature review, there is a gap in the literature and a need to update and refine knowledge and clinical practice related to stress perception and management of stressors.

Aims: The study aims were to: 1) identify stressors that patients experience; 2) examine the relationship of perceived stressors to medical diagnosis, gender, age, ethnicity, education level, presence of family member, and type of medical insurance; 3) identify the health care providers' perceptions of the stressors experienced by ICU patient; 4) determine if there are significant differences between the health care providers' perception of patients' stressors; investigate how health care providers manage their patients' stressors; and 5) describe the patients' anticipation of stressors when they go home.

Methodology: A comparative descriptive design was used. Convenience sampling was used, So far (120) subjects participated in this research (70) health care providers and (50) patients. A demographic form and a pencil-and-paper tool, the Environmental Stressors graphic data form Questionnaire" (ESQ), were given to subjects.

Findings: Data analysis reflected that patients ranked "Being in pain" (n=31, 62%) as extremely stressful; "Not being able to sleep"(n=19, 38%); "Financial worries" (n=15, 30%); "Unable to fulfill family roles" (n=13, 26%), and "Not being able to move hands or arms because of IV lines" and "not being in control of yourself" with same percentage (n=11, 22%) as the top five stressors. On the other hand health care providers ranked "Being in pain" (n=57, 81.4%); "Not being able to communicate" (n=54, 77.1%); "not being in control of yourself" (n=45, 64.3%); "Financial worries" (n=44, 62.9%); and "Fear of death" (n=43, 61.4%) as the top five extremely stressful items perceived by their patients. T-test analysis reflected a significant difference in the overall ESSQ stress score between patients and health care providers (P<.05, Mean difference=51.9).There was no significant difference in the overall ESSQ stress score between male(n=29) and female patients (n=21, P=.204). Patients older than (50) years (n=38, mean=86.3) did not have significant difference in the overall ESSQ score than patients younger than 50 years old (n=12, P=.051). Data analysis is in progress for the remaining aims.

Implications for Practice: This study provided knowledge updates for the refinement of nursing practice in assessing and managing patient's stressors. The findings reflect the need to perform holistic assessment of ICU patients to guide the effective implementation of stressors oriented care plan, improve quality of care and increase patient's satisfaction.

Home ◀ ▶ go to PG.

Handoff Practices That Promote Patient Safety: Painting a Full Picture

Patricia Birmingham, PhD, RN
Clinical Reviewer, San Francisco VA
San Francisco, CA

Martha Buffum, PhD, RN, PMHCNS-BC
Associate Clinical Professor, UCSF
San Francisco, CA

Mary A. Blegen, PhD, RN, FAAN
Professor Emeritus, UCSF
San Francisco, CA

Audrey Lyndon, PhD, RNC, CNS-BC,
FAAN, Assistant Professor
UCSF School of Nursing
San Francisco, CA

Purpose: To examine nurses' perspectives on handoff practices that promotes patient safety.

Background: "Patient handoffs" are routine communication processes known to be vulnerable to errors and omissions that can affect patient safety. Nurses depend on good handoff communication to continue patient care effectively. In reviewing the literature, information quality varied widely within and across studies regardless of handoff method. Nurses were challenged to retain and recall information accurately. Little standardization of handoffs was found. Handoffs were conducted in environments that were prone to interruption and noise. Interpersonal relations varied between tension and support. Little evidence was found to definitively support the effectiveness of any particular handoff strategy over others for safer patient care.

Methods: Using grounded theory methodology, the study was conducted on two medical-surgical units in an academic hospital in the western United States with a purposive sample of 21 nurses. Data were collected between November 2010 and December 2011 and consisted of 25 semi structured open-ended interviews and ethnographic observations of shift reports. Handoff observations included 87 unique patient handoffs during 20 intershift reports. Data were coded using open, focused, and theoretical coding.

Results: Nurses' collaborating to paint a full picture of the patient at handoff promoted patient safety. When oncoming nurses left the handoff with a grasp of the picture they felt "ready to go" because they had sufficient information to prioritize assessments, anticipate risks, and detect changes in a patient's condition. Nurses identified three essential practices in painting a full picture together: organizing information, asking and answering questions skillfully, and engaging in respectful dialogue. Organizing information provided the context, asking and answering questions skillfully clarified the picture, and engaging in respectful dialogue provided a holistic picture of the patient. Conditions promoting painting a full picture were trust, respect, oral face-to-face communication, and freedom from noise and interruptions. Asking and answering questions evoked strong emotions among nurses. If offgoing nurses arrived at the handoff with a poor grasp of the patient and/or felt that they were being unjustly "grilled," that inhibited information exchange and posed risks for patients. Further, challenging nurses in painting a full picture were lack of time, tape recorded handoffs, noise and interruptions.

Implications: Nurses' perspectives on effective handoff practices for patient safety often depend upon whether the nurse was in the oncoming or offgoing position. Future research needs to consider improvement interventions that take into account the needs of each nurse's position in the handoff.

Home ◀ ▶ go to PG.

Effects of Body Temperature Alterations Following Traumatic Brain Injury

Lori Kennedy Madden, MS, RN, ACNP-BC
PhD Candidate
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Purposes/Aims: Traumatic brain injury (TBI) is a leading cause of death and disability, contributing to one third of all injury-related deaths in the United States (U.S.). Investigators have considered the harm of fever and hypothermia, and the benefit of fever prevention, therapeutic hypothermia, and controlled normothermia in TBI patients in an effort to identify strategies by which to improve outcomes. Disparate findings regarding the effect of these temperature alterations have resulted in a lack of clear and robust evidence to guide temperature management in TBI. The purpose of this paper is to describe the effects of body temperature alterations following TBI. Body temperature alterations are spontaneous or induced body temperature outside of normal range.

Background: Approximately 1.7 million people sustain TBIs in the U.S. annually. Despite best-care practices based on published guidelines, many patients have poor outcomes. Prevention of secondary injury is one key strategy in which nurses can impact the severity of injury-related disability and death. Published guidelines provide limited evidence regarding prevention of secondary injury. Failure to treat secondary injury leads to lengthened intensive care unit (ICU) and hospital stays and increased mortality rates. Fever has been identified as a mechanism of secondary injury and can exacerbate primary TBI through multiple cellular mechanisms. Temperature management, a key responsibility of nurses, is one method to reduce this type injury. Unfortunately, the optimal goal for body temperature following TBI has not yet been identified.

Methods: The electronic search strategy used Cochrane database, PubMed, CINAHL, and Web of Science. Inclusion criteria: 1) Existing Cochrane reviews of hypothermia in TBI with additional search using the same strategy to identify new publications since the last review; 2) Cohort studies of temperature alteration in TBI; 3) Meta-Analyses of hypothermia in TBI; 3) Studies must include neurologic outcome reporting. Exclusion criteria: 1) Majority of subjects non-TBI; 2) Primarily pediatric subjects, 3) Animal studies. Searches were restricted by English language. Once publications were identified, references were reviewed and related articles were identified via Web of Science.

Results: Studies investigating targeted temperature management in TBI suggest that mild hypothermia may benefit those patients who have elevated ICP. Generally, longer cooling periods may be more beneficial than shorter cooling periods. Rewarming rates are not consistent. Prophylactic hypothermia is not beneficial, but study design has limited the quality of results. Identification of timing, duration and severity of temperature alteration is not well documented and may be associated with long-term outcomes.

Implications: Current evidence-based targeted temperature management goals are poorly defined. Further research is needed and should (1) characterize the dose of severity and duration of temperature alteration after TBI; (2) determine if temperature alteration influences or predicts neurologic outcome; (3) determine if the rate of temperature correction (warming from relative hypothermia or cooling from relative fever) influences or predicts neurologic outcome; and (4) compare controlled normothermia versus standard practice or hypothermia. Given the prevalence and societal effect of lost lives and wages resulting from TBI, identification of patient care strategies that may improve outcome after TBI are a priority. As nurses monitor, document and treat body temperature, identification of treatment goals will better inform nursing practice.

Home ◀ ▶ go to PG.

ACUTE CARE

The Effect of Training on AAC Use in Acute Care

Margaret Vento-Wilson, MA, CFY-SLP
Communicative Disorders Department
California State University of Long Beach
Long Beach, CA

Anthony McGuire, PhD, RN,
ACNP-BC, CCRN, Nursing Department
California State University of Long Beach
Long Beach, CA

Jennifer Ostergren, PhD, CCC-SLP
Communicative Disorders Department
California State University of Long Beach
Long Beach, CA

Proposal/Aims: To determine the impact of training given to pre-service nursing students in the use of augmentative and alternative communication (AAC) with patients experiencing severe communication impairments in the acute care setting.

Background: AAC systems have demonstrated the potential to increase communicative competence for acute care patients experiencing severe communication impairments, but have been shown to be vastly underutilized. A review of literature revealed no studies investigating the impact of training on AAC systems with pre-service nursing students.

Methods: One hundred and three undergraduate nursing students were recruited from a local university and consented to participate in the study. Two surveys (pre and post), delivered on the day of the training, and one follow-up survey, delivered after the students had worked with patients in an acute care setting, were utilized to obtain confidence level and implementation likelihood as well as other parameters, including value of training and AAC system effectiveness. Confidence level, implementation likelihood, value of training, and AAC system effectiveness were measured using a 7-point Likert scale. Confidence level of AAC implementation and AAC implementation likelihood across surveys were analyzed using Wilcoxon Signed Ranks Tests, given a significance level of .01.

Results: Wilcoxon Signed Ranks Tests demonstrated statistically significant changes in confidence level from the pre-training survey to the follow-up survey (z (195) = -7.806, $P < .01$) and in likelihood of implementation from the post-training survey to the follow-up survey (z (195) = -7.814, $p < .01$). Of the 30 participants who implemented an AAC system during their critical care rotation, 93% indicated that the AAC training had impacted their decision to implement. Further, of these 30 participants, 83.3% indicated that the system was effective and 93% indicated that the AAC system had worked as expected.

Implications: While nursing students are not perfectly analogous to practicing nurses, findings in this study may be of benefit to the nursing profession. The statistically significant changes in both confidence level and implementation likelihood suggest that at least some of the barriers to AAC use by nurses in the acute care setting could be addressed with the provision of appropriate tools within a well-designed, multi-dimensional training.

Home ◀ ▶ go to PG.

ADOLESCENT HEALTH ISSUES

SEATTLE'S P3 PROJECT: A QUALITATIVE SECONDARY ANALYSIS OF THE VOYAGER JOURNEY

Theresa Granger, Danuta Wojnar, Bonnie Bowie

TEEN TAKE HEART: A PROGRAM TARGETING AT-RISK YOUTH IN VULNERABLE COMMUNITIES

Steven J. Palazzo

ASSOCIATED FACTORS WITH MENTAL HEALTH AMONG KOREAN AMERICAN ADOLESCENTS

Gloria Youngju Nam

IMPROVING ASTHMA MANAGEMENT IN PEDIATRIC PATIENTS 12 TO 17 YEARS OF AGE

Debra J. Graham, Susan Instone

IMPROVING COMMUNICATION FOR ADOLESCENTS WITH EPILEPSY IN TRANSITION TO ADULT CARE

Jennifer A. Disabato

TEEN SUICIDE: EXPERIENCES IN THE EMERGENCY DEPARTMENT FOLLOWING AN ATTEMPT

Carrie E. Holliday, Roxanne Vandermause, Mel Haberman

ADOLESCENT EXPERIENCES OF LIVING WITH TYPE 1 DIABETES

Elizabeth K. Babler, C. June Strickland

Home

go to PG.

THE HEALTH STATUS OF U.S. MEXICAN IMMIGRANT ADOLESCENTS: A BINATIONAL STUDY

Mary Lou de Leon Siantz, Xochitl Castaneda, Claire Brindis,
Steven P. Wallace, Ramirez Garcia Telesforo

WHERE DID OUR LIVES GROW IN DIFFERENT DIRECTIONS?: FAMILIES OF TEENS WITH SCHIZOPHRENIA

Hyun Jung Kim, Karen G. Schepp

HEALTH INSURANCE AND PRIMARY CARE USE AMONG HOMELESS ADOLESCENTS AND YOUNG ADULTS

Scott B. Harpin, Christine Gilroy, Jesse Francomano

Seattle's P3 Project: A Qualitative Secondary Analysis of the Voyager Journey

Theresa Granger, PhD, MN, FNP, NP-C
Assistant Professor
College of Nursing
Seattle University
Seattle, WA

Danuta Wojnar, PhD, MEd, RN
Associate Professor
College of Nursing
Seattle University
Seattle, WA

Bonnie Bowie, PhD, MBA, RN
Assistant Professor
College of Nursing
Seattle University
Seattle, WA

Purposes/Aims: People·Passion·Purpose (P3): A Learning Odyssey was a community-based participatory research project created by the Seattle Center as part of the Next Fifty Celebration. Of those individuals participating in the P3 project, the purpose of this study was to explore the research question, "What happens when people make a conscious effort to live a life that is aligned with and in pursuit of their individual passion?" The specific aims were to: (1) explore the successes of the study participants, (2) explore the study participant's struggles, and (3) explore the strategies they used to overcome their struggles.

Background: Through internal forces and strengths arising from within, adolescents are capable of shaping their own development and using their interests and passions in a positive way. Helping adolescents identify their passion and keeping them engaged is an important aspect of motivation and development, and ensures the best opportunity for a successful transition into adulthood. Adolescent mentoring relationships should be a source of empowerment and motivation which helps individuals to develop their passions and prepares them to navigate a world of uncertainty.

Methods: This qualitative secondary analysis was informed by descriptive phenomenology. Using Coliazzi's method of analyses as a guide, individual analysis and team discussion of findings were used to analyze key themes and subthemes of the written responses and video journals obtained from the 14 to 29 year-old Voyagers (N = 6 participants) participating in the P^3 pilot project.

Results: The overarching theme of "Getting on with life just as we want it" was identified. Other key themes identified were "Gaining new insights into oneself and others", "Having improved ability to deal with and overcome personal struggles", and "Recognizing and cherishing personal success".

Implications: Through the identification of key themes, the findings in this study provide new knowledge about young Voyagers and the mentor/mentee relationship. The mentoring approach used in this study could help individuals meet the developmental tasks of adolescence and emerging adulthood, particularly those individuals without social support and mentoring. Further study is needed with a larger, more diverse sample of individuals in this age range.

Funding: Data for this study provided by the Seattle Center Foundation, Seattle, WA.

Home ◀ ▶ go to PG.

ADOLESCENT HEALTH ISSUES

Teen Take Heart: A Program Targeting At-Risk Youth in Vulnerable Communities

Steven J. Palazzo, PhD, MN, RN
Assistant Professor
College of Nursing
Seattle University
Seattle, WA

Purpose: Teen Take Heart™ aims to promote cardiovascular health awareness and decrease disease burden through a series of innovative, engaging, and impactful in-class instructional and kit-based lessons targeting at-risk youth in vulnerable communities in Washington State.

Background: High schools in Washington State that reside in economically depressed communities lack funding to support innovative in-class health promotional activities. The youth in these communities are at high risk for developing unhealthy behaviors that continue into adulthood. According to the WA State Department of Health more than 60% of all Washington State residents are obese or overweight and 10% of teenagers in Washington State are obese while 14% are considered overweight. Less than half of 10th and 12th graders in Washington State report 60 minutes of daily physical activity. Teen Take Heart™ aims to reduce this disparity by providing supplemental curriculum at no-cost to participating schools.

Approach: The *Community Outreach Conceptual Framework for Academic and Non-Profit Partnership* is structured to support partnerships between academic institutions and non-profit organizations with the purpose of delivering health promotion and disease prevention education to at-risk youth in vulnearable populations. The Carnegie Report (2010) and the Institute of Medicine (2010) report stress the need for connection between theory and clinical in transforming nursing education. This framework provides an opportunity for College of Nursing faculty, undergraduate, and graduate students to put into action in a "clinical" (community) setting, the principles of health promotion and disease prevention theory and facilitates the development of scholarship and research by engaging them in the development and implementation of specific components of the program. The program encourages teachers and students of participating schools to interact with and be mentored by College of Nursing students. The Teen Take Heart™ program consists of four lessons (Anatomy & Physiology, Cardiovascular Disease, Nutrition & Activity, and Principles of Research), an annual Summer Teacher Workshop, and an interactive website structured to engage members of the community. Additionally, high school students will be mentored to disseminate the information to their community during quarterly "Family Nights."

Expected Outcomes: The program is being piloted in four Washington state high schools during spring 2013. A pre/posttest evaluation will be administered to assess knowledge gain and attitude shift towards adopting healthier lifestyle behaviors (initial, followed by 3 and 6-month follow-up). It is expected that the conceptual framework will provide a structure supportive of undergraduate and graduate scholarship and research while strengthening relationships in the communities served.

Conclusions: The program has the potential to develop into an important community resource that results in measurable changes in behavior, increased awareness of personal risk-factors, and access to early interventions with an overall goal of reducing health disparities in vulnerable communities.

Home go to PG.

Associated Factors with Mental Health among Korean American Adolescents

Gloria Youngju Nam, MSN, FNP, RN
PhD Student
School of Nursing
University of Washington
Seattle, WA

Purpose: The purpose of this study is to examine the relationships among perceived parental affection, intergenerational family conflict, and racial discrimination on depressive symptoms and substance use/abuse among Korean American adolescents.

Background: Adolescents experience multiple changes physically, cognitively, and socially. As they struggle, they sometimes have problems with depressive symptoms and substance use/abuse. Korean American adolescents also face the same challenges, but their experiences may be aggravated due to tensions associated with differences between the traditional Korean culture and American culture. Perceived parental affection, intergenerational family conflict (IFC), and racial discrimination have been associated with depressive symptoms and substances use/abuse among Asian American adolescents. However, it is unclear how these factors influence depressive symptoms and substances use/abuse among Korean American adolescents.

Methods: Using a convenience and networking sampling method, Korean American adolescents, ages from 14 to 18, were recruited from the Pacific Northwest area. Measurement scales include the Center for Epidemiologic Studies Depression Scale (CESD)-10, Child Parental Acceptance-Rejection Questionnaire (PARQ), Adolescent Discrimination Distress Index (ADDI), and Asian American Family Conflicts Scale (AAFCS). Also, substance use/abuse index created by the researcher was used. Open-ended questions were constructed to obtain how Korean American adolescents perceive parental affection from their mother and father.

Results: In progress.

Implications: The findings will contribute to developing culturally and developmentally appropriate intervention programs for Korean American adolescents.

Funding: This work was supported by *Hester McLaws Nursing Scholarship*, School of Nursing University of Washington.

Improving Asthma Management in Pediatric Patients 12 to 17 Years of Age

Debra J. Graham, MSN, APRN, CPNP
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA

Susan Instone, DNSc, APRN, CPNP
Professor of Nursing
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA

Background: According to the CDC, Asthma is a leading chronic illness among children and youth in the United States and a leading cause of school absenteeism. Over 10 million U.S. children aged 17 years and under have been diagnosed with asthma (CDC, 2004). Asthma is often underdiagnosed and inappropriately treated. Adolescent asthma is associated with poor medication compliance, excessive use of ineffective over-the-counter medications, lack of knowledge about asthma triggers, and absence of an appropriate asthma action plan that follows the National Heart, Lung, and Blood Institute (NHLBI) guidelines (NHLBI, 2007) for diagnosis or treatment of asthma. Poorly controlled asthma symptoms lead to excessive hospitalizations, emergency department visits, urgent care visits, sick days, and activity limitations that may cause asthma suffers to have or accept a decreased quality of life (Rance, 2008).
Aim/Purpose of Project: The aim of this project was to improve the health status of adolescents 12-17 years of age with asthma in a southern California primary care pediatric clinic serving active duty military dependents through use of the NHLB practice guidelines. The project incorporated four components: asthma self-management education; assessment of patients' level of control with the ACT questionnaire; monitoring of peak flow meter use, medication management, use of an asthma action plan; and monitoring the patient with follow-up visits.
Design and Methods: This evidenced-based project used a retrospective time-series design with measures at baseline, one, three, and six months. Patient charts were reviewed and assessed for documentation of ACT questionnaire results; asthma self-management education and use of peak flow results with an asthma action plan; and demographic data. The data were analyzed from initial 1-, 3-, 6- month visits using descriptive statistics, including means, ranges and standard deviation for the variables.
Results: In progress.
Conclusions and Implications: The data analysis is in progress. We anticipate that the results of this study will improve the management of asthma in adolescent patients. It will improve the adolescent patient's knowledge of asthma which would lead to better control and fewer hospitalizations and ED visits.

Home ◀ ▶ go to PG.

ADOLESCENT HEALTH ISSUES

Improving Communication for Adolescents with Epilepsy in Transition to Adult Care

Jennifer A. Disabato, DNP, CPNP-PC, AC
Senior Instructor & Pediatric Nurse Practitioner
University of Colorado College of Nursing
Children's Hospital Colorado
Aurora, CO

Purpose: The purpose of this Quality Improvement Project was to improve transition from Pediatric to Adult Specialty Care for Adolescents and Young Adults (AYA) with Refractory Epilepsy. One challenge identified by the pediatric epilepsy team on a large urban academic medical campus was the lack of streamlined and effective communication between the nurses, providers and the team social worker for early proactive transition planning. Multiple Plan-Do-Study-Act cycles lead to the development and implementation of a Clinical Decision Support tool in the Electronic Medical Record (EMR) to address this issue.

Rationale/Background: Adolescents and young adults with refractory epilepsy are particularly vulnerable during the transition to adult care. Inadequate sleep, stress, and poor medication adherence increase the risk of seizures during a time when AYA may be driving, expanding peer relationships and/or pursuing higher education. The epilepsy social workers perform a unique role in assisting the patient and family with issues such as understanding differences in adult and pediatric care, patients' rights with protected health information, guardianship, health insurance coverage, and providing information about community resources.

Approach/Method: Multiple meetings with the social worker and providers (MD, NP, and PA) were convened by the project lead over several months. Strategies utilizing the EMR were preferred and the hospital Clinical Decision Support team was consulted. A Best Practice Alert with a "smart text" template was developed, trialed, and revised by the team. The alert triggered when the provider opened order entry for all patients ages 16 years and older with an epilepsy diagnosis code. Providers could accept the alert, triggering an order to the social worker for consultation to begin transition discussions, or defer the alert until the next clinic visit if the timing was not appropriate. If accepted, the order allowed detailing of individualized patient needs, using drop down text choices or free text options.

Outcomes: Statistical process analysis was used to track change over time. Referrals to social work after the implementation of the decision support tool in the EMR improved from 5.8% to 27.5% of eligible patients, $z = 10.0$, $p = 0.0006$, $OR = 6.13$. In addition, anecdotal reports from the social worker indicated clearer and more consistent information leading to more effective and timely intervention with the patient and family.

Conclusion: Many national organizations advancing health care reform have identified care transitions as an essential element of reducing errors and achieving effective outcomes. Although many transitions happen within the hospital setting, there is also a need for improved transition communication in specialty clinics focused on chronic illness populations. This QI project demonstrated the utility of using the EMR to address a specific health care need of AYA. The best practice alert reduced institutional barriers and improved processes to support transition to adult specialty care. Expansion to other neurology disease specific teams is planned.

Home ◀ ▶ go to PG.

Teen Suicide: Experiences in the Emergency Department Following an Attempt

Carrie E. Holliday, PhD, ARNP
Assistant Professor
College of Nursing
Washington State University
Spokane, WA

Roxanne Vandermause, PhD, RN, CARN
Associate Professor
College of Nursing
Washington State University
Spokane, WA

Mel Haberman, PhD, RN, FAAN
Professor
College of Nursing
Washington State University
Spokane, WA

Background: Teen suicide is the third leading cause of death for 15-24 year olds. Current treatment and prevention efforts have not been effective at decreasing suicide rates for the adolescent age group. Research suggests that health care professionals do a poor job of treating, intervening and/or preventing adolescent suicide. It is well known that suicide attempters are at higher risk of completing suicide. Further, adolescents who visit the emergency department (ED) following a suicide attempt are a vulnerable group and report their experience as negative. The ED presents an opportunity for health care providers to intervene. A clear understanding of what the experience of being suicidal means to adolescents living the phenomenon has not been addressed in the research.

Purpose: The aim of this research project was to generate a comprehensive interpretation of the experiences of adolescents who visit the ED following a suicide attempt, using hermeneutic phenomenological methodology. Six adolescent suicide attempters were recruited from two northwest hospital EDs.

Method: Transcribed interview texts were analyzed using Heideggerian hermeneutic methods.

Results: Two patterns emerged: Attempting as Communicating and Attempting as Transforming.

Implications: The findings have implications for educating ED healthcare providers as well as other teens. In addition, findings are discussed in relation to nursing policy, practice and research.

Home

◀ ▶ go to PG.

Adolescent Experiences of Living with Type 1 Diabetes

Elizabeth K. Babler, PhC, ARNP, CDE
Pediatric Nurse Practitioner
Pediatric Endocrinology
Mary Bridge Children's Health Center
Tacoma, WA
ebabler@uw.edu

C. June Strickland, PhD, RN
Associate Professor
University of Washington
Seattle, WA

Purpose/Aim: The purpose of this research effort among adolescent's ages 11 to 15 years is to gain a greater understanding, from the adolescent's perspective, of their experiences in living with diabetes, and associated challenges and management issues they may face. We also aim to build a theoretical paradigm that will capture the main categories and moving processes in the experiences of adolescents and provide much needed information and hypotheses to support interventional design.

Rationale: Adolescent's struggle with diabetes management and current interventional research has not been effective in promoting sustainable changes in improved glucose control. Understanding the adolescent's perspective of living with diabetes is lacking in current research. Grounded theory is an important tool in helping to target appropriate future interventional work.

Methods: This is a qualitative study in which we are employing classical grounded theory with individual interviews (approximately 12). Study participants are being selected initially using purposeful sampling of those ages 11 to 15 with type 1 diabetes and then theoretical sampling to saturate codes. Study participants must have diabetes more than 6 months and no other medical conditions besides controlled hypothyroidism. The following two anchor questions are being asked: 1) Let's discuss your experiences of living with diabetes. 2) Now let's talk more specifically about taking care of or managing your diabetes. Can you tell me about that? Constant comparative analysis using gerund coding is being utilized; a focus group will be conducted at the end of the study to obtain adolescent feedback on the paradigm that was developed.

Results: We have completed six in-depth interviews and have the framework of the results which includes the following codes: keeping the balance, being diagnosed, staying active, parents involvement, when bad things happen, being like everyone else (fitting in), understanding diabetes, taking care of myself, being healthy, feeling supported, the pain of it all, eating for balance, emotional turmoil and figuring it out. We are in the process of sampling and interviewing to fully saturate the codes and gain additional information about the conditions related to behaviors.

Implications: Diabetes management is difficult for adolescents who struggle to maintain good blood glucose control. The adolescents are describing barriers and challenges and are providing greater understanding of the conditions related to successful diabetes management. This study is expected to advance nursing science by providing greater understanding of diabetes management for adolescents and by providing hypotheses which are expected to be useful in guiding intervention design; it is also expected to contribute to the body of nursing research in chronic illness management.

Funding: Magnuson Scholarship, University of Washington 2010, Hester McLaws Nursing Scholarship, Funded under NCRR Grant TL1 RR 025016.

Home

go to PG.

ADOLESCENT HEALTH ISSUES

The Health Status of U.S. Mexican Immigrant Adolescents: A Binational Study

Mary Lou de Leon Siantz, PhD, RN, FAAN
Professor
Betty Irene Moore School of Nursing
UC Davis Health System
Sacramento, CA

Xochitl Castaneda, PhD
Director, Health Initiatives of the Americas
School of Public Health
University of California, Berkeley
Berkeley, CA

Claire Brindis, DrPH
Director, Philip R. Lee Institute for Health Policy Studies
Professor, Pediatrics and Health Policy
School of Medicine
University of California, San Francisco
San Francisco, CA

Steven P. Wallace, PhD
Chair and Professor
Department of Community Health Sciences
Fielding School of Public Health
University of California, Los Angeles
Los Angeles, CA

Ramirez Garcia Telesforo, PhD
Office of the Secretary of Health of Mexico
Mexico City, Mexico

In recent years migration into the United States has experienced significant changes in numbers, diversity, age, and gender in sending and receiving communities. Embedded in these changes is the increasing youth of immigrants that includes a growing adolescent population from Mexico in search of promising futures. Of 11.6 million Mexicans who currently reside in the U.S., more than 3 million are between the ages of 12 – 29. This crucial developmental period in combination with social/cultural displacement and socio-economic integration makes these adolescents extremely vulnerability to health risks, disparities, and inability to achieve a potential of mutual benefit to both the U.S. and Mexico. Thus the health of Mexican immigrant youth can no longer be overlooked by the Mexican and U.S. governments.

The purpose of this presentation is to report the findings concerning the migration and health status of Mexican adolescents in the U.S. by the National Population Council (CONAPO), and the University of California (UC), in partnership with various centers, the Secretariat of Mexico, the Institute of Mexicans Abroad (IME) and the United Nations Population Fund.

As a result of this presentation, participation will gain increased knowledge concerning risk, protective factors, and resilience, which include the health status, access, and use of medical services by youth who ranged from 12 – 29 years of age. The U.S. Mexican immigrant sample was compared with U.S. born non-Hispanic whites, Mexican origin youth from Mexico, African American, as well as immigrants from other countries and regions of the globe. Data from the Current Population Survey, American Community Survey, and the National Health Interview Survey were analyzed for this study.

This report provides data concerning disadvantages endured by Mexican immigrant youth and several key measures of health behaviors and risks. Notably, strengths, resilience, and protective factors were also identified in this population. Research is needed to understand mechanisms that protect health during adolescence through adulthood and over the lifespan. Adolescence offers a unique opportunity to promote future population health.

The health of today's Mexican immigrant youth affects future population health as they become productive members of society. In this context, it is in society's best interest to attack the root causes of health inequities. Improving the conditions in which Mexican immigrant youth live, develop, and work should be among the highest priorities for the U.S. and Mexico.

Home ◀ ▶ go to PG.

Where Did Our Lives Grow in Different Directions?: Families of Teens with Schizophrenia

Hyun Jung Kim, PhD, RN, PMHNP-BC
Assistant Professor
Psychosocial & Community Health
Seattle University
College of Nursing
Seattle, WA

Karen G. Schepp, PhD, RN,
PMHCNS-BC, FAAN
Associate Professor/Interim Chair for
Psychosocial & Community Health
University of Washington
Seattle, WA

Purpose: The purpose of this presentation is to illustrate the lives of five adolescents with schizophrenia and their families by exploring the similarities and differences in their illness experience, specifically during the early phase of the illness.

Background: Schizophrenia is still known to be one of the most puzzling mental disorders after a hundred years since it was first named. It most commonly occurs between late adolescence and early adulthood. Symptoms are gradually developed, often causing families to overlook the nonspecific early signs of the illness until the first psychotic episode strikes. Clusters of escalating symptoms and declining level of functioning are prominent as the debilitating illness claims a person's life pervasively, which frequently creates a crisis within a family. Numerous studies have addressed the needs and experiences of patients with schizophrenia and their families with a purpose of de-mystifying the illness and bringing the public's attention to them. Due to difficulties related to a relatively small population, diagnostic complexity, and the acuity of the illness, however, it has been challenging to specifically attend to adolescents with schizophrenia and their families during the first couple of years after the onset of the illness.

Methods: This research study is a multiple-case study based on secondary data analysis from a two-group randomized clinical trial. To explore the similarities and differences of their illness experience, five families were selected from the parent study intervention group. Multiple sources of data from parents/adult relatives, adolescents with schizophrenia ages between 16 and 19, and their siblings were analyzed. The data included about a hundred hours worth videotapes of 12 2-hour intervention sessions from the RCT. Quantitative data from interviews and self-administered questionnaires were also evaluated. The self-administered questionnaires were submitted by participants at 4 different time points over the 14-month period and included outcomes measures of coping, family functioning, social support, symptom management, and early signs of symptoms.

Results: Families were comparable in terms of teens' illness phase and early onset. Parents were highly educated and used intellectual, cognitive coping to deal with the teens' illness. Mothers or mother-figures were primary care providers for the teens. These women were in the center of the family communication as well. Families expressed their struggle with the illness, especially the loss of a healthy child to the illness and concerns about the future. Families displayed differences in structures and composition in terms of parent-child relationship, involvement of relatives and siblings. They dealt with additional life stressors independent of the teens' illness and had unique family life priorities. There were discussions about various understanding of the illness, the need for social support, and teens' prognosis.

Implications: The findings showed that each family grew apart over time and they were unique with regard to who they were and how they experienced schizophrenia. Understanding the uniqueness of adolescents with schizophrenia and their families can dissipate "the paucity of sympathy" and help health care providers to offer effective and individualized care for the families.

Funding: NIMH R01-MH56580.

Home ◀ ▶ go to PG.

ADOLESCENT HEALTH ISSUES

Health Insurance and Primary Care Use among Homeless Adolescents and Young Adults

Scott B. Harpin, PhD, MPH, PHCNS-BC
Assistant Professor
College of Nursing
University of Colorado
Aurora, CO

Christine Gilroy, MD, MSPH
Associate Professor
School of Medicine
University of Colorado
Aurora, CO

Jesse Francomano, BA
BS Nursing Student
College of Nursing
University of Colorado
Aurora, CO

Purpose: To examine characteristics, health insurance status and primary care use among a cohort of sheltered and street-based adolescents and young adults. To identify patterns of having insurance and utilizing primary care services stratifying by age.

Background: A generation of research has identified the myriad of risk behaviors that homeless youth engage in. These studies often make a case for primary health care services to ameliorate risk and adverse health outcomes in this population. While applied health services research has described the phenomenon of insurance coverage and use among adult homeless populations, little has been written about insurance and use among homeless youth and young adults. As emergency care or exacerbated illness due to unmet preventive care is a financial burden on the health care system, exploratory research is needed to understand the context of homeless youth health care.

Methods: An anonymous, cross-sectional survey of 1555 homeless youth and young adults ages 12-28 was collected one October evening in 2009 across Minnesota. This "census" sampled youth not only in shelters, but also participants 'on the streets.' Univariate frequencies were used to describe our sample. Crosstabulation tables, stratifying by age group, further explored the insurance status and primary care use of the participants.

Results: 70% of our sample reported having any kind of health insurance during the month of the survey, while 28% had none. Of those who had insurance, 62% reported Medical Assistance as their primary coverage while another 29% had another public insurance plan (Medicare, MinnesotaCare, or Minnesota General Assistance). Two-thirds of respondents said they had "a place for medical care"; 74% went to a clinic that requires insurance or a fee, 13% visited a free clinic and 6% used the ER for care. The proportion of those having insurance remained stable by age (66-70%), with a slight increase in coverage among those 24 yrs and older (77-84%). The same pattern is true for primary care use, though the proportion was on average 10% than insurance coverage rates.

Implications: Our research adds to the understanding of insurance coverage and health service utilization of homeless adolescents and young people. With the passage of the Affordable Care Act of 2009, the time is now to better understand the health care of vulnerable populations, as universal health coverage is implemented, insurance programs are developed and primary care resources are being allocated. Best practices for public health and primary care interventions require an evidence base, all the more imperative when aimed to improve the wellness of our most vulnerable citizens.

BUILDING CAPACITY FOR COLLABORATION

OVERVIEW: BUILDING CAPACITY FOR COLLABORATION: FROM WOMB TO TOMB

Teri Pipe, Leigh Small

PHYSICAL ACTIVITY INTERVENTIONS: FROM STROLLERS TO WALKERS

Leigh Small

ADVERSE LIFE EVENTS, LIFESPAN DEVELOPMENT AND BEHAVIORAL HEALTH

Diana Jacobson, Ann Guthery

WEIGHT MANAGEMENT: MINDING THE SCALES

Elizabeth Reifsnider, Colleen Keller

LINKING BIOMARKERS ACROSS THE LIFESPAN: FROM LAB BENCH TO PARK BENCH

Colleen Keller, Carolyn Yucha

BUILDING CAPACITY FOR COLLABORATION

Overview: Building Capacity for Collaboration: From Womb to Tomb

Teri Pipe, PhD, RN
Dean and Professor
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ

Leigh Small, PhD, RN, CPNP-PC, FNAP
Associate Professor
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ

Overarching models that guide both descriptive and intervention research are hallmarked by considerations of context within individual behaviors and settings. More recently, consideration of the context of social and biological issues that impact intervention design and implementation are emerging. These include issues of social factors that impact access to resources, family and social relationships, as well as underlying biological changes that occur within a research participant's developmental stage.

We propose advancing collaborations in examining health research and delivery across population-based groups to address health issues that have conceptual and application commonalities related to lifespan development. Our goal is to facilitate the conduct of innovative research to extend knowledge, advance evidence-based culturally responsive healthcare, and inform health policy to improve health outcomes across the life span. Essential concepts that underpin such collaborations include: early programming (today's experience influences tomorrow's health), critical or sensitive periods that impact intervention development (health trajectories affected by critical periods), cumulative environmental and contextual insults to health which influence health outcomes (biologic, physical, and social environment effects on health), and health equity.

The purpose of this symposium is to examine health issues underpinned by salient common threads to initiate and sustain collaborations between seemingly disparate investigators. These common threads include developmental health milestones as a major contributor to assessment and intervention design, efficacious bench-to-bedside biological components, the community and environment impact that characterizes research populations and settings, and the intersection of communities and health delivery models that generates the applicability of research. The overarching objectives of this symposium are to:

1. Describe the multiple determinants in specific health promotion/health solutions that are influenced by critical and sensitive developmental periods.
2. Discuss collaboration examples for investigators that differentiate and clarify the intersection of life stage, health risk, and context.
3. Discuss the translation of healthy outcomes research in a changing healthcare delivery environment, including ethnic minority and underserved communities.

Drs. Yucha and Keller will discuss the use of biomarkers in clinical research, and emphasize the use of inflammatory markers that are appropriate and effective in capturing changes in health status across the lifespan: Linking Biomarkers Across the Lifespan: From Lab Bench to Park Bench. Drs. Reifsnider and Keller will present linking concepts and contributions among weight management issues affected by developmental critical periods: Weight Management: Minding the Scales. Dr. Small will address the issues critical in engaging groups across the lifespan in physical activity: Physical Activity Interventions: From Strollers to Walkers. Finally, Drs. Jacobson and Guthery will discuss considerations of early adverse life events, their impact on mental health and interventions to enhance resiliency, self regulation and capacities to adapt to stress: Adverse Life Events, Lifespan Development and Behavioral Health.

BUILDING CAPACITY FOR COLLABORATION

Physical Activity Interventions: From Strollers to Walkers

Leigh Small, PhD, RN, CPNP-PC, FNAP
Associate Professor
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ

Purposes/Aims: Physical inactivity is a problem affecting the lives and health of all Americans, from infancy and young childhood to older adulthood. Over half of persons older than 65 years are physically inactive. And preschool children in home and childcare settings have been found to spend greater than 80% of their waking time in sedentary activities. This is far less than the recommended. Interventions designed to affect activity and sedentariness are so needed that approximately one quarter of the 33 measures used to assess Accountable Care Organizations are directly or indirectly focused on health outcomes associated with physical activity; thereby driving clinicians to search for the best evidence to support their practices and assist patients to achieve optimal health outcomes.

Physical activity is known to positively affect hypertension, dyslipidemia, insulin sensitivity, and the development of atherosclerosis, some of the many of the effects of excess body weight. The important effects of physical activity extend to mental and behavioral health outcomes. These physiological effects occur within a short period of time; however, the effects rapidly diminish if physical activity is not maintained. As such, barriers to physical activity, physical activity interventions, and its measures across the lifespan are of critical importance. Therefore, the overall objective of this paper is to discuss developmental and biobehavioral life course change effecting physical activity, and points of cumulative and/or specific risks for low levels of physical activity.

Rationale/Background: It is well-documented that even modest increases in physical activity leads to an improved state of wellness, enhanced health outcomes, and better management of chronic disease in children, adults, and elders. Healthcare providers encourage physical activity and provide educational information at greater rates than in the past, but giving advice and/or educational approaches have not been demonstrated to be sufficient to change complex health behaviors.

Approach, Methods, or Process Used: This life course presentation will provide: 1) a discussion of specific and cumulative barriers to physical activity unique to younger children and older adults, 2) an outline of current best practices, and 3) specific developmental and contextual aspects of encouraging physical activity.

Outcomes Achieved: New, cutting-edge strategies being tested to increase physical activity at critical time points or that result in strengthened coping skills and resiliency to barriers of physical activity across the lifespan will be discussed. Symposium participants will have the opportunity to discuss newer approaches to physical activity behavior change with all populations that include motivational interviewing, objective monitoring, technology adjuncts, as well as providing incentives for behavior change.

Conclusions: Strategies for translation and implementation of successful interventions into practice will be presented. In light of the limited effectiveness of some interventions trials, suggestions will be offered regarding the need for testing new approaches to advance the science of behavior change and physical activity with across all populations.

Home
◀ ▶ go to PG.

BUILDING CAPACITY FOR COLLABORATION

Adverse Life Events, Lifespan Development and Behavioral Health

Diana Jacobson, PhD, RN, PNP-BC, PMHS
Assistant Professor
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ

Ann Guthery, PhD, RN, PMHNP-BC
Clinical Assistant Professor
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ

Purposes/Aims: Beginning prior to birth and continuing throughout infancy, childhood and adolescence, multiple influences, including all aspects of the individual's biology (i.e., genetics and temperament) and environment (i.e., physical and economic), and the sociocultural contexts (i.e., education and family functioning) in which the individual lives, positively or negatively affect an individual's current and future mental health. This paper will describe the impact of early adverse life events on the lifetime trajectory of an individual's mental health and explore sensitive developmental periods in infancy, childhood and adolescence in which targeted mental health promotion, prevention and treatment interventions can positively impact adult mental health outcomes by strengthening resiliency and capacity to adapt to life's early challenges.

Rationale/Background: There is a wealth of literature describing the complex and multidimensional influences that impact the development of an individual. Clinicians desire to intervene before mental health problems arise or become severe and entrenched. This had led to a research focus on identifying an individual's risk and protective factors to promote mental health and prevent psychopathology and maladaptation.

Approach, Methods, or Process Used: This examination of multifaceted influences on the development of mental health and illness will provide: 1) a discussion of early and repeated exposure to adverse life events and its effects on mental health; 2) a literature review on mental health interventions to promote resiliency, self-regulation and adaptation; and 3) an examination of contextual considerations to include when designing research studies targeting behavioral health.

Outcomes Achieved: Concepts discussed and evaluated include the impact of poverty; prematurity; attachment and nurturance; individual temperament; adolescent parenting and family interactions; parent substance abuse and mental illness; child maltreatment; exposure to violence and stress; social support and functional loss due to chronic illness and/or aging. Research approaches to targeting specific critical developmental high risk time points will be discussed.

Conclusions: Participants will be able to incorporate strategies for proactively identifying risk factors which increase an individual's risk for mental health disorders in order to develop culturally appropriate behavioral interventions for specific critical developmental time periods throughout the lifespan.

BUILDING CAPACITY FOR COLLABORATION

Weight Management: Minding the Scales

Elizabeth Reifsnider, PhD, RN
Associate Dean for Research
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ

Colleen Keller, PhD, RN
Professor
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ

Purposes/Aims: While maternal under-nutrition has received the most attention for its contribution to obesity in infants, maternal over-nutrition is now recognized for its role in creating detrimental health outcomes. A U-shaped curve of risk exists for both ends of the birth weight spectrum, as SGA and LGA infants are both at risk for developing metabolic disorders later in life. In past generations, the prevalence of obesity increased as adults aged, up to about age 60, at which time body fat declined. This paper will describe the concepts, biobehavioral changes across the lifespan that contribute to overweight and obesity, linking concepts and contributions among weight management issues affected by developmental critical periods.

Rationale/Background: The fetal environment can set in motion developmental changes in metabolism to promote the survival of a fetus and neonate, so that his/ her postnatal life will be enhanced. Developmental changes in key tissues and organ systems at critical periods of fetal growth can influence the long-term risk of metabolic and cardiovascular disease. Comorbidities that occur in aging persons make it difficult to assign independent effects of obesity.

Approach, Methods, or Process Used: The risks of obesity on health outcomes in the elderly show that, like younger adults, obesity confers similar health outcome risks such as diabetes, cardiovascular disease, and pulmonary function decline. Infants who are born large for gestational age (LGA) are at risk for developing metabolic and cardiovascular diseases similar to infants born SGA and exposed to plentiful postnatal nutrition. There are mixed research results regarding the impact that obesity has on mortality in the elderly.

Outcomes Achieved: The problem of weight change and obesity in the both older and younger persons is best understood from an ecological perspective that can integrate the analysis of factors across levels, from the culture and built environment of the community, to family-related factors, to individual factors such as subjective norms, values, attitudes, and beliefs and biological/genetic pre-dispositions.

Conclusions: Gestational weight gain, birth weight, child BMI and child dietary intake all contribute to childhood obesity, which has strong connections to poor cardiometabolic outcomes as children age. Food insecurity does not contribute to child obesity but rather to poor child health. While the comorbidities that occur in older adults make it difficult to identify the independent effects of weight, we know that overweight and obesity are associated with the same problems in older adults as they are in younger adults, such as higher rates of diabetes, osteoarthritis, cardiovascular disease, and impaired pulmonary function. The rate of dementia is also higher among obese older adults. And, obesity is accompanied by impairment in quality of life and functional status.

Home ◀ ▶ go to PG.

BUILDING CAPACITY FOR COLLABORATION

Linking Biomarkers across the Lifespan: From Lab Bench to Park Bench

Colleen Keller, PhD, RN
Professor
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ

Carolyn Yucha, RN, PhD, FAAN
Professor and Dean
Schools of Nursing and Allied Health Sciences
University of Nevada, Las Vegas
Las Vegas, NV

Purposes/Aims: Biomarkers are often used in research as proxy measures for assessing health outcomes and treatment efficacy that are not as readily assessed by other physical or psychological health indicators. For example, the reduction of cardiovascular disease risk factors are heralded by physical measures such as reduced visceral and subcutaneous fat, reduced blood pressure, and reduced lipid profiles. The underpinning *mechanisms* for these physical indicators of risk reduction involve assessment of certain biomarkers that indicate critical components of the utility of biomarkers in clinical research. This paper will: 1) provide an overview of the utility of biomarkers as an explanatory mechanism for changes in health outcomes at different developmental stages; 2) discuss the salience of biomarkers in multilevel and multifactoral intervention science; and, 3) use selected inflammatory biomarkers as an example of the utility and salience of biomarkers.

Rationale/Background: Nurse researchers are increasingly adding biomarkers to their assessment of disease and/or the effect of an intervention. Because this increases the cost of research and patient burden, it is critical that such biomarkers be selected and measured appropriately. For example, biomarkers such as C-reactive protein, interleukins 6 and 8, and plasminogen activator inhibitor 1 are commonly used to assess for inflammation. The interplay of these mechanisms and health risks are exampled in the accumulation of fat depots that occur during developmental milestones. For example, evidence points to the role of proinflammatory cytokines released by fat tissue in generating the chronic inflammatory profile associated with obesity and its related metabolic disorders. Elevated circulating inflammatory factors, as markers of systemic inflammation, are not only associated with obesity and insulin resistance but also appear to predict the development of diabetes and/or cardiovascular disease.

Approach, Methods, or Process Used: An evaluation of selected biomarkers related to inflammation deployed in multilevel research (descriptive and intervention) will be assessed for utility in clinical research. The evaluation of such biomarkers will guide discussion of the biological mechanisms underpinning intervention design, and the relationship of biomarker changes affected by context such as environment, stress, health, and developmental status.

Outcomes Achieved: Two major criteria are requisite for assessing the utility of inflammatory biomarkers: 1) the strength of the relationship of the mechanism biomarker on the physically (or psychologically) assessed health outcomes; and, 2) the appropriateness of the selected biomarker in assessing a particular change in the health outcome.

Conclusions: Participants will have an opportunity to evaluate their work in proposing biomarkers in research within different developmental strata and propose new ways to develop linkages between physical health outcomes and their mechanisms of change.

CHRONIC ILLNESS

STRUCTURED ALGORITHM FOR ERROR REDUCTION IN CHEMOTHERAPY ADMINISTRATION

Marianne B. Tejada

CHALLENGES IN CONDUCTING NUTRITION RESEARCH IN PATIENTS WITH MULTIPLE CO-MORBIDITIES

Marjan Motie, Tianne Larson, Beth Michel,
Vincent Kennedy, Lorraine S. Evangelista

PATIENT AND PROVIDER PERCEPTIONS OF PSYCHOLOGICAL CHALLENGES ASSOCIATED WITH CHRONIC ILLNESSES

Shelley Y. Hawkins, Jamie Low

TRANSITIONAL CARE MEDICATION INTERVENTION TO OPTIMIZE OUTCOMES IN PATIENTS WITH CKD

Cynthia F. Corbett, Katherine M. Tuttle, Joshua J. Neumiller,
Kenn B. Daratha, Robert A. Short, Radica Alicic, Brian J. Gates

---

DISCLOSURE IN THE CONTEXT OF HIV

Sri Yona, Rita Ismail

PERCEPTIONS OF THE CHRONICALLY ILL USING PERSONAL HEALTH RECORDS FOR SELF-MANAGEMENT

Perry M. Gee

MEDICATION-TAKING PRACTICES AND PREFERENCES OF OLDER PERSONS WITH CHRONIC CONDITIONS

Roxanne Vandermause, Joshua Neumiller, Katherine Tuttle,
Prabu David, Brian Gates, Molly Altman, Duane Sunwold,
Patricia Benson, Cynthia Corbett, Gail Burton

Home

◀ ▶ go to PG.

MEDICATION REGIMENS AND DOSING IN FIBROMYALGIA WITH AND WITHOUT CO-MORBID DEPRESSION

Nuzhet Sayrun-Thomas, Rebecca L. Ross

KNOWLEDGE AND ATTITUDES TOWARD PEOPLE LIVING WITH HIV AMONG ADOLESCENTS IN INDONESIA

Sri Yona, Rita Ismail

IMPROVED PAIN LEVEL AND PATIENT SATISFACTION USING AGS GUIDELINES IN DIABETIC PATIENTS

Hailey Hwangbo, Joseph Burkard

EFFECTS OF AN EMR BASED STANDARDIZED DIABETES SELF-MANAGEMENT INTERVENTION ON PATIENT OUTCOMES

Kevin Maxwell, Joseph Burkard

EXPLORING SPIRITUAL DISTRESS IN PERSONS WITH END-STAGE LIVER DISEASE

Nancy Lorber, Paula Cox-North, Ardith Z. Doorenbos

DIABETES MELLITUS AND METABOLIC SYNDROME IN HOMELESS INDIVIDUALS

Cheryl Westlake, Laurie Lang, Connie Brehm

PERCEIVED BARRIERS TO ADOPTION OF PRE-EXPOSURE HIV THERAPY AMONG MTF-TG YOUTHS

Gloria Nwagwu, Jane Georges, Nnenna Weathers

VOICES OF CANCER SURVIVORS; EXPERIENCES FROM A STRUCTURED EXERCISE PROGRAM

Elizabeth Predeger, Maureen O'Malley, Nadine Parker,
Thomas Hendrix, Cindy Decker, Meaghan Kuklok

QUALITY OF LIFE IN HEAD AND NECK CANCER PATIENTS RECEIVING RADIATION THERAPY

Maria H. Cho, Marylin J. Dodd

METABOLIC SYNDROME IN HOMELESS INDIVIDUALS

Connie Brehm, Cheryl Westlake, Laurie Lang

DIABETIC NEUROPATHY PAIN ALTERNATIVE THERAPIES IN NATIVE HAWAIIANS: A REVIEW

Mahealani Suapaia

COMORBIDITY AND SYMPTOM MEASUREMENT IN ONCOLOGY SCALE: DEVELOPMENT AND TESTING

Cheryl Lacasse

HYPERTENSION AND DIABETES RISK FACTORS IN ARMENIAN AMERICANS

Zarmine Naccashian, Felicitas A. dela Cruz

CHRONIC ILLNESS

Structured Algorithm for Error Reduction in Chemotherapy Administration

Marianne B. Tejada, RN, BSN, MSN
Lecturer/Clinical Instructor
School of Nursing
University of Nevada, Las Vegas
Henderson, NV

Purpose: To develop an evidence-based structured algorithm tool that might be used by nursing leaders at a cancer center to decrease chemotherapy medication errors.
Background: In spite of available technology and known factors resulting in medication errors, chemotherapy errors remain the major cause of iatrogenic patient morbidity in hospitals (Gilbar, 2001; Heidt et al., 2001). A major risk factor for chemotherapy errors is lack of standardization in administration (ordering, dispensing, administration, monitoring). Failure to identify necessary staff skills/aptitude required to prevent errors may also be problematic.
Significance: Use of the developed algorithm may lead to development of evidence-based strategies to decrease errors in chemotherapy administration in cancer patients.
Methods: A comprehensive review of literature related to Chemotherapy Administration and medication errors was performed. Search included the following: Science Direct, CINAHL, Pub Med, MEDLINE, Expanded Academics. Search limits included publication within 10 years, peer reviewed journals, English. Primary key words: “chemotherapy process,” “medication error,” “error prevention,” “error rate,” “protocol violation.” Secondary search terms: “Medication Use Process,” “tumor biology and kinetics,” “protocol guidelines,” “risk management,” “prevention strategies,” utilization of “information technology systems.”Articles addressing error reduction and standardized verification of treatment/dosing were reviewed. Data sources examined reduced error rates, and consisted of books, articles, and abstracts from scientific conferences.
Findings: Several sources support chemotherapy error reduction is achievable through use of evidence based strategies. Standardizing formats through procedures/protocols reduces potential for medication errors. Integration of information systems elements such as Computer Prescribing Order Entry, Bar-coded medication administration, Electronic medication administration records, Automated dispensing machines and IV PumpGuardrails decrease errors in medication administration. Other strategies that enhance error reduction for chemotherapy were Standardized Ordering Forms, Infusion-related Hypersensitivity Reaction information and Adverse Reaction guidelines, Extravasation Management Protocols, Verification Grids, and Standardized Patient Identifiers. A decision-tree algorithm incorporating all aspects of this evidence was developed.
Implications to Practice: The practical implication of this project is that standardized protocols for medication administration, information systems strategies, and a variety of other techniques aimed at specific points in the error process may reduce error rates and assist in improved outcomes related to medication safety, in particular, chemotherapy administration.
Recommendations: The utilization of an algorithm should be tested in clinical practice to determine the effect on chemotherapy error rates.

CHRONIC ILLNESS

Challenges in Conducting Nutrition Research in Patients with Multiple Co-Morbidities

Marjan Motie, PhD, Project Director, Pro-HEART
Tianne Larson, RN, MSN, Clinical Research Coordinator
Beth Michel, RN, BSN, Clinical Research Coordinator
Vincent Kennedy, MPH, Assistant Clinical Research Coordinator
Lorraine S. Evangelista, PhD, RN, Associate Professor

Program of Nursing Science
University of California Irvine
Irvine, CA

Background: The effects of a high protein (HP) diet in comparison with a standard protein (SP) diet are currently being studied in obese subjects with heart failure (HF) and type II diabetes mellitus or metabolic syndrome. The purpose of this report is to outline the challenges encountered in conducting a randomized clinical trial that examines a dietary intervention in this group of chronically ill patients and to propose steps to overcome some of the challenges in future studies.

Methods: Fifty obese subjects were recruited and provided informed consent to participate in a RCT to examine the effects of an energy-restricted diet with a calorie deficit of 500 kcal/day and were randomly assigned to either a HP (30% of calories from protein) diet or a SP (15% of calories from protein) diet in a two-phase study: Phase 1included a 12-week intensive weight loss component; patients were seen by a registered dietician (RD) or registered nurse (RN) for nutritional counseling and education at baseline and weeks 2, 4, 8, and 12. Phase 2 consisted of a 12 month weight maintenance period; participants were seen every 3 months for routine assessment of vital signs and weight. Clinical outcomes were monitored ever 3 months for one year to track patient progress and weight maintenance. A comprehensive nutrition and clinical analysis were collected at baseline, 3 months, and 15 months.

Results: During the conduct of the study, we have learned that: 1) multiple patient visits required for a long term study is not ideal for chronically ill patients; despite their initial commitment, busy work or family schedules, distance, and complications from their illness were the major factors that contributed to the frequency of missed protocol visits; and 2) nutrition interventions by design require input from the participants regarding their dietary intake on a regular basis. Such information is generally collected in a Dietary Intake Form (typically collected on three consecutive days). There are multiple challenges in collecting this information from patients: a) patients are reluctant to take the time to record their food intake; b) patients may not be recording all the food that they are consuming; and c) patients may not be accurate in the description of the food they are reporting.

Conclusions: Our findings point to several challenges encountered when conducting dietary interventions in patients with multiple chronic illnesses that may negatively impact study outcomes. Thus, strategies that target common barriers to adherence to the study protocol are needed to adequately and accurately capture unbiased data related to the potential effects of HP diets on clinical outcomes in patients with HF and co-morbid DM and obesity.

Funding: Grant number: HL093466. Granting organization: PHS-NIH National Heart, Blood, and Lung Institute (NHLBI).

Patient and Provider Perceptions of Psychological Challenges Associated with Chronic Illnesses

Shelley Y. Hawkins, DSN, FNP-BC, GNP, FAANP
Director, DNP & MSN NP Programs
University of San Diego
Hahn School of Nursing & Health Science
San Diego, CA

Jamie Low, MSN, CRNP
Nurse Practitioner
Sequoia Community Health Foundation
Fresno, CA

Depression is highly prevalent in patients with chronic physical illnesses such as congestive heart failure and diabetes. Recognition of psychological distress is an important function of health care providers. Given the demands placed on health care providers managing patients with chronic illnesses together with the significant time constraints, it is probable that depression is often underdiagnosed and subsequently not treated.

Sixty female and male patients with diabetes and/or congestive heart failure from two rural family practice clinics were asked how living with diabetes and/or congestive heart failure affected their mental health and well-being as well as the type of health services that they wanted to help them manage these needs. Patients were randomized to one of four focus groups lasting 60 minutes to discuss what it was like to live with diabetes and/or CHF, the emotional strains and mental health issues that resulted, and the type of support services that they would like to be made available to assist them to live with their condition.

Content analysis was used to analyze the data. Themes that were identified include shock of being diagnosed, financial pressures, strain on personal relationships, frustration at people who did not have the condition, and strain of having to take medications. Also, themes were identified regarding support services including more time with health professionals, support classes and services, and advice about benefits.

Home ◀ ▶ go to PG.

Transitional Care Medication Intervention to Optimize Outcomes in Patients with CKD

Cynthia F. Corbett, PhD, RN
Professor and Interim Associate Dean for Research[1]
corbett@wsu.edu

Katherine M. Tuttle, MD, FASN, FACP, Executive Medical & Scientific Director[2]
Joshua J. Neumiller, PharmD, CDE, CGP, Assistant Professor[3]
Kenn B. Daratha, PhD, Assistant Professor[1]
Robert A. Short, PhD, Research Professor[1]
Radica Alicic, MD, Medical Research Associate[2]
Brian J. Gates, PharmD, Clinical Associate Professor[3]

[1]*College of Nursing, Washington State University, Spokane, WA*
[2]*Providence Medical Research Center, Spokane, WA*
[3]*College of Pharmacy, Washington State University, Spokane, WA*

Purpose: To pilot test the effectiveness of a medication information transfer intervention to improve clinically relevant outcomes in patients with chronic kidney disease (CKD). The **aims** of the study are to evaluate the impact of the intervention in patients with CKD on:

1. acute care utilization following hospital discharge; and 2. management of CKD risk factors and complications.

Rationale/Background/Conceptual Basis: Transitional care interventions reduce hospital readmissions and slow the progression of declining health in hospitalized patients. Patients with CKD generally have multiple co-morbidities; treatment often includes the use of many medications. Patients with CKD have one of the highest rates of hospital readmission, and thus are in critical need of improved transitional care that includes accurate and comprehensive medication information transfer. The Chronic Care Model provides the conceptual basis for the ongoing study with the focus on improving patients' abilities to be *informed and activated* so they can *engage in productive interactions with their health care professionals*.

Methods: A single-blind randomized clinical trial with IRB-approved protocol is being implemented. Hospitalized patients >21 years old (n=120) who have a diagnosis of CKD stage 3-5 (not including those treated by dialysis or kidney transplant) are being recruited. All participants receive a clinic evaluation at baseline, 30 and 90 days following hospital discharge. Participants randomized to the intervention receive a home visit from a pharmacist within one week of hospital discharge. The medication information transfer intervention delivered by the pharmacist is guided by the 5As Self-Management Model. Statistical analyses will include a mixed model approach utilizing generalized estimating equations for longitudinal multiple-variable analysis with a priori significance set at 0.05 for all analyses.

Results: Preliminary findings from this ongoing clinical trial will be presented.

Implications: Study findings will have implications for improving knowledge about strategies to overcome delivery system design and medication self-management barriers. Enhancing patients' and providers' abilities for meticulous medication management is critical to improving outcomes for patients with CKD, including reducing acute care use and overall healthcare costs.

Funding: This research is funded by the National Institute for Diabetes, Digestive and Kidney Diseases: R34DK09014016-01.

Disclosure in the Context of HIV

Sri Yona
PhD Candidate
College of Nursing
University of Illinois
Chicago, IL

Rita Ismail
School of Nursing
University of Washington
Seattle, WA

Aims: This paper is a report of a conceptual analysis of disclosure in the context of HIV. **Background:** The number of people with HIV has continued to increase globally. In 2009, a total of 33.3 million cases of HIV among adults were reported with over 1.8 million deaths due to AIDS (WHO, 2009). Many factors can influence the transmission of HIV, including disclosure of HIV status. Disclosure is essential in reducing HIV transmission (WHO, 2009). People who disclose their HIV status tend to have safe sex negotiation with their partner, so a higher of incidence of protected sexual behavior occurs (Ciccarone et al., 2003).Disclosure can also encourage early HIV testing and counseling. As a consequence, disclosure can decrease HIV transmission and promote early treatment for newly infected individuals. Having a better understanding about HIV disclosure is crucial for health providers, including nurses so they can help people with HIV make disclosure decision.
Definition of Concept: The concept of disclosure is related to providing information about health condition, status, or medical error to the patient in medicine field (Bradley & Follingstad, 2001). In nursing, Sullivan (2005) defines disclose as “unclose or open up—to expose to view—something previously held closed or secret” (p. 35). Pilowsky (2000) prefer to disclosure as providing information or status of HIV to others. In multiple disciplines, HIV disclosure is referred to as verbally revealing one’s HIV-positive status to a prospective potential recipient (Ko et al., 2007).
Concept Analysis Approach: Critical analyses of literature about disclosure in the context of HIV were performed in April 2011 using Walker and Avant’s concept analysis methods. The search focused on social and cultural influences on decision to disclose HIV status. The sample included scientific literature from Scopus, CINAHL, PubMed, PsychINFO and Ebsco. Papers were published 2000–2010.
Logic Linking Concept Analysis: The analysis uncovered three attributes of disclosure: Communication, Complexity includes type of relationship (sexual relationship, family, and others) and timing. Three antecedents included seeking help/support, knowledge of HIV and motivation to protect someone. Consequences were categorized as positive (a tendency to have safer sexual practices, gaining support from family and partner, more assistance with medical and health services, encouragement to live positively with HIV, more adaptive coping mechanisms, increased adherence to treatment) or negative (reduced sexual intercourse; blame, rejection, abandonment, loss of friends, being insulted or rejected by family members; Depression, Violence and Stigmatization).
Conclusions: As an emerging concept, disclosure in the context of HIV is constrained by its absence in nursing literature. Nurses function as advocates and educators; therefore, disclosure is prominent in many of nursing practices. By understanding the antecedent of disclosure (seeking help, knowledge of HIV and motivation to protect HIV transmission), nurse can be primary advocates for patient, and help to identify and responds to patients’ need. Nurses can understand what aspect should be assessed regarding the attribute of disclosure, and once they have identified what patients need based on this attribute, then nurse can design specific nursing intervention for patient. Furthermore, nurse can provide support and information for difficult decision making whether to disclose or not.

Home ◀ ▶ go to PG.

CHRONIC ILLNESS

Perceptions of the Chronically Ill Using Personal Health Records for Self-Management

Perry M. Gee, MSN, RN, CPEHR
PhD Candidate
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Purposes/Aims: The purpose of this study is to obtain a better understanding of the perceptions of the chronically ill persons' use of electronic personal health records (PHR) for self-management support and productive patient-provider interactions. The aims of the study are to: 1) Generate new hypotheses regarding how and why the chronically ill adopt and use PHR's. 2) Identify human factor and other design features needed by the chronically ill to promote PHR adoption and use. 3) Identify educational opportunities for both patients and provider teams regarding the effective use of PHR's for chronic illness self-management.

Background: Chronic illness is challenging to individuals and costly to society. Chronic disease is responsible for seven out of 10 deaths in the United States. People with chronic illness account for 83% of all health care spending and are heavy users of the health care system. One tool that has been suggested to support the self-management of chronic illness by health researchers, policy makers, providers and consumers is the PHR. The chronically ill are already using PHR's at a higher rate than the general population and patients with a greater number of comorbidities have even higher rates of PHR adoption. Still, the overall adoption rate of PHR's for the chronically ill nationwide is only nine percent. *Meaningful Use* requirements, government and health care policy makers, health care provider organizations and health care information technology vendors are strongly urging that all Americans, including the chronically ill, adopt and use PHR's. While adoption and use is strongly encouraged very little is known about their efficacy and their use in the self-management of the chronically illness.

Methods: Due to the newness of this topic a qualitative method approach using Grounded Theory will be used for the gathering of the data. Following Institutional Review Board approval, a purposive sample of 15 to 25 chronically ill informants will be interviewed in their homes until saturation of data has been reached.

Findings: The analyses of the findings will completed using a Grounded Theory approach based on repeated sorting, categorizing and coding of the data. The findings will be verified through member checking and ongoing consultation with independent qualitative research colleagues.

Implications: Currently there are a limited number of PHR studies and this is especially true in the nursing literature. Of the current studies, there is a wide variety of methodological approaches and a paucity of randomized, controlled trials (RCT). The literature does reveal a group of RCT's that showed chronic illness could be more effectively managed if the PHR intervention promoted reciprocal patient-provider communication. This study will evaluate the patient-provider communication that occurs using the PHR as well as other factors that facilitate the adoption and effective use of PHR's for self-management support of chronic illness.

Home ◀ ▶ go to PG.

Medication-Taking Practices and Preferences of Older Persons with Chronic Conditions

Roxanne Vandermause, PhD[1]; Joshua Neumiller, PharmD[2]; Katherine Tuttle, MD[3]; Prabu David, PhD[4]; Brian Gates, PharmD[2]; Molly Altman, MN, MPH[1]; Duane Sunwold[5]; Patricia Benson, BA[5]; Cynthia Corbett, PhD[1]; Gail Burton, BSN[3]

[1]College of Nursing, Washington State University, Spokane, WA
[2]College of Pharmacy, Washington State University, Spokane, WA
[3]Providence Medical Research Center, Spokane, WA
[4]Edward R. Murrow College of Communications, Washington State Univ., Pullman, WA
[5]Patient Stakeholder, Spokane, WA

Purposes/Aims: The purpose of this study is to advance medication management science to improve the health of patients with multiple chronic medical conditions (MCMC). A multi-method qualitative design is used to address the following aims: 1) Identify perceptions and behaviors surrounding the medication-taking process of older adults with MCMC; and, 2) Generate an interpretation of the meaning of medication-taking among older adults with MCMC.

Rationale/Conceptual Basis/Background: Medication non-adherence in older patients with MCMC ranges from 20-80%, contributing to premature hospitalization and nursing home placement. Medication consuming practices are poorly assessed or understood by providers. Consequently, the effectiveness of medication use is compromised, thus reducing care quality and outcomes. There is a critical need to examine the process of medication prescribing as perceived and experienced by patients to enhance medication efficacy.

Methods: This interdisciplinary, multi-method analysis of the patient-centered experience of adding a new medication to a list of current medications, includes in depth interviews and analyses of real-time daily self-assessment electronic diaries over 1 month following receipt of a new prescription. Thirty patients diagnosed with at least 3 chronic medical conditions, upon receiving a new prescription, are recording their thoughts on a tablet computer and completing activity surveys. Fifteen of these patients are participating in in-depth audio-recorded interviews when they are enrolled and upon study completion. Transcribed interviews and self recorded data are analyzed using content analysis and interpretive phenomenological approaches.

Results: Using data captured with the tablet, relationships between taking medication and thoughts, physical sensations or effects are being recorded and analyzed. Patterns and themes uncovered in interviews are revealing the meaning of medication taking for older adults. This presentation provides language for understanding the patient experience and raises new questions for prescribers and providers.

Implications: Patient-centered findings are building a base for understanding the experience and meaning of medication-taking by older persons with MCMC, identifying facilitators and barriers to proper use of appropriate medications, and addressing the issue of the practitioner-patient exchange as key for improving the state of the science of medication- prescribing practice.

Funding: The above study is funded by the Patient-Centered Outcomes Research Institute (PCORI), ID#3034. June 2012-June 2013.

Home ◀ ▶ go to PG.

Medication Regimens and Dosing in Fibromyalgia with and without Co-Morbid Depression

Nuzhet Sayrun-Thomas
Baccalaureate Student
The University of Arizona
College of Nursing
Tucson, AZ

Rebecca L. Ross, PhD, RN, PMHNP-BC
Assistant Professor
The University of Arizona
College of Nursing
Tucson, AZ

Purpose: The purpose of this secondary analysis was to determine whether or not prescribers are adequately treating depression in those with fibromyalgia (FM). Aim 1 was to determine whether therapeutic dosages of antidepressant medications more closely correlated with FM severity or depression severity. Aim 2 was to determine if there were differences in antidepressant medication classes between those with melancholic (MDE) versus atypical (ADE) depressive episodes as current evidence-based research recommends.

Background: Fibromyalgia is characterized by widespread pain and is often co-morbid with major depressive disorder (MDD). Current treatment for FM and MDD involves the use of antidepressant medications. Recent evidence supports that there are two prevalent MDD subtypes seen in FM, which respond preferentially to different antidepressant classes. However, it is unclear whether or not providers are considering MDD severity or subtypes when treating those with FM.

Methods: The sample from the parent study consisted of 63 females diagnosed with FM, with or without co-morbid MDD.

Measures: Aim 1 measured FM severity via the Fibromyalgia Impact Questionnaire (FIQ) total score and MDD severity via the Structured Interview Guide for the Hamilton Depression Rating Scale with Atypical Depression Supplement (SIGH-ADS) total score. Antidepressant dosages were determined to be therapeutic or non-therapeutic based on FDA-approved dosage ranges. All statistical tests were computed by SPSS. Aim 1used Pearson's correlation coefficient to determine the relationships among the FIQ and SIGH-ADS 25 total scores, and whether the dosages of antidepressant were therapeutic or non-therapeutic. Aim 2 used Chi-squared to determine if classes of antidepressants prescribed differed based on MDD subtypes.

Results: The sample consisted of three subgroups of FM patients: non-depressed (n=9); FM with MDE (n= 20) and FM with ADE (n=34). Neither the FIQ nor the SIGH-ADS total scores correlated with therapeutic doses of antidepressants (FIQ: r= -0.87-0.18; p= 0.23-0.71; SIGH-ADS: r= 0.00-0.124; p= 0.36-1.0). The Chi-squared test found no difference in the classes of antidepressant medications prescribed to those with MDE or ADE: $X^2(2, n=57)= 1.34$, p= 0.51.

Implications: There were no relationships between being prescribed therapeutic dosages of antidepressants and MDD severity nor FM severity. Seemingly, providers are not considering known evidence-based practice guidelines when prescribing for FM patients with comorbid MDD. Furthermore, providers do not appear to be differentiating MDD subtypes when choosing antidepressants for depressed FM patients. As the providers with the most contact time with patients, nurses are uniquely positioned to identify undertreated MDD in those with FM and advocate adequate treatment.

Funding: This grant was generously funded by NIH/NINR NRSA Award 1F31NR009472-01A1 & -02.

Home

◀ ▶ go to PG.

Knowledge and Attitudes toward People Living with HIV among Adolescents in Indonesia

Sri Yona
College of Nursing
University of Illinois at Chicago
Chicago, IL

Rita Ismail
Biobehavioral Nursing
University of Washington
Seattle, WA

Purposes: To explore adolescents' knowledge and attitudes toward people living with HIV in a rural area of Pinrang, Indonesia.

Background: Indonesia is one of the fastest growing HIV epidemics in all of Asia. In 2010 it was estimated 333,200 were people living with HIV 89% of which ranged in age from 15 to 49 years. Of these, 55 % were young adults ranging from 15 to 24 years and the prevalence continues to rise each year. A survey among young adolescents indicated that only 20.6% of these young women and men were able to identify HIV prevention methods and recognize major misconceptions about HIV transmission modes. Furthermore, only 9% were willing to accept people living with HIV. With increasing HIV rates among adolescents, there continues to be limited support acceptance from their peers which could affect their quality of life.

Methods: A focus group was conducted among 10 adolescents, with age ranged from 16 to 18 years old. Two interviews were conducted with two high school teachers using open-ended questions. Data were recorded using a digital audio recorder, transcribed verbatim, and systematically grouped into themes.

Results: The data revealed that HIV is a sensitive topic and parents tend to avoid discussing HIV, therefore, adolescents turn toward the internet to acquire information about HIV. Schools also have limited resources regarding HIV information. The study also found that most adolescents were able to identify transmission modes; while they preferred to have limited contact with HIV positive peers even though they knew that they needed their support. This created a clear dilemma for them in maintaining their relationships and providing support because they were unable to interact with their HIV positive friends in their social environment.

Implications: These results highlight the importance of education programs that promote HIV prevention and encourage interaction with people living with HIV that involve teachers and parents. Future research should address developing education programs about HIV to improve adolescents' knowledge and awareness that would affect their attitudes toward people living with HIV.

Home ◀ ▶ go to PG.

Improved Pain Level and Patient Satisfaction Using AGS Guidelines in Diabetic Patients

Hailey Hwangbo, MSN, FNP
DNP Student
Hahn School of Nursing
University of San Diego
San Diego, CA

Joseph Burkard, DNSc, CRNA
Associate Professor
Hahn School of Nursing
University of San Diego
San Diego, CA

Background: Chronic pain is a common occurrence that may lead to poor self-management in diabetic patients. Studies show that chronic pain interferes with daily functions resulting in inadequate exercise, sleep impairment, anxiety, and depression (Boyle, 2010; Mantyselk, 2003). The prevalence of chronic pain among diabetic patients is higher than in the non-diabetic population and affects 60% to 70% of diabetic patients. Although the negative effects of chronic pain are well understood, pain management is a challenge for clinicians. Poor pain management is linked to limitations in daily activities, increased medical expenses, and poor patient satisfaction (Ormseth, 2011; Glajcben, 2001; Day, 2010). In the diabetic clinic where this project occurred, 90% of patients who complained of pain were not being treated or were undertreated by clinicians. Pain treatment and compliance with exercise is critical in effectively controlling diabetes. Pain is a priority concern for diabetes specialists, and patients are often sent back to their primary care providers for pain management. This practice results in patient dissatisfaction with clinicians. Research indicates that proper pain management is a vital component of a patient's overall health. The evidence also indicates that pharmacological pain management improves pain control. The American Geriatric Society (AGS) has compiled pain management guidelines in an effort to standardize these therapies.

Aim/Purpose of the Project: The purposes of this project were to decrease patients' pain levels by implementing pharmacological therapies guided by AGS and to improve patients' satisfaction with care.

Design and Methods: The project was conducted in a chronic diabetes clinic in southern California and employed a quasi-experimental time series design. Participants were patients aged 50 years or older with type II diabetes who reported pain severity of 5 or greater on the revised American Pain Society Patient Outcome Questionnaire (APS-POQ-R). Pain scale scores and patient satisfaction were obtained before and one and three months after initiating pain management interventions using the APS-POD-R.

Results: In progress.

Implications and Conclusions: To be determined following review and analysis of results. It is expected that pharmacologic pain management guided by AGS will decrease patients' pain levels and increase patient satisfaction with care.

Effects of an EMR Based Standardized Diabetes Self-Management Intervention on Patient Outcomes

Kevin Maxwell, MSN, FNP-BC
DNP Student
University of San Diego
San Diego, CA

Joseph Burkard, DNSc, CRNA
Associate Professor
University of San Diego
San Diego, CA

Background: Diabetes is one of the leading and most costly preventable illnesses faced by our nation. Approximately 8.3% of the US population has diabetes (Centers for Disease Control and Prevention, 2011). The annual cost to care for these individuals is $174 billion and increasing. California diabetes mortality is 21.8 per 100,000 individuals. In addition to a strict medication regime, education is needed on lifestyle modification, including diet and exercise as well as recognition of the signs and symptoms of diabetic complications and risks. Most Diabetes Self Management education is done by the practitioner or by a registered diabetes educator (RDE). Many different approaches exist and consistency is lacking. The National Institutes of Health (2010) patient safety goals for 2020 set a benchmark for the care and education of diabetic patients using a standardized evidence-based education intervention. Patients in a southern California community clinic were not receiving a standard intervention. Coordinating shortened provider visits with a comprehensive and standardized diabetes education visit will result in more patients receiving DSM education to manage Type 2 Diabetes and to improve overall health. It was hypothesized that the implementation of a standardized intervention would improve measures of health over time.

Aim/Purpose of the Project: (a) To evaluate the effects of implementing an EMR based standardized DSM education intervention in patients with Type 2 diabetes in a community clinic setting; (b) to decrease by 5% measures of BMI, A1c, Total cholesterol and MAP in 50% of patients; and (c) to evaluate improvement in patient knowledge following the intervention.

Patients and Methods: We conducted a quasi-experimental pre/post evidence-based practice project in a community clinic in southern California. The program participants were patients with type 2 diabetes receiving standardized diabetes self-management education sessions. Power analysis was completed using a moderate effect size and a power estimate of .80 with 10 predictor variables yielding a required sample size of 136. Descriptive statistics were used to describe demographic data as well as differences in the distribution, mean and mode and average change of the data. Paired *t*-tests and chi-square were used to test the difference in mean scores and relationships between categorical patient knowledge and attitude questionnaire variables.

Results: In progress.
The implementation of an EMR based standard DSME intervention will provide consistency in the community clinic and advance towards achieving the Healthy People 2020 goals. It will be necessary to conduct future projects to determine if the intervention can be applied in other settings and with different populations.

Home ◀ ▶ go to PG.

CHRONIC ILLNESS

Exploring Spiritual Distress in Persons with End-Stage Liver Disease

Nancy Lorber, RN, ARNP
School of Nursing
University of Washington
Seattle, WA

Paula Cox-North, PhC, MN, NP-C
School of Nursing
University of Washington
Seattle, WA

Ardith Z. Doorenbos, PhD, RN, FAAN
School of Nursing
University of Washington
Seattle, WA

Purpose: The purpose of this study was to explore the presence of spiritual distress in patients with end stage liver disease (ESLD) through the use of a short spiritual assessment survey. The four domains of spiritual distress that were specifically explored in this survey included; hope, meaning, relationships and wellbeing.

Background: Spiritual care is often found to be a source of emotional support and comfort among people with a serious disease and has been shown to reduce distressing symptoms and improve quality of life. Many patients with ESLD have different behavioral, environmental and socioeconomic factors that may prevent the generalization of existing research of spiritual care to this population and there is currently a paucity of research that has been done on spiritual care in patients with ESLD.

Methods: One on one audio-recorded interviews with a total of 20 patients with ESLD was conducted. Entry criteria was a diagnosis of end-stage liver disease, MELD score 6-40, fluent in English, and outpatient status at time of interview. Patients were recruited from a liver clinic at a tertiary care center. All interviews were done by the principal investigator or a single trained research assistant. Mixed methods were used to collect data that included semi-structured interviews and a short spiritual assessment survey adapted from two existing valid and reliable instruments; the Missouri-VITAS Quality of Life index and FACIT-Sp. The survey included four questions that explored four domains of spiritual distress; hope, meaning, relationships and wellbeing.

Outcomes Achieved: Three themes that were identified as being very important to participants included; relationships, a sense of meaning in life and wellbeing. Eighty-five percent of participants rated “saying important things to loved ones”, as “quite a bit” to “very much” in level of importance. Sixty-five percent reported a better sense of meaning in their life now than in the past, and 70% felt strongly that whatever happened with their illness that they would be okay. Sixty percent of participants identified “worry that their affairs were not in order and unresolved issues” as a concern. These concerns included the need to complete financial planning and advance directives.

Conclusions: The majority of participants reported spiritual well being in the areas of relationships, meaning and hope. Of most concern was the indication of spiritual distress regarding unresolved issues related to finances and planning for the future. Providing ESLD patients with resources to assist with financial planning and advance directives may help to relieve some of this distress.

Funding: Support for this study was provided by the Society of Gastroenterology Nursing & Hester McLaws Scholarship Fund.

CHRONIC ILLNESS

Diabetes Mellitus and Metabolic Syndrome in Homeless Individuals

Cheryl Westlake, RN, PhD, ACNS-BC
Professor and Associate Dean
Azusa Pacific University
Azusa, CA

Laurie Lang, RN, MSN/ED, BC
Associate Chair and Assistant Professor
Nursing
Azusa Pacific University
Azusa, CA

Connie Brehm, PhD, PHN, RN
Professor
Nursing
Azusa Pacific University
Azusa, CA

Purposes/Aims: To characterize the incidence and prevalence of diabetes mellitus (DM) in homeless individuals seen in the San Gabriel Valley.

Background: Diminished health is a cause and an outcome of homelessness (Health Care and Homelessness, 2009). Homeless persons have a higher prevalence of chronic disease than the general population; 31-46% report at least one, and often several, chronic diseases (Wagoner, 2004; Fleischman & Farnham, 1992; Burt et al., 1999). Homeless adults are hospitalized for medical problems four to five times the general population rate (Victor, Connelly, Roderick, Cohen, 1989; Martell et al., 1992; Pearson, Bruggman, Haukoos, 2007) and 2.7 times more than other low-income populations (Braun R, et al.). Mortality rates among are three to four times greater than the general population (Hwang et al., 1997; Hwang, et al., 2000; Barrow, et al., 1999) with the average age at death in the mid-forties (Hwang, et al., 1997; Hanzlick, et al., 1989). The presence of chronic medical conditions is known to increase the death risk (Hwang, et al., 1998; Hwang, et al., 2001) and be common among homeless individuals (O'Connell, 2005). However, DM is not included in those studies. Further, while California has the fifth highest homelessness rate in the United States (Kaiser Family Foundation, 2010), DM is the number seven cause of death in the United States and contributes to the development of heart disease [the number one cause of death (CDC, 2010)], little is known about DM in the homeless population as the current literature is focused on those with housing. Therefore, the purpose of this study is to describe the risk for and incidence of DM in homeless individuals.

Methods: The design is a descriptive, cross-sectional, retrospective chart review. The sample includes all homeless adults (age greater than 17) seen at the San Gabriel Coalition for the Homeless for whom a chart and intake evaluation was completed. Following IRB approval, demographic data and characteristics required for a DM diagnosis using adapted criteria based on the American Diabetes Association (2008) diagnostic guidelines will be extracted from each chart. The DM risk is the summed risk factors: a) weight (5 points); b) < 65 years of age and little/ no exercise (5 points); c) age 45 -64 years (5 points); d) age > 65 years (5 points) with high risk > 9 points. Prevalence is the number of individuals with a blood sugar of > 100 mg/dl and/or the report of taking a hypoglycemic divided by the total sample number. Aggregate demographic, risk, and prevalence data will be analyzed using descriptive statistics and IBM SPSS Statistics 20.0.

Results: The DM assessment metrics developed and data collected will inform future research in this sample and may facilitate the development of future grants for MD resource funding and interventions for this resource poor population.

Implications: The findings from this study will contribute to the limited knowledge about DM in homeless individuals, generally, and will contribute to the knowledge about risk and prevalence of DM in the sample, specifically.

Home ◀ ▶ go to PG.

CHRONIC ILLNESS

Perceived Barriers to Adoption of Pre-Exposure HIV Therapy among MtF-TG Youths

Gloria Nwagwu, FNP
Instructor
School of Nursing
University of San Diego
San Diego, CA

Jane Georges, PhD
School of Nursing
University of San Diego
San Diego, CA

Nnenna Weathers
Assistant Professor
School of Nursing
California State University, Los Angeles
Long Beach, CA

Purposes/Aims: The overall purpose of this in-progress qualitative study is to explore the perceived barriers to the use of pre-exposure chemoprophylaxis (PrEP) in a group of male-to-female transgender (MtF-TG) persons ages 16-25 who are currently human immunodeficiency virus (HIV) negative.

Rationale/Background: In July 2012, The United States Food and Drug Administration (FDA) approved the use of a combination of tenofovir and emtricitabine (Truvada ©) as a pre-exposure chemoprophylaxis (PrEP) method for HIV prevention among high-risk population groups (CDC, 2012). The use of PrEP subsequently demonstrated a decrease in HIV infection risk ranging from 42 to 73% in such high-risk groups as men having sex with men (MSM) and MtF-TG persons. (CDC, 2012; PrEP fact sheet, 2012).

The male-to-female transgender (MtF-TG) population is at particular risk for HIV infection. This group has been documented as having a higher risk for history of injectable drug abuse and sex exchange for money, concurrent with stigmatization and discrimination. Of 206 new HIV infections between 2005-2009, 95% were MtF TG and of great concern is the result of another study indicating 73% of sero-unaware testing HIV Positive (CDC, 2011). Currently, no published literature exists regarding the barriers perceived by MtF-TG persons ages 16-25 in accessing and adopting PrEP to prevent HIV infection.

Methods: A phenomenological qualitative interview approach is being conducted in a group of self-identified HIV negative MtF-TG persons in a large Southern California urban area to elicit the perceived barriers to accessing and adopting PrEP for HIV prevention.

Results: Initial results indicate that barriers perceived by MtF-TG persons in accessing and adopting PrEP to prevent HIV infection include themes of fear of rejection by health care professionals and discriminatory practices in health care settings.

Implications: This in-progress study is an initial attempt to explore the lived experiences of MtF-TG persons negotiating the health care system and to identify barriers to accessing and adopting a potential means of preventing HIV infection. Further interventional research will build upon the identified phenomena/themes as a basis for decreasing barriers and enhancing access to health care resources in this high-risk population.

Home ◀ ▶ go to PG.

Voices of Cancer Survivors; Experiences from a Structured Exercise Program

Elizabeth Predeger, PhD, RN
Professor
School of Nursing
University of Alaska Anchorage
Anchorage, AK

Maureen O'Malley, PhD, RN
Associate Professor
School of Nursing
University of Alaska Anchorage
Anchorage, AK

Nadine Parker, PhD, RN
Assistant Professor
School of Nursing
University of Alaska Anchorage
Anchorage, AK

Thomas Hendrix, PhD, RN
Associate Professor
School of Nursing
University of Alaska Anchorage
Anchorage, AK

Cindy Decker, BS, RN
Oncology Rehabilitation Exercise Specialist
Oncology Rehabilitation
Providence Alaska Medical Center
Anchorage, AK

Meaghan Kuklok, MPT
Oncology Rehabilitation Exercise Specialist
Oncology Rehabilitation
Providence Alaska Medical Center
Anchorage, AK

Purpose: The purpose of this study phase was to describe personal and collective outcomes of participation in a group-focused, oncology rehabilitation program. Determining long-term participant perceptions and preferences of the program was an additional aim of this on-going evaluation project.

Rationale: Exercise has been shown to be an effective intervention for cancer survivors resulting in positive outcomes in the short term (Spence, Heesch & Brown, 2010); however, little is known about participants' perceptions of rehabilitation after program completion. A panel of experts concluded that patients' preferences and recommendations should be considered in planning and evaluating cancer rehabilitation programs (Scmitz et al., 2010).

Methods: A qualitative approach using an interpretive description (Thorne, Reimer Kirkham & MacDonald-Emes, 1997) was used to address the narrative phase of this program evaluation. Included in the study questionnaire, were several open-ended questions about program content, most and least helpful aspects of the program, and an additional question asking for thoughts that came to mind. The entire questionnaire was mailed to 215 completers of the oncology rehabilitation program.

Data Analyses: Completed questionnaires were received from 102 participants (47.4% response rate). Descriptive statistics summarized the demographic characteristics. Narrative responses were transcribed, content-analyzed, and coded. Resultant themes and a synthesis statement emerged. The researchers and practicing, multi-disciplinary oncology rehabilitation clinicians reviewed the synthesis and confirmed representativeness. The conclusions were determined to be trustworthy.

Results and Implications: Benefits of participation far out-weighed barriers, with "time" being central to sustained program engagement. Perceptions of staff caring and competence kept many returning even after program completion. Recommendations for program improvements in the area of supportive oncology rehabilitation revolved around creating opportunities for sustained follow-up and continued group support.

Home ◀ ▶ go to PG.

CHRONIC ILLNESS

Quality of Life in Head and Neck Cancer Patients Receiving Radiation Therapy

Maria H. Cho, RN, PhD
Assistant Professor
Nursing and Health Science
California State University, East Bay
Hayward, CA

Marylin J. Dodd, RN, PhD, FAAN
Professor Emerita
Physiological Nursing
University of California, San Francisco
San Francisco, CA

Purpose/Aims: To measure the overall and subscales of quality of life (QOL) in patients with the head and neck cancer (HNC) during and after intensity-modulated radiation therapy (IMRT) at 1st week (T1), 3rd week (T2), end of RT week (T3), and one-month follow up (T4).

Rationale/Conceptual Basis/Background: The UCSF Symptom Management Model was used as a framework of the study. Diagnosis and its treatments of HNC can lead to changes in quality of life. The major treatment option for HNC is radiation therapy (RT). With the advancement of RT, IMRT could reduce side effects from the RT. However, side effects related to IMRT could have a significant impact on the quality of life of patients with HNC. It has been reported that the overall QOL may decrease during and after treatments. A few studies report information about the subscales of QOL in patients with HNC over the course of RT.

Methods: A longitudinal repeated measure study design was used. Convenient sample of 38 patients with HNC were recruited from the outpatient oncology clinic in northern California. Subjects filled out the QOL-CA Questionnaire that contains 33 self-reported items (0-10 scale); higher number indicates better QOL. Subscales of QOL include physical, psychological, nutrition, symptom distress, and interpersonal well-being. Internal consistency of QOL-CA was 0.94 in this study. Descriptive statistics, ANOVA, were used.

Results: Demographic characteristics includes as followings: Mean age of 54.5 (SD 11.9);76.3% male; 68% Caucasians; 70% married; 59% full-part time workers; major diagnoses include nasopharyngeal (21%), tongue (15.8%), and parotid (18.4%); approximately 47% stage 3 and stage 4; Karnofsky performance score 84.3 % (SD 14). Overall QOL ranged from 6.5 to 7.0 during T1 and T4 with no significant differences. . Subscales ranged are psychological (5.86 to 6.77), physical (6.5 to 7.0); nutrition (4.8 to 6.1), symptom distress (6.35 to 8.1); interpersonal (6.7 to 7.59). There were no significant changes over time in subscale measures except symptom distress (i.e., nausea, vomiting, bowel movement, pain, pain distress). Even one month after completing the treatment, the mean score of symptom distress subscale showed significantly worsen QOL ($p<0.05$).

Implications: Using overall QOL and its subscales as outcomes are important. To measure accurate symptom experiences, it is critical to use the sub-scale during and after RT. Overall QOL might not be drastically changed over the period of RT, however the symptoms and related distress might be of very significant changes.

Home ◀ ▶ go to PG.

CHRONIC ILLNESS

Metabolic Syndrome in Homeless Individuals

Connie Brehm, PhD, PHN, RN
Professor, Nursing
Azusa Pacific University
Azusa, CA

Cheryl Westlake, RN, PhD, ACNS-BC
Professor and Associate Dean
Nursing
Azusa Pacific University
Azusa, CA

Laurie Lang, RN, MSN/ED, BC
Associate Chair and Assistant Professor
Nursing
Azusa Pacific University
Azusa, CA

Purposes/Aims: To characterize the risk for metabolic syndrome (MS) in homeless individuals seen in the San Gabriel Valley.

Background: Diminished health is a cause and an outcome of homelessness (Health Care and Homelessness, 2009). Homeless persons have a higher prevalence of chronic disease than the general population; 31-46% report at least one, and often several, chronic diseases (Wagoner, 2004; Fleischman & Farnham, 1992; Burt et al., 1999). Homeless adults are hospitalized for medical problems four to five times the general population rate (Victor, Connelly, Roderick, Cohen, 1989; Martell et al., 1992; Pearson, Bruggman, Haukoos, 2007) and 2.7 times more than other low-income populations (Braun R, et al.). Mortality rates among are three to four times greater than the general population (Hwang, et al., 1997; Hwang et al., 2000; Barrow et al., 1999) with the average age at death in the mid-forties (Hwang et al., 1997; Hanzlick et al., 1989). The presence of chronic medical conditions is known to increase the death risk (Hwang et al., 1998; Hwang et al., 2001) and be common among homeless individuals (O'Connell, 2005). However, MS is not included in those studies. Further, while California has the fifth highest homeless rate in the United States (Kaiser Family Foundation, 2010) and MS is a predictor of DM, the seventh most common cause of death in the United States (CDC, 2010), little is known about MS in the homeless population. Current literature is focused on those with housing. Therefore, the study purpose is to describe the risk for MS in homeless individuals.

Methods: The design is a descriptive, cross-sectional, retrospective chart review. The sample includes all homeless adults seen at the San Gabriel Coalition for the Homeless for whom a chart/intake evaluation was completed. Following IRB approval, demographics data and characteristics required for a MS diagnosis using adapted National Cholesterol Education Program Adult Treatment Panel III (2002) diagnostic guidelines criteria will be extracted from each chart. For MS, risk is a score of one or >: a) < age 65 years and get little/no exercise and BPS > 130 mmHg or BPD > 85 mmHg (1 point); b) age 45-64 years and BPS > 130 mmHg or BPD > 85 mmHg (1 point); c) BPS > 130 mmHg or BPD > 85 mmHg and waist circumference > 35” women or 40” men (1point); d) woman who had baby that weighed > 9 pounds, or has sister/brother/parent with diabetes, and BPS > 130 mmHg or BPD > 85 mmHg or waist circumference > 35” women or 40” men. Aggregate demographic and risk data will be analyzed using descriptive statistics and IBM SPSS Statistics 20.0.

Results: The assessment metrics developed and results will inform future MS study in this sample and may facilitate future grant development for resource funding and MS interventions for this resource poor population.

Implications: The findings from this study will contribute to the limited knowledge about MS in homeless individuals, generally, and the risk for MS in the sample, specifically.

Home ◀ ▶ go to PG.

CHRONIC ILLNESS

Diabetic Neuropathy Pain Alternative Therapies in Native Hawaiians: A Review

Mahealani Suapaia, MS, RN
Assistant Professor of Nursing
College of Nursing and Health Sciences
Hawaiʻi Pacific University
Kāneohe, HI

Purpose/Aims: The purpose of this integrative review is to identify the benefits of complementary alternative therapy for diabetic peripheral neuropathy pain (DPNP) and implications for a Native Hawaiian diabetic adult. The integrative review identifies three questions: (1) Identify alternative therapies that have been used for diabetic peripheral neuropathy pain? (2) Are the alternative therapies effective for pain management? (3) What are the implications for alternative therapy use in the Native Hawaiian diabetic peripheral neuropathy pain population and evidence based practice?
Rationale/Conceptual Basis/Background: What causes limited mobility, discomfort and numbness in hands and feet, and affects 26-47% of people with diabetic neuropathy? The answer is DPNP. Limited mobility, extreme discomfort and numbness are a few of the undesirable symptoms diabetic individuals with peripheral neuropathy experience (Barrett, Lucero, Le, Robinson, Dworkin, & Chappell, 2007). Conventional pain management has provided limited success with DPNP management.
Methods: Studies selected met the following inclusion criteria: (1) research based that implemented a form of alternative therapy for diabetic peripheral neuropathy pain management in adults; (2) written in English; and (3) conducted within the last 10 years. A literature search was conducted via the MED-LINE, CINAHL, and COCHRANE databases from 2002-2012. The search option selected was Boolean/ phrase with selected limitations such as full text, English language, research article, and peer reviewed. To maximize search "MM" exact major subject heading and "MH" exact subject heading were used with selected search terms. The search terms were (MM "Diabetic Neuropathies+"), (MM "Pain"), (MM "Diabetes Mellitus+") or (MM "Diabetes Patients"), (MM "Peripheral Nervous System Diseases+") and (MM "Alternative Therapies"). The plus sign next to a subject heading means there are narrower subjects within the general subject search.
Results: The search resulted in 150 citations. A review of the citations revealed that 11 articles met the inclusion criteria. Articles were reviewed to ensure a sufficient sample. Each database was searched on several different occasions. Alternative therapies and complementary and alternative medicine (CAM) studied to reduce diabetic peripheral neuropathy pain (DPNP) in adults were mind and body medicine (4 studies), natural products (4 studies) and other CAM therapies (2 studies).
Implications: Based on the variable quality of research studies found in the literature the implications for evidence-based practice include a need for further research to understand how to better manage diabetic peripheral neuropathy pain. Future evidence based research may provide new solutions for DPNP management in Native Hawaiians and high risk populations. Alternative therapies can decrease DPNP and improve quality of life. Thus, complementary and alternative medicine evidence based resources are valuable for nurses to provide the best care.

Comorbidity and Symptom Measurement in Oncology Scale: Development and Testing

Cheryl Lacasse, MS, RN, OCN
Doctoral Candidate
University of Utah
College of Nursing
Salt Lake City, UT

About two thirds of all cancers are diagnosed in older adults and the diagnosis often co-occurs with normal and pathological changes of aging which include chronic diseases and related symptoms. Older adults' perceptions of illness and symptoms may have a profound impact on cancer diagnosis, symptom management, and treatment outcomes.

Purpose: The purpose of this methodological study is to conduct initial psychometric testing of a newly developed self-report tool for measuring comorbidity burden and symptom perception, the Comorbidity and Symptom Measurement in Oncology Scale (COSMOS).

Background: The COSMOS is based on a blended conceptual model developed from the Theory of Unpleasant Symptoms (Lenz, 1987) and the Common Sense Model (Leventhal et al., 1980). This model addresses inter-relationships between comorbidity burden, symptom perception, functional performance, and unique patient-related factors. Initial content validity of COSMOS was determined by expert panel survey. The revised COSMOS comorbidity burden subscale includes a checklist of 37 chronic illnesses/ conditions and their current effect on daily life. The symptom perception subscale includes a 32 item checklist, symptom bother rating, and perceived cause of symptoms.

Methods: Phase two of the study focuses on pilot testing the revised COSMOS. Data collection includes the COSMOS, Functional Performance Index, demographic data and focused patient interviews. Preliminary results are reported for 37 of the target convenience sample of 60 cancer survivors aged 65 years or older, two or more comorbidities and one or more symptoms being recruited for the pilot test. Participants are stratified into two groups including those on active cancer treatment and those off treatment for one year or more.

Results: Most of the 37 participants to date, both on (n=25) and off (n=12) active treatment) were breast cancer survivors (36%) and prostate cancer survivors (25%). Results indicate a wide range of reported comorbidities in both on and off treatment groups (2 to 29). Commonly reported comorbidities in both groups include: arthritis, hypertension, incontinence, forgetfulness, indigestion, and osteoporosis. The calculated comorbidity burden is slightly lower for the on treatment than the off treatment group. Symptom burden was comparable in both groups. Commonly reported symptoms in both groups include: fatigue, pain, feeling drowsy, irritability, feeling sad, and urinary symptoms. Symptom attribution for commonly reported symptoms in the on- treatment group included cancer and cancer treatments while the off-treatment group was more likely to attribute symptoms to aging, chronic illness, and non-cancer related medications. Study accrual is ongoing.

Implications: It is projected that COSMOS could be easily translated into an electronic survey which can be used in the clinical setting as an integral component of the comprehensive geriatric assessment of older adults with cancer and in the research setting as a basis for predicting health-related outcomes for targeted interventions.

Funding: This study was funded in part by the following grants: Huntsman Cancer Center Core Grant Supplement: NIH National Cancer Institute (3 P30 CA 42014), National Cancer Institute Training Grant R25 CA093831, American Cancer Society Doctoral Scholarship in Cancer Nursing (DSCN-03-200-01-SCN), John A. Hartford Building Academic Geriatric Nursing Capacity Predoctoral Scholarship (04-115).

CHRONIC ILLNESS

Hypertension and Diabetes Risk Factors in Armenian Americans

Zarmine Naccashian, PhD, GNP, RN, CDE
Assistant Professor, Nursing
California State University Northridge
Northridge, CA

Felicitas A. dela Cruz, RN, DNSc, FAANP
Professor, School of Nursing
Azusa Pacific University
Azusa, CA

Purpose: The purpose of this study is to describe the current health status and the health risks of Armenian Americans (AA) in Los Angles. It aims to: (a) measure their blood pressure (B/P), cholesterol, blood sugar, height, weight, waist and hip circumferences; and (b) determine their risk factors for hypertension and diabetes.

Background: AAs were among the first Europeans who came to America in 1618. In spite of the influx of AAs to the U.S. during the early 19th century, they remain a hidden minority. Currently over ½ million AA live in Los Angeles. No data is available on AA health risks, especially for hypertension and diabetes.

Methods: This study used a cross-sectional research design. Two hundred seventy two AAs had their blood glucose, lipid panel, B/P, waist and hip circumferences measured at a community health fair by trained volunteer RNs.

Results: Sixty nine percent of the AA health fair attendees were females and 31% were AA males, with the mean age of the attendees at 52.74 (SD=13.46). Anthropometric measures revealed the following: mean weight, 164.84 lbs. (SD=38.77); mean waist circumference, 37.2 inches (SD=6.56); mean hip circumference, 43.19 inches (SD=19.64); mean systolic BP, 128.12 mm. Hg (SD=17.79); and mean diastolic BP, 77.90 mm. Hg (SD=11.75. Twenty five percent had normal weight, and nearly 39% had normal BP. The lipid panels showed that 55% had normal FBS, 38% had desirable total cholesterol level, 46% had optimal level of HDL, and 37% had desirable triglyceride levels.

Conclusions and Implications: Anthropometric and laboratory measures revealed that a substantial percentage of AAs are at risk for hypertension and diabetes. The findings provide evidence suggesting that a community health fair is an effective venue for discovering patients at high risk for, as well as actual cases of, hypertension and diabetes that require health promotion and disease prevention education or referral to community clinics for primary care, respectively. To our knowledge, this is the first time that anthropometric and laboratory findings of AAs suggestive of hypertension and diabetes risks are being disseminated to the nursing community.

Home

◀ ▶ go to PG.

COMMUNITY HEALTH

PUBLIC HEALTH NURSE INTERVENTION FOR IMPROVING COMPLETED RADON TESTING

Laura S. Larsson

MEASUREMENT OF NATURE IN OUTDOOR SPACES

Grace A. Kline, Barbara B. Cochrane

ENHANCING NEONATAL WELLNESS THROUGH MULTIPLE MOTHER BABY HOME VISITS

Carlo G. Parker, Lorna Sinclair, Genee Warmuskerken

Home ◀ ▶ go to PG.

COMMUNITY HEALTH

Public Health Nurse Intervention for Improving Completed Radon Testing

Laura S. Larsson, PhD, MPH, BSN
Assistant Professor
Robert Wood Johnson Nurse Faculty Scholar
College of Nursing
Montana State University
Bozeman, MT

Purposes/Aims: Test the efficacy of a telephone follow-up intervention for increasing the testing completion rate for radon program participants.

Rationale: Radon-related lung cancers claim 21,000 lives in the U.S. each year. The first step in risk-reduction is simply assessing the indoor environment through residential testing. Baseline evaluation of a county radon program showed that only 64.7% of people who purchased radon test kits returned them to the laboratory for analysis. Barriers to completing radon testing may be related to forgetting or due to the procedure for exposing the test. In either case a coaching call from a public health nurse was hypothesized to increase the rate of completed testing.

Method: In a survey format, participants were asked if they would like to be contacted about their radon results by a nurse. If they recorded a telephone number it indicated consent for contact and they were enrolled. After three weeks' time lapsed contact was initiated for participants with missing or unreadable results. Participants who did not answer their phone were left a detailed message for returning the call. The protocol permitted an initial call and message with up to two reminder calls before participants were considered lost to follow-up for this aim.

Results: Radon program participants (n = 97) requested telephone follow-up about their radon test results from the public health nurse about half the time (n = 45, 47.4%). The protocol was implemented properly for 43 (95.6%) participants. The completed testing rate for the overall sample is xx% and compares statistically to the pre-intervention completion rate (results of pre and post t-test inserted here. Data collection stopped September 31, 2012 so this analysis will be performed before the end of the year). The completed testing rate within the 45 who gave a phone number was/ was not statistically different than for those who did not request the call. Report that number here. Field notes by the intervention nurse indicated concerns about the correct season for test-kit exposure and correct placement away from windows and walls were the most commonly expressed.

Implications: Creating and implementing a nursing protocol to assist clients in completing their radon test is part of environmental competence in public health nursing. Exploring questions about test-kit placement at the time of purchase may be important in building radon self-efficacy for clients.

Funding: Robert Wood Johnson Foundation Nurse Faculty Scholars Program #68034.

Measurement of Nature in Outdoor Spaces

Grace A. Kline, PhC, MN, RN
Doctoral Student
School of Nursing
University of Washington
Seattle, WA

Barbara B. Cochrane, PhD, RN, FAAN
Associate Professor
School of Nursing
University of Washington
Seattle, WA

Aim: To determine inter-rater reliability in the measurement of multi-sensory nature in outdoor spaces using the Access to Nature Outdoor Evaluation Tool-Revised (ANOET-R).

Background: Nature in outdoor spaces, particularly nature that engages multiple senses, has been hypothesized to provide distraction from joint pain in older women with osteoarthritis (OA). The Pain of Osteoarthritis in Women: Environment Research (POWER) Study examined time spent in outdoor spaces with different levels (one higher and one lower) of multi-sensory nature. To determine the level of multi-sensory nature, these outdoor spaces were measured objectively using the Multi-sensory Nature (M-SN) Index, which is a dimension of the ANOET-R. M-SN Index scores were used in the POWER Study to guide selection of retirement communities (RCs) as study sites and describe the level of nature in outdoor spaces.

Methods: Potential RC study sites were screened for the availability of two or more outdoor spaces (e.g., courtyard) accessible to independent-living residents. After obtaining permission from the RC administrator, outdoor spaces were measured by one rater using the ANOET-R. The original ANOET (63 items) has 7 dimensions (8 to 11 items each); each item has a scoring range of 0 to 10.[1] The ANOET-R has14 new items that, together with 13 items from the original ANOET, comprise the M-SN Index. The M-SN Index was developed from the 'Contact with Nature' dimension of the original ANOET to more specifically measure access to different types of sensory stimuli (e.g. auditory, tactile) provided by nature. RCs with outdoor spaces that met study criteria were also measured by a second rater who had been trained in use of the ANOET-R. Inter-rater agreement of measurements was analyzed using intraclass correlation coefficients (ICC).

Results: Ten outdoor spaces (two at each of five RCs) were measured independently by the two raters. The ICC of the M-SN Index ratings was 0.50. For the overall score of the ANOET-R, the ICC of the ratings was 0.34. Similar inter-rater reliabilities were found for the 'Contact with Nature' dimension (ICC=0.54) and the original ANOET overall score (ICC=0.41). ANOET dimensions with higher inter-rater reliability were: 'Safety and Security' (ICC=0.84) and 'Freedom, Choice, Variety' (ICC=0.80).

Implications: There was not a high level of agreement between the two raters for the M-SN Index or ANOET-R (as indicated by ICCs < 0.75). Inter-rater reliability of scores for the original ANOET were lower in the POWER Study than in the original report of the ANOET (ICC=0.93).[1] The wide range of possible scores for each item (0 to 10) and small number of spaces measured (10) may have contributed to the lower ICC results in the current study. Further work is needed to establish reliable methods for measurement of the type and amount of nature in outdoor environments in order to study the effect of nature on OA pain.

Funding: This work was funded under NCRR Grant TL1 RR 025016 and supported by the Hester McLaws Nursing Scholarship Award.

Reference:
[1] Rodiek, S. (2008). A new tool for evaluating senior living environments. *Seniors Housing & Care Journal, 16*(1), 3-10.

Enhancing Neonatal Wellness through Multiple Mother Baby Home Visits

Carlo G. Parker, PhD, RN
Assistant Professor, School of Nursing
University of Northern Colorado
Greeley, CO

Lorna Sinclair, BA
Director
Maternal Child Outpatient Services
Martin Health Systems
Stuart, FL

Genee Warmuskerken, RN
Staff RN
Maternal Child Outpatient Services
Martin Health Systems
Stuart, FL

Purpose: The purpose of this study was to measure the effectiveness of home visits by RNs from Martin Health Systems Mother Baby Home Visitation Program (MBHVP) on neonatal wellness as measured by neonatal jaundice, newborn weight gain and the continuance of breastfeeding.

Background: Postpartum hospital length of stay (LOS) has been steadily reduced since the 1970s from eight to two or three days depending on delivery method. Newborn jaundice, newborn weight loss, and problems related to the establishment of effective breast feeding are three of the more common issues found in the immediate postpartum period. The most common cause for hospital readmission for neonates is jaundice. These potentially harmful, yet often preventable conditions typically occur following discharge from the hospital during the first week of life. The literature shows that women are often ill prepared for discharge from the hospital and have not received enough education while in the hospital to identify the signs of jaundice and problems with weight gain. In addition, the reduced LOS and educational support can have a negative impact on continuation of breast feeding.

Methods: Prior to discharge from the hospital an RN from the MBHVP visits the mother and newborn. An explanation of the program was given and informed consent obtained. The initial visit was planned one to three days following discharge depending on patient status. The visit included physical assessment of both the mother and newborn. The RNs provided education and intervention or promptly referred any issues to the appropriate healthcare provider. Based on the initial visit a second and possibly a third visit was scheduled. During the visits interventions and education were provided to help support continued breast feeding and to learn to identify normal vs. abnormal signs in their newborn relating to jaundice and weight gain/loss.

Outcomes: Mothers who participated in the MBHVP were contacted at 6 months after birth to determine if they were still breast feeding and to determine if the MBHVP program had assisted them in continuing to breast feed. All of the mothers contacted reported that the MBHVP did help them with breastfeeding. Overall 55.5% were still exclusively breast feeding at 6 months compared to the national rate of 16.3% reported by the CDC. Jaundice requiring readmission was identified in 0.99% of the newborns. This is comparable to the national readmission rate of 1%. However, the neonates in the MBHVP that were readmitted had an average LOS of one day vs. the national average of three days. No readmissions for weight loss occurred during the study.

Conclusions: The MBHVP is a novel way to support new moms to continue breast feeding and provide education about newborn wellness. The home visits allow the RNs to provide education in an environment more conducive to learning then the hospital prior to discharge. The visit also allows for the early identification and treatment of jaundice resulting in a reduced LOS if readmitted. This program offers a method to improve outcomes, reduce readmissions and support continued breast feeding.

CONCEPTS AND METHODS IN DIVERSE POPULATIONS

CONCEPT ANALYSIS: PERCEPTIONS OF HEALTH AMONG OLDER HISPANIC MALES

Evangeline M. Dowling

ACCESS TO CARE AS IT RELATES TO RACIAL/ETHNIC GROUPS: A CONCEPT ANALYSIS

Sharon K. Favazza

STIGMA IN AFRICAN AMERICAN WOMEN WITH MENTAL ILLNESS: CONCEPT ANALYSIS

LaShawn Horton

OBESOGENIC ENVIRONMENT: A CONCEPT ANALYSIS AND PEDIATRIC PERSPECTIVE

Kristine I. Gauthier, Marilyn J. Krajicek

USING CAUSAL MODELING TO PREDICT QUALITY OF CAREGIVING AMONG COMMUNITY-DWELLING ELDERLY IN TAIWAN

Chia-Yi Chiao, Chiu-Yueh Hsiao

AN AUTOETHNOGRAPHY OF THE DÍNÉ HÓZHÓJÍ HEALING CEREMONY

Michelle Kahn-John

Home
◀ ▶ go to PG.

Concept Analysis: Perceptions of Health among Older Hispanic Males

Evangeline M. Dowling, MSN, RN, Ed.
PhD Student
Arizona State University
College of Nursing and Health Innovation
Phoenix, AZ

Purpose: Cardiovascular disease is the number one cause of death in Hispanic males in the United States. In 2010, cardiovascular disease cost the United States $444 billion. Physical activity has the potential to slow the progression of cardiovascular disease, decrease costs associated with the disease, and improve quality of life among older Hispanic males. Despite the numerous benefits of physical activity, only 42% of Hispanics meet current physical activity guidelines. In addition, little attention has been given to understanding the social, cultural, environmental and gender specific factors that may influence physical activity behavior by older Hispanic males. The purpose of this presentation is to report results from a concept analysis of studies focused on health perceptions among older Hispanic males.

Definition of Concept: For this concept analysis, health was defined as a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity.

Concept Analysis Approach: Thirty-three research articles were selected for the analysis. Participants in these studies included Hispanic males, middle-aged and older, and males in general. Due to the limited number of studies which addressed older Hispanic male health perceptions, it was necessary to extrapolate data from studies which addressed overall Hispanic health perceptions. The analysis was conducted using Wilson's concept analysis procedure described in *Strategies for Theory Construction in Nursing* (Walker & Avant).

Concept Relevance to Nursing Practice Research: The U.S. Census Bureau estimates that approximately 52 million Hispanics live in the United States. Between 2000 and 2010 the Hispanic population increased 43%, which was four times the growth of the total population (10%). The older population is also a significant and increasing segment in the United States. Between 2000 and 2010, the population of residents ≥ 65 years increased at a faster rate (15.1 %) than the total United States population (9.7%). This decade also witnessed significant growth in the older male population. Considering the rapid growth of older Hispanic males, it is imperative to understand culturally important factors to help develop interventions designed to promote cardiovascular health among this underserved and vulnerable population.

Results/Conclusions: Examination of the literature revealed 11 outcomes directly relevant to the concept of health. These outcomes included virility, wellness, absence of illness, disease and pain, being active, practicing self-care, positive attitude with good mentality, socialization, masculinity, balance, and helping others. The concept of being healthy as perceived by this population included: being able to care for family, able to work, sturdy and strong, able to perform ADL's, and pain free. Future research with older Hispanic males should begin with the examination of cultural, social, environmental and gender correlates of health promotion and physical activity behaviors. This research has the potential to decrease health care costs related to heart disease by increasing the creation of tailored interventions to successfully enhance physical activity and decrease cardiovascular risk among older Hispanic males.

Home ◀ ▶ go to PG.

Access to Care as It Relates to Racial/Ethnic Groups: A Concept Analysis

Sharon K. Favazza, MSN, RN
PhD Nursing Student
University of Hawaii, Honolulu, HI
Assistant Professor, School of Nursing
Azusa Pacific University, Azusa, CA
sfavazza@apu.edu

Purpose: Although access to care is widely used in health care, a definition as it relates to racial/ethnic groups within the context of health disparities is lacking.

Definition of Concept: A*ccess to care* is complex and multifaceted, often limited to whether or not one has health insurance or whether an individual can identify a regular source of care. Yet, this concept does not fully express all the possible barriers to care.

Concept Analysis Approach: Walker and Avant (2005) concept analysis method was adopted to identify antecedents, attributes, and consequences of *access to care as it relates to racial/ethnic groups*. Model and borderline cases were described; 39 articles reviewed from CINAHL, PubMed, Cochrane, and government websites. *Situational events* and *lack of supportive services* were noted antecedents that must exist before this concept occurs. The four attributes identified: were: *financial support, health care provider support, community support,* and *individual structural support*. These attributes are relevant to the ever-increasing diversity of racial/ethnic groups in America; many of whom lack access to care. Fewer financial barriers, culturally sensitive health care providers, increased community resources, and greater individual ability were identified as positive consequences of access to care among racial/ethnic groups.

Linking Concept to Nursing Practice, Education, and Research: Nurses are in a pivotal position to facilitate access to care for these racial/ethnic groups. In facilitating access to care, nurses can actively use their understanding of diversity, cultural knowledge, and cultural competency skills.

It is critical for nurse educators to incorporate access to care as a key concept in their curriculum. Students can learn strategies related to the four attributes to foster access to care among these population groups.

These four attributes are significant in the conduct of nursing research to decrease health disparities. The result of this study can influence policies to increase access to care of racial/ethnic groups experiencing health disparities.

Conclusion: The concept of access to care is defined by the presence of four distinct support attributes: *financial support, health care provider support, community support,* and *individual structural support*. Also outlined are construction of cases and empirical referents that are significant in nursing practice, education, and research.

Home ◀ ▶ go to PG.

Stigma in African American Women with Mental Illness: Concept Analysis

LaShawn Horton, MSN, RN
Doctoral Student
School of Nursing
Oregon Health & Science University
Portland, OR

Purpose/Aims: This is a report of a principle-based concept analysis of stigma in the context of mental illness in African American women.

Definition of the Concept: For the purpose of this analysis, stigma is defined as a public display of negative attitudes and behaviors against a person with mental illness.

Concept Analysis Process: Principle-based concept analysis (Penrod & Hupcey, 2005) was used to analyze scientific conceptualizations of stigma, particularly regarding mental illness among African American women. Epistemological, pragmatic, linguistic, and logical aspects of the concept were analyzed. After review of the scientific literature, 25 English language articles were retrieved from Medline and CINAHL with the following key words: African American women, mental health, barriers to treatment, health knowledge, attitudes, practices, and stigma. These publications were assessed according to the four criteria and the assessments integrated to determine the current state of the science. Epistemologically, stigma was not explicitly defined across all the literature that was analyzed. In some but not all of the literature, stigma was vaguely defined and implied meanings were assumed. Pragmatically, despite the concept of stigma being relevant to the field of nursing, few articles reflected on the meaning of stigma in nursing and patient care. Stigma was consistently identified as a barrier to help seeking behaviors in the literature with attributes assigned such as shame and embarrassment. Linguistically, the attributes differed in the literature related to stigma, but stigma was consistently viewed as having a negative impact on African American women. However, because stigma was not clearly upheld epistemologically, theoretical boundaries were difficult to ascertain, a reflection of the logical principle.

Logic in Linking the Concept to Nursing Practice or Research Problem: Research is needed to explore and document the role of stigma as a treatment barrier for African American women suffering from mental illness. This analysis of the limited literature revealed that the concept of stigma toward mental illness in African American women relies heavily on implied meaning rather than explicit definitions limiting the conceptual clarity of this complicate phenomenon. Thus, although stigma is a relevant and valuable concept to the field of nursing, it requires further examination.

Conclusion: Conceptual clarity concerning stigma among African American women with mental illness is needed in order to address the growing health disparities for African American women with mental illness, and to develop and test individualized, culturally appropriated nursing interventions. There is very little knowledge surrounding this population and mental illness. A working definition for stigma in the context of mental illness in African American women needs further investigation in order to move toward greater understanding and usefulness in nursing praxis and science.

Home ◀ ▶ go to PG.

Obesogenic Environment: A Concept Analysis and Pediatric Perspective

Kristine I. Gauthier, MSN, MPH, PNP
Doctoral Student
College of Nursing
University of Colorado
Aurora, CO

Marilyn J. Krajicek, EdD, RN, FAAN
Professor
College of Nursing
University of Colorado
Aurora, CO

Purposes/Aims: Utilizing the method outlined by Walker and Avant, a concept analysis was conducted explicating the unique features of an obesogenic environment as it pertains to children.

Description/Definition of Theory/Concept: Three defining attributes were identified: physical placement of a child into a situation where abnormal weight gain may occur, characteristics of a child's environment that may influence abnormal weight gain, and a temporal aspect where the child has consistency of exposure that may contribute to abnormal weight gain. Antecedents include: food availability, limitations for physical activity, opportunities for food consumption, parental/caregiver actions/perceptions of child's weight status, and actions taken by the child. Consequences include: physical, social, developmental, and psychological issues. Relative to children, this concept analysis defines obesogenic environment as: "*instances where a child is placed into a situation, circumstance, or surrounding where there exists the opportunity to choose, engage in, or be influenced by internal or external structures that promote or result in an aggregate prevalence of elevated BMI percentile*."

Internal Consistency of the Theory/Concept: A model case would be an overweight child who lives at home, in an urban high-rise, with his mother, who is also overweight. The child attends fourth grade in a neighborhood school. Home life is very chaotic, the child's mother is a single parent who works full time, and as a result the child attends after school care, with few opportunities to play outside. Mealtime is disorganized with the family often eating high calorie, take-out foods. Breakfast is often easy to carry toaster pastries, eaten in the car on the way to school. The child often eats in front of the television and is encouraged to finish all of the food on his plate. The child is responsible for choosing his own lunch at school (and tends to choose french fries and sweetened fruit juices). Physical education at school occurs 2 days per week. After school care involves getting homework completed and playing computer games. Weekends are occupied watching television or playing video games. As the nearest playground is four blocks away, his mother rarely has time to take him, and does not feel safe letting him go by himself.

Logic Linking Theory/Concept to Practice/Research Problem: As obesity rates continue to rise within the pediatric population, accurate and appropriate nursing interventions are essential to combating this epidemic. Nurses are ideally situated to participate in efforts to address pediatric overweight and obesity. The definition developed in this concept analysis provides a much needed launching point from which nurses can develop future research endeavors, practice guidelines, and population and individual based interventions.

Conclusions, Including Utility of Theory/Concept: Children are in unique situations, ultimately placing them into obesogenic environments differently than adults. This concept analysis offers a refined definition of an obesogenic environment framed, highlighting the unique features relative to children. This definition can directly translate into a variety of implications across the spectrum of nursing practice, such as school nursing, public health nursing, primary care, and nurses involved with policy and health care systems.

Home ◀ ▶ go to PG.

Using Causal Modeling to Predict Quality of Caregiving among Community-Dwelling Elderly in Taiwan

Chia-Yi Chiao, PhD
Assistant Professor
College of Nursing
Chung-Shan Medical University
Taichung, Taiwan

Chiu-Yueh Hsiao, PhD
Associate Professor
College of Nursing
Chung-Shan Medical University
Taichung, Taiwan

Aims: The purpose of this in-progress theory testing study is to predict the factors that influence quality of caregiving in the older people in Taiwan.

Background: In 1991, Taiwan opened the labor market to foreign caregivers for the older people who needed long-term care. With the differences in language, culture, and lifestyle between foreign caregivers and older people in Taiwan, it is possible to cause some problem with caregiving. If we want to provide a better quality of care for the elderly who need long-term care in Taiwan, and further achieve a better quality of life, these questions will be worth to be explored.

Methods: Six hypotheses are proposed based on the proposed model. The specific hypotheses of this research are: (1) Elderly with a worse relationship with primary caregivers experience poor quality of care; (2) Elderly with higher level of functional impairment experience poor quality of care; (3) Elderly who are more depressed experience less social support; (4) Elderly with less social support experience poor quality of care; (5) Elderly who are more depressed experience poor quality of care; and (6) Social support mediates between depression and quality of care. To evaluate the hypotheses for this research, bivariate linear regression and multiple regression analyses will be used.

Implications: The findings will influence the public awareness of quality of care provided by foreign caregivers, as well as provide the foundational information to influence the policy makers of Taiwan to evaluate the foreign caregiver policy. Hope with this research, Taiwanese elderly will receive a better quality of care in the long-term care system, and thus achieve a better quality of life.

Funding: Grant Number: NSC 101-2314-B-040-014.

Home ◀ ▶ go to PG.

An Autoethnography of the Díné Hózhójí Healing Ceremony

Michelle Kahn-John, MSN
PhD Candidate
College of Nursing
University of Colorado
Aurora, CO

The **purpose** of this autoethnographic study is to describe the subjective experience of the Diné (Navajo) Hózhójí (Blessing Way) healing ceremony from the perspective of a Diné patient. There is scarce literature on the subjective interpretation of Native American healing ceremonies within health science literature therefore the **rationale** for the study is to highlight and expand scientific knowledge on Native American ceremonial healing experiences with Native American patients. Grbich (1999) describes autoethnography as a type of ethnography where the self and the subjective experience are centrally positioned culturally and theoretically. The patient is a member of the Diné Tribe therefore the description of her experience is situated within her culture. Serving both as the patient and the author in this autoethnography, the author will describe subjective biases as well as cultural and ethical concerns related to her interpretation of the study findings. A self-reflective written manuscript by the patient on the experience of the Hózhójí healing ceremony situated within the Diné culture is analyzed and presented. An ethnographic **methodology** is applied to guide this study. The patient wrote down subjective thoughts related to the experience of the Hózhójí. The investigator recorded field notes after the ceremony to capture information about the ceremony. Ethnographic analysis was applied to analyze and code the manuscript written by the patient. Emergent themes are identified and categorized. Emergent themes are presented to describe the healing ceremony. The identified attributes (spirituality, discipline, respect, relationship, thinking, reciprocity) of Diné Hózhó as identified in a concept analysis by Kahn-John (2010) are utilized as a framework to report the emergent themes of the autoethnographic findings. The summarized findings contribute to the further development of nursing knowledge and awareness on culture specific methods of healing. The development and implementation of culture specific nursing knowledge may enrich ways in which nursing education is delivered to nurses. Study findings will inform nurses and healthcare providers of the place and value and of Native American healing ceremonies as a means of attaining wellness for Native Americans. The **implications for nursing** practice include enrichment of nursing education and praxis, the development of specialized and culturally informed nursing care with the Native American patient population, and the contribution of groundwork for further scientific knowledge development through research in the areas of diversity and culture within nursing.

Keywords: Native American, American Indian, Indigenous, Diné, Navajo, Hózhó, Hózhójí, Native American Healing, Ceremony, Spirituality

Home

◀ ▶ go to PG.

Abstracts of Poster Presentations

DIVERSE CULTURES

CHARACTERISTICS OF HEART FAILURE (HF) PATIENTS ADMITTED TO A SINGLE HOSPITAL IN THAILAND

Pawilai Pitakwong, Glenda B. Kelman, Kathleen A. Kelly

MUSCLE RELAXATION TRAINING TO REDUCE STRESS OF MEDICAL NURSES AT A HOSPITAL, THAILAND

Pawilai Pitakwong

ACCULTURATION, ADHERENCE BEHAVIORS, AND BLOOD PRESSURE CONTROL AMONG ARAB AMERICANS

Ayman Tailakh, Lorraine S. Evangelista, Donald E. Morisky,
Janet C. Mentes, Nancy A. Pike, Linda R. Phillips

PARENT EDUCATION DISCHARGE INSTRUCTIONS (PEDI) PILOT STUDY – HYDERABAD, INDIA

Sandra Staveski, Reena Paul, Rosalind Conway,
Susan Kools, Linda Franck

PARENT EDUCATION AND DISCHARGE INSTRUCTION – THEMES FROM INDIA

Sandra Staveski, Rosalind Conway, Linda Franck, Susan Kools

THE LIVED EXPERIENCE OF TB FOR MEXICAN AMERICANS ALONG THE TEXAS-MEXICO BORDER

Julie Ann Zuñiga

PERCEPTION OF BONE HEALTH AND SCREENING BEHAVIOR AMONG KOREAN-AMERICAN WOMEN

Young-Shin Lee

CERVICAL CANCER SCREENING AMONG KOREAN-AMERICAN WOMEN

Angela Jun, Lois Howland, John S. Kim

BREAST CANCER SUBTYPES IN HISPANIC WOMEN

Kerryn W. Reding, Nancy Fugate Woods, Matthew (Mateo) P. Banegas, India Ornelas, Dorothy S. Lane, Jo L. Freudenheim, Andrea Z. LaCroix, Barbara Cochrane

---

PILOT STUDY OF A FAITH-BASED KOREAN PARENT TRAINING PROGRAM

Eunjung Kim, Kevin C. Cain, Doris Boutain, Sangho Kim, Jin-Joo Chun, Hyesang Im

---

BECOMING A MOTHER: COMPARISON OF BIRTH EXPERIENCES ACROSS CULTURES

Cheryl A. Corbett

SUCCESSFUL AGING IN HISPANIC ELDERS: A NARRATIVE INQUIRY

Julie Carr, Dawn M. Weiler, Don Winiecki

UNDERSTANDING A DEVELOPING COUNTRY GRASS ROOT PROBLEM OF NURSING: A SYSTEMS APPROACH

Nuhad Y. Dumit, Fadi El-Jardali, Mohamed Baydoun, Diana Jamal, Maha Jaafar

---

LIVING FOR THE CHILDREN: IMMIGRANT KOREAN SINGLE MOTHERS' RE-CREATION OF FAMILY

Seieun Oh

Home ◀ ▶ go to PG.

DIVERSE CULTURES

Characteristics of Heart Failure (HF) Patients Admitted to a Single Hospital in Thailand

Pawilai Pitakwong, MS, CNS, Queen Savang Vadhana Foundation, Thailand
Glenda B. Kelman, PhD, ACNP, BC, The Sage Colleges, Troy, NY
Kathleen A. Kelly, PhD, MPH, MS, FNP, The Sage Colleges, Troy, NY

The purposes of this quantitative study were to: 1) Identify the characteristics of Heart Failure (HF) patients in Thailand who were admitted to the hospital over a three year period of time; 2) Determine if there was a relationship between individual patient characteristics and 30 day readmission rates for HF patients in Thailand over a three year period of time and; 3) Determine if there was a relationship between length of hospital stay (LOS) and 30 day readmission rates for HF patients in Thailand over a three year period of time (January 1, 2008-December 31, 2010).

The target population included all adult HF patients hospitalized at Siriraj Hospital and entered into a database with a primary diagnosis of HF (ICD 9 code 428) upon discharge. Information on all HF hospital discharges was obtained from the Health Information Service (HIS). The initial database of HF patients admitted and discharged included 1,100 medical records. Of those records, 540 met the study criteria and comprised the final sample including: both male and female adults, aged 18 years and older with a primary discharge diagnosis of HF. A total of 24 variables were extracted from the HF database including patient demographics, initial LOS, 30 day readmission rates, and co-morbidities. Data was analyzed using Microsoft Excel and SPSS version 19. The first research question was analyzed using descriptive statistics. The second and third research questions were analyzed using Chi-square testing and logistic regression analyses. Confidentiality of the data was ensured by the researcher through the use of a coding sheet and case numbers were utilized instead of medical record numbers.

Results: *Research Question One* revealed that 70.7% of patients (n = 382) were ≥ 65 years. Males represented 58.2% (n = 314) of the sample, and the majority of patients were married 68.9% (n = 372). Most resided with their spouse and/or family 90.3% (n = 488), while less than 10% reported living alone. The most common health insurance type reported was Universal Coverage (UC) 49.3% (n = 266). The mean hospital LOS was 10.4 days. The hospital readmission rate was 19% (n = 103). Myocardial Infarction (MI) was the most common comorbidity 24.8% (n = 134). *Research Question Two* revealed that HF patients 67 years and older (n = 103, $r = 99.8$, $p = .009$) and HF female patients ($\chi 2$ (1), n = 103) = 5.849, $p = .016$) were more likely to be readmitted with HF. In addition, HF patients with existing comorbidities had increased 30 day readmission rates that were significant ($\chi 2$ (24), n = 103) = -.085, $p = .048$). Patients receiving UC health insurance had an increased 30 day readmission rate that was also statistically significant ($\chi 2$ (3), n = 103) = 14.726, $p = .002$). Logistic regression analysis findings revealed that patient characteristics including females (OR = .597, 95%, $p = .019$), UC health insurance (OR = 3.312, 95%, $p = .001$), history of MI (OR = 4.302, 95%, $p = .004$) and essential HTN (OR = 2.963, 95%, $p = .039$) were significantly related to 30 day readmission rates. *Research Question Three* revealed no significant relationship between LOS and 30 day readmission rates for HF patients (n = 103, $r = 43.2$, $p = .773$).

Implication: Approximately 80% of HF patients were not readmitted to the hospital over the three-year period of time studied. However, women, individuals with a history of MI, and patients receiving UC health insurance were more likely to be re-hospitalized with HF. Study findings may provide a better understanding of strategies that need to be used in planning and developing more effective interventions to improve clinical outcomes among HF patients. These findings should also drive future research questions that further evaluate the relationship between the influence of gender, select comorbidities, and health insurance coverage upon re-hospitalization in the HF population.

Suggested Keywords: Characteristics of Heart Failure (HF) Patients, Thailand.

Muscle Relaxation Training to Reduce Stress of Medical Nurses at a Hospital, Thailand

Pawilai Pitakwong, MS, CNS
Queen Savang Vadhana Foundation
Thailand

Background: To promote, prevent, cure and rehabilitate patients' health require attention from several medical professionals e.g. physicians, nurses, social-welfare officers and so forth. They have specific individual duties. Things that can occur to them are stress, tiredness, and fatigue from work and the health-care system. Nurse is the one who works very closest to the patients and provided 24-hour care with 8 hours a shift, 3 shifts a day–morning, afternoon and night**.** The stress affected to the nurses' work performance lead to the negative perspective of career, ignore the patient and fatigued in working. Addressed the fact that registered nurses demonstrated high mean scores of tiredness, decreased self-esteem and the decline of personal success. Hence, the stress barred nurses from understanding well the actual problems of patients causing low self-satisfaction in their work and low quality of work. Progressive muscle relaxation technique is a practical method controlling muscles in each part of the body regarding to the supervision without any equipment. It would be a self-practice and have no complication and no required many staffs. As those qualifications, the researcher is interested in the utilization of relaxation technique for all nurses since it is ease to use and can be self-practice promoting the effective performance of and positive effect to patients.

Purpose: The purpose of this study was to determine the extent to which progressive muscular relaxation training can facilitate reduction in the stress experienced by medical nurses at Siriraj Hospital, Thailand.

Methods: A longitudinal experimental design was used to explore the efficacy of progressive muscular relaxation reducing the stress level of medical nurses. Subjects were randomly assigned to one of two treatments: progressive muscular relaxation using audio recorded instructions and a live instructor (Arm A) or progressive muscular relaxation by using audio recorded instructions and a handbook (Arm B). Subjects in each group participated in two session of progressive muscular relaxation sessions per week for four weeks, either with the live instructor or using their handbook. All subjects were pre-, post-, and follow-up post-tested for stress with the Stress Measurement Model of Dougan and others.

Results: Thirty internal medicine nurses at Siriraj Hospital, Thailand participated in the study. The nurses who practiced progressive muscular relaxation using audio recorded instructions and the live instructor demonstrated statistically significant decrease in the stress levels after the intervention ($p<0.01$) and continued to decrease significantly after 8 weeks ($p<0.01$). In addition, Arm A showed statistically significant decrease in stress levels when compare to Arm B ($p<0.01$) immediately after the intervention. Arm B showed some decrease in the stress level immediately after the intervention and at the 8-week follow-up, however these were not statistically significant.

Conclusion: The study finding revealed strong, preliminary evidence that progressive muscle relaxation training by audio-recoded instructions and with a live instructor was an effective method for reducing the stress level in medical nurses at Siriraj Hospital, Thailand. Stress reduction is likely to have a beneficial effect for the medical nurses themselves, and the quality of patient care they deliver. Larger studies are essential to confirm the findings of this pilot study.

Keywords: Muscle Relaxation Technique, Stress Nurse and StressBottom of Form

Home ◀ ▶ go to PG.

Acculturation, Adherence Behaviors, and Blood Pressure Control among Arab Americans

Ayman Tailakh, PhD, RN
Assistant Professor
College of Nursing
Sultan Qaboos University
Muscat, Oman

Lorraine S. Evangelista, PhD, RN, FAAN
Associate Professor
Program of Nursing Science
University of California, Irvine, CA

Donald E. Morisky, ScD, MSPH, ScM
Professor
School of Public Health
University of California, Los Angeles, CA

Janet C. Mentes, PhD, APRN, BC, FGSA
Associate Professor
School of Nursing
University of California, Los Angeles, CA

Nancy A. Pike, PhD, RN, FAHA
Assistant Professor
School of Nursing
University of California, Los Angeles, CA

Linda R. Phillips, PhD, RN, FAAN
Professor
School of Nursing
University of California, Los Angeles, CA

Background: Control of hypertension (HTN) is critical, as risk of cardiovascular disease doubles for each 20 mm Hg increase in systolic blood pressure (BP) or 10 mm Hg increase in diastolic BP above normal. Lack of medication adherence or healthy lifestyle behaviors may contribute to low HTN control rates.
Objective: This study was designed to examine the relationship between acculturation, medication adherence, lifestyle behaviors (e.g. physical activity, nutrition, weight control), and BP control among hypertensive Arab Americans.
Methods: One hundred twenty six participants completed self-administered questionnaires and had measures of BP, weight, and height. Forty six participants were hypertensive and were included in the analysis.
Results: Among those who reported taking antihypertensive medications (n = 24), only 29.2% participants reported high medication adherence on the Morisky Medication Adherence Scale, compared to 25% and 45.5% participants who reported medium and low adherence, respectively. High medication adherence was associated with lower diastolic BP levels, being male, eating a healthy diet, and following recommended lifestyle modifications. Being more oriented to the American mainstream culture was also significantly associated with physical activity and higher body mass index.
Conclusion: Our study found that more oriented participants to the American mainstream culture were more adherent to antihypertensive medications and physical activity and had better BP control compared to more oriented participants to Arabic culture. Thus, further studies are needed to explore how acculturation improves adherence and what factors contribute to adherence to treatment and lifestyle modifications in order to design culturally sensitive self-care management interventions to improve medication adherence and BP control in this population.

Home
◀ ▶ go to PG.

Parent Education Discharge Instructions (PEDI) Pilot Study – Hyderabad, India

Sandra Staveski, Reena Paul, Rosalind Conway, Susan Kools, Linda Franck

Background/Hypothesis: Everyday nurses worldwide assist patients and families in the transition from hospital to home. Currently in economically developing countries, children with complex cardiac defects are receiving treatment for their chronic illness and are requiring more expanded parent education programs to manage care after discharge. The aim of this study was to test the feasibility of training Indian nurses to conduct parent discharge teaching. The study team developed a sustainable computer-based nurse training, the PEDI Program, to increase nurses' knowledge and support role expansion. Our secondary goal was to validate culturally relevant training materials for parents and nurses.

Methods/Materials: Institutional review board and ethics committee approvals were obtained. This investigation used a pre/post study design to evaluate user satisfaction, nurses' knowledge of discharge teaching content, and documentation of discharge teaching conducted with parents. After nurse training throughout a tertiary Indian pediatric heart hospital, individualized and group parent teaching post-operative training sessions were implemented on the ward. Convenience samples of 40 nurses, 25 parents, and 25 patient charts were obtained pre- and six months post-implementation of the PEDI program. Focus testing of parents and nurses and retrospective patient chart audits were performed.

Results: There was a 15-point increase in nurses' discharge knowledge, from a mean of 80.6% to 95.7% ($p = 0.0005$) after participation in the training. Nurses' and parents' reported high levels of satisfaction with the parent education materials (3.75-4 on 4 point scale). Evidence of discharge teaching in patient medical records improved from 60% (15/25 charts) to 96% (24/25 charts) after implementation of PEDI program.

Conclusions: Nurses can play an integral role in educating parents about postoperative care at home for children with complex cardiac defects. Future studies are needed to examine nurse-, child-, parent- and organizational outcomes related to this expanded nursing role in developing countries.

Home ◀ ▶ go to PG.

Parent Education and Discharge Instruction – Themes from India

Sandra Staveski, Rosalind Conway, Linda Franck, Susan Kools

Background: Discharge teaching has been associated with improved patient and family satisfaction and earlier recognition and treatment of complications. Traditionally, in developing countries physicians give orders and nurses carry out those orders. The role of patient and family discharge teaching is not typically within nurses' scope of practice. We hypothesized that Indian nurses effectively can expand their role to include discharge teaching for parents after a child's cardiac surgery.

Methods: Study participants were recruited from a tertiary pediatric heart hospital in India. Pediatric cardiac nurses and parents of children undergoing cardiac surgery were eligible to participate in the qualitative aspect of this mixed-methods study. Study participant interviews were conducted by the PI with assistance from a trained Indian interpreter and translated into English. Methodological and conceptual memos were developed and a multi-phase analysis occurred. The research team read the text and open-coded data according to themes. The thematic analysis included a group discussion for salient themes among several researchers and coding by two separate researchers. Salient themes were integrated into higher-order categories and given conceptual labels. The meanings of these categories were interpreted and validated by data illustration.

Results: Three themes were generated from the study and included role expansion, agency, and easing recovery for nurses and parents. Nurses and parents reported taking an active role in contrast to their previous passive role during a child's transition to discharge. This active role was described as satisfying to nurses and parents alike.

Conclusions: Parent teaching offers an opportunity for nurses to help parents care for their sick children.

The Lived Experience of TB for Mexican Americans along the Texas-Mexico Border

Julie Ann Zuñiga, MSN, RN
Assistant Instructor of Clinical Nursing/Doctoral Candidate
The School of Nursing
The University of Texas at Austin
Austin, TX

Purpose: The purpose of this poster is to describe the lived experience of Mexican Americans with tuberculosis (TB) living on the Texas-Mexico border.

Background: TB continues to be a significant health problem along the US-Mexico border where the incidence is 10 times the rate of the US as a whole. The migratory flow from a region of high TB to an area of lower TB rate may explain the higher rate. Additionally, this area is plagued by antibiotic resistant TB at a rate that is 70% higher among those living along the border than among non-border residents. Both the high rate of TB in the area and the recent emergence of drug resistant TB increase the importance of controlling TB along the US Mexico border.

Methods: This is qualitative research study uses phenomenology. A purposeful sample was recruited through county TB clinics in four south Texas border counties. Fifteen interviews conducted to date in the participants preferred language were audio recorded and transcribed verbatim. Data analysis consists of line-by-line coding, labeling, organizing, and discovering an over arching theme to describe participants' lived experience of TB and TB treatment.

Findings: To date, the participants include 5 women, 10 men. All of the participants spoke Spanish or were bilingual; 2 interviews were held in English. Ages ranged from 22 – 76 years. Three participants were being treated for a second time. Two participants had family members die of TB. About half of the participants stated they had diabetes or were in renal failure. Participants described weight loss as the most common symptom of TB, many said they didn't have a cough or the cough was not what drove them to seek medical care. Preliminary themes of isolation, sadness, misinformation, and stigma were discovered.

Implications: This study sheds a light on what can be a difficult and shameful process for patients with TB. Nurses can do more to help address misinformation that may increase the burden of the disease to the patient and their families. More research about symptom management and health seeking behaviors is needed in order for health care workers to better understand the patient with diabetes and a TB diagnosis.

Funding: Grant provided by Sigma Theta Tau International – Doris Block Grant.

Home ◀ ▶ go to PG.

Perception of Bone Health and Screening Behavior among Korean-American Women

Young-Shin Lee, PhD, RN
Associate Professor
School of Nursing
San Diego State University
San Diego, CA

Due to the effects of aging, the bone health of women has become an increasingly important issue to prevent injury and fracture. In particular, Asian women's bone density has been reported to be lower than any other ethnic group. Awareness of one's own bone health is essential to take action to maintain adequate bone strength. In general, women in later life are unaware of the risks of osteoporosis that may result in serious injury and functional disability. There is minimal information about the awareness of bone health in minority populations.

Purpose of this study was to identify women's perceptions about bone health, advice from health care providers, and related behaviors across three (young, middle, and old) age groups.

Methods: A total of 63 Korean American women completed a survey including their own risks of osteoporosis, health care providers' advice, and care behaviors compared by age groups.

Findings: Among three age groups, the middle aged group showed the greatest awareness about risk of osteoporosis and specific behaviors (screening bone density, physical activity, and Calcium intake) to manage bone health than the young and old groups. Women in the old age group showed the lowest perception regarding their risk of osteoporosis than the other two groups, although their physical activity and calcium intake were close to the recommended levels. The findings show that health care provider' recommendation regarding screening bone health was taught to less than one third of participants, while half of them conducted bone screening in middle-age and old groups.

Conclusion: Awareness of bone health was not consistent with preventive behaviors. The older age group needs to be educated about the risk of bone health and benefits of health behaviors specific to the disease.

Funding: This research study was supported by the San Diego State University Grant Program (SDSURF#242381).

Home ◀ ▶ go to PG.

DIVERSE CULTURES

Cervical Cancer Screening among Korean-American Women

Angela Jun, MSN, ARNP-C
DNP Student, Hahn School of Nursing,
University of San Diego
San Diego, CA
juna@sandiego.edu

Lois Howland, DrPH
Professor, Hahn School of Nursing
University of San Diego
San Diego, CA

John S. Kim, MD
Clinical Mentor
Cerritos Medical Center
Cerritos, CA

Background: Cervical cancer is a treatable disease; it is one of the most significant health problems among Asian-Americans, especially Korean-Americans. According to the California Cancer Registry, the age-adjusted cervical cancer incidence rate for Korean-Americans was 11.4 per 100.000 (2002). The mortality rate for cervical cancer for Korean-Americans was 3.0 per 100,000, which is also higher than that of non-Hispanic Whites (2.0 per 100,000). Despite the high incidence and mortality rates of cervical cancer in Asian-Americans, and especially in Korean-Americans, utilization of the Pap smear test lags behind (HHS Health Indicators Warehouse, 2008; Kagawa-Singer, et al., 2007). In fact, Asian-Americans have the lowest screening rate (71.5 %) compared to other ethnic minorities: 86.1 percent, 81.3 percent, and 82 percent for African-Americans, Hispanics or Latinos, and Native Indians or Alaska Natives, respectively. This screening rate for Asian-Americans is well below the outlined goal of *Healthy People 2020* (93 %) and that for the general U.S. population. (84.5 %) (U.S. Department of Human and Health Services, 2012) Specifically, 32.1 out of 100,000 Korean-Americans had never had the Pap smear test or had not tested within past 12 months between 2000 and 2002. This proportion is the highest among Asian/Pacific Islanders followed by Vietnamese (30.2 per 100,000). This is similar to data for the primary care setting where first author works. The result of small telephone survey in May 2012 was even lower than the national data for cervical cancer screening rates (56% vs. 71.5%). Intervention is both appropriate and necessary.

Aim/Purpose of the Project: Literature review shows that interventions that target patients' knowledge coupled with practical help to access health care is most effective in promoting cervical cancer screening among ethnic minority women. This practical help is called a navigation service in the most of studies. Therefore, the aims of the project were to improve patients' knowledge of cervical cancer and screening and improve cervical cancer screening rates using an intervention that combined an educational DVD and handout materials in Korean and a navigation service.

Design and Method: The project used a quasi-experimental design. Utilization rates for cervical cancer screening among Korean-Americans who received the intervention of the project were measured before and 2 months after intervention. Knowledge of cervical cancer and cervical cancer screening were measured before and immediately after intervention. The intervention consisted of three parts: (a) individual and/or independent education via a DVD and handouts, (b) a navigation service including referral to low-cost/ free medical clinics and language services, (c) low-cost well-woman checks at the clinic for patients unwilling to access screening services in other locations.

Results and Outcomes: In progress.

Implications and Conclusions: To be determined following review and analysis of results. It is expected that this evidence-based intervention will increase knowledge and cervical screening rates among Korean-American clients.

Home ◀ ▶ go to PG.

Breast Cancer Subtypes in Hispanic Women

Kerryn W. Reding, PhD, MPH
Assistant Professor
Biobehavioral Nursing and Health Systems
University of Washington
Seattle, WA

Nancy Fugate Woods, PhD, RN, FAAN
Professor
Biobehavioral Nursing
University of Washington
Seattle, WA

Matthew (Mateo) P. Banegas, PhD, MPH
Cancer Prevention Fellow
Cancer Prevention
National Cancer Institute
Bethesda, MD

India Ornelas, PhD
Assistant Professor
Health Services
University of Washington
Seattle, WA

Dorothy S. Lane, MD, MPH
Associate Dean for Continuing
Medical Education
Preventive Medicine
Stony Brook University School of Medicine
Stony Brook, NY

Jo L. Freudenheim, PhD
UB Distinguished Professor and Chair
Department of Social
and Preventive Medicine
University of Buffalo
Buffalo, NY

Andrea Z. LaCroix, PhD, RN
Full Member
Public Health Sciences
Fred Hutchinson Cancer Research Center
Seattle, WA

Barbara Cochrane, PhD, RN, FAAN
Associate Professor
Family and Child Nursing
University of Washington
School of Nursing
Seattle, WA

Purpose: While Hispanic women are at lower risk of breast cancer (BC) overall compared to non-Hispanic White (NHW) women, SEER data indicate a higher proportion of BC in Hispanic women are advanced stage and ER-negative/PR-negative compared to NHW women.

Objective: To compare rates of BC subtypes among Hispanic and NHW women within the Women's Health Initiative (WHI).

Methods: Women were followed prospectively within the clinical trial and observational study. BC risk for Hispanic compared with NHW women was estimated using cox proportional hazards models over a mean follow-up of 11.1 years (with 175 and 6,675 BC cases, respectively).

Results: Hispanic women had an age-adjusted lower rate of BC (Rate Ratio [RR]= 0.6; 95% Confidence Interval [CI]: 0.5-0.7). However, this was attenuated after adjusting for BC risk factors, including BC family history, age at first birth, BMI, education, physical activity, hormone use, alcohol use, smoking status, and mammography (RR=0.9; 95% CI: 0.7-1.2). Similarly, Hispanic women had a lower rate of developing many subtypes of BC compared to NHW women (RR= 0.7; 95% CI: 0.5-0.9 for advanced stage; moderate/poor grade; size $\geq$ 2cm; or node-positive) but not ER-negative/PR-negative BC (RR=0.8; 95%CI: 0.5-1.1). When adjusted for BC risk factors, the rate of BC subtypes was similar in Hispanic and NHW women.

Discussion: Our data indicate that Hispanic women had a lower rate of BC overall and of many BC subtypes. However, our data indicate the importance of taking into account BC risk factors as the rate differences diminished after adjustment for risk factors.

Pilot Study of a Faith-Based Korean Parent Training Program

Eunjung Kim, PhD, ARNP
Associate Professor
University of Washington
Seattle, WA

Kevin C. Cain, PhD
Biostatistician
University of Washington
Seattle, WA

Doris Boutain, PhD
Associate Professor
University of Washington
Seattle, WA

Sangho Kim, PhD
Pillsbury College & Seminary
Seattle, WA

Jin-Joo Chun, BA
Community Research Associate
University of Washington
Seattle, WA

Hyesang Im
University of Washington
Seattle, WA

Background: Parent training programs deliver focused-short term interventions aimed at helping parents improve their relationships with their children, and preventing or treating a range of childhood mental health issues.
Purpose: The purpose of this study was to pilot-test the effect of the Korean Parent Training Program among Korean American mothers. This culturally and linguistically appropriate curriculum focuses on parenting factors related to children's mental health problems such as parental warmth-rejection, effective discipline strategies, intergenerational acculturation conflicts, and emotional coaching that incorporates Christian faith principles into its curriculum.
Methods: A group randomized controlled experimental study design was used. Forty-six Korean American mothers of young children (3-8 years old) were assigned to intervention (n = 25) and waiting-control (n = 21) groups using group randomization. Both groups received a 12-week parenting program, followed by 3 monthly booster sessions, first intervention groups and then waiting-control groups. Self-reports and videotaping data were gathered from mothers, children, and children's Sunday School teachers at pre-, post-, and 3-month follow-up intervals.
Results: Intervention mothers increased effective discipline, parental warmth, emotion coaching, and self-efficacy, while decreasing parental rejection and harsh discipline. Observational data (i.e. videotapes) showed that intervention group mothers increased use of positive interaction and praise more than control group mothers. According to reports from mothers and Sunday School teachers, intervention group children decreased psychosocial problem as compared with control group children. Intervention group children self-reported less intergenerational acculturation conflicts with their mothers as compared with control group children. All significant treatment effects were maintained at 3-month follow up except mother's report of emotion coaching, teacher's report of child psychosocial problems, child report of intergenerational acculturation conflict, and videotaped data of mothers' positive interaction with child.
Implications: Providing this program appears to be a promising way of promoting parental warmth and positive discipline among Korean -American mothers.

Funding: This paper was supported by NIH NIMHD R21 MD005932 given to the first author.

Home ◀ ▶ go to PG.

Becoming a Mother: Comparison of Birth Experiences across Cultures

Cheryl A. Corbett, APRN, MSN, NP-C
Assistant Professor
College of Nursing
Brigham Young University
Provo, UT

Purpose: The purpose of this presentation will be to explore the perceptions of giving birth between Ecuadorian and East Indian women. Similar and contrasting themes will be examined and presented.

Background: Bearing children is an important sociocultural aspect in many cultures. The pregnancy and childbearing year are often accompanied by significant cultural celebrations and traditions that mark this important event in the life of a young woman. The transition to motherhood is often evidenced by physical, social and emotional changes.

Methods: Data have been gathered on 22 East Indian women regarding their pregnancy and childbirth experiences. Data have also been obtained from 25 Ecuadorian women that had recently given birth. The themes from these various interviews will be compared and contrasted to explore the similarity and diversity found in giving birth in these cultures.

Implications: An increasing emphasis is placed on nurses to be more culturally competent in their care of patients from diverse backgrounds. A culturally competent nurse understands the importance of social and cultural influences on women's health beliefs and practices. Interventions can be developed to assure quality health care delivery to diverse populations of women. Learning more about the meaning of childbirth in other cultures will increase nursing knowledge and promote culture competency.

References:
Corbett, C., & Callister, L.C. (2012). Giving Birth: The voices of women in Tamil Nadu, India. MCN: The American Journal of Maternal Child Nursing. 37(5), 2-9.

Callister, L.C., Corbett, C., Reed, S., Tomao, C., & Thornton, K. (2010). Giving Birth: The voices of Ecuadorian women. The Journal of Perinatal & Neonatal Nursing, 24(2), 146-154.

Home

◀ ▶ go to PG.

Successful Aging in Hispanic Elders: A Narrative Inquiry

Julie Carr, BS, RN
Graduate Student
School of Nursing
Boise State University
Boise, ID

Dawn M. Weiler, PhD, APRN-ANP
Associate Professor
School of Nursing
Boise State University
Boise, ID

Don Winiecki, EdD, PhD
Professor
Department of Instructional
& Performance Technology
Boise State University
Boise, ID

Purpose: The purpose of this narrative study is to describe and provide an understanding, from the cultural perspective of the Hispanic elderly, the unique cultural factors that are associated with successful aging in the elder Hispanic population.
Background: The number of aging Hispanic Americans is on the rise. The Center for Disease Control recently released data showing the life expectancy for the Hispanic population is 80.6 years a 2.5 year advantage over the non-Hispanic white population and 7.7 years over the non-Hispanic black population. With longer life spans resulting in an increased number of Hispanic elderly, there is a need for more research into ways to assure quality of life and promote successful aging.
Methods: The research design used was narrative inquiry as seen through the Story Theory lens, to explore the cultural significance of the Hispanic elders' stories related to successful aging. Data was analyzed using both an inductive and deductive process. Inductive themes from the narratives of the elderly as well as deductive themes from the successful aging literature were identified. The etic (what is written in the literature about the Hispanic culture and successful aging), was compared with the emic (the stories from the Hispanic elders about life and aging), and was brought back full circle to a new etic (the conceptual model) derived by analytic induction.
Results: A purposive sample of four participants (n=4) was recruited to be interviewed for this study. The stories of the elderly Hispanics underscore the importance of their social support networks, in particular family (including peer and professional others) and faith communities. It is through the connections that these individuals have with family and faith that they are able to consider themselves to age successfully. A conceptual-network was developed through analytic induction; four interrelated concepts associated with what is needed to successfully age were derived. These are: (a) the ability to find personal peace, (b) the ability to practice self-discipline, (c) the ability to accept things that you cannot control, and (d) the ability to see yourself as a valuable individual.
Implications: The findings from this study provide nurses with knowledge that they can use to promote culturally congruent successful aging. Culturally sensitive nurses can enhance the wellbeing and satisfaction of this population by trying to maintain the conceptual-network as a unit and allow the patient to decide what is most important for them. This is in line with the goal from *Healthy People 2020* to assess how health status affects quality of life and how a positive outlook and satisfaction can bring a sense of well-being. With the ever-increasing numbers of the aging Hispanic population promoting health and successful aging will become more and more important.

Home ◀ ▶ go to PG.

Understanding a Developing Country Grass Root Problem of Nursing: A Systems Approach

Nuhad Y. Dumit
Fadi El-Jardali, Mohamed Baydoun, Diana Jamal, Maha Jaafar

Developing countries that are seeking greater efficiency in their health care system are faced with financial and political crises that are impeding the progression of any reform initiatives including those regulating and addressing nursing workforce issues.

The **purpose** of this study was to explore and understand grass root problems of nursing in Lebanon particularly in remote and underserved areas.

The **method** was a qualitative inquiry utilizing in depth interviews. Two data sources were utilized to meet the study objectives, namely 34 key informants specifically leaders of government and healthcare officials, professional organizations, recruitment agencies and nursing schools; and 11 nursing directors from underserved remote areas. All interviews were digitally audio-recorded after obtaining consent from participants. The five-stage ‘framework approach’ was employed for analysis.

Findings: the qualitative analysis yielded five themes related to system problems. These are: System problems in employing healthcare providers including nurses; in controlling quality of nursing education; in providing continuing education for nurses in remote underserved areas; in updating nursing practice laws and creating policies to regulate the profession; and in giving license for new nursing programs and new hospitals and services.

In conclusion, the nursing workforce in remote underserved areas is faced with complexities related to failure of the health and education authorities to address its problems from a system’s perspective.

Implications for nurses and nursing is that professional nursing societies need to have a stronger role with the health and education authorities and regulators in examining policies, rules and regulations governing nursing education, practice, employment, and continuing nursing education provision.

Home ◀ ▶ go to PG.

Living for the Children: Immigrant Korean Single Mothers' Re-Creation of Family

Seieun Oh, MN, PhD
Department of Family and Child Nursing
University of Washington
Seattle, WA

Background: Although a vast amount of research has been conducted on single-mother families that demonstrate significant social and health disadvantages, to date there has been limited research on immigrant Korean single-mother families.

Purpose: This study used grounded theory methodology to examine the experiences of single immigrant Korean child-rearing women and to generate a substantive theory that explains the social processes of these women during their transitions after marital dissolution in the U.S.

Method: Grounded theory research methodology was used that involved in-depth interviews with 15 immigrant Korean single mothers who were living with their dependent children. A total of 21 transcripts of interviews provided data for analysis. Data collection was guided by theoretical sampling and concurrent constant comparative analysis of the transcribed data.

Results: The core construct in which immigrant Korean single mothers were engaged was *"Living for the children"*—the driving force by which these women worked through multiple transitions from their lives as married women to their new lives as single-mother families. The major task throughout the entire transition involved "re-creating their families". There were both practical and psychological transitions. The practical transitions involved three stages: assuring family survival, struggling between the father role and mother role, and doing their best as a mother. Psychological transitions involved becoming strong and settling in with a new supportive network. *Fighting with myself* and *Letting things out* were processes by which the single mothers redirected themselves toward positive thinking and released emotional and psychological burdens.

Discussion: Study results added to the literature by elaborating the women's emphasis on maternal identity; elaborated the nature, intensity, and duration of social stigma and prejudice against Korean single mothers; illustrated how stigma and prejudice were significant barriers to the women's transitions. Additionally, results illustrated the resilience-provoking nature of the women's transitions.

Implications for Practice: Early intervention for successful transitions related to both psychological and practical stability, including the necessity of creating a supportive environment in the community, are pertinent to assisting these families gain resilience and confidence in maintaining their newly created family environment.

Funding: This research was supported by the Hester McLaws Nursing Scholarship fund of the University of Washington, School of Nursing, GKNF-US: Korean American Nurse Scholarship and the Virginia and Prentice Bloedel Professorship fund.

Home ◀ ▶ go to PG.

EDUCATION

CHALLENGES IN THE TRANSLATION OF RESEARCH IN THE FINAL DNP PROJECT

Barbara J. Braband, Carol Craig

HEALTH AND HEALING INFORMING DNP PRACTICE AND SELF-CARE: SEVEN YEARS' EXPERIENCE

Joanne Warner, Joane T. Moceri, Susan B. Stillwell,
Pamela Potter, Mary Katherine Crabtree

GUIDED INQUIRY LEARNING IN NURSE IMMERSION COURSES: A PILOT PROJECT

Theresa Granger, Toni Vezeau, Christina Ung

POST BACCALAUREATE RN RESIDENCY PROGRAM: PATIENT SHADOWING EXPERIENCE

Lisa A. Jensen

POST BACCALAUREATE RN RESIDENCY PROGRAM

Lisa A. Jensen

MENTORING CLINICAL EDUCATORS TO IMPROVE FINANCIAL COMPETENCY

Angela D. O'Neal, Kathie Aduddell

A NEW MODEL FOR PRACTICE-ACADEMIC PARTNERSHIPS FOR THE SENIOR NURSING CLINICAL

Kathy Reavy, Karen Egli

INTERPERSONAL VIOLENCE PREVENTION HEALTH FAIR STUDENT PROJECT

Angelia Clark Trujillo, Elizabeth Campbell

Home ◀ ▶ go to PG.

NEW NURSES' HOPES AND EXPECTATIONS TRANSITIONING INTO NURSING PRACTICE

Linda Gwinn, Angie Marks, Renee Hoeksel

FACTORS INFLUENCING THE WORK LIFE OF DOCTORALLY EDUCATED NURSING FACULTY

Lori Candela, Antonio Gutierrez

INTEGRATING HYBRID LEARNING INTO AN RN TO BSN COMMUNITY HEALTH CLASS

Jill Mount

NURSE 2020: PERCEPTIONS OF THE FUTURE OF NURSING

Pauline Komnenich, Nickolaus Miehl

DEVELOPING FAMILY HEALTH HISTORY SKILLS FOR ADVANCED PRACTICE NURSING STUDENTS

Lauri A. Linder, Marsha Tadje

COMMUNITY-BASED RESEARCH: NURTURING THE CIRCLE OF EDUCATION, RESEARCH AND PRACTICE

Eileen Owen-Williams

DIVERSITY IN THE NURSING WORKFORCE: IMPROVING CARE FOR VULNERABLE POPULATIONS

Maria Elena Ruiz, Felicia Schanche Hodge

RELATIONAL AGGRESSION IN HEALTH PROFESSIONS STUDENTS

Louise Suit, Janet Houser, Lauren Burt,
Stephen Luckey, Allana Sucher, Daniel Roysden

NEW NP TRANSITION-TO-PRACTICE RESIDENCY IN A HMO SETTING

Debra Wallace

EVALUATION OF CLINICAL REASONING FOR SENIOR STUDENTS' CAPSTONE CLINICAL: A PILOT STUDY

Patricia Lazare, Kathy Reavy

PREPARING TODAY'S STUDENTS FOR TOMORROW'S BEDSIDE LEADERS

Lisa S. Zenoni, Gwendolyn M. Lindemann

AGEISM OF JAPANESE UNDERGRADUATE NURSING STUDENTS

Hiromi Hirata, Hiroko Yamada

NEW GRADUATE TRANSITION PROGRAM APPRAISAL: ARE WE BRIDGING THE GAP?

Karen LeDuc, Donnya Mogensen

NURSING STUDENTS' ATTITUDE AND BEHAVIORS RELATED TO INDIVIDUALS WITH SCHIZOPHRENIA

Glenise McKenzie, Stephanie Sideras, Joanne Noone, Mary Fey

EFFECTIVENESS OF A REFERENCE ACCURACY STRATEGY FOR FACULTY SCHOLARSHIP

Kirsten Speck, Barbara St. Pierre Schneider

COMPARISON OF OUTCOMES FOR NURSING STUDENTS WITH OR WITHOUT INTERVENTION

Vaneta Condon, Earline Miller, Iris Mamier, G. J. Zimmerman

NURSING STUDENTS' FIRST CLINICAL EXPERIENCE WITH DEATH: A PILOT STUDY

Laura Gilpin, Barbara Heise

BUILDING NURSING FACULTY TEAMS: USING A STRENGTH-FOCUSED APPROACH

Barbara Heise

Home ◀ ▶ go to PG.

Challenges in the Translation of Research in the Final DNP Project

Barbara J. Braband
Associate Professor
School of Nursing
University of Portland
Portland, OR

Carol Craig
Associate Dean
School of Nursing
University of Portland
Portland, OR

The AACN Essentials of Doctoral Education for Advanced Nursing Practice state that all Doctorate of Nursing Practice (DNP) programs should have students complete an application-oriented final project in a practice setting. At a private university in the western United States, faculty chose to implement a Practice Improvement Project (PIP) to accomplish this standard. The purpose of this presentation is to discuss the PIP parameters, challenges in the implementation of the PIP and an exploration of solutions to address these challenges. While this university uses a practice change project, the challenges and solutions can be utilized in many other types of application-oriented evidence-based projects. This information can benefit both faculty and students through the struggle to develop DNP projects as professional educators.

The parameters involved in the PIP have evolved since the program's inception. A pivotal component is that the project must involve changing the practice of advanced nurse practitioners. While there are many necessary changes that need attention in RN practice, faculty encourage the DNP students to focus on advanced practitioners as a way of learning and defining the role. The students do a literature search that provides support for their proposed change theory and methodology, including instrumentation. The project must involve data collection so that students learn how to manage data and demonstrate change outcomes. Finally, the PIP must be completed within one calendar year, but preferably within nine months.

The PIP process creates many challenges. Neither students nor agencies have much experience with practice change, and both groups tend to propose projects that either do not involve changing advanced nurse practice or that are too large to accomplish in the short time frame. Students sometimes do not wish to do a PIP that is in a different setting from their RN practice or from their intended future practice as a DNP. Finding projects that feel comfortable to students is difficult. It can be difficult to ignite a passion in students for practice change, and they have trouble embracing the PIP as learning a set of skills rather than as an augmentation for current or future practice.

Faculty continue to work with finding solutions for these challenges. Although it increases faculty workload, they have become deeply involved in site development for the PIP, as the quick timeline does not give students much opportunity to develop a site independently. Faculty developed an emphasis on letting students know that they are learning a set of change skills while deemphasizing the PIP as a student career option. Finally, faculty created a set of standard information materials that introduce the concept and scope of the PIP for our agencies. While faculty continue to develop this process, they have begun to create a manageable DNP project that meets standards and improves nursing practice.

Home ◀ ▶ go to PG.

Health and Healing Informing DNP Practice and Self-Care: Seven Years' Experience

Joanne Warner, PhD, RN, Dean, School of Nursing, University of Portland,
Portland, OR

Joane T. Moceri, PhD, RN, Associate Professor
Susan B. Stillwell, DNP, RN, ANEF, FAAN, Associate Professor
Pamela Potter, DNSc, RN, CNS, Assistant Professor
Mary Katherine Crabtree, PhD, FAAN, Associate Dean for Graduate Programs

This presentation describes a 7-year project involving collective and sustained activities to design, implement, and refine an integrative health (IH) component in a DNP program for NPs. The **purpose** was to translate evidence on IH approaches used by clients and their desire for relationship-centered care into an educational program that optimally prepares DNPs to meet these societal needs. This innovative curriculum approach demonstrates best practice using evidence to create a sustainable IH approach responsive to client needs.

Background: A vast majority of consumers blend allopathic/conventional health care with alternative treatment methods without understanding how each affects the other, and without the oversight of health providers. The primary client desire is for health care that views them as a whole person, and that supports healing within a caring relationship of trust and mutual respect. These characteristics have implications for the design of a DNP program that is set apart by the education of NPs who sustain their own health through intentional self-care. Together these components inspired the design of this DNP program.

Approach: The chronology of DNP program development from 2005 to today demonstrates the intentional steps to build faculty consensus; sustain an institutional culture that prepares faculty and preceptors to 'be integrative health', not just 'do integrative health.' Promotion of health perspectives through operationalizing the IH philosophy into courses and clinical applications were essential. Navigating the politics of differing perspectives while considering feedback from stakeholders refreshes the values within our integrative health philosophy. We translated evidence into practice as we taught, modeled, and continually refined the content and philosophy. Data supporting our approach included ongoing literature reviews, consultations with IH education experts and IH practitioner networking.

Outcomes: Five required courses engage the learner in IH content*: Concepts of Health and Healing, Mind Body Connections, Approaches to Care, Nutritional Therapy,* and *Botanical Medicine*. An IH perspective is foundational in all practice management courses. Two cohorts have completed the program and have demonstrated how it has changed their practice as nurse practitioners. The educational culture enlivened by the transformative power of IH in teaching, healing, and self-care is thriving and attracts students to the program.

Implications for Clinical or Educational Practice: The shape and emphases of educational programs are best grounded in societal need. Attention to sustainability is warranted for greatest impact. Self-care of nurses (faculty, students, graduates) is valued. As one DNP student shared: "I have accepted a sacred responsibility to ensure my own wholeness, so that I am fit to guide others toward finding their wholeness."

Recommendations: Evaluation of student outcomes and graduates' DNP practices inform future program improvements. Sharing our IH approach may inspire others toward sustainable innovation in meeting societal needs. Lessons related to challenges and benefits provide invaluable insights informing others' practices.

Significance of Project for Discipline and Nursing Practice: IH is fundamentally nursing. Taking ownership of this vital aspect of our healing discipline will poise us to collaborate with our healthcare colleagues to deliver the holistic care our clients deserve.

Home

◀ ▶ go to PG.

Guided Inquiry Learning in Nurse Immersion Courses: A Pilot Project

Theresa Granger, PhD, MN, FNP, NP-C
Assistant Professor
College of Nursing
Seattle University
Seattle, WA

Toni Vezeau, PhD, RNC
Associate Professor
College of Nursing
Seattle University
Seattle, WA

Christina Ung, RN
Graduate FNP Student
College of Nursing
Seattle University
Seattle, WA

Purposes: The specific aims of this project were to (a) study guided inquiry learning in a first quarter advanced practice nursing immersion course and (b) better understand the back-to-school transition process that is unique to nurse immersion students. The primary research question asked was, "How does the implementation of the guided inquiry learning strategy in a foundational concepts and skills for nursing class designed for APNI students affect student learning and contribute to assimilating material from theory to the clinical setting?"

Background: Nurse immersion students have needs that differ from undergraduate students attending traditional BSN programs. Pedagogical approaches that are effective at the undergraduate level may not be effective for nurse immersion students. An unstructured curriculum can be a significant student stressor and add to program ineffectiveness. Although nurse immersion students are capable of assimilating information at a faster rate than traditional undergraduate students, faculty have the responsibility of linking key concepts in a way that allows for exploration and application of concepts.

Methods: An in-class questionnaire (N = 56 total students) was distributed to advanced practice nurse immersion students having participated in and successfully completed a first quarter pre-licensure course. In addition, a focus group of students from the same class self-selecting to participate (n = 9) provided the opportunity for more in-depth questioning.

Results: Many of the first quarter nurse immersion students completing the questionnaire felt that the concept based, active learning approach made it easier to absorb large amounts of information. Many also felt that this guided inquiry learning method was a less stressful and more effective way to learn. Other students felt empowered and respected as adult learners through this process. Some students preferred being given a list of facts to memorize, rather than being presented with major concepts to explore. The faculty created assignments and worksheets were seen as more effective learning tools than the assignments given directly from the textbook. Finally, quickly building camaraderie among the cohort was a major advantage of this learning method.

Implications: The guided inquiry learning has the potential to be an effective pedagogical strategy in nurse immersion courses. Through this study, many needs were identified. Currently, there are no nursing textbooks or resources incorporating this method. The development and testing of learning materials and resources are greatly needed. Guided inquiry learning at the nurse immersion level requires further development and study. Faculty adopting this method of teaching and learning will need faculty development and support.

Funding: Study funded by the Nursing Faculty Initiatives Fund, College of Nursing, Seattle University, Seattle, WA.

Home ◀ ▶ go to PG.

Post Baccalaureate RN Residency Program: Patient Shadowing Experience

Lisa A. Jensen, DNP, APRN
Deputy Nurse Executive
VA Salt Lake City Health Care System
Salt Lake City, UT

Purposes/Aims: An understanding of the patient experience is an essential component of training today for a nurse to become an effective member of the healthcare team. The facility, as part of a Post Baccalaureate Nurse Residency Program (PBNR) has implemented a best practice to help RN residents gain an understanding of that patient experience. This is accomplished through a Veteran Shadowing Experience.

Background: Literature indicates that graduate nurses who complete nursing residency programs are much more likely to remain employed as registered nurses and to be successful in their transition from novice to professional nurse. The 2010 Institute of Medicine report *The Future of Nursing* stressed the importance of transforming nursing practice in order to improve health care for the nation. The report made eight recommendations concerning nursing education and the practice of nursing including implementation of nurse residency programs for new graduate registered nurses. Nurses play a key role in assuring that veterans receive the highest quality of care, in a safe environment. A nurse residency program is an effective learning and working approach to enhanced patient care leading to greater job satisfaction which in turn assures a stable, cadre of professional nursing staff. A 12 month residency program for new Baccalaureate prepared registered nurses was implemented and is composed of a series of learning and work experiences based upon CCNE accreditation standards for RN residency programs.

Description of Best Practice: In the second month of their residency, nurse residents are paired with a veteran patient for the remainder of the residency. The residents review the medical record of the veteran, and conduct an initial interview of the veteran, in person or on the phone. The resident and the veteran develop health related goals for the veteran. The residents accompany the veteran to any clinic appointments during the year. If their veteran is hospitalized, the resident visits the veteran on the inpatient unit. The residents also maintain a monthly reflective journal documenting their experience. The faculty developed guiding questions directed at this experience.

Conclusions: The practice was implemented this year, and outcomes are still pending. The practice will be evaluated through the use of two focus groups with the residents, one at the midpoint of their program and another at month 11. The reflective journals will also be reviewed to help determine outcomes. Additionally, all residents are evaluated on a number of competencies throughout the residency program. It is expected that the experience will help graduate nurses develop empathy for the veteran patient experience and help them understand special needs of the veteran as a patient in the healthcare system. The experience will also assist the residents in development of communication skills and increase their comfort level in interacting with patients. The experience will also lead to the development of intuitive skills of the experienced nurse who is able to function beyond the rule bound level of the beginner nurse. If successful, this practice could be implemented by other residency programs.

Home ◀ ▶ go to PG.

Post Baccalaureate RN Residency Program

Lisa A. Jensen, DNP, APRN
Deputy Nurse Executive
VA Salt Lake City Health Care System
Salt Lake City, UT

Purposes/Aims: The Veterans Health Administration (VHA) recently recognized a need for Post Baccalaureate Nurse Residency programs (PBNR). Facilities were invited to compete for funding for five sites, with each site receiving funding for six resident positions. This poster will illustrate implementation of a PBNR program at a VA Medical Center.

Background: The 2010 Institute of Medicine *Future of Nursing* report recommended the implementation of nurse residency programs for new graduate registered nurses. Graduate nurses who complete nursing residency programs are much more likely to remain employed as registered nurses and to be successful in their transition from novice to professional nurse (Altier, 2006). Anderson, Hair, and Todero (2012) suggest that nurse residency programs need greater emphasis on learners collaborating across disciplines.

Description of Best Practice: This facility implemented a 12 month PBNR program in collaboration with a university college of nursing to assist recent baccalaureate degree graduates in the transition to their first professional role. The format of the program includes structured learning experiences, peer support from fellow trainees, monthly interprofessional training experiences using simulation, a step wise progression of responsibility in the provision of care to patients, and support from preceptors on the unit and mentors. The residents will participate in monthly interdisciplinary education learning sessions that will be devoted to managing difficult patient scenarios. The goals of the residency program are:

1. Decrease turnover rate among new graduate professional registered nurses;
2. Assure adequate skill competencies of new graduate RNs;
3. Develop interdisciplinary communication and collaboration among various clinical professionals providing care to veterans; and
4. Develop skills of new graduate RNs to implement evidence based practice philosophy into their practice.

The curriculum is modeled on the CCNE core curriculum requirements for accreditation (Commission on Collegiate Nursing Education (CCNE), 2008). It is an expectation that each funded program will obtain CCNE accreditation within one year of beginning the program.

Conclusions: A comprehensive evaluation plan is in place for assessment of this program. Throughout the duration of the program, residents complete self evaluations of their progress and evaluations of residents are completed by their preceptors. The domains of resident evaluation include competency assessment of clinical skills, comfort and confidence gained from the graduate nurse experience, intensity of clinical supervision, and resident satisfaction. Program outcomes will also be evaluated. Program outcomes include: recruitment and retention of residents, hiring and retention of residents within the VHA following completion of the residency, progress toward attaining CCNE accreditation, lessons learned during program implementation and recommendations for changes based on lessons learned.

Evaluation of the program is ongoing, with the first year of completion in August 2013. A successful implementation of this program will serve as a model for other institutions looking to implement nurse residency programs.

Home ◀ ▶ go to PG.

Mentoring Clinical Educators to Improve Financial Competency

Angela D. O'Neal, RN, BSN, CPN
Master of Nursing Science Student
Kennesaw State University
Kennesaw, GA

Kathie Aduddell, EdD, MSN, RN
Associate Professor of Nursing
Kennesaw State University
Kennesaw, GA

Purpose/Aim: This project sought to explore the effectiveness of using a mentoring program to assist clinical educators in analyzing performance budgeting for a clinical education department.

Rationale/Background: The healthcare environment of the 21st century makes it imperative that professional nurses are knowledgeable about financial issues and utilize this knowledge to address financial concerns to improve patient and health system outcomes. The clinical educator in many healthcare institutions may be given this responsibility. Although the clinical educator performs various roles such as facilitator, researcher, consultant, change agent, leader, and educator, this variety creates confusion regarding expectations and responsibilities. The literature lends evidence to how mentoring programs can improve the competency of clinical educators and bring clarification to role expectations.

Approach/Method/Process: A review of literature was conducted to develop new perspectives and strategies to improve best practices for clinical educators in the role of assisting professional nurses in becoming knowledgeable and competent on financial issues. These strategies served as a framework for developing mentoring programs to improve educator competency. Questions guiding the review were: what is the role and importance of the nurse educator and what are the challenges facing the clinical educator role mentoring professional nurses in acquiring knowledge and skills in healthcare finance? A field project was implemented using a mentoring framework to analyze a clinical education department budget at a large southeastern metropolitan healthcare system.

Outcomes: The literature review demonstrated that the main role of the clinical educator is staff development which involves analysis of performance and competence to ensure efficient functioning. It is also the role of the educator to serve as a mentor and to embody change within healthcare. Through analyzing the budget, one was able to see changes that can be made in order to improve the outcomes of performance areas. The project revealed performance areas of quality, cost-control, productivity, staff satisfaction, and innovation/planning with the majority of the budget utilized for quality and staff satisfaction. A key area for clinical educators to improve cost is better resource utilization and reduction of non-productive hours.

Conclusions/Implications/Recommendations: When dealing with the complicated situations in our healthcare environment, more support is required as well as new and creative practices. Mentoring is one avenue that may correct the previously mentioned issues facing clinical education. As clinical educators are mentored while acquiring financial competencies, they will promote clinical competency in this area for the professional nurse. Recommendations that were uncovered to improve clinical nursing education were to reinvent student-educator relationships, recreate the nurse educator role, and fortify the evidence for best practices in clinical nursing education. Mentoring promotes leadership skills which lead to positive outcomes. As a nursing leader one should develop mentoring programs for clinical educators because their role is critical to the sustainability of the nursing profession as they are responsible for preparing staff for the workforce.

Home ◀ ▶ go to PG.

A New Model for Practice-Academic Partnerships for the Senior Nursing Clinical

Kathy Reavy, PhD, RN
Professor
School of Nursing
Boise State University
Boise, ID

Karen Egli, MS, RN
Nurse Educator
Newborn ICU
St. Luke's Regional Medical Center
Boise, ID

Purpose: The purpose of this project was to implement a more efficient and effective clinical experience for senior nursing students as they begin the transition from academia into professional nursing practice.

Rationale: Increasing numbers of students and competition among teaching institutions for student clinical placements are contributing to less efficient and effective teaching and learning experiences for senior nursing students in their capstone clinicals.

Description: 1) Success of this model is rooted in **collaboration** between academic and unit-based nurse educators. Collaboration includes joint presentations at RN staff meetings to explain changes. Collaboration also means shared teaching for orientation (review of head-to-toe assessment, written communication and delegation assignments) and 10 hours of content delivery (pathophysiologies and nursing care). 2) Students are assigned to one of four units (L&D, Mother/Baby, NICU, Pediatrics). This **model** assigns five students per unit (not an individual RN). Students select day or night 12-hour shifts that meet their personal, academic, and work schedules. The academic educator finalizes schedule requests. Only 2 senior students are on a clinical unit at one time. Shifts are scheduled to not overlap with junior level clinical experiences. The charge nurse, with input from the student, makes patient shift assignments based on best learning experience. Students are expected to work two or three 12-hour shifts per week. 3) Course outcomes for **student learning** focus on synthesizing nursing knowledge for problem solving, nursing skills, and safe patient care. Outcome measurements include demonstrations of organization, critical thinking, professional interdisciplinary communication, patient safety, nursing skills, independence, prioritization, and self-confidence. 4) More RNs per unit receive **career ladder** recognition secondary to increased opportunities for RN precepting. Students and RNs were notified prior to beginning clinicals that preceptors' written shift evaluations of students would be returned to the units and put in the RNs personnel files as evidence of RN precepting.

Outcomes: Evaluations of student outcomes and clinical model included student observations, student written reflections for each shift worked, preceptors' written evaluation of students, and end-of-semester student and RN surveys. Findings showed better preparation of students and RNs before beginning of clinicals. Better preparation contributed to increased student confidence and improved professional communication. Students perceived increased trust from RNs as evidenced by increased opportunities for independence in patient/family teaching and performance of complex skills. Observations of student performance included independence, organization, and problem solving.

Conclusions: Collaboration and unit assignments contributed to a more efficient and effective use of academic and hospital educators' expertise and time for senior student clinical experiences. Student assignment to a unit (not an individual RN) improved job networking for employers and potential employees. Academic and hospital educators noticed a smoother student transition from academia to practice.

Home ◀ ▶ go to PG.

Interpersonal Violence Prevention Health Fair Student Project

Angelia Clark Trujillo, DNP, MS, RN
Assistant Professor
School of Nursing
University of Alaska Anchorage
Anchorage, AK

Elizabeth Campbell, PhD, MSN, CNE
Assistant Professor
School of Nursing
University of Alaska Anchorage
Anchorage, AK

Purpose: The University of Alaska Anchorage, School of Nursing utilizes group, service learning projects for senior level capstone, community health courses. In order to address issues related to interpersonal violence, the five Summer 2012 clinical groups were integrated to develop a one-time event focused on prevention of interpersonal violence.

Background: Interpersonal violence is defined as the actual or threatened physical, sexual, psychological, or economic abuse of an individual by someone with whom they have or had an intimate relationship. Alaska ranks in the top five states for per capita domestic violence rates, Alaskan women are sexually assaulted at 2.6 times the national average and Alaskan women are killed by intimate partners at 1.5 times the national average. Activities of this scope and magnitude had not previously been attempted by the School of Nursing community health program. Prior to this event, a single violence prevention group project had been conducted in a local park and had been found to be well-received by participants.

Methods: The goal for this activity was to increase awareness and promote prevention through education for the nursing students and the Anchorage community. This capstone course utilized five clinical groups from the community capstone course. The students conducted surveys around the community to determine levels of community awareness regarding interpersonal violence issues. This information was then used to develop an open-air health fair aimed at prevention of interpersonal violence issues (domestic violence, child physical abuse, child sexual abuse, sexual assault and elder abuse). The students attended a key informant panel with governmental and non-profit agency representatives. They also completed Bystander Education training. The information from these activities as well as from their literature reviews was utilized to developed five booths for an open-air event in a local park. Each booth featured interactive games, skits and educational programs designed to educate people of all ages.

Outcomes: The open-air fair was attended by approximately 280 persons with some booths recording as many as 320 persons. Fair attendees were asked to evaluate their learning at each booth and if they would be interested in participating in a similar event in the future. Participants rated their learning at from 91% to 98% regarding prevention activities and stated they would participate in the future. A common theme stated by participants was “you should do this every year”. The student groups also rated their learning as extensive in that they now feel more prepared to serve future patients who are experiencing interpersonal violence.

Conclusions: This event is a significant first step in promoting community based awareness for prevention of violence which significantly affects Anchorage’s men, women and children. We know that interpersonal violence is a huge issue in Alaska. By bringing attention to the problem, it helps to prepare future nurses to be aware of and be more confident in addressing these issues with their patients. A future goal is to repeat this activity in the summer of 2013 and possibly add a “prevention fun run” as a component of the educational offerings.

Funding: Funding for project was provided by a University of Alaska Anchorage, Center for Disparities in Nursing Education (CAHDRE) grant.

Home ◀ ▶ go to PG.

New Nurses' Hopes and Expectations Transitioning into Nursing Practice

Linda Gwinn, MN, RN-C
Instructor, College of Nursing
Washington State University
Vancouver, WA

Angie Marks, MN, RN
Professor, Department of Nursing
Clark College
Vancouver, WA

Renee Hoeksel, PhD, RN
Professor, College of Nursing
Washington State University
Vancouver, WA

Purposes/Aims: This qualitative study examines the lived experiences of graduating associate degree nurses transitioning into practice. The specific aim was to describe experiences during the first nine months of employment as a registered nurse (RN).
Rationale Conceptual Basis/Background: The increasing complexity of the health care system and subsequently of nursing practice has been well described elsewhere. A comprehensive approach is utilized by nurse educators and nurse executives/managers to address the gap newly graduated nurses experience as they transition from school into practice settings. As work environments and the job market do not remain static, the importance of listening carefully to the experiences of new nurses is greater than ever.
Methods: A 2-phase longitudinal research study was conducted using an interpretive, hermeneutic, qualitative design. The second phase, reported here, conducted individual interviews of nurses who had been in Phase I focus groups. All interview tape recordings were transcribed verbatim and entered into Ethnograph 6.0.
Results: Categories were identified from the transcripts of all participants which led to the emerging themes of Facing the Realities, Powerful Relationships, Commitment to Care, Communication Conundrums, and Building a New Nurse. New nurses identified realities of what they described as "shockers" or "the hardest thing…" Workloads seemed more intimidating once they were "on their own". Each new nurse had a story about the influence of "a great nurse" who served as a role model. Team spirit, climate of trust, nurturing, and caring were highly valued. Each nurse verbalized a commitment to stay in nursing caring for clients, although not necessarily in their current settings. New nurses showed vulnerability for knowing when to ask questions, knowing how to communicate effectively with physicians, and learning ways to overcome communication barriers between shifts and co-workers. These new nurses were clearly "under construction", building from a novice level of focusing on skill performance to showing appreciation for becoming future managers of care who use critical thinking, clinical judgment, and who recognize the need for lifelong learning.
Implications: Healthy work environments were key to instilling confidence, promoting learning and sharing, building self-efficacy, all which may lead to greater professional satisfaction. Internships or residency programs proved valuable as seen through the eyes of study participants. A few felt "thrown in" to "sink or swim" with extremely short orientations, especially in long term care facilities, and most left those settings within a year. Nurses entered the profession with a strong foundation in psychomotor and intellectual skills formulated in nursing school, but it should be acknowledged that tremendous emotion accompanies this school-to-practice transition. Leaders and experienced nurses can nurture and encourage new graduates by teaching healthy coping skills as well as by being credible resources for provision of care. Though efforts are ongoing to ease transition, more longitudinal research would be helpful to understand what the process of transition is truly like for new nurses and what will support them to remain in the nursing profession as productive care facilitators.

Funding: *2010 Sigma Theta Tau International/Western Institute of Nursing Research Grant 5935.*

Factors Influencing the Work Life of Doctorally Educated Nursing Faculty

Lori Candela, EdD, RN
Associate Nursing Professor
School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV

Antonio Gutierrez, PhD
Post-Doctoral Researcher
& Teaching Professor
School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV

Purpose/Aims: To examine factors associated with the work life of doctorally educated nursing faculty in the United States and how those factors affect intent to stay or leave the academic role.

Rationale/Background: Doctorally educated nursing faculty are essential to educate nurses with advanced degrees and conduct original and translational research to improve health. Yet, the least studied and most critical shortage in nursing continues to be the inadequate number of doctorally educated nurses who work in academic settings.

Methods: Descriptive statistics and correlations are reported. Several ANOVAs ascertained whether demographic characteristics of nursing faculty significantly influenced intent to stay or leave the academic role and/or overall level of satisfaction, as defined by availability of resources to support their role and administrator acknowledgement of accomplishments. Moreover, binary logistic regression analyses were conducted to ascertain whether various factors related to the faculty role (e.g., perceived teaching expertise, satisfaction, administration's support, etc.) affected intent to stay or leave.

Results: Tenure status (tenured; not tenured on a tenure track; and not tenured, not on a tenure track) did not significantly influence nursing faculty members' intent to stay or leave the role or their level of satisfaction. However, academic rank demonstrated a significant effect on satisfaction, with professors demonstrating the highest overall level of satisfaction regarding the faculty role when compared to assistant and associate professors as well as those at the instructor/lecturer rank. Interestingly, doctorally educated nursing faculty demonstrated strikingly similar levels of satisfaction when compared to those who did not have a doctorate. Finally, the logistic regression analyses showed that several demographic characteristics and factors related to the faculty role significantly influenced nursing faculty members' intent to stay or leave the role.

Implications: Results demonstrate that academic rank influenced nursing faculty members' level of satisfaction. Administrators of nursing programs should target associate professors, but especially assistant professors on a tenure track, and provide them with additional support and resources—tangible and intangible— to increase their level of satisfaction. Program leaders and supervisors can positively affect faculty satisfaction through concerted efforts to acknowledge their milestones and ongoing accomplishments. These, in turn, may significantly decrease turnover rates of nursing faculty in US academic institutions. The fact that tenure status did not significantly impact satisfaction or intent is telling inasmuch as support and resources should be leveraged more equitably across faculty, regardless of tenure. Finally, the logistic regression analyses indicated that academic institutions and nursing program administrators should consider other factors surrounding the faculty role in order to maximize levels of satisfaction and retention of qualified nursing faculty.

Funding: This study funded by a grant from the American Nursing's Foundation.

Home ◀ ▶ go to PG.

Integrating Hybrid Learning into an RN to BSN Community Health Class

Jill Mount, RN, MSN, PhD
Assistant Professor
Woodring College of Education
Western Washington University
Bellingham, WA

Purposes/Aims: To effectively integrate hybrid learning into a required course on community health in an RN to BSN program.

Rationale/Background: The IOM (2011) states using technology can aid the seamless academic progression of nurses. The hybrid learning courses described in this paper were taught in a large Northwestern RN to BSN program, which included students from six counties. The students were RNs working in a variety of clinical specialty areas throughout these counties. The courses were taught at two locations.

Approaches/Best Practices: Hybrid learning combines traditional classroom (face-to-face) with the best practices of online learning by intentionally integrating a teaching presence, cognitive presence and social presence into student learning activities (Garrison and Vaughn, 2008). The community health course was redesigned using principles of hybrid learning during a faculty development hybrid teaching course. Blackboard was utilized as the online learning technology.

Outcomes Achieved: The community health hybrid course consisted of five face-to-face classes consisting of short lectures, videos, guest speakers, and student small group activities, which facilitated the social presence. During the online portion of the class students wrote weekly learning logs and reflective journals, which promoted the teaching presence by enhancing student-instructor communication. The cognitive presence was demonstrated by student completion of community and family assessments, an epidemiology exercise, and student projects in the community. The students' community projects included health education for homeless people, a health fair for low-income housing residents, and providing healthcare resources at a street fair in an underserved multi-ethnic neighborhood.

Conclusions/Implications: Student qualitative evaluations indicated strong support for the hybrid format and fieldwork experiences. Students also gave the class high scores on a challenge-engagement index. Online fieldwork experiences at local community agencies allowed students to apply the class theory, lectures, and readings to the real world. Completing an online family assessment assignment enabled students to go beyond their superficial relationships with patients to learn more about how the social determinants of health they learned about in class were impacting their patients' lives. This project indicates that using a hybrid format provides an effective way to integrate class theory with online fieldwork at community agencies and is an effective way to teach community health nursing in an RN to BSN program.

Home ◀ ▶ go to PG.

EDUCATION

Nurse 2020: Perceptions of the Future of Nursing

Pauline Komnenich, PhD, RN
Professor and Director
Nurse Educator Program
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ

Nickolaus Miehl, MS, RN
PhD Student
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ

Purpose: In the current economic climate, deep budget cuts are being made within higher education forcing instructors to teach more efficiently and effectively. Similarly, the rising complexity of healthcare systems coupled with changing demographics among healthcare consumers requires the adoption of new and innovative strategies to meet the needs of today's nurses and the diverse populations they serve. According to the Institute of Medicine's report *The Future of Nursing: Leading Change, Advancing Health* (IOM, 2010), nurses are well positioned to help in facilitating increased access to care, to coordinate dynamic complexities in care for a broad range of patients, to maximize their potential as primary care advance practice nurses in practicing to the full extent of their training, and to clearly demonstrate the true economy and value of their contributions across diverse health care settings. The purpose of this study is to explore employed nurses' perceptions of these trends and expectations.

Background: Given the recent recommendations by the Institute of Medicine (2010) and the Carnegie Foundation Report (Benner et al., 2010) on the future of nursing and health care delivery, a better knowledge of nurses' perceptions of the profession and trends they will face over the next decade is an important tool in beginning to transform nursing education and practice. Understanding and commitment by nurses in the workforce in response to future predictions and expectations are critical to professional transformation.

Method: This descriptive study builds on previous studies related to trends and predictions for Nurse 1990 and Nurse 2000. A 60-item survey was developed to analyze nurses' perceptions of future trends, how the delivery system will evolve to meet such trends, characteristics of the nurse working in such a system and how he or she will be educationally prepared. The survey was distributed electronically via Survey Monkey® to actively licensed registered nurses in Arizona (N=65,418) with a total of 4,799 responses collected.

Results: Preliminary data analysis indicates general agreement with identified trends and predictions. Responses in relation to educational preparation and future roles demonstrated the greatest amount of variability especially with regard to entry into practice.

Implications: While nurses are consistent in their perceptions of trends and predictions which have an impact on the future of nursing, responses to the survey suggest a differing viewpoint on educational preparation for entry into professional nursing practice. There does, however, seem to be agreement that partnerships between academic nurse educators and those in clinical practice are important for curricular design and educating future generations of nurses. Demographic data of this study are consistent with national data, including the 2008 National Sample Survey of Registered Nurses, and indicate an overall aging nursing workforce. Further analyses will be performed to identify additional trends in the data.

Home ◀ ▶ go to PG.

EDUCATION

Developing Family Health History Skills for Advanced Practice Nursing Students

Lauri A. Linder, PhD, APRN, CPON®
Assistant Professor

Marsha Tadje, MS, APRN, AOCN®
Assistant Professor Clinical

University of Utah College of Nursing
Salt Lake City, UT

Purpose: The purpose of this presentation is to describe strategies for teaching family health history skills to advanced practice nursing students and to support them in applying the family health history as a genetic screening tool.

Background: The American Association of Colleges of Nursing's *Essentials of Master's Education in Nursing* places an increasing emphasis on genetics as a component of advanced practice nurses' (APRN) background for practice. The *Essentials of Master's Education in Nursing* also emphasizes the role of the advanced practice nurse in collaborating with other disciplines to provide healthcare services to individuals and families. The National Coalition for Health Professional Education in Genetics (NCHPEG) recognizes obtaining a family health history as a key competency for healthcare providers to identify an individual's personal risk and in planning healthcare services.

Approach and Methods: At the University of Utah College of Nursing, all APRN students complete a 2-credit clinical genetics course. Coursework regarding the family health history includes didactic content and an assignment which supports students in applying didactic content. Didactic content is based on NCHPEG's core principles in obtaining the family health history. Didactic content also emphasizes accurately drawing a 3-generation pedigree chart using guidelines set forth by the National Society of Genetic Counselors (NSGC).

The family health history assignment supports students in developing interview skills related to obtaining an accurate family health history, accurately drawing a 3-generation pedigree chart, interpreting the family health history, and planning healthcare services for identified risk factors within the scope of the APRN role. To complete the assignment, students work in pairs interviewing one another using pre-developed case scenarios that involve an individual seeking healthcare services for a genetic-related concern. Pre-developed scenarios ensure that students have the opportunity to obtain a health history and construct a 3-generation pedigree chart involving a case with genetic risk factors. Pre-developed scenarios also protect individual students' confidentiality by not requiring them to divulge their own personal information.

Students use the information they obtained through the interview to construct a 3-generation pedigree chart using terminology and symbols based on NSGC guidelines. The final component of the assignment is a 2-3 page written summary addressing 1) appropriate web-based resources that the APRN could recommend based on the health history information, 2) implications for the APRN in providing healthcare services to the individual, and 3) the student's perceptions on being interviewed and his/her perceived adequacy in conducting the health history interview.

Outcomes Achieved: Course evaluation indicates that students recognize family health history-related competencies as relevant to their practice. Students relate that using pre-developed case scenarios is useful for applying principles related to the family health history.

Conclusions: Attention to developing family health history skills in APRN programs of study is essential to supporting students in identifying genetic risk factors among individuals and planning relevant healthcare services. Family health history competencies can be emphasized in the context of a free-standing genetics course or integrated into existing APRN coursework.

Community-Based Research: Nurturing the Circle of Education, Research and Practice

Eileen Owen-Williams, PhD, DNP, ARNP, FNP, CNM
Associate Professor
Seattle University College of Nursing
Seattle, WA

This research project results from a current fellowship with a Community-Based Research (CBR) Fellows Program. This project is a CBR partnership between myself, my university and a local Native American health clinic/community center during the academic year of 2012-2013.

Purpose: The purpose of the partnership is to mutually develop and implement a research project regarding violence and the association of intergenerational relationships between Elders and youth within the epistemology of the Native American participants.

Aims:

- To foster knowledge of community-based research methodology of nursing students.
- To expose nursing students to the importance of cultural protocol in the process of working with community partners.
- To enhance students' ability to connect clinical practice, community health, education, and research.
- To explore participating Elders' and youth's narration of intergenerational relationships.
- To illuminate factors which Elders and youth view as promoting safety and decreasing violence within the respective community.

Rationale/Background: Utilizing Elders as leaders and a source of Traditional knowledge is part of a viable model of combining contemporary and Traditional health care practices within communities. The mixed model of contemporary and Traditional knowledge has resulted in decreased levels of violence, particularly youth suicide rates, and a community approach to health.

Description: Community-based research allows for partners to mutually set goals and define roles of academic researchers, students and community. Discovering what is culturally grounded in regard to beliefs and practice provides a framework for research, education and clinical practice. Past research was often not collaborative and was framed in non-Indigenous understandings, causing misguided, harmful stereotypes and policies which have inaccurately reflected Indigenous perspectives. This community will enter as partner researchers and collaboratively decide which information will be sought, how it will be collected, culturally interpreted, and utilized.

Outcomes/Conclusions: The research process, educational, and research outcomes of this project will be reported, utilizing mutually agreed upon policies for dissemination. Conclusions, including the implications of utilizing community participatory research within academic and community partnerships and recommendations will be presented as well as a the specific findings related to the aims of this study.

Home ◀ ▶ go to PG.

Diversity in the Nursing Workforce: Improving Care for Vulnerable Populations

Maria Elena Ruiz, RN, PhD
Adjunct Assistant Professor
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Felicia Schanche Hodge, DrPH
Professor
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Purpose: The aim of this presentation is to report on the findings of two studies that gathered recommendations for improving patient care among vulnerable populations.

Background: Gap in health disparities between vulnerable populations and the general population continues to widen. Decreasing health disparities and ensuring the best possible healthcare to vulnerable populations is a national public health goal. As noted by the landmark report (Institute of Medicine, 2012), improving diversity in the workforce may help to decrease health disparities, especially for racial/ethnic groups.

Methods: Two studies amplify the need and benefits of a diverse nursing workforce and the benefits for improving health services for vulnerable populations. In the first study with older Latinos (over the age of 50) aging in skid row (N=28), factors contributing to homelessness and increased health risks were explored with primarily Spanish speaking migrant Latinos. Via content analysis methodology, the bilingual and bicultural multidisciplinary research team uncovered how race/ethnicity, health status, culture, and language intersect for these homeless men and women. Through their narratives, these older Latinos provided several painful and yet insightful recommendations on ways to improve access and the delivery of health care. In a second study of American Indian adult (age range of 18-50) cancer patients (N=20), recommendations for improved healthcare were gathered through interviews in the hospital or at the time of the clinic appointment. Audio tapes of all narratives were transcribed verbatim by research staff. Transcriptions were coded line-by-line using Grounded Theory methodology. Codes were then used to form themes based on the most frequent and significant initial codes for all the focus groups and themes were formed into categories and relationships between categories analyzed.

Results: Four major themes were identified from these studies: (1) Importance of developing personal and respectful interactions (relationships); (2) Awareness of resource needs (family, etc.); (3) Knowledge of taboos and the importance of modesty, and 4) Overall importance of understanding language and cultural nuances.

Implications: These study findings highlight the value and importance of having a diverse nursing workforce with the potential to reduce health disparities among vulnerable populations.

Funding: This research was supported by the: 1) UCLA Chicano Studies Research Center, and 2) National Cancer Institute, NIH, R01 CA115358.

Relational Aggression in Health Professions Students

Louise Suit, EdD, RN, CNS, CAS
Assistant Professor
School of Nursing
Regis University
Denver, CO

Janet Houser, PhD
Dean and Professor
Rueckert-Hartman College
of Health Professions
Regis University
Denver, CO

Lauren Burt, PharmD, BCPS
Assistant Professor
School of Pharmacy
Regis University
Denver, CO

Stephen Luckey, PhD
Assistant Dean and Assistant Professor
School of Pharmacy
Regis University
Denver, CO

Allana Sucher, PharmD, BCPS
Associate Professor
School of Pharmacy
Regis University
Denver, CO

Daniel Roysden, PhD
Assistant Professor
Department of Health Care Ethics
Regis University
Denver, CO

Aim: To study prevalence of relational aggression among health professions students.
Background: Relational aggression is the overt and covert manipulation of another person and is getting increasing attention in the media. Little has been studied about relational aggression and electronic communications in an era of unfettered electronic communications. An interprofessional research group implemented a survey design to study relational aggression for health professions students and associations with student characteristics.
Method: A15 item Student Interaction Assessment (SIA) measured six subscales: physical and emotional aggression, intimidation, electronic media aggression, and social isolation. Content validity was established and testing of reliability yielded r =.82. 399 health professions students completed the SIA.
Results: Descriptive analysis revealed a prevalence of relational aggression. More than 13% of respondents reported being "physically pushed or shoved" and 5% experienced "physical threats" in the last year. Males and divorced or widowed students experienced more physical aggression. 10.6% of respondents had private information shared electronically without permission and 7.7% reported that others had tried to damage their reputation via social media sites. There were no significant differences in reports of relational aggression between ethnic groups. Relational aggression was also associated with a loss of confidence across all gender, ethnic, and marital status groups.
Implications: Prevalence was found for relational aggression in overt physical and emotional abuse, intimidation, and loss of confidence. Some used electronic media to share private information and damage reputations. Students become health providers and results inform administrators and employers about relational aggression and support services needed.

Home ◀ ▶ go to PG.

New NP Transition-to-Practice Residency in a HMO Setting

Debra Wallace, DNP, RN, APN, FNP-BC
dwallace@westernu.edu

Statement of the Problem: Transition programs for new NPs are rare, yet nurse practitioners report the need for additional support and education as they transition to practice. According to the Institute of Medicine, health care providers should undergo residency traning. Recognizing the need to support the role transition for NPs and how such a residency is structured and operationalized must be better understood. In order to meet the transition needs of the new NP from student to primary care practice provider, nurse practitioners, physicians, administrators, and other healthcare professionals must understand the need for role development and skill acquisition.

Innovation and Methods: A qualitative study was done to determine the feasibility of a new graduate transition to practice program that supports the NP in a HMO setting. Practice questions queried the stakeholders and viewpoints of the residency program. Data collection was based on face to face interviews using open ended questions. The respondants were stakeholders in a large HMO medical practice. The study was grounded in Pat Benner's Novice to Expert model designed to study the dynamics of role. The purpose of this qualitative study was to determine the feasibility of a new graduate transition to practice program that supports the NP in a HMO setting.

Outcome Analysis: This innovation of the interviews resulted in five areas that contribute to the decisions regarding the feasibility of a residency program. Major findings included: components of a suggested residency program, complexity of the healthcare system, need for role formation and role satisfaction, academic-service partnerships, and funding for practice.

Implications and Recommendations: Results supported the feasibility of the program under study in assisting new NP and other health care institutions in providing efficient means of orientating new NPs. Understanding the transition needs of the new NP from student to primary care practice provider, nurse practitioners, physicians, administrators and other health care professionals may assist in future efforts toward role development and skill acquisition in order to ease the current primary care shortage.

Home ◀ ▶ go to PG.

Evaluation of Clinical Reasoning for Senior Students' Capstone Clinical: A Pilot Study

Patricia Lazare, MSN, RNBC
Clinical Assistant Professor
School of Nursing
Boise State University, ID

Kathy Reavy
Professor
School of Nursing
Boise State University, ID

Purpose: The purpose of this pilot study was to assess senior nursing students' demonstrations of clinical reasoning during their final precepted clinical experience.

Rationale: Clinical reasoning, making and acting on decisions, is an important outcome criterion for the senior level capstone clinical for nursing students. Evaluation of clinical reasoning, however, is challenging.

Methods: Operationalization of clinical reasoning is from Benner, Hughes, & Sutphen (2008)[1]. Clinical reasoning is described as application of knowledge, self-reflection, professional and collegial dialogue, evaluation of patient care through data acquisition and questioning, and engagement in creative problem solving. Evaluation of senior nursing students' use of clinical reasoning was evaluated at orientation and after each clinical shift. 1) At orientation, standardized patients were used for students to demonstrate patient head-to-toe assessments of Sim patients with a chest tube, a nasal gastric tube, abnormal lung sounds, abnormal blood pressure and pulse, central line sterile dressing change, IV starts and IV pump trouble shooting. Faculty presented students with case studies and questions regarding the Sim patients. Student evaluation of clinical reasoning occurred individually with a faculty member followed by debriefing in small student groups. 2) Also at orientation, a professionally prepared video featuring university faculty and current students was shown to all senior nursing students. Topics included patient communication, peer communication, and delegation. Accompanying the video were patient charts, x-rays, medication records, and other information pertinent to care of patients identified in the video. Following the presentation, students were assigned a set of clinical reasoning questions that were answered in small groups. Faculty participation in student small groups provided guidance and review of clinical reasoning. 3) For every precepted shift worked, students were asked to reflect in writing on their experiences. Students' preceptors were asked to evaluate students' clinical reasoning and skill performance using a numeric score with space for written comments.

Results: Preceptors gave highest numeric scores for students' actions in safety, professionalism, critical thinking, and organization/prioritization. Preceptor written comments supported the numeric scores. Students' written self-reflections of clinical reasoning in the precepted context included increased confidence in their knowledge and application of skills, in addition to patient teaching regarding why the skill was performed. Students also reflected increased confidence on their professional application of communication with diverse members of the health care team, including physicians, nursing peers, and respiratory technicians. Increases in prioritization, organization and independence were also described and evidenced through student actions such as requests for specific assignments and requests to perform higher level interventions.

Outcomes: The effect of clinical reasoning on patient care and safety is especially important in assessing competence of senior nursing students prior to graduation. Increased independence from direct faculty supervision during senior clinical implies a need for improved assessment tools as trialed in this pilot study.

Reference:

Benner, P., Hughes, R.G., & Sutphen, M. (2008). Clinical reasoning, decision making, and action: thinking critically and clinically. In R.G. Hughes (Ed.), *Patient Safety and Quality: An Evidence-Based Handbook for Nurses.* AHRQ Publication No. 08-0043.

Home

◀ ▶ go to PG.

Preparing Today's Students for Tomorrow's Bedside Leaders

Lisa S. Zenoni, MS, RN, CRRN
Instructor
Loretto Heights School of Nursing
Regis University
Denver, CO

Gwendolyn M. Lindemann, MS, RN, CRRN
Instructor
Loretto Heights School of Nursing
Regis University
Denver, CO

Purpose/Aims: The purpose of using innovative strategies in a leadership course is to prepare students to fully embrace leadership principles in preparation for assuming leadership roles at the bedside and beyond as new graduate nurses.

Rationale/Background: Traditionally, students struggle with seeing themselves as leaders upon graduation. This quality improvement project involved using multiple strategies including music, movies, projects, clickers, and presentations for ongoing development of leadership knowledge for traditional senior nursing students enrolled in a leadership course. With a student reported need for opportunities to identify leadership principles and attributes in preparation for assuming leadership roles at the bedside upon graduation, the use of multiple teaching methods and opportunities supports the advancement of leadership skills for BSN prepared nurses entering into the profession. Focusing on leadership related to styles, change, conflict, and ethics prepares students to manage the role of the nurse leader in diverse and dynamic patient care settings.

Brief Description of the Undertaking: To increase knowledge acquisition, students were presented principles of leadership using multiple methods in different contexts throughout the semester using scaffolding methods with the constructivist principle of Cognitive Flexibility Theory. The students were introduced to basic leadership principles and descriptions early in the course. Building upon the background knowledge, students self-selected groups and chose movies from a designated list and collaborated in an on-line discussion format. Students answered questions addressing leadership related to styles, change, conflict, and ethics. Each individual student reflected upon his or her own clinical experiences and observations when responding to the group's posts. Throughout the semester, students identified potential leadership principles exemplified in a variety of well-known songs and shared examples of experiencing the leadership principles in practice. Students also participated in collaborative exercises including a communication, persuasion, and negotiation activity in the campus community; a politics and health care policy awareness event; and a leadership in informatics presentation. In culmination of their acquired knowledge, students collaborated to identify a sentinel event and create a plan for implementing change in practice using necessary leadership principles.

Outcomes Achieved: Because of the scaffolding strategies, students successfully demonstrated increased identification of leadership principles and attributes, and implemented the principles in action. Students reported increased awareness of leadership in clinical practice and readiness to utilize leadership skills at the bedside upon graduation.

Conclusion: By providing students the opportunity to learn leadership principles using scaffolding throughout the semester, students are better prepared to realize their role as bedside leaders in the practice environment upon graduation.

Home ◀ ▶ go to PG.

Ageism of Japanese Undergraduate Nursing Students

Hiromi Hirata, RN, MN
Associate Professor
School of Nursing
University of Shiga Prefecture
Hikone, Shiga, Japan

Hiroko Yamada, RN, BSN
Instructor
School of Nursing
University of Shiga Prefecture
Hikone, Shiga, Japan

Background: The Japanese have the world's longest life expectancy at birth and, in 2011, the number of people over 65 years old reached 23.3% of the total population (The Cabinet Office, 2011). Traditionally, the eldest son usually took care of his parents in Japan. Therefore, his family (wife and children) lived with his parents. Nowadays, children and youth grow up without living with their grandparents because the numbers of nuclear families are increasing. Because of the aging society, many nursing students take care of elderly patients in hospitals without knowing how to communicate with them. Many of the students improve their communication skills during nursing practicums where they experience interaction with older adults. Nursing students who don't have any nursing practicum experiences tend to have higher ageism than nursing students who have had nursing practicum experiences (Sano, 2011).

Purpose: The purpose of this study is to examine whether lectures and nursing practicums focused on gerontological nursing can decrease undergraduate nursing students' ageism.

Method: This is a longitudinal study using questionnaires. Prior to taking gerontological nursing classes, first year students were asked to answer the Japanese version of the Fraboni Scale of Ageism (JFSA). The gerontological nursing program at University of Shiga Prefecture consists of four lectures (4 credits) and three weeks nursing practicum (3 credits) during the second semester of the first year to the second semester of the third year. When the students are in their third year of school and have completed the gerontological nursing program, they will be asked to answer the same questionnaire. The data before and after the program will be examined by using a paired-samples t test.

Findings: Fifty–nine of the first year students (56 female and 3 male) recently completed the first questionnaire. The mean age was 18.95 years (*SD* = 1.13, range from 18 to 26, 1 unknown). A question that has the highest score on the JFSA questionnaire was "Old people complain more than other people do" (2.7/4). Nineteen students answered that they have lived with their grandparent(s) and 32 students answered that they have not. An independent-sample t test was conducted to evaluate the hypothesis that nursing students who have not lived with their grandparent(s) would have higher ageism. The test was not significant $t(49) = 0.09$, $p > 0.05$).

Implications: The students will be asked to answer the second questionnaire with an additional open-ended question that will ask how their interest in gerontological nursing has changed by being in the gerontological nursing program for two years. The data will be used to improve the gerontological nursing program at the university.

New Graduate Transition Program Appraisal: Are We Bridging the Gap?

Karen LeDuc, DNP, APN-BC,
CNS, CPN, CNE
Associate Professor
Regis University
Loretto Heights School of Nursing
Denver, CO

Donnya Mogensen, MS, RN
Staff Development Specialist
New Graduate Residency
Program Coordinator
Children's Hospital Colorado
Aurora, CO

Background: The ongoing nursing shortage requires an emphasis on hiring new graduate nurses. To meet workforce demands, organizations are challenged to address recruitment, retention, and turnover with the newly hired nurse. In response to the transformative and stressful journey of transition for new graduate nurses, residency programs are developed to support the acquisition of clinical skills and to foster commitment and socialization into the profession. Outcomes consistently identified in the literature associated with these transition programs include nurses' sense of clinical competence and turnover. The evidence supporting residency programs as an intervention to reduce turnover and facilitate transition is therefore compelling.

Purpose: This project was designed to evaluate the experience of new graduate nurses in an internally developed residency program. The project aims included assessing retention rates before and after implementation of the program. The second aim was to describe the relationship of new nurses' characteristics to the nurses' perceptions of clinical competence.

Methods: The project was a retrospective review of existing data consisting of survey responses on the Casey-Fink New Graduate Experience Survey and organizational retention and turnover statistics. N = 28. Chi-square test of model of fit was utilized to compare retention and turnover. Descriptive statistics focused on the Casey-Fink subscales related to Organizing/Prioritizing and Communication/Leadership as a correlate of perceived clinical competence. Correlation analyses examined the relationship between nurse characteristics and the variables of perceived competence. Effect size calculations were computed to provide an estimate of the magnitude of the transition program.

Results/Outcomes: Pearson's Chi-Square test for turnover and retention was not significant (5.6% prior to the program, 7.0% after implementation). Mean scores were calculated for the Support (3.28), Organizing/Prioritizing (3.17), Stress (.11), Communication/Leadership (3.28), and Professional Satisfaction (3.56) subscales.

The relationship of Casey-Fink scores to nurse characteristics identified positive correlations of age with support (r = .47, p = 0.07); Communication/Leadership (r = .49, p = 0.053); and the composite scores (r = .49, p – 0.055). Three subscales demonstrated large effect sizes: Organizing/Prioritizing (. 87); stress (1.06); Communication/ Leadership (1.02) indicating positive educational and clinical differences.

Implications: Deliberate prioritization of new graduates' most pressing needs with targeted education, social support, and clinical coaching fosters the transition process and benefits the organization by impacting safe patient care and addressing the staggering turnover rates in the first year of practice. This program appraisal identified additional needs for educational support in the clinical arena as well as ongoing performance appraisal and feedback to bridge the gap between undergraduate education and the realities of clinical practice.

Home ◀ ▶ go to PG.

Nursing Students' Attitude and Behaviors Related to Individuals with Schizophrenia

Glenise McKenzie, PhD, RN
Associate Professor
School of Nursing
Oregon Health & Science University
Ashland, OR

Stephanie Sideras, PhD, RN
Assistant Professor
School of Nursing
Oregon Health & Science University
Ashland, OR

Joanne Noone, PhD, RN
Associate Professor
School of Nursing
Oregon Health & Science University
Ashland, OR

Mary Fey, MS, RN
Assistant Professor
School of Nursing
University of Maryland
Baltimore, MD

Purposes/Aims: The purpose of this study is to examine an innovative approach to simulated learning and to evaluate the impact on knowledge, attitudes and behaviors of undergraduate nursing students related to individuals with schizophrenia.
Rationale/Background: An estimated 2.3 million Americans currently suffer from schizophrenia. Individuals with schizophrenia experience the highest burden of stigma and discrimination. The attitudes and behaviors of healthcare students (including nurses) related to individuals with schizophrenia reflect this negative viewpoint of the general public. Nurses are likely to interact with individuals with schizophrenia and have the potential to impact the quality of care and quality of life of individuals with schizophrenia and their families.
Methods: This multi-site study will use a quasi-experimental comparison of treatment and control groups. The control group will consist of students exposed to traditional didactic classroom education along with practicum experiences. The treatment group will experience the classroom education and practicum experiences along with an innovative simulation learning intervention. This intervention includes individual simulated auditory hallucinations followed by a standardized patient interaction with an individual with schizophrenia.
Results: Preliminary results of this current study will be presented and will include: a) assessment of student acceptability and relevance of the intervention, b) change in nursing students' knowledge of mental illness, c) attitudes toward patients with schizophrenia, and d) behavioral intent to interact with patients with mental illness.
Implications: Findings from this study using new approaches to instructional technology in simulation are anticipated to impact the preparation of undergraduate nursing students to provide care to individuals with schizophrenia.

Funding: Funding from the National League of Nursing Research Grant.

Effectiveness of a Reference Accuracy Strategy for Faculty Scholarship

Kirsten Speck, MPH, BA
Research Technician
School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV

Barbara St. Pierre Schneider, DNSc, RN
Associate Professor
School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV

Purpose: The purpose was to determine the effectiveness of a reference accuracy strategy, internal copyediting, on reference accuracy in faculty-authored journal articles.

Background: Up to 45% of nursing scholarship has at least one reference error. Reference inaccuracy occurs in scholarly publishing because most faculty authors focus more on the writing than on the accuracy of the references or these authors inadvertently miss the reference errors. Nevertheless, inaccurate references hinder the retrieval of material if author names are misspelled or the year or volume number is incorrect. Also, this lack of precision can raise questions about the accuracy of other parts of the material and the overall quality of the faculty scholarship. To improve reference accuracy, various strategies have been recommended, such as the use of reference manager software or reference checking by someone else. Both of these and other strategies require an investment in time and/or money. Therefore, because of scarce financial resources and limited faculty time for scholarship, the effectiveness of these strategies should be determined.

Methods: This study was divided into two phases. For phase one, a literature review was performed using PubMed and Scopus databases to locate journal articles authored by faculty of one school of nursing and with a publication date of 2000 or later. Articles, and therefore references, were then separated into comparison and intervention groups. Articles assigned to the intervention group were those published between 2005-September 21, 2012 and those articles for which faculty authors used an internal (school of nursing) copyediting service. This service consisted of staff who had editing experience and were knowledgeable in using reference manager software. In contrast, those articles assigned to the comparison group were those published during a time period, 2000-2004, before this internal copyediting was available to faculty authors. Next, references in the reference list of each journal article were compared with the database citation to identify errors. Errors were then categorized into four groups: (a) author; (b) title; (c) journal; and (d) volume, issue, year, or page number. Inaccuracies were further divided into major or minor errors. For phase two, the analysis will compare article characteristics and journal reference styles between the comparison and intervention groups.

Results: During phase one, a total of 291 references were reviewed (comparison: 107; intervention: 184). We found that references from the intervention group had about 50% fewer errors than references from the comparison group. Additionally, references from the intervention group had significantly fewer major errors (p = .04).

Implications: The phase one findings suggest that internal copyediting is effective in improving reference accuracy. Phase two will ensure that the article characteristics and journal reference styles between the two groups were comparable. At this point, the findings indicate that internal copyediting is worthwhile for ensuring high quality faculty scholarship.

Home ◀ ▶ go to PG.

Comparison of Outcomes for Nursing Students with or without Intervention

Vaneta Condon, PhD, RN
Assistant Professor Emeritus
School of Nursing
Loma Linda University
Loma Linda, CA

Earline Miller, PhD, RN
Assistant Professor (Retired)
School of Nursing
Loma Linda University
Loma Linda, CA

Iris Mamier, PhD, RN
Assistant Professor
School of Nursing
Loma Linda University
Loma Linda, CA

G. J. Zimmerman, PhD
Professor
School of Allied Health
Loma Linda University
Loma Linda, CA

Purpose/Aims: To compare entering demographics and program outcomes including graduation rates and NCLEX-RN pass rates for nursing students who participated in a specific intervention program and those who did not.

Rationale/ Background: Disadvantaged minorities are underrepresented in the nursing workforce. Underrepresented in nursing minorities, on the average, have higher attrition rates, lower entering GPAs, and admission testing scores resulting in lower acceptance rates into Bachelor of Science nursing programs. Yet they have been found to practice post-graduation in underserved health care areas at significantly higher rate than other graduates. They are also more trusted and achieve better client compliance with healthcare recommendations with minority clients. Therefore, diversifying the nursing workforce has been suggested as a means to decreasing minority health inequities.

Methods: An academic success and retention model for disadvantaged and ethnically diverse nursing students was designed, implemented and tested with 77 nursing school applicants over a four year period. The model/program included pre-entrance preparation, academic support, social support, financial support and faculty preparation to understand and teach these students. Outcome measures for program participants including graduation rates and NCLEX-RN pass rates were compared with the group of regularly accepted students who ranked in the lowest one third of the class.

Results: There was no significant difference in graduation rates and NCLEX-RN pass rates for the two groups, although the program participants would be predicted to have worse outcomes due to lower entering GPAs and testing results.

Implications: Students from disadvantaged and underrepresented in nursing minority backgrounds can be successful in nursing given a rigorous program of pre-entrance preparation and academic, social, and financial support as well as faculty preparation. These nurses can make a difference in the healthcare of people, especially those in underserved areas.

Funding: HRSA Nursing Workforce Diversity Grant: 4D19HP40318.

Home ◀ ▶ go to PG.

Nursing Students' First Clinical Experience with Death: A Pilot Study

Laura Gilpin, SN
BSN Student Nurse
College of Nursing
Brigham Young University
Provo, UT

Barbara Heise, PhD, APRN, BC, CNE
Assistant Professor
College of Nursing
Brigham Young University
Provo, UT

Purpose/Aims: The purpose of this pilot study was (1) to examine nursing students' perceptions of their first experience with death in the clinical setting and (2) to determine if curricular changes are necessary to better prepare nursing students effectively cope with their first death experience as a nurse.

Background: Death, particularly the unexpected death of a patient, is an emotionally charged, high-stress situation for any nurse. Nursing students encounter scenarios involving death and dying in simulation laboratories, as well as in the clinical setting. In simulation settings debriefing is routinely accomplished and is seen as a critical component of the learning experience. However, Leavy and colleagues (2011) found that even during formal simulation debriefing sessions nursing students were not able to fully process their emotions In real-life clinical settings, the stakes are even higher as nursing students must be able to effectively cope with the death of a patient. Unfortunately, research on students' first experience with death is limited. Huang and colleagues (2010) found students may not receive adequate support from clinical nursing instructors during the dying process and after a patient's death.

Methods: This was a descriptive mixed methods pilot study. An online anonymous survey was sent to students in the Brigham Young University College of Nursing regarding their first experience with death in the clinical setting (N=306). Students were e-mailed a brief description of the research project and an invitation to participate in the study only if they had experienced the death of a patient. Completion of the online questionnaire implied consent. The participants answered 5 demographic questions and 11 survey questions with the estimated time commitment for each participant being 15 minutes.

Results: The online questionnaire was sent to 306 BSN nursing students. Approximately 10% initially responded (N=33). A smaller group (N=25) completed the entire survey. Qualitative comments from nursing students who experienced the death of their patient included feeling sad, shocked and uncomfortable. Fifty percent of the nursing students did not receive any debriefing from their clinical instructor following the event. Students commented more discussion with their clinical instructor after the death would have improved their experience. Of the fifty percent who did receive debriefing only 57% (N=7) indicated that they felt the debriefing was effective.

Implications: The death of a patient is very stressful to student nurses. A variety of emotions surface during this unpredictable time and nursing students may have difficulty reconciling their feelings concerning the death of a patient. Nursing curricula needs to routinely include debriefing sessions for nursing students in the simulation as well as in the clinical setting following the death of their patient. Nurse educators should consider curriculum changes in order to implement standardized debriefing following the death of a student's patient and not simply rely on the instructor's discretion or for students to handle the situation independently.

Funding: Brigham Young University Office of Research & Creative Activities grant (a grant awarded for undergraduate research).

Home ◀ ▶ go to PG.

EDUCATION

Building Nursing Faculty Teams: Using a Strength-Focused Approach

Barbara Heise, PhD, APRN, BC, CNE
Assistant Professor
College of Nursing
Brigham Young University
Provo, UT

Purpose/Aims: The purpose of this pilot study was (1) to determine the impact of faculty knowing their own leadership strengths and (2) to determine the impact of how knowing their strengths influenced their participation on faculty teams.

Background: Nurses at all levels must be engaged in teamwork and collaboration to promote quality patient care and patient safety (IOM, 2011; Cronenwett, Sherwood, Barnsteiner et al, 2007). *The Future of Nursing: Leading Change Advancing Health* (IOM, 2011) report recommends that nurses be prepared and engage in more leadership and collaborative opportunities to advance the nation's health. Three keys to being a leader have been identified: (1) knowing your strengths; (2) investing in others strengths; and (3) getting the people with the right strengths on your team which ultimately maximizes the performance of teams (Rath & Conchie, 2008). Nurse educators are role models and potential leaders. However, many nurse faculties do not recognize their own leadership strengths. In addition, too often in nursing education, leaders do not optimize team building by focusing on those leadership strengths.

Method: This was a descriptive mixed methods pilot study. In this pilot project clinical nursing faculty (N=5) were recruited from the same undergraduate nursing course. Nursing faculty participants were given their own copy of *Strength-Based Leadership* (Rath & Conchie, 2008); took the on-line Strength Finders 2.0 survey which identifies positive leadership characteristics; and completed the NLN Faculty Satisfaction Survey (NLN, 2005) prior to taking the Strength Finders survey as well as 3 months afterwards. The principal investigator met as a group to discuss the faculty strengths in general and individually with faculty to determine the impact of their strengths on them personally, and how knowing their strengths changed faculty team participation and their faculty job satisfaction.

Results: Qualitative findings indicate that knowing their strengths was insightful to them personally and impacted how they participated on faculty teams. Faculty, regardless of their educational preparation, indicated that they felt validated after finding out their personal leadership strengths which increased their confidence as a leader and contributor to the team. No changes were seen in faculty job satisfaction during this short time frame.

Implications: In nursing pre-licensure programs, an integrated curriculum taught by a unified high performance faculty team is essential (Birx, Lasala, & Wagstaff, 2011). Baker and colleagues (2011) found a strong correlation between nurse faculty empowerment and job satisfaction and recommended that nursing faculty should be given the opportunities to showcase their strengths and relevance. All nurse educators have leadership skills. A long term prospective study is warranted to determine if faculty satisfaction is impacted using a strength-focused approach when building high performance faculty teams.

Home ◀ ▶ go to PG.

EDUCATIONAL METHODS

ACTIVE PARTICIPATION WITH CLICKER TECHNOLOGY: A MEDICAL-SURGICAL NURSING APPROACH

Carla McPherson

SIMULATIONS: INCREASE CLINICAL KNOWLEDGE?

Kathleen Gilchrist, Denise Dawkins, Desiree Brandon,
Lindsey Graham, Katelyn Nuckolls

BIRTH ART REFLECTION IN MIDWIFERY EDUCATION

Tanya Tanner, Amy Marowitz

IMPLEMENTATION OF SIMULATION TO IMPROVE STAFF NURSE ORIENTATION

Tiffany Hommes

MAKING IT REAL: SIMULATED HOME VISITS

Dolores Wright, Kathie Ingram

IMPLEMENTING SECOND LIFE® AS A VIRTUAL LEARNING ENVIRONMENT

Nancy R. Ahern

M-LEARNING & MILLENNIALS: STUDENT LEARNING WITH TECHNOLOGY

Patricia Frohock Hanes, Joanne Gilbreath

USE OF STANDARDIZED PATIENTS TO EVALUATE FAMILY NURSE PRACTITIONER STUDENTS

Cheryl A. Maes, Gigi Guizado de Nathan,
Deborah A. Kuhls, Carolyn B. Yucha

TESTING A REFLECTION INTERVENTION ON BSN STUDENTS' LEVEL OF REFLECTION DURING ONLINE CPC

Jaime A. Hannans

WRITING FOR REFLECTION, ACTION AND IMPACT IN HEALTH SCIENCES

Jennifer B. Averill

REQUIRING REFLECTION: ABUSE OF POWER VS. FOSTERING PROFESSIONAL GROWTH

Lida Dekker, Dawn Doutrich, Janet Spuck, Renee Hoeksel

USING A MULTI-STAGED FEEDBACK PROCESS IN A DEDICATED EDUCATIONAL CLINICAL MODEL

Thomas Hendrix, Casey Vralsted

STUDENT SELF-EVALUATION AS A MEASUREMENT FOR OUTCOMES DURING CLINICAL SIMULATION

Lisa Adams, Alleene "Anne" Pingenot, Mary Ann Johnston, Dawn Craven

NURSING STUDENTS' EXPERIENCE OF HIGH-FIDELITY HUMAN PATIENT SIMULATION

Bret Lyman, Nick Miehl, Rana Halabi Najjar, Eileen K. Fry-Bowers

USE OF REFLECTION TO ENHANCE PROFESSIONAL DEVELOPMENT IN NURSE PRACTITIONER STUDENTS

Patricia L. Cullen

USE OF A BLOG IN AN UNDERGRADUATE NURSING CAPSTONE COURSE

Shelly J. Reed, Debra Edmunds

Active Participation with Clicker Technology: A Medical-Surgical Nursing Approach

Carla McPherson, MS, RN-BC
Clinical Assistant Professor
The University of Arizona
College of Nursing
Tucson, AZ

Purposes/Aims: The Personal Response System (PRS) or 'clicker' technology is often used in large classroom settings for the purpose of student assessment of learning. The purpose of this project was to combine common clicker technology with peer-based discussion to improve accuracy of responses to a set of perioperative nursing questions in a medical-surgical class.

Rationale/Background: PRS is used to increase student participation through real-time response recording to questions asked by the instructor. Clicker technology has been shown to improve student engagement, to enhance performance, and to deepen comprehension of course content. However, PRS is not commonly used in combination with peer-based discussions to improve responses to questions.

Brief Description of Undertaking: 102 undergraduate medical-surgical nursing students participated in PRS assessment in combination with peer-based discussion of basic peri-operative nursing content. Prior to class, students viewed a power point and videotaped presentation of the content. Course instructors presented the class with ten questions on this subject and each person responded independently using the PRS. Instructors did not provide the answers to the questions. Students were then given a few minutes to discuss their individual responses with their peers sitting near them, and were encouraged to convince their peers to re-evaluate their responses. Following this collegial discussion, the instructor presented the same questions a second time and the student's final answer was recorded as their assessment of learning. The correct answer was then revealed and the instructor facilitated additional discussion to further clarify poignant points.

Outcomes Achieved/Documented: The average score of the peri-operative quiz prior to using the PRS and peer discussion was 74%. Once students discussed their rationales for their responses with their colleagues and had an opportunity to change their answer, the average final score for the peri-operative quiz was 96%. Also, students changed their response from the incorrect answer to the correct answer on average 83% of the time. Students were visibly more enthusiastic with their improved grade and their deepened comprehension of the peri-operative content.

Conclusions: This interactively designed student-engaged project proved to be an effective method to assess and improve comprehension of nursing content. PRS technology is typically used with instant feedback, but in this project the discussion with their classmates, and the re-thinking of their initial responses, provided valuable secondary feedback of the nursing content. Another benefit of this project was the enhanced level of active participation in the classroom. Future studies could further evaluate this technique using a rigorous double blind trial in delivering effectiveness of not only peri-operative nursing content but also nursing content as a whole.

Home ◀ ▶ go to PG.

Simulations: Increase Clinical Knowledge?

Kathleen Gilchrist, PhD, FNP, CCRN, PHN
Denise Dawkins, MSN, RN, CNL
Desiree Brandon, SN, EMT-P
Lindsey Graham, SN
Katelyn Nuckolls, SN

California State University Bakersfield
Nursing Department
Bakersfield, CA

Purpose: Assessment of nursing students' knowledge and critical thinking skills before and after a simulation.
Background: Research by Wotton, Davis, Button, and Kelton; Ling, Chen, Yang, and Tsui; and Smith and Roehrs concluded that simulation is beneficial to nursing education. The researchers found that simulation teaching scored higher than traditional teaching because nursing students were able to master clinical skills through instructor guidance. In addition, nursing students had positive feelings and were satisfied with simulation as a teaching method.
Methodology: Exploratory, quantitative research with three senior baccalaureate students under the supervision of two nursing faculty. Senior students completed a research course and Institutional Review Board training. Then, the senior students developed a new grading rubric based on the previous year's research. The senior students trained together to use the new grading rubric. All beginning nursing students attended the regular simulation classes and were assigned a random number. Beginning students took the Cardiac pre-test via Survey Monkey® to assess their level of knowledge prior to the simulation. At the end of the simulation and debriefing, all beginning students took the post-test via Survey Monkey® to determine if their knowledge had increased. None of the data collected were used in grading students for the Simulation Lab experience.
Results: Out of 54 students 47 agreed to participate (87% response). Eighty-one percent were females and 19% males and ranged in age from 21-30 years old. There were 37% Caucasian and 31% Asian students with smaller groups of other ethnicities. The average GPA of students was 3.67. The highest score on the Cardiac pretest was 8 and the lowest score was 4 and on the post-test the highest score was 9 and the lowest score was 3. The average Cardiac pre-test score was 6.28; the average post-test score was 6.12. Interestingly, the Cardiac post-test scores were significantly lower than the pretest scores with a T-test of 0.00407. Questions arose such as did the beginning students over analyze their original answers on the Cardiac pretest and change them on the post-test? Did the students collaborate on the quiz, or did they intentionally give the wrong answers? In addition, senior students found it difficult to score three students at once during the simulation.
Implications: Simulations may not be as beneficial as documented in the literature. Senior students recommend that during the assessment of a simulation, that they only review one individual at a time. Senior students propose video-taping all of the simulations and that would enhance scoring students since they could review the videotape. Senior students advocate clearer student objectives for the simulations and matching the objectives and simulations better. Senior students scoring the simulation students had a lot of critical thinking they had to do on the goals of simulation and how simulation can be used to enhance clinical courses. Senior students recommend that simulation students be graded on only one simulation during the quarter and provide written feedback at the end of the quarter. Senior students suggest incorporating a Videotaped Simulation Experience for beginning students.

Home ◀ ▶ go to PG.

Birth Art Reflection in Midwifery Education

Tanya Tanner, PhD, MBA, RN, CNM
Course Coordinator
Frontier Nursing University
Hyden, KY
Tanya.Tanner@frontier.edu

Amy Marowitz, DNP, CNM
Course Coordinator
Frontier Nursing University
Hyden, KY
Tanya.Tanner@frontier.edu

Purposes/Aims: The purpose of this project was to implement and evaluate a birth art reflection assignment in an intrapartum nurse-midwifery course. The aims were to evaluate student interest, participation, and evaluation of the assignment. The faculty's perceived value of the assignment for student learning was also evaluated.

Rationale/Conceptual Basis/Background: The institutionalization of nurse-midwifery education programs combined with the technological nature of today's childbirth care system has led to an increased emphasis on educating nurse-midwifery students in the science of midwifery practice, sometimes at the expense of focusing on the art of midwifery practice. Educating nurse-midwifery students in the art as well as the science of midwifery is essential to maintaining the ontological and epistemological foundations of nurse-midwifery practice. Chinn & Kramer (2011) acknowledge the aesthetic as a valid way of knowing in nursing, and Chinn (1994, p.20) states "Art expresses what words usually fail to express", "brings wholeness to human consciousness", and "moves consciousness into realms not imagined and realities not predicted". This project focuses on integrating aesthetic ways of knowing with learning the art of midwifery practice in nurse-midwifery education.

Method: For two simultaneous 12 week terms, nurse-midwifery students were given the option of choosing to reflect upon a piece of birth art instead of a standard, written case study reflection. Students were able to choose their own piece of birth art as the focus of their reflection. Data was collected regarding the students' choice to participate in the art reflection assignment, the overall quality of the reflection assignment content, and student and faculty evaluation of the assignment.

Results: Students enthusiastically participated in the reflection assignment. Reflection comments of students evidenced in-depth analysis and deep understanding of the birth experiences of the women reflected in the works of art. They also provided a manifestation of the students understanding of the hallmarks of midwifery care. Specific exemplars of reflective posting contents, student's evaluative comments about the assignment, and instructor reflections on the perceived positive value of this type of assignment in nurse-midwifery education will be presented.

Implications: A deep respect for birth as a physiologic developmental event in a woman's life is a hallmark of midwifery practice. This project provides an example of how to successfully integrate empirical knowledge of the birth process with aesthetic knowledge gained by reflecting on a piece of birth art within the context of teaching the art of midwifery care. Positive evaluations by both students and faculty suggest that including birth art reflection assignments in nurse-midwifery education is valuable to the process of teaching and learning the ontology and epistemology of midwifery care.

References:

Chinn, P. L. (1994). Developing a method for aesthetic knowing in nursing. In Chinn, P. L. & Watson, J. (Eds.), *Art and Aesthetics in Nursing* (pp. 19-40). New York: NLN Press.

Chinn, P. L. & Kramer, M. K. (2011). *Integrated Knowledge Development in Nursing*, (8th ed.). St Louis, MO: Mosby.

Home ◀ ▶ go to PG.

EDUCATIONAL METHODS

Implementation of Simulation to Improve Staff Nurse Orientation

Tiffany Hommes, DNP, RN, CNP
Assistant Professor of Nursing
Bemidji, MN

Purposes/Aims: The purpose of this project was to implement a simulation curriculum during the nursing orientation process at a mid-western, rural community hospital. The expectation was that simulation would assist newly hired nurses to feel more confident and have a higher level of competency to care for complex patients in our changing health care environment.

Rationale/Background: New graduate nurses are often unprepared for entering the workforce. There is a practice education gap that exists between what is learned in school, and what happens in practice. Evidence exists that using simulation prepares nurses to manage patients safely and confidently. Simulation can also provide experiential learning, and help to bridge the gap between theory and clinical practice.

Methods: This project implemented a simulation curriculum during the nursing orientation process at a mid-western, rural community hospital. A simulation team was formed to design four simulations based on in-put received from project site stakeholders, National Patient Safety Goals and extant literature. Jeffries (2007) Nursing Education Framework was used to guide the simulation designs. The educational institution and project site institutional review boards (IRB) determined that since the project focused on process improvement, it did not meet the threshold for human subjects review.

Three orientation cohorts totaling 11 participants completed the Orientation and Simulation Pre/Post Confidence and Competence Survey (OSPPCCS) to evaluate the change in pre and post perception of confidence and competence. The OSPPCCS was completed on the first day of orientation (prior to the simulations), and at the end of the day on the last day of orientation (after the simulations). Face validity was established the DNP project director's advisor, and by five content experts.

Outcomes Achieved: One hundred percent of participants (11 participants) had an increase in confidence from pre to post survey. Ninety-one percent of participants (10 participants) had an increase in competence from pre to post survey. There was sufficient evidence to conclude a significant increase in overall confidence between pre and post survey (p-value <0.001). There was also sufficient evidence to conclude a significant increase in overall competence between pre and post survey (p-value= 0.001).

Conclusions: Simulation can be an effective educational tool during orientation to assist in improving confidence and competence for newly hired nurses. Post-orientation, newly hired nurses perceived increases in confidence and competence. Causality could not be determined due to project design. More robust studies are needed for the body of evidence for continued use of simulation in the orientation process of newly hired nurses. At the project's completion, the project site opted to sustain the simulations in orientation as an intervention to improve confidence, competence, and ultimately lower attrition rates in newly hired nurses.

Home ◀ ▶ go to PG.

EDUCATIONAL METHODS

Making It Real: Simulated Home Visits

Dolores Wright, PhD, RN
Professor
School of Nursing
Loma Linda University
Loma Linda, CA
dwright@llu.edu

Kathie Ingram, MS, RN
Assistant Professor
School of Nursing
Loma Linda University
Loma Linda, CA

Purpose/Background: Educators in acute care are able to use computer and human patient simulators for students experience prior to the students' first experience with a live patient. In Public Health Nursing (PHN) education, the first encounter was often done by the student observing a home visit conducted by a county PHN. Because these observations are not regularly available, another method was sought to provide an experience which would decrease the fear and anxiety of the student.

One solution is to provide PHN students with an opportunity for a simulated home visit before they receive their first referral. A unique and innovative teaching strategy was developed to produce a simulated home visit experience that would make the real one less intimidating.

Process: The process began with faculty education from the university's Medical Simulation Center (MSC), and resulted in developing several case scenarios appropriate for PHN home visits. The three primary goals which directed the project were 1) familiarize PHN students with the home visit process prior to the actual experience; 2) expose PHN students to situations not available with current referrals; and 3) decrease PHN students' fear and anxiety of the home visit in the community.

Evaluation of the experience began immediately after the simulation with a debriefing session where the students were able to view portions of the video-taped visit and discuss the visit. At the end of the term, evaluation continued by eliciting student feedback through open ended questions and a Likert type scale.

Outcomes: Preliminary results indicate that students reported a decrease in fear and anxiety when making their first home visit in the community. They found the simulated experience authentic and conducted in a supportive environment which they felt enhanced or improved their communication skills. They also emphasized that the simulation experience reinforced the importance of assessment in all situations. They were prepared for anything to happen during a home visit and were alerted to "paying attention to what was not said."

Conclusion: The simulated home visit appears to build the skills and confidence and decrease the fear and anxiety for beginning PHN students. The debriefing process enabled students to see themselves as others saw them while making a home visit.

Home ◀ ▶ go to PG.

EDUCATIONAL METHODS

Implementing Second Life® as a Virtual Learning Environment

Nancy R. Ahern, PhD, RN
Associate Professor
School of Nursing
California State University, Fullerton
Fullerton, CA

Purposes/Aims: The purposes of this presentation are: 1) to describe how a School of Nursing (SON) was designed and established in Second Life (SL); and 2) to relate how this educative teaching-learning strategy enhanced learning outcomes in a prelicensure baccalaureate nursing students.

Rationale/Background: As technological developments have increased in leaps and bounds over the past decade, so too have the numbers of students and consumers in need of health education. The costs for delivery of education, coupled with the shrinking clinical placement resources, have diminished the efforts provided by nurses in practice and academia. A new learning environment has emerged to augment the traditional teaching approaches of nurse educators. Second Life®, an Internet-based, 3D, MMVW (multiplayer virtual world) program, is created, built, and designed by its millions of residents, called avatars. SL was originally established for social networking has evolved to include multiple educational, enterprise, and research opportunities. Although there may challenges and barriers to using this technological approach in health education, the potential opportunities are endless.

Undertaking/Best Practice/Approach/Methods/Process: Following a review of literature to determine best practices for using SL as a teaching-learning innovative strategy, the School of Nursing classroom building was established on the university's virtual land. Exploration of SL for potential learning activities and resources led to a student orientation plan, three interactive assignments, and a method to assess learning outcomes. With the support and assistance of the university's administration and technology department and the SON administration and faculty, twenty students in a professional concepts class experienced SL. These students received small group orientations regarding avatar appearance and functions (professionalism). They were given resources on how to find free items to enhance their appearance as well as on how to perform basic functions. After the orientation phase, the majority of their SL experiences were in small groups, although the entire class entered the virtual world for a portion of each classtime. Students were then provided with a list of numerous locations for the completion of their assignments (an interview, attendance of a support group, exploration of an interactive health-related activity).

Outcomes Achieved/Documented: The use of SL in this course led to a university-wide spotlight on the SON for the use of this best practice strategy. Reflective student journals provided evidence of their positive learning outcomes. Of the 20 students in this cohort, 19 (95%) rated this experience as positive. Specific examples will be provided.

Conclusions: The use of virtual worlds as a best practice nursing education pedagogy can potentially enhance student-learning outcomes. Although the opportunities may only be limited to the imagination, each health care educator must review the barriers, challenges, and opportunities before choosing to adopt this virtual world as an education tool.

Home ◀ ▶ go to PG.

M-Learning & Millennials: Student Learning with Technology

Patricia Frohock Hanes, PhD, MSN, MAED, RN, CNE
Associate Professor
School of Nursing
Azusa Pacific University
Azusa, CA

Joanne Gilbreath, EdD
Professor
School of Education
Azusa Pacific University
Azusa, CA

Purpose: To introduce an innovative teaching strategy integrating m-learning (mobile learning with technology) with assessment in nursing classes.

Background: Millennial students are both savvy in, and influenced by, using technology for learning. A literature search revealed no information on the use of m-learning in nursing classes. Students are expected to function in an increasingly technology-rich environment which can enhance their ability to analyze and synthesize information. Complex class projects/assignments require higher-order thinking and application of theoretical materials. Using m-learning allows students to have freedom to construct their own learning experiences outside of the classroom (portability and accessibility). This cross-disciplinary project involved the School of Nursing and the School of Education. Conceptual Frameworks: Mayer's Cognitive Theory of Multimedia Learning, Gardner's Theory of Multiple Intelligences, constructivist learning theory, composite cognition, and theories of learning styles.

Methods: Students were required to use different presentation strategies to present complex, theoretically-based family case studies in a class on nursing theory. Students developed their projects in different class sections using the technology of their choice (e.g., iPads/iPhones and software). The groups were instructed to develop their presentations using mobile applications or whatever methods they preferred. Projects were uploaded to the digital "cloud" which ensured their accessibility and retrievability. Prior to beginning the project, students evaluated their learning styles. Student reactions and learning outcomes were assessed using informal group interviews, surveys, and projects.

Outcomes Achieved/Implications: Students were highly satisfied (95%) with this style of learning; 92% reported that they learned the material better than with other methods. Survey results indicated that 87% of students enjoyed constructing this project using technology more than projects that did not use technology; 95% were more engaged watching the presentations than with traditional delivery methods. Few students needed support (87%) although >25% rated themselves as novices or below. This student-rich project impacts nursing students by promoting synthetic thinking, critical application of knowledge, and use of mobile technology to prepare them for current classroom, clinical, and work environments. This strategy is used as both universal design and teaching with technology examples in graduate nurse educator and educational technology classes.

Conclusion/Recommendations: Use of technologies as classroom tools is responsive to the learning styles and needs of millennial students; this is demonstrated by improved learning outcomes. Current education models emphasize the need for differentiation in teaching; cutting-edge strategies answer those needs. Nurse educators must be cognitive of the needs of tech-generation students and capitalize on learning opportunities using media and technology through innovative, cross-disciplinary pedagogical practices while incorporating the Institute of Medicine's competencies for nursing including teamwork, collaboration, and informatics.

Home ◀ ▶ go to PG.

Use of Standardized Patients to Evaluate Family Nurse Practitioner Students

Cheryl A. Maes, MSN, APN, FNP-BC
Lecturer
School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV

Gigi Guizado de Nathan, BA
Coordinator, Simulation Education
School of Medicine
University of Nevada, Las Vegas
Las Vegas, NV

Deborah A. Kuhls, MD, FACS, FCCM
Associate Dean for Academic Affairs
School of Medicine
University of Nevada, Las Vegas
Las Vegas, NV

Carolyn B. Yucha, RN, PhD, FAAN
Professor and Dean
School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV

Purpose: To determine if there is a relationship between the clinical evaluations of Family Nurse Practitioner (FNP) students completed by Standardized Patients (SP) and those completed by nursing faculty who have viewed the SP encounter.

Background: Schools of Medicine (SOM) have been using SPs in their objective structured clinical examination (OSCE) of medical students for a number of years. The SP evaluation provides objective data of the students' synthesis of pedagogical information, in addition to application of this knowledge in the clinical environment. To a lesser extent, SPs have been used by nurse practitioner (NP) programs to evaluate students' clinical performance. Taking advantage of the SP program used by our SOM, and adapting it for use in the SON, led us to question the effectiveness of using SPs to evaluate FNP students. Using SPs for evaluation purposes could feasibly decrease faculty inconsistencies and workload in the clinical evaluation process.

Methodology: A descriptive, cross-sectional design using Pearson's correlation with a statistical significance of $p \leq 0.05$ was used. A convenience sample of FNP students enrolled in courses NURS 749, 759, and 769 were evaluated at the end of the semester by both the SPs and nursing faculty using a total of 2 OSCEs. The instruments used were: 1.) Clinical Instructor Evaluation Tool used by nursing faculty to evaluate FNP students during site visits; 2.) Essential Elements of Communication used by the SP to evaluate SOM students; and 3.) Evaluation of Case-Specific Criteria used by the SP to evaluate SOM students. Related subscales of these instruments were tested for association.

Results: A total of 37 FNP students (35 female, 2 male) were included in this study. Results found significant relationships between how SP and nursing faculty evaluate FNP students in the areas of Professional Role, Patient Relationships, and Assessment & Physical Examination Skills.

Implications: The use of SP encounters as an evaluation method provides a new tool in the clinical assessment of NP students. If SP encounters are to become an evaluation measure in the NP program, development of a valid and reliable tool is imperative to reflect clinical competency evaluation by nursing faculty.

Home ◀ ▶ go to PG.

EDUCATIONAL METHODS

Testing a Reflection Intervention on BSN Students' Level of Reflection during Online CPC

Jaime A. Hannans, RN, PhDc
Doctoral Student
Department of Nursing
University of Nevada, Las Vegas
Las Vegas, NV

Rationale/Background: Faculty and student verbal interactions (69-80%) are at low cognitive levels during nursing clinical post conference (CPC; Rossignol, 1997; Rossignol, 2000; Wink, 1993), a time often utilized for reflective thinking (Benner et al., 2010; Letizia, 1998). In addition, 65% of new nursing graduates do not meet entry level expectations for clinical judgment (Del Bueno, 2005).

Purposes/Aims: The specific aims for this study are to (a) test the effect of the reflection intervention on the baccalaureate nursing (BSN) student level of reflection during online CPC, (b) examine the relationship between student attributes and level of reflection, and (c) examine the relationship between clinical reasoning and level of reflection.

Undertaking/Best Practice/Approach/Methods/Process: Through the use of online CPC, baccalaureate nursing student's online postings will be evaluated for levels of reflection, based upon theory by Mezirow (1991), after an education intervention has been implemented. A quasi-experimental, nonequivalent comparison group design will be used while asynchronous online CPC is conducted during 6 weeks of acute care clinical courses with three levels of students in a generic baccalaureate accredited nursing program in California. The relationship of students' level of reflection and student attributes such as personality, age, gender, ethnicity, student level, and GPA, will be evaluated along with the relationship of student's level of reflection and clinical reasoning.

Outcomes Achieved/Documented: The importance of promoting higher levels of reflection in nursing practice is to support student nurse abilities to think at higher cognitive levels, evaluate circumstances and events, self-reflect, improve clinical reasoning, and contribute to the preparation of the student nurse to step into the role of the primary nurse. Strategies have been implemented to promote or even teach reflection, but the level of reflection or impact of the intervention in nursing, such as clinical reasoning, is often not evaluated (Ascano-Martin, 2008; Cooper et al., 2004; Pierson, 1998; Yehle & Royal, 2010). It is also unclear if nursing student attributes or clinical reasoning has any association with levels of reflection.

Conclusions: This research study is innovative because a reflection intervention will be implemented among three levels of baccalaureate nursing students, evaluate the student writings through the use of asynchronous online CPC, and analyze the relationship between student attributes, clinical reasoning abilities, and levels of reflection abilities to improve preparedness of new nurses that could offer future advances in enhancing nursing practices and potentially better patient outcomes.

Home ◀ ▶ go to PG.

Writing for Reflection, Action and Impact in Health Sciences

Jennifer B. Averill, RN, BS, ADN, BSN, MSN, PhD
Associate Professor
College of Nursing
The University of New Mexico
Albuquerque, NM

Purpose/Aims: The purpose of this presentation is to describe a newly developed graduate elective on *writing for reflection, action and impact* in our professional practice, teaching/education, and research. Developed at a southwestern university, the course is aimed at all health sciences students, to enrich and deepen their knowledge of writing effectively, convincingly and descriptively for improved outcomes in their work and lives.

Rationale/Background: The capacity to write reflectively, powerfully, and clearly is frequently identified by faculty members and students alike as an unmet need in graduate education. The major focus of the course is not on the details of technical writing (although resources are provided), but instead on understanding the conceptual, philosophical, categorical, and insightful dimensions of writing-as-action. It is intended to strengthen the written expressive ability of students in assignments, publications, grant applications, and literature for their disciplines.

Description, Approach, Methods, Process: A literature review on effective reflective writing found that students often (1) demonstrate poor writing skills both technically and substantively, and (2) manifest inadequate evidence of integration between conceptual and operational content of courses. Informed by these findings, the course content outline was supported by verbal/written evidence from students and colleagues over 25 years regarding the need for better writing. Feedback on content and process for the course was sought from an existing faculty writing group, and from colleagues in the domains of practice, education and research. The course will undergo review by the college's graduate/curriculum committee, the faculty and the university's curriculum committee prior to catalog listing. The plan is to offer it as a NEXus elective, as well.

Planned Outcomes: Outcomes for the course include a *portfolio* developed by each student containing two finished examples of reflective writing (for practice, education or research, each 2-3 pages long) ready for submission to a peer-reviewed journal; an original verse or poem that is reflective in nature; and a bibliography for writing reflectively, effectively, and powerfully. A second outcome will be to track the quality and output of writing during the students' programs of study external to this course.

Conclusions, Implications and Recommendations: A course of this description has long been needed. Whether it makes a positive difference for the students, their writing capacity, or the quality of their expressive output remains to be seen. A strength of the course is that in this day of teamwork across mission (practice, teaching, research, etc.), within and beyond a particular college/department, leadership/teaching participation may come from a variety of qualified and talented writing experts and advocates.

Home ◀ ▶ go to PG.

Requiring Reflection: Abuse of Power vs. Fostering Professional Growth

Lida Dekker, RN, MN, APRN-BC
Instructor, EdD Graduate Student

Dawn Doutrich, PhD, RN, CNS
Associate Professor

Janet Spuck, MS, RN
Senior Instructor

Renee Hoeksel, PhD, RN
Professor

College of Nursing
Washington State University
Vancouver, WA

Purposes/Aims: The purpose of this poster is to present pedagogical approaches and education skill sets to promote safe and effective reflection on practice for educators of clinical care providers. Promising practices from expert nurse educators are described that address the question, what are ethical methods for eliciting and guiding reflection on clinical practice?
Rationale/Background: Health profession educators, accrediting bodies, and general education scholars agree that there is a need to encourage and teach reflection on practice as a component of professional role development. International scholars describe 2 strands of reflection, the ontological and the epistemological. A third reflective approach is grounded in critical theory that emphasizes awareness of personal narrative as well as power relationships. Without conscious choice of reflective stance and personal self-awareness an educator has the potential for suppression, control and misuse of power with the use of reflective assignments, or may generate a liberating process that empowers practitioners as researchers on their own experiences.
Undertaking/Best Practice/Approach/Methods/Process: Original research and over 50 years of the authors' combined teaching experience, along with review of current literature have led to effective tools for teaching and evaluating reflection on clinical practice. A dynamic program implemented with the support of a medical center's ethics committee encouraged a multidisciplinary team to participate in self-reflective process through journaling, small group work and role play. In addition, students were engaged in participatory action research to explore the meaning and practice of reflection in clinical experience. The primary author has engaged in the research process of duo-ethnography to promote dialogue to enhance reflection. Successful assignments have included an invitation to share an element of personal culture with classmates, describe how advocacy is related to practice, and participate in a family cultural history interview dialogue with another classmate.
Outcomes Achieved/Documented: Lessons learned by examining our own teaching outcomes include: 1) Learning to reflect on and to know oneself is foundational to learning to reflect on practice; 2) Reflective assignments need guidance, not grading; and 3) Cultural self-awareness is an effective pathway to understanding values and biases. One nurse participant's reflection was, "…now I have a better understanding of how culture has affected everything about the disease process."
Conclusions: Health professions faculty and students need to be made explicitly aware that personal narrative, cultural self-awareness, and identification of values and biases are closely linked to the ability to reflect on professional practice and the ability to provide a safe and authentic healing environment with clients and institutions. Questions for further reflection: Are faculty prepared for students to disclose painful or traumatic self-reflections? Is it ethical to require self-reflection? Is it ethical to prepare health professionals without requiring self-reflection?

Home ◀ ▶ go to PG.

EDUCATIONAL METHODS

Using a Multi-Staged Feedback Process in a Dedicated Educational Clinical Model

Thomas Hendrix, PhD, RN
Associate Professor
School of Nursing
University of Alaska Anchorage
Anchorage, AK

Casey Vralsted, SN
Nursing Student
School of Nursing
University of Alaska Anchorage
Anchorage, AK

Purpose: The purpose of this case study was to present a successful use of the Dedicated Educational Unit (DEU) philosophy in the clinical setting from the perspective of both a clinical instructor and a nursing student.

Rationale: The DEU is an innovative model of nursing education wherein the staff nurses in the hospital take on the primary role of instructing the students in patient care and the university faculty member becomes the facilitator of the process of education by working with both the students and the hospital staff. With hospital staff taking on the primary patient care educational role, it has become difficult for the university teacher to have a perceived impact on the education of the students assigned to them in the way that used to occur in the more traditional clinical paradigm. The instructional strategy described in this case study is a result of 4 consecutive semesters of changing instructional strategies and then seeking feedback from students.

Methods: At the beginning of the semester, the university teacher solicited a volunteer to provide week-to-week feedback on a different form of instructor feedback during the process of progressing through the clinical week. The students completed traditional clinical paperwork prior to beginning their first day of clinical training. As the students were being mentored by the hospital staff in the direct care of patients, the university instructor time on their clinical paperwork and provided at least 10 questions about their patients that the students were required to answer that night prior to returning for their second clinical day. During the second clinical day, the instructor probed a little deeper in specific areas of patient care and provided another 10 questions for the students that had to be answered prior to the end of the week. In this way, the university instructor was free to take any piece of data at the beginning of the week and drill down into areas of critical thinking that were difficult to arrive at through the traditional clinical preparation that students traditionally do. The focus of this endeavor was to increase student ability to critically think. The university instructor and the clinical students kept weekly journals of their perceptions of this process.

Data Analyses: University teacher journals and student journals were compared week to week and a scheduled discussion ensued at the end of each week. Both instructor and student perceived that critical thinking was enhanced through this process. Both agreed that this process resulted in more work for the teacher and the student but both felt that the learning process that resulted was worth the effort.

Findings and Recommendations: This multi-staged clinical data and journal were viewed very positively by both teacher and student. This case study not only describes a positive way to utilize a new clinical paradigm but also allows clinical instructors to continue to add real “value” to the educational product of nursing education. It also demonstrates that teachers and students can collaborate in an effort to enhance learning that is valued by both even though additional work was required.

Home

◀ ▶ go to PG.

EDUCATIONAL METHODS

Student Self-Evaluation as a Measurement for Outcomes during Clinical Simulation

Lisa Adams, RN, MSN, FNP-BC
Assistant Professor of Nursing
Department of Nursing
California State University, Stanislaus
Turlock, CA

Alleene "Anne" Pingenot, RN, MA, MS, PhD
Assistant Professor of Nursing
Department of Nursing
California State University, Stanislaus
Turlock, CA

Mary Ann Johnston, RN, MSN
Lecturer
Department of Nursing
California State University, Stanislaus
Turlock, CA

Dawn Craven, RN, MSN
Simulation Coordinator
Kaiser Permanente Medical Center
Modesto, CA

Purpose/Aim: The purpose of this study was to compare student self-evaluation (SSE) and objective measures obtained with the Situation Awareness Global Assessment Tool (SAGAT).

Rationale/Conceptual Basis/Background: Development of clinical reasoning and decision-making is a crucial learning objective for student nurses. Students generally express a belief that experience with the patient simulator is helpful to their learning and SSE is the primary evaluation method used by nursing faculty. However, it is well known that subjective evaluation, although useful, does not necessarily correlate with differences in performance. Situation awareness (SA) is a term used to denote ability to "know" what is happening in a performance situation and can be objectively measured by SAGAT This study compared SSE to the SAGAT.

Methods: Scenarios were conducted in the SimMan patient simulator. Ten nursing students volunteered to participate. Each student participated individually in all three scenarios. SAGAT measures were collected by the investigators during each scenario. SSE was collected at the end of each scenario.

Results: Correlation between the objective (SAGAT) and the SSE scores were analyzed. No significant correlation between the SSE and the SAGAT scores was found.

Implications: The lack of correlation between objective scores of student SA and SSE suggests that SSE is an unreliable measure of student performance. This is consistent with the findings of self evaluation studies in other domains outside of nursing. Objective measures likely are better than subjective measures overall, but some useful information might be obtained if educators were to focus on self-efficacy rather than SSE. Self-efficacy measures a student's confidence in their ability to perform specific tasks. Further research will focus on the correlation of objective measures of performance and self-efficacy.

Home ◀ ▶ go to PG.

Nursing Students' Experience of High-Fidelity Human Patient Simulation

Bret Lyman, PhD, RN, CNE
Campus Associate Dean
Assistant Professor
School of Nursing
Oregon Health & Science University
Monmouth, OR

Nick Miehl, MSN, RN
Instructor
School of Nursing
Oregon Health & Science University
Monmouth, OR

Rana Halabi Najjar, PhD, RN, CPNP
Assistant Professor
School of Nursing
Oregon Health & Science University
Monmouth, OR

Eileen K. Fry-Bowers, PhD, JD, RN, CPNP
Associate Professor
School of Nursing
Loma Linda University
Loma Linda, CA

Aims: The aim of this project is to describe and generate a model of the experience of undergraduate nursing students in high-fidelity human patient simulation.

Background: A growing body of evidence validates the efficacy of using simulation in nursing education. The student experience of simulation may significantly mediate the efficacy of simulation, yet it has largely been overlooked in the research literature. Describing the student experience of simulation is an essential step toward understanding its impact, and will guide faculty in the purposeful design and integration of effective simulation experiences into nursing curricula.

Methods: A qualitative, grounded theory design will be used for this study. Data will be generated through focus group interviews. Participants will be recruited from three cohorts of students enrolled in a baccalaureate nursing program in which simulation is frequently used. Interviews will be recorded and transcribed verbatim. Data analysis will occur after each focus group, with each investigator engaging independently in open coding. Investigators will then participate collaboratively in axial and selective coding. Factors identified in each interview will be incorporated into future interviews and analyses. Constant comparison will be used to ensure data collection and analysis continue until saturation and consensus is reached by the research team. Findings and interpretations will be confirmed with participants to ensure that reconstructions are adequate representations of their realities.

Results: The projected completion date for data collection, analysis, and member checking process is the summer of 2013. The findings will be presented in maximal detail, allowing others to assess for potential transferability to and appropriateness in other settings. Suggestions for subsequent research along this trajectory will be provided. The findings will be used to generate a model representing the experience of undergraduate nursing students in high-fidelity human patient simulation.

Implications: This study has the potential to deepen understanding of how students experience simulation, allowing nursing faculty to design more effective simulation experiences. This study will also generate a new model representing how students experience simulation. The new model will serve as an initial framework for future qualitative and quantitative research in this area. The new model may be complementary to the widely used Nursing Education Simulation Framework.

Funding: Sigma Theta Tau International, Beta Psi Chapter.

Home ◀ ▶ go to PG.

Use of Reflection to Enhance Professional Development in Nurse Practitioner Students

Patricia L. Cullen, PhD, CPNP
Associate Professor and Director
Department of Accelerated Nursing
Loretto Heights School of Nursing
Regis University
Denver, CO

Purpose: The purpose of this project was to qualitatively analyze reflective journal submissions of graduate nursing students enrolled in a pediatric primary care course and was conducted to provide support for the value of integrating this activity into the graduate curriculum.

Background: Reflective practice integrates thought and action with reflection and involves critically analyzing one's actions with the goal of improving personal professional practice. Based on the work of Schön (1987 and 1991), there has been interest in the exploration of ways in which professionals learn and in the analysis of reflection as an important learning tool. Previously published reports have established the efficacy of reflective writing in professional development (Glaze, 2002; Chirema, 2007). Further work is needed to strengthen the belief that reflection enhances the relationship between theory and practice.

Methods: Qualitative methodology utilizing descriptive phenomenological analysis of serial reflective journals written by graduate nursing students enrolled in a pediatric primary care course was employed. Purposeful sampling was utilized and 26 students participated in the project. Students submitted eight journals over the course of one semester. A constructivist theoretical paradigm provided the foundation for the project. Informed consent and institutional review board approval were obtained for the project.

Results: Student journals were analyzed thematically, for categories of reflection, and for evidence of reference to multiple avenues of nursing knowledge. Thematic analysis revealed persistent themes of role stressors, goals, growth experiences, social awakening, and role development. Analysis for categories of reflection revealed entries consistent with the four stages described by Glaze (2002). Journals also reflected evidence of multiple avenues of nursing knowledge (Carper, 1978) which evolved over the semester from primarily empirical to those of a personal, aesthetic, and ethical nature at the conclusion of the study.

Implications: Future work should be directed at replication of these findings in additional groups of graduate students to better describe the process of advanced practice role development and to define the role best served by the reflective writing experience.

Home

◀ ▶ go to PG.

EDUCATIONAL METHODS

Use of a Blog in an Undergraduate Nursing Capstone Course

Shelly J. Reed, DNP, APRN
Associate Teaching Professor
Brigham Young University
College of Nursing
Provo, UT

Debra Edmunds, MSN, RN, CNE
Associate Teaching Professor
Brigham Young University
College of Nursing
Provo, UT

Purpose: The purpose of the research presentation is to describe the use of a blog in an undergraduate nursing capstone course, including student and instructor perceptions about usefulness of blogging in relation to student learning and socialization to "become a nurse".

Rationale: Generational diversity has been identified as an impact on teaching and learning consideration for today's learners. Teaching strategies should be tailored to generational values and learning culture to facilitate student learning. Today's generation has grown up with technology and expects information presented in an entertaining way (Johnson & Romanello, 2005). Narrative pedagogies, in conjunction with course content, have been identified as providing many benefits for today's learners. These benefits include teaching, learning, interpreting, critically thinking, and analyzing concepts, ideas, and situations. Journaling is one form of narrative pedagogy with blogging, (online journaling) more suited to today's generation of nursing students. There is limited research about how learning is affected by narrative pedagogies, with research called for to examine which strategies enhance critical thinking, promote learning, and develop autonomy in professional practice (Brown, Kirkpatrick, Mangum & Avery, 2008). No research could be found concerning the use of a blog as a reflective tool in undergraduate nursing education. This research substantiates the call for evidence concerning the use of narrative pedagogies in nursing education, as voiced by Brown, Kirkpatrick, Mangum & Avery (2008).

Methods: In this qualitative descriptive study, seven students in a clinical nursing section participated in a private, invitation-only blog during their capstone semester. As a requirement of the blog, each student was to write one post per week and comment once per week on another student's post. Brigham Young University IRB approval was obtained for the research portion of the study, which involved analyzing the posts and comments for content and conducting a focus group regarding the usefulness of the blog following completion of the semester. In addition, the value of blogging as a reflective tool from an instructor standpoint was identified.

Results: Initial feelings expressed by students were annoyance and intimidation concerning the blogging assignment. These feelings quickly dissipated, with students verbalizing many positive aspects related to the blog, including having a "safe" place to comment, feeling connected as a group, valuing feedback provided by their peers, and learning from theirs and others' experiences. The mechanics of having to synthesize their thoughts in written form, in a shared venue was also identified by students to be helpful for their learning. Blog posts were primarily related to student experiences, with comments providing support. Instructors felt the blog, in addition to helping students to synthesize their thoughts, helped to monitor how students were learning and progressing throughout the semester.

Implications: Blogging was identified as helpful and fun learning activity by both students and instructors. Further research is needed to identify how learning occurs as well as specific blogging methods/techniques that can enhance student learning and socialization.

Home ◀ ▶ go to PG.

END OF LIFE AND BEREAVEMENT

IMPLEMENTATION OF A MONTHLY TEAM MEETING TO ENHANCE END OF LIFE CARE

Abigail Di Gaetano

COMMUNICATION BETWEEN PATIENT, FAMILY, AND CARE TEAM: A CASE STUDY OF DEATH AT HOME

Diane N. Solomon

FAMILY CAREGIVING: DIFFERENCES WITH AND WITHOUT PALLIATIVE CARE SUPPORT

Kristen Overbaugh

COMMUNICATING PARTNERSHIP: AN ANALYSIS OF HOME HOSPICE NURSE VISITS

Katherine Belfay, Maija Reblin, Lee Ellington, Margaret F. Clayton

THE INFLUENCE OF MEXICAN CULTURE ON PARENT BEREAVEMENT

Audrey Russell-Kibble, Marylyn Morris McEwen

WHAT CAN BEREAVED FATHERS TEACH US ABOUT PROFESSIONAL BOUNDARIES IN PEDIATRICS?

Jennifer Baird, Betty Davies

BARRIERS AND FACILITATORS TO COMMUNICATION IN END-STAGE LIVER DISEASE

Paula Cox-North, Nancy Lorber, Ardith Z. Doorenbos

INTRODUCTORY PALLIATIVE CARE EDUCATION FOR PEDIATRIC INTENSIVE CARE NURSES

Rebecca Case

Home ◀ ▶ go to PG.

END OF LIFE AND BEREAVEMENT

Implementation of a Monthly Team Meeting to Enhance End of Life Care

Abigail Di Gaetano, RN, BSN
Professional Staff Nurse
Medical ICU
University of Pittsburgh Medical Center, Mercy Hospital
Pittsburgh, PA

Healthcare delivery in the ICU is complex. Professionals from a variety of disciplines tend to critically ill patients and often in isolation. Communication and collaboration is fragmented, leading to poor outcomes. Patients and families are crippled in the decision making process with much conflicting information being shared by numerous sources. A nurse envisioned change that would decrease the frustrations voiced so often by patients, their families, and members of the healthcare team. As the change agent, she proved that leadership is not based on years of experience, job title or credentials but rather, an unwavering motivation to positively impact her surroundings. She harnessed the group effort that had been so needed in defining patients' last days and impacted care from the bottom-up.

This Medical ICU is now using a multidisciplinary approach to impact end of life care by focusing on communication and collaboration among all healthcare disciplines. Since March 2012, monthly team meetings have served to promote discussion, disseminate knowledge, share viewpoints and disagreements, support one another, and ultimately to provide better care for terminal patients. The multidisciplinary team includes nurses, residents, attending physicians, palliative care, hospital ethicist, case management, pastoral care, and social work. One of the greatest outcomes of this intervention has been the ability to discuss patient scenarios that were morally distressing to the staff. Ongoing support is an invaluable benefit when navigating difficult scenarios. In ensuring the continued success of this transformation, the nurse has focused on practical solutions to hurdles encountered. Scheduling the hour long meetings in the same location and at the same day/time each month has aided participation. Each meeting has a patient case and palliative care topic assigned and 2-3 learning objectives which help promote efficient use of meeting time.

Improvement of outcomes related to end of life care focus on a more peaceful and satisfying death for the patient, their loved ones, and include the healthcare professionals involved. Feedback from staff indicates that implementation of a monthly team meeting is viewed as beneficial when it comes to end of life care. However, complimentary effects of this approach spill over well beyond this immediate realm. The same individuals who have increased collaboration on end of life care now have more effective communication in all their dealings, not limited to end of life patients or by the walls of the ICU. This concept could be readily applied to focus discussion on other aspects of patient care and benefits can be foreseen in utilizing such an approach in virtually any health care setting in today's fast paced society.

Communication between Patient, Family, and Care Team: A Case Study of Death at Home

Diane N. Solomon, MSN, CNM, PMHNP
Doctoral Student
Oregon Health & Science University

Purpose/Aims: The purposes of this pilot, qualitative case study are: 1) to explore how interpersonal communication dynamics—between patient and family; patient, family, and healthcare team—contributed to positive outcomes for one patient and family at end of life, and 2) to describe factors contributing to the patient's ability to die at home in line with her wishes.

Rationale/Conceptual Basis/Background: The vast majority of dying patients—up to 94 percent—prefer to stay home and die in place, surrounded by loved ones. Yet only 25 to 31 percent of Americans are able to accomplish this. These end of life patients have reported comfort care as their first priority, whereas heroic, life-sustaining measures are not. Additionally, being encircled by family in a familiar environment is often second only to pain relief as essential in the minds of patients at the end of life. In 1997, the Institute of Medicine deemed a successful, or good death as "free from avoidable distress and suffering for patients, families, and caregivers; in general accord with patients' and families' wishes." Yet the widening gap between patient and family wishes for preferred place of death on one hand, and actual place of death on the other, is of growing clinical and policy concern.

Methods: This study will follow the dying trajectory of a 78-year-old, otherwise healthy, Jewish female diagnosed with Amyotrophic Lateral Sclerosis (ALS) six months prior to death. In line with her wishes to die at home with self-determination, she chose to voluntarily forego food and drink when she felt life completion. In-depth, semi-structured interviews will be conducted with participants including the patient's husband, four children, and several collateral sources which may include home caregivers, the hospice nurse, the patient's therapist, the patient's neurologist, the patient's husband's therapist. Additional sources of evidence may include: the patient's Ethical Will, letter(s) to husband and children, emails regarding hospice and end of life preferences, medication logs, medical records, and additional documents as relevant. Data will be analyzed using the conceptual framework of Stewart, Teno, Patrick, & Lynn (1999) will be used to specify and integrate quality of life and quality of health care indicators, in line with Donabedian's (1966) model of structure, process, and outcome of health care. A time series chronology will be applied, to ensure credibility of analyzing how events both preceded and were contingent upon other events, and occurred in discrete time periods (e.g., fasting but visiting with family and friends; fasting but only visiting with family; fasting and in and out of consciousness; actively dying). Interviews will be coded for emerging patterns and themes, and analysis of structure, process, and outcome of care. Trustworthiness will be ensured through triangulation of interviews and other data sources.

Results: Forthcoming, late winter 2013.

Implications: In a health care climate wherein end of life patients are demographically exploding, this study will pave the way for future interventions promoting optimal end of life health care communication, and actualization of patient preferences for end of life care and place of death.

References:
Donabedian, A. (1966). Evaluating the quality of medical care. *The Milbank Memorial Fund Quarterly, 44,* 166-203.
Stewart, A. L., Teno, J., Patrick, D., L., & Lynn, J. (1999). The concept of quality of life of dying persons in the context of health care. *Journal of Pain and Symptom Management, 17,* 93-108.

Home ◀ ▶ go to PG.

Family Caregiving: Differences with and without Palliative Care Support

Kristen Overbaugh, PhDc, MSN, RN, APRN-BC
Doctoral Student
College of Nursing
University of New Mexico
Albuquerque, NM

Purpose: A two-phase mixed method study using an explanatory sequential design is proposed to assess differences between the family caregiving experience of individuals caring for a relative living with heart failure (HF), who are receiving palliative care and those who are not receiving palliative care, and to better understand how the caregiving process differs in these groups. The Stress Process Model (Pearlin, Mullan, Semple, & Skaff, 1990) which describes how multiple variables relate and contribute to caregiver stress will guide this inquiry.

Rationale: Despite traditional support services, family caregivers caring for relatives living with HF still experience decreases in quality of life (QOL), and physical, psychosocial, and financial stress related to this role. In recent years, practitioners have begun to offer palliative care to individuals living with chronic illnesses. Palliative care aims to decrease suffering and improve QOL for both the patient and the family. This approach may improve the caregiving experience by facilitating communication, coordination, and continuity of care, while providing better psychosocial support and education. There are major gaps in the literature examining if and how palliative care improves the family caregiving experience for a HF population. This study will address this gap by examining two groups of HF family caregivers; one group with palliative support and one without.

Methods: Convenience sampling will be used to recruit 70 caregivers of relatives living with class III or IV HF managed in an outpatient setting. Sample size estimation was based on effect sizes from previous research (Aggar, Ronaldson, & Cameron, 2011). In the quantitative phase, descriptive statistics will depict demographic, health, caregiving, and palliative support sample characteristics. Caregivers will complete the Caregiver Reaction Assessment (CRA) and the Family Caregiver Quality of Life (FAMQOL) scale. One-way MANOVA techniques will examine differences between scores on five subscales of the CRA; (a) self-esteem, (b) lack of family support, (c) financial impact, (d) impact on schedule and (e) health impact, and overall QOL scores from the FAMQOL. In the qualitative phase, the researcher will recruit participants with scores in the bottom and top 10% for each of the subscales measured by the CRA and for overall QOL scores. The Stress Process Model and domains of the CRA and FAMQOL will structure the interview guide to generate a deeper understanding of factors that improve or worsen the caregiver experience, and highlight the value, if any, of palliative support. In the qualitative phase, grounded theory procedures will guide data analysis to describe relationships among evolving categories.

Implications: Highlighting the differences in the caregiving process with and without palliative support will contribute to a better understanding of the role of palliative care in this process. Findings from this study will demonstrate if palliative support makes a difference in the family caregiving experience, revealing its potential value as a novel intervention in the earlier management of HF. Secondly, results from the qualitative analysis may highlight specific relationships and contribute to palliative care theory which addresses family centered outcomes and guides nursing practice in acute care and community settings.

Home ◀ ▶ go to PG.

END OF LIFE AND BEREAVEMENT

Communicating Partnership: An Analysis of Home Hospice Nurse Visits

Katherine Belfay, BSN, MST
Research Assistant
College of Nursing
University of Utah
Salt Lake City, UT

Maija Reblin, PhD
Assistant Research Professor
College of Nursing
University of Utah
Salt Lake City, UT

Lee Ellington, PhD
Associate Professor
College of Nursing
University of Utah
Salt Lake City, UT

Margaret F. Clayton, PhD
Associate Professor
College of Nursing
University of Utah
Salt Lake City, UT

Introduction: An important aspect of nursing care, especially at end of life, is effective communication. Nurses communicate important information, while also trying to create a relationship where patients and caregivers feel free to express their opinions. A trusting partnership with open communication between the nurse and the patient/caregiver may reduce stress for both the patient and the caregiver and allow for a better end of life experience. A review of the literature suggests that patients and caregivers want to play a more active role in creating the plan of care and nurse communication of partnership is one means by which caregivers may be invited into this role. In this pilot project, we examined the multiple communication strategies nurses used to invoke a partnership with hospice patients and their caregivers.

Methods/Analysis: Conversations between home hospice nurses and their patients/family caregivers were analyzed to examine how the nurse established partnership. This study used a modified version of the Roter's Interaction Analysis System (RIAS) to code nurse and patient/caregiver conversations. Each RIAS utterance coded as partnering was reviewed and placed into 1 of 4 categories, O (orienting), R (relationship building), P (directed plan of care), or S (shared plan of care). The prevalence of each category of partnering was then analyzed.

Results/Data: Consisted of seven home visits each recorded by a different nurse. All nurses were female and 86% of the caregivers were female (71% female patients). The average length of the conversation was 42 minutes (range: 23-86). Analyses indicate significant differences in the distribution of partnership categories (X^2=827.38, p< .000, df=3). Categories P and S were less frequent than the appearance of O and R. Category R was the most prevalent, with an average frequency of 22.14 statements per visit (7.6% of all nurse talk), followed by O (M=10.57, 3.7%), P (M=4.28, 1.6%), and finally S (M=0.14, 0.06%).

Discussion: Although all aspects of partnering are part of ideal nursing care, based on published literature on patient/caregiver needs, we would expect a high frequency of nurse attempts to involve patients and caregivers in a shared plan of care. These preliminary findings suggest otherwise. Instead, when nurses do partner, they tend to ask about or share personal information (R) and orient family members to what the nurse will be doing next (O), rather than working with the family to develop a care plan. However, further research is needed to understand how nurses can best involve and engage patients/families in developing and carrying out an end of life plan of care While this is a small sample, this research has implications for advising nurses about effective communication at end of life.

Funding: This study was supported by a program project research grant from the National Cancer Institute of the National Institutes of Health, U.S.A. (5P01CA138317).

Home ◀ ▶ go to PG.

The Influence of Mexican Culture on Parent Bereavement

Audrey Russell-Kibble, DNP, FNP-C
Clinical Assistant Professor
Director of Clinical Practice Innovations
College of Nursing
The University of Arizona
Tucson, AZ

Marylyn Morris McEwen, PhD, PHCNS-BC, FAAN
Associate Professor
College of Nursing and Mel & Enid Zuckerman College of Public Health
The University of Arizona
Tucson, AZ

Purpose: To present the findings from an ethnographic study exploring Mexican American parents' perceptions of the cultural influences on grieving the death of a child.
Background: Nurses and other health care providers are expected to provide culturally sensitive care. However, the influence of culture on the grief of Mexican American parents who have experienced the death of a child has not been explicated in the literature. The problem of nurses and other health care professionals being uninformed of the cultural influences on grief is significant because 1 in 5 adults in the U.S. experience the death of a child and the rapidly expanding Hispanic population which is 16.3% of the U.S. population. Understanding the context in which grief is experienced among Mexican American parents requires an understanding of the core cultural concepts of *familismo*, *fatalismo*, *respeto*, *machismo*, *marianismo, personalismo*, and *spiritualidad*. These core cultural concepts were used to develop the interview guide.
Methods: Ethnographic methods that were used to examine the influence of culture on the grieving experience process were participant observations, photographs, field notes and participant interviews. Other data sources included demographic data and a measure of acculturation (ARSMA-II). The sample was purposively recruited from a faith based community health center. Interviews were audio recorded, conducted in Spanish and transcribed and translated into English, then back-translated, to assure accuracy of translation. Data were analyzed using taxonomic analysis.
Results: Participants included three Mexican American fathers and three Mexican American mothers, three were currently married and three reported their marital status as divorced. The participants ranged in age from 43 to 64 years. The Catholic faith was the religious affiliation of five participants with one stating he is a Christian. All participants completed the ARSMA-II in the Spanish language version with scores indicating they are "very Mexican oriented". The overarching cultural theme that represents the parents' perspective is *El Dolor de los Padres*: Pain in the Parent. The four themes that support the overarching cultural theme include: (a) Enduring Great Pain, (b) Voices of Mexican American Parents, (c) Cultural Death Traditions, and (d) Going Forward: For the Provider. The last theme is derived from information specifically gathered to educate nurses and other health care professionals who encounter Mexican American parents grieving the death of their child.
Implications: The study findings provide guidance for nursing and other health professionals to: 1) interpret the grieving experience of Mexican American parents within a cultural context and 2) to use the cultural knowledge for crafting culturally tailored interventions for Mexican American parents during a time of deep emotional pain.

Home ◀ ▶ go to PG.

What Can Bereaved Fathers Teach Us about Professional Boundaries in Pediatrics?

Jennifer Baird, PhD(c), RN, MSW
Doctoral Candidate
Department of Family Health Care Nursing
University of California, San Francisco
San Francisco, CA

Betty Davies, RN, PhD, CT, FAAN
Professor and Senior Scholar
School of Nursing
University of Victoria
Victoria, BC

Purpose: The purpose of this poster is to explore bereaved fathers' perspectives on the development and continuation of relationships with pediatric healthcare providers in both the acute phase of their child's illness and after the death of their child, and to understand the implications of these perspectives for the concept of professional boundaries in the field of pediatrics.

Background: Professional boundaries exist to ensure the safe and equitable care of patients and families, and healthcare practitioners are taught to avoid boundary crossings and the more serious boundary violations. Pediatric nurses may, however, find avoidance of such crossings/violations difficult, particularly with chronically ill and/or dying children and their families. No known studies identify parent perspectives on professional boundaries.

Methods: The data for this presentation came from a retrospective, cross-sectional, qualitative study of 60 bereaved fathers from three geographical regions of the United States and from varying sites of care. Each father participated in two or three in-depth, open-ended interviews; these interviews and field notes taken at the time of the interviews were analyzed using grounded theory methods, including open coding, memoing, and constant comparative analysis in group discussion with members of the research team.

Results: Although not a specific question on the interview guide, many fathers described interactions with a healthcare provider that would meet the definition of either a boundary crossing or a boundary violation. These interactions, which included sharing of personal information with the family, after-hours social visits during the child's hospitalization, and sustained contact with the family after the death of the child, were remembered fondly by the fathers and recalled as evidence of the excellent care provided during the child's illness and subsequent death. Fathers who described these boundary crossings/violations had the greatest satisfaction with their child's care, despite the tragedy of losing their child.

Implications: The fact that fathers recalled interactions that could be defined as boundary crossings and/or violations as evidence of high-quality care for their child and family calls into question the relevance of these two concepts, as currently defined, for pediatrics. While a clear delineation of the limits of professional behavior is necessary and appropriate, it is possible that the current guidelines have the unintended consequence of prohibiting or limiting the kind of natural, relationship-focused care that parents value most.

Funding: NIH – 1R01NR009430-01 and NIH- 5F31NR012093.

References:

Cook, K., Mott, S., Lawrence, P., Jablonski, J., Grady, M.R., Norton, D.,…Connor, J.A. (2012). Coping while caring for the dying child: Nurses' experiences in an acute care setting. *Journal of Pediatric Nursing, 27*, e11-e21. doi: 10.1016/j.pedn.2011.05.010.

National Council of State Boards of Nursing. (2009). *Professional boundaries: A nurse's guide to the importance of appropriate professional boundaries*. Retrieved from https://www.ncsbn.org/ProfessionalBoundaries_Complete.pdf.

Home ◀ ▶ go to PG.

Barriers and Facilitators to Communication in End-Stage Liver Disease

Paula Cox-North, PhC, MN, NP-C

Nancy Lorber, BSN, MN *Ardith Z. Doorenbos, PhD, RN, FAAN*

Biobehavioral Nursing and Health Systems
University of Washington School of Nursing
Seattle, WA

Purpose: The purpose of this study is to explore barriers and facilitators to end-of- life communication, and identify any additional barriers and facilitators in patients with end-stage liver disease (ESLD).

Background: The quality and occurrence of communication about palliative care issues in adults with ESLD is not clearly understood. This is due in part to a dearth of studies examining end-of- life issues in this population. Studies conducted in other chronic illness conditions including liver disease demonstrate that although patients desire to discuss end-of life issues, very few have actually had these discussions with their healthcare providers. Thus, there is a need for a better understanding of the experiences and needs of those living and dying with ESLD.

Methods: This study was approved by the human subjects institutional review board. Study visits consisted of one on one audio recorded interviews with a total of 20 patients. Entry criteria was a diagnosis of end-stage liver disease, MELD score 6-40, fluent in English, and outpatient status at time of interview. Patients were recruited from a liver clinic at a tertiary care center. All interviews were done by the principal investigator or a trained research assistant. Patients were asked to read or were read the barriers and facilitators questionnaire. This questionnaire has 26 previously identified barriers and facilitators to communication and patients were asked to state whether the items applied or did not apply to them. Subjects were asked to identify any barriers and facilitators not identified on the questionnaire.

Results: There were no new barriers or facilitators identified. There were 3 barriers that were identified to apply in ≥50% of the patients and there were 2 facilitators that did not apply in ≥50% of the patients.

Barriers to Communication that applied in ESLD	**(N=20)**	**Facilitators that did not apply in ESLD**	**(N=20)**
I don't know what kind of care I want if I get very sick.	11(55%)	My doctor often asks me about end of life care.	15(75%)
I don't like to talk about getting very sick.	10(50%)	My doctor is very good at talking about end-of-life care.	15(75%)
I would rather concentrate on staying alive than talk about death.	18(90%)		

Conclusion: Our survey results found that a large percentage of ESLD patients do not know what kind of care they want, do not like to talk about getting very sick and want to concentrate on life not death. Most of them had not discussed end-of life care with their health provider. Although our sample size was small, the major barriers and facilitators identified in this study were similar to major barriers and facilitators identified in other populations. The only facilitator that was found to be significantly lower in this population was "my doctor is very good at talking about end-of-life care". This would suggest further exploration is needed in patient-provider communication patterns in this population.

Funding: This study was supported by a grant from the Society of Gastroenterology Nursing & Hester McLaws Nursing Scholarship Fund.

Home go to PG.

END OF LIFE AND BEREAVEMENT

Introductory Palliative Care Education for Pediatric Intensive Care Nurses

Rebecca Case, RN, BSN
UC Davis Children's Hospital
Betty Irene Moore School of Nursing

Purpose: The purpose of this paper is to evaluate the design of an educational program/tool that will provide an introduction of palliative care concepts and practices to the nurses working within the UC Davis Children's Hospital Pediatric Intensive Care Unit.

Rationale: The U.C. Davis Children's Hospital is in the beginning stages of developing a pediatric palliative care program. At the forefront of this project is the need to provide, palliative care education to staff members who participate in patient care. There are many avenues of excellent educational programs already established such as the AACN's ELNEC course. While these educational offerings are valuable, and comprehensive they require a 2 day attendance that will not be a feasible opportunity for most of these nurses before program implementation. Introductory concepts can be offered as a bedside learning tool that can be completed during working hours.

Background: Palliative care is a philosophy of care evolving from hospice that can meet the gaps in the care for seriously ill and dying patients. Palliative care for children seeks to enhance the quality of life in the face of a life threatening condition that may or may not progress to a cure. Psychological, social spiritual and cultural issues need to be addressed in palliative. These causes of death are substantially different from the causes of death in adults; thus, palliative care guidelines that are appropriate for adults are often inappropriate for children.

Methods: A colorful "flipbook" and a self-paced online lecture have been developed and reviewed by the hospitals palliative care committee. It is to be offered to the PICU staff through their shared governance committee as a tool to introduce the staff to the upcoming hospital palliative care program and the practice changes associated with palliative care.

Outcomes: Both committee members and staff will have opportunity to evaluate the flipbook and presentation for ease of use, helpfulness and effectiveness in learning palliative care fundamentals.

Anticipated Benefits of Introductory Palliative Care Education at the Bedside:

- To provide the nurses a learning opportunity in an informal manner and setting that will encourage participation and provide staff nurses with key core concepts that will provide participation in practice changes as the palliative care program is started.
- To promote further education interest in palliative care practices by Attending ELNEC and other formalized palliative care educational offerings.
- To help establish the beginnings of our own pediatric palliative care program that provides advanced levels of comfort and support to our children and their families, by recognizing their needs and aligning our care appropriately.

Home

◀ ▶ go to PG.

Abstracts of Poster Presentations

FAMILY CAREGIVING

IMPACT OF CAREGIVING ON FAMILY FUNCTIONING: A THEORETICAL FRAMEWORK

Susan H. Lynch, Marie L. Lobo

PERCEIVED CONTROL IN FAMILY CAREGIVERS OF PERSONS WITH FRONTOTEMPORAL DEMENTIA

Cindy C. Wong, Margaret I. Wallhagen

THE FAMILY NURSING THERAPEUTIC COMPETENCY OF PSYCHIATRIC MENTAL HEALTH NURSES IN TAIWAN

Shu-Jen Shiau

WORRY AMONG MEXICAN AMERICAN CAREGIVERS

Bronwynne C. Evans, David W. Coon, Michael J. Belyea,
Ebere Ume, Felipe González Castro

FAMILY CAREGIVERS OF ASSISTED LIVING RESIDENTS ENROLLED IN HOSPICE

Miriam A.E. Volpin

SCREENING FOR INTIMATE PARTNER VIOLENCE IN PRIMARY CARE

Timothy Kruth

WILL GOLDEN HOUR APPROACH OF SKIN-TO-SKIN CONTACT INCREASE BREASTFEEDING EXCLUSIVITY?

Nicole A. Ringo

Home ◀ ▶ go to PG.

HEALTH TRAJECTORIES OF PARENTS CARING FOR CHILDREN WITH INTELLECTUAL DISABILITIES

Alison Eldredge

IMPROVING THE CONFIDENCE LEVEL OF CAREGIVERS OF CHILDREN WITH SPECIAL NEEDS

Carla M. Hagen, Melissa LaRue

Home

◀ ▶ go to PG.

FAMILY CAREGIVING

Impact of Caregiving on Family Functioning: A Theoretical Framework

Susan H. Lynch, MSN, RN, CNE
Doctoral Student

Marie L. Lobo, PhD, RN, FAAN
Professor

College of Nursing
University of New Mexico
Albuquerque, NM

Aim: Family caregiving has an unpredictable trajectory related to the duration and intensity of caregiving duties. This uncertainty creates stress related in the multiple, changing demands of future needs. This paper presents a theoretical framework developed to guide the study of the impact individual caregiver responses such as caregiver burden and compassion fatigue on family functioning.

Description: The Resiliency Model of Family Stress, Adjustment and Adaptation (RMFSAA) provides a theoretical basis for studying family caregiving. In the proposed framework, individual caregiver responses can positively and/or negatively impact total family functioning and family quality of life. To determine resilience three criteria must be present; a stressor, protective factors, and outcomes. The framework provides a theoretical structure to study the interrelationships between the identified stressors of caregiver burden and compassion fatigue, the resiliency protective factors of hardiness and coherence, and the outcomes of family functioning and family quality of life.

Internal Consistency: The RMFSAA has been used to study families and their responses to stress. The model's intent was to explain why some families are able to overcome crisis and others are not. Caregiver burden places stress not only on the individual caregiver but also the family. No studies were found that specifically examined caregiver burden and family functioning using the RMFSSAA model. However, among family caregivers of adults with chronic disease, one study showed that caregiver burden effects family functioning, while 5 studies showed family functioning effects caregiver burden. Resiliency provides the linkage between the concepts to establish patterns of adjustment and adaptation.

Linkage to Research: Limited research has yet to clearly establish the multiple interrelationships of all the defined concepts proposed in the model. Current caregiver burden literature has established its impact on the individual caregiver, but has yet to establish the impact on the total family. In an effort to more holistically examine the family caregiving experience the proposed model provides a framework to examine relationships to determine the impact individual caregiver stressors have on the entire family. Future strategies that focus on both individual and family interventions could be aimed to decrease individual caregiver burden and promote family adjustment and adaptation to achieve a better overall family functioning and family quality of life.

Conclusion: Studies have used the RMFSAA Model as a theoretical basis to study families; however, its use is unclear to study the family caregivers' experience and its impact on family functioning. The proposed theoretical framework provides a representation of the interrelationships between the identified concepts so that future research can address the unique needs of the entire family when examining the potential consequences of family caregiving.

Home

◀ ▶ go to PG.

FAMILY CAREGIVING

Perceived Control in Family Caregivers of Persons with Frontotemporal Dementia

Cindy C. Wong, RN-BC, PhD, Assistant Professor, Department of Nursing
Dominican University of California, San Rafael, CA

Margaret I. Wallhagen, PhD, GNP-BC, AGSF, FAAN
Professor, Department of Physiological Nursing
Director, John A. Hartford Center of Geriatric Nursing Excellence
University of California, San Francisco, School of Nursing, CA

Purpose/Aims: The purpose of this study was to examine the relationship between perceived control and the mental and physical health of family caregivers of persons with frontotemporal dementia (FTD).

Rationale/Background: Family caregivers perform a critical function in providing care for persons with dementia at home. Severe behavioral problems are common in many patients with FTD so that their family caregivers often feel overwhelmed and experience stress if they lack adequate support and resources. To provide appropriate support services, an understanding of the factors associated with the health and well-being of these caregivers is essential. One factor that has been associated with better health and well-being is a sense of control, but this concept has not been studied in caregivers of persons with FTD, especially as defined from within a person-environment framework that considers the match between demands and resources.

Methods: A cross-sectional, correlational study was utilized. Participants were self-identified primary family caregivers of persons with FTD (with behavioral problems) living at home (N=61) who were recruited throughout the United States and Canada using convenience and snowball sampling. A 15-item Perceived Control Questionnaire (PCQ-15) was used to assess the caregivers' perceived control, and the 12-Item Short-Form Health Survey (SF-12) was used to assess the caregivers' mental and physical health. The Neuropsychiatric Inventory Questionnaire was used to assess the severity of patient neuropsychiatric symptoms.

Results: The average age of the caregivers was 62 (range: 35-90). Most caregivers were women (78.7%), spouses (90.2%), and Caucasian/White (93.4%). About half (52.5%) of the caregivers were providing care at home without paid support; 43% were receiving paid support for 1-2 days per week. The average age of the patients was 66 (range: 38-88). A strong, statistically significant, positive correlation was found between perceived control and caregiver mental health ($r = .63$, $p < 0.05$). No statistically significant correlation was found between perceived control and caregiver physical health ($r = -.03$, $p = 0.81$). In a multiple regression analysis, perceived control made a statistically significant, unique contribution to caregiver mental health ($\beta = 0.498$, $p < 0.05$) above and beyond the influence of patient symptom severity, caregiver age, and caregiver gender. PCQ-15 scores uniquely accounted for roughly 22% of the variance in caregiver mental health.

Implications: This study highlights the importance of assessing the self-perceptions and unique needs of FTD family caregivers, particularly their perceived sense of control. Nurses should assess FTD caregivers' perceived sense of balance between available resources and the demands they are experiencing and assist them in obtaining necessary resources and developing appropriate strategies to manage their caregiving demands to promote a sense of control. However, it also highlights that contextual and personal factors may differentially affect mental vs. physical health and supports the need for further research in this population of caregivers.

Funding: This research was supported in part by an award from the John A. Hartford Foundation's Building Academic Geriatric Nursing Capacity Award Program.

Home ◀ ▶ go to PG.

FAMILY CAREGIVING

The Family Nursing Therapeutic Competency of Psychiatric Mental Health Nurses in Taiwan

Shu-Jen Shiau, RN, MPH, PhD
President & Professor
Cardinal Tien College of Healthcare & Management
New Taipei City, Taiwan

Purpose: This paper is to present the implementation stage of a longitudinal study which attempts to establish the clinical competencies for psychiatric mental health nurses, in order to improve the quality of service and accreditation.

Background: Family-centered therapeutic care is very important competency for psychiatric mental health nursing service either in hospital or community. However, the competency is not clear and well-educated in this filed.

Method: This longitudinal research was conducted using the action research method from 2004 to 2012. The first stage (2004-2007) was the preparatory stage. A group of experts was engaged to the action research cycle of literature review, planning, discussion and practice. During the second stage (2008-2010), the research-practice based stage was in the action research cycle of research, practice, discuss, workshop to organize the draft of family nursing therapeutic competency. The third stage was implement stage. The stage was in the action research cycle to practice, discussion, correction and complete the essential elements of this competency, finally, getting the verification by Psychiatric Mental Health Nursing Association in Taiwan.

Results: The essential and operational elements of family nursing therapeutic competency for Psychiatric Mental Health Nursing were established: 1. Self-Reflection: including (1) self growing and healing experience; (2) the feeling of family-centered care; (3) the learning experience of family therapy. 2. Presentation of family nursing therapeutic knowledge: including (1) awareness of therapeutic unit (subsystem or whole); (2) operational context (time, space, person, issue and materials); (3) therapeutic process: engagement, empowerment, enlightenment and hope. 3. Implementation of family nursing assessment: including family structure, family function, family stress-adaptation, social support system, family health. 4. Offering the family nursing intervention: including (1) tentative care; (2) interactive communication; (3) positive regards; (4) facilitating problem solving process (awareness, value judgment, emotional involvement, problem solving); (5) evaluating family nursing therapeutic effectiveness.

Implication: The findings maybe applied as the excellent reference, for formal or informal continuous nursing education and one of criteria for accreditation of certified psychiatric mental health nursing specialist.

References: Shiau, S.J. (2012). An Introduction to Contextual Family Nursing Therapy. The Journal of Nursing, 59(3):100-106.

Nichols, M. P. (2010). Family therapy: Concepts and methods. (9th.ed.). Boston, NY: Pearson.

Shiau, S.J., Rong, J.R., Huang, J.Y., Hsieh, S.J., Chen, P.H., Su, F.S., Kang, Y.X., & Chou, K.R. (2006). Exploring Concepts and Developing Model of Training and Accreditation Systems of Psychiatric. The Journal of Mental Health Nursing, 1(1):1-7.

Home ◀ ▶ go to PG.

Worry among Mexican American Caregivers

Bronwynne C. Evans, PhD, RN, FAAN, Professor
David W. Coon, PhD, Professor
Michael J. Belyea, PhD, Research Professor
Ebere Ume, RN, PhD Candidate
College of Nursing & Health Innovation, Arizona State University, Phoenix, AZ

Felipe González Castro, PhD, Professor, Director, Health Psychology Program
University of Texas at El Paso, El Paso, TX

Purposes/Aims: Few studies explore the burden associated with caregiving in Mexican American (MA) families and the allied concept of "worry" is mentioned only incidentally in extant literature. The purpose of this presentation is to explore caregiver expressions of "worry" identified in our descriptive, multi-site, longitudinal, mixed methods study, along with the effect of "worry" on caregiving responsibilities.

Rationale/Conceptual Basis/Background: Indirectly, the California site of the initial NIH funded REACH project addresses the level of "bother" or "upset" that caregivers feel when exposed to disturbing behaviors of care recipients with Alzheimer's, as well as "anxiety" associated with depression. More directly, some researchers report that MA elders "worry" about being institutionalized by children who no longer adhere to traditions of the Hispanic family, and that their caregivers "fear" the stigma of dementia disclosure to the public. Crist, Velasquez, Durnan and Figueroa (2006) also recognized an undercurrent of "worry" during instrument development focused on family decisions about formal caregivers.

Methods: Using *life course perspective* as a theoretical framework, we applied case-oriented, qualitatively driven methods to facilitate the exploration of the phenomenon of "worry". We queried the ATLAS.ti data base for quotations that were previously coded by trained research technicians as "worry/anxiety". These quotations were extracted from 6 in-home visits to each of 116 MA caregivers over the 15-month course of their participation. We identified 366 "worry" quotations from 639 primary documents, entered them into matrices, examined them for patterns of similarity or dissimilarity, and categorized them into domains and clusters to assist in drawing inferences.

Results: Seventy-seven of the 116 caregivers in the study expressed "worry" in 5 domains: Worries at Home, Worries at Work, General Worries, Worries about the Future, and Relationship Worries. Other worries clustered under those 5 domains: "sandwich", behavioral, fiscal/environmental, and direct care worries; and worries about caregiving and beyond, the caregiver's ability to carry on, caring for self to care for others, and who would step up if the caregiver was unable to continue.

Implications: Effectively decreasing burden may require attention to the added dimension of "worry" about both everyday and crisis situations. We need additional longitudinal research to better understand the MA caregiver experience and provide empirically supported interventions, programs and services to reduce "worry", including interventions that assist multigenerational and multiple caregiving families. Culturally acceptable interventions could build on the existing evidence of skill building strategies combined with positive coping through religion and spirituality, promoting good caregiver health during caregiving, sustaining cultural values concerning care of older family members, and enhancing use of both informal and formal services. Such interventions, in turn, might help caregivers control "worry" and upsetting thoughts in order to achieve better health outcomes for themselves and their families.

Funding: This study was funded by NINR, National Institutes of Health (R01NR0101541).

Home
go to PG.

Family Caregivers of Assisted Living Residents Enrolled in Hospice

Miriam A.E. Volpin, PhD, RN
Assistant Professor
Linfield Good Samaritan School of Nursing
Linfield College
Portland, OR

Purpose: To explore the experience of family caregivers of assisted living facility residents enrolled in hospice.

Rationale/Background: As the assisted living (AL) population has become older and frailer, the annual death rate in AL has reached approximately 30%. Studies indicate that residents want to die in their AL homes and family members support this desire. Hospice is often brought into AL to meet this goal, and family caregivers (FCG) are often crucial to residents being able to die in their AL home and avoid transfer to another setting. There is limited information available regarding the nature of family involvement, or empirical data from the FCG perspective. Understanding the experience and perspective of FCGs enables professionals to more effectively support their efforts.

Methods: The study used a qualitative exploratory descriptive design. Data were collected via semi-structured interviews and participant observation. Ten subjects (eight female, two male, aged 48-85), related to seven AL residents (five female, two male, aged 68-105) were interviewed. Four participants also agreed to follow-up interviews, for a total of 13 interviews. Four participants were observed for a total of 14 observations. Data collected were reviewed, transcribed, coded and analyzed in an iterative process to uncover salient patterns and themes. Focusing on changes over time, caregiving trajectories were analyzed for patterns of intensity and involvement. This led to an examination of how caregiver activities change over time, and the factors that influence these changes. Seven factors were uncovered and analyzed for relationships and degrees of influence. From this analysis an explanatory model was developed.

Results: The data analysis revealed that the overarching goal for these FCGs was to maintain the AL resident's placement until death. To achieve that goal, FCGs engaged in a continuous process of monitoring the care recipient's needs and how well those needs were met through a combination of AL, hospice, and to a lesser degree, family involvement in care. The FCGs responded to any unmet care recipient needs by either managing the care provided by others, or by supplementing the care with direct care activities themselves. The extent and intensity of involvement in care was mediated by the competing demands on the FCG and on the quality of his/her relationship with the care recipient. As the care recipient's needs changed over time, so did the FCG involvement in care, either increasing or decreasing the intensity of their involvement.

Implications: Registered nurses employed by assisted living facilities, and hospice nurses coming into AL facilities to provide care have limited opportunities to interact with family caregivers. This void often creates difficulties in the family caregiver's understanding of the care recipient's current state and prognosis, as well as the recipient's immediate and projected needs. Understanding these variables and dynamics can assist healthcare professionals by providing a framework for working with families and patients experiencing a terminal decline in AL, while supporting their goal of maintaining residence until death.

Home ◀ ▶ go to PG.

Screening for Intimate Partner Violence in Primary Care

Timothy Kruth, RN, MSN, FNP-C
DNP Candidate
Arizona State University
Phoenix, AZ

Purpose: To empower clinicians to screen and refer for victims of intimate partner violence by: 1.) providing education about screening and screening tools and 2.) Providing resources to refer patients who disclose intimate partner violence (IPV).

Rationale/Background: Intimate partner violence (IPV) affects more than one in four women in their lifetime can result in long-term physical and psychosocial maladies. Resultantly, the Joint Commission mandates screening in all inpatient admissions, and the American Medical Association, American Congress of Gynecologists, and United States Preventative Service Task Force all recommend routine screening for all women. The current literature demonstrates that routine screening for IPV results in increased IPV disclosure, however the evidence shows that fewer than 20 percent of clinicians screen for IPV routinely. While few clinicians screen for IPV routinely, nurse practitioners are in significant positions to screen, identify, and refer victims to services. As a result, it is imperative that nurse practitioners today are empowered to screen and refer victims of IPV to resources in their community.

Methods: The Stetler Model of EVP Implementation was utilized to incorporate the current evidence on IPV screening and identification coupled with the internal evidence throughout the Phoenix community. An educational program consisting of a 30 to 45 minute one-on-one provider education has been proposed. This presentation focuses on: the current evidence-based barriers to screening, practical screening tips and recommendations, and resources available in the local community for referral. Experts in the field have been consulted for training and recommendations for best provider practice.

An evaluation of the participants' perceptions on comfort in screening/caring for the IPV victim, barriers to screening, and intention to routinely screen for IPV has been created. This is composed of a 22 question pre-test and post-test survey. This project has been accepted by institutional review board for implementation of this project in two Phoenix metropolitan area community health organizations.

Outcomes Achieved: Outcomes will be described according to the statistic analysis of the pre-test and post-test scores. An additional measure of ICD-9 coding prior to project implementation compared to post implementation will be described.

Conclusions: While current evidence demonstrates IPV screening is practical in a primary care setting, with the very recent USPSTF recommendation to screen all women, institutions will begin looking for institutional implementation of this recommendation. This project will further compliment the evidence on routine screening and show a practical approach to such recommendation implementation. Ultimately, increased routine screening will increase IPV victim identification and referral to appropriate services.

Home ◀ ▶ go to PG.

Will Golden Hour Approach of Skin-to-Skin Contact Increase Breastfeeding Exclusivity?

Nicole A. Ringo, MSN, RN
School of Nursing
Azusa Pacific University
Azusa, CA

Background: The Golden Hour is the first 60 minutes following birth that should be devoted to skin-to-skin, bonding, and breastfeeding. The first 60 minutes following birth is a critical time for bonding. The release of oxytocin decreases maternal and newborn anxiety and stimulates feelings of affection for each other. Furthermore, healthy newborns experience a “quiet alert state” within the first 60 minutes, which is ideal for breastfeeding initiation. Several studies and leading women and children’s health organizations recognize the importance of initiating breastfeeding during the first 60 minutes following birth. Several studies have shown that early skin-to-skin contact provides maternal and newborn benefits such as enhanced-bonding, newborn thermoregulation, positive extra-uterine transition, and effective newborn pain management. Little is known about the influence of initiating skin-to-skin contact within the first 60 minutes after birth on breastfeeding exclusivity rates during hospitalization.

Purpose: The purpose of this study is to test the influence of initiating mother-baby skin-to-skin contact within the first 60 minutes after birth on breastfeeding exclusivity rates during hospitalization.

Variables: The independent variable in this study is the initiation time of skin-to-skin contact. The rate of breastfeeding exclusivity at the time of discharge is the dependent variable.

Methods: Prospective descriptive design will be used. The study will be conducted in five hospitals in San Gabriel area.

Sample: A total of 60 charts will be reviewed. Subjects will be assigned to Group 1: Skin-to-skin contact initiated within the Golden Hour, or to Group 2: Skin-to-skin contact was not initiated within the Golden Hour.

Data Collection: Data about skin-to-skin initiation time and breastfeeding exclusivity rates at the time of discharge will be collected using chart review method.

Data Analysis: Data will be analyzed using Partial Correlation test.

Results/Outcomes: In progress.

Implications: The results of this study can be used to develop standards of care regarding early skin-to-skin contact. Moreover, the results may add to the current evidence of the benefits of early skin-to-skin contact. Policy-makers may use the results of this study to develop policies regarding when to initiate skin-to-skin contact.

Home ◀ ▶ go to PG.

FAMILY CAREGIVING

Health Trajectories of Parents Caring for Children with Intellectual Disabilities

Alison Eldredge, MS, RN
PhD Candidate
College of Nursing
University of Utah
Salt Lake City, UT
Alison.eldredge@utah.edu

Purpose: The purpose of this study was to describe how parents caring for children with mild to moderate intellectual disabilities (ID) individually identify and narrate their transitions and overall health trajectories during the timeframe of raising children with ID.

Background: Parents caring for children with ID are aging, and the resources and support for their own health needs and developmental life transitions may or may not be aligned with their caregiving responsibilities as their children with disabilities enter adulthood. Some research indicates that increased caregiving burden results in compromised parental health. Other studies speak to the meaning and enhanced life purpose reported by parents of special-needs children.

Methods: This narrative and life history study used analysis techniques from Lieblich et al. to inductively describe the health trajectories and transitions of fathers and/or mothers ages 55 years and over raising children with mild to moderate ID. Purposeful sampling was employed to select 18 parents. Parents were interviewed three times each regarding their experiences of raising a child with ID and other critical events and transitions in their own lives. Initial and global impressions were recorded following each interview. Interviews were then coded with major events in the child's life and parents' overall health, well-being, and transitions. From these codes a story was created telling the child's life story with the overlay of the parents' health. A holistic analysis identified overall narrative themes and patterns to describe the different types of parental transitions and health trajectories.

Results: Generally, parents claimed to have experienced good physical health throughout their lives, and now anticipate health decline and the need to make their own health a priority. The experience of raising a child with ID was told as a story of overcoming. The parents struggled in the beginning with the increased stress of raising a child with ID, and as their children reached milestones, the parents saw increased potential and pushed for greater opportunities. Eventually, the children became more independent, providing parents with increased freedom. Current issues for parents include the continual care of their children with ID. Parents reported benefits of raising children with ID. For example, the child was the "glue" holding the family together. Arriving at a diagnosis for the child and family problems affected the narrative theme of overcoming in raising children with ID.

Implications: This study improves understanding of parental health trajectories to begin discussion with parents, health care professionals, and policy-makers about the following: (1) timely and appropriate interventions to better assist parents through transitions, (2) policies supporting parents as they care for children with ID over a lifetime, and (3) refined theories about health trajectories to guide interventions.

Funding: Sigma Theta Tau International Research Award.

Home ◀ ▶ go to PG.

Improving the Confidence Level of Caregivers of Children with Special Needs

Carla M. Hagen, PhD, MPH, RN
Associate Professor
George Fox University
Newberg, OR

Melissa LaRue
Student - Bachelor of Science in Nursing
George Fox University
Newberg, OR

Purpose/Aims: The primary aim of this investigation was to explore the level of confidence of caregiver's of children with special health/behavioral needs in their caregiving role. A secondary aim was to explore if the caregiver's level of confidence changed after their participation in Powerful Tools for Caregivers, a 6-week educational series designed to help family caregivers take care of themselves.

Rationale/Background: In the United States, more than 13.5 million children – 18.5 percent of all children under the age of 18 – (CDC, 2010), or approximately one in five households, have special health care needs. Caregiving demands met by caregivers of children with disabilities or special health care needs can cause chronic stress and have a negative effect on the caregivers' physical and emotional health. Research has suggested that education interventions to improve coping skills for parents of these children may potentially mitigate the manifestation of depressive symptoms. Powerful Tools for Caregivers (PTC) is a psycho-educational program that is rooted in Bandura's Social Cognitive Theory, which posits that a high degree of self-efficacy will increase the likelihood that certain tasks, particularly health promoting behaviors, will be performed successfully. The focus of PTC is not on care recipients disease or disability, but on enabling caregivers to improve their self-care with a set of tools. The focus is strictly on enhancing the caregivers' well-being and coping skills.

Methods: To measure the effectiveness of PTC among caregivers of special health/behavioral needs children; participants completed pre-and post-intervention surveys. Fourteen caregivers of special health/behavioral needs children participated in six, two hour classes that focused on: reducing personal stress, practicing self-care, communicating effectively in challenging situations, dealing with difficult emotions, making tough caregiving decisions, and setting goals and problem solving. The caregivers were from two parts of the country, seven caregiver participants from a class held on the West Coast and another seven caregiver participants from a class held on the East Coast. Because the PTC classes and the survey materials were originally created for caregivers of older adults, the context of the classes, and some of the language on the survey tool, was revised for this caregiver population. For this study, the demographics and the domain of caregiver confidence will be assessed based on eight questions, of which participants chose responses ranging from *"not at all", "a little", "enough", "more so",* and *"very"* measuring their level of confidence in how confident they were in their caregiving abilities. These responses were then calculated on a 5-point (0-4) Likert scale.

Results: Preliminary data analysis shows that PTC participants (n=12 due to missing data from two participants) reported overall increased caregiver confidence ($P <.02$) from pre-intervention survey (M=2.14) to post-intervention survey (M=2.60) which was conducted immediately after the sixth PTC class.

Implications: Though a small sample size, preliminary results indicate that participation in the educational series Powerful Tools for Caregivers can improve the level of confidence in caregivers of children with special health/behavioral needs.

Home ◀ ▶ go to PG.

GENDER AND WOMEN'S HEALTH

EXAMINING THE PREDICTORS OF POSTOPERATIVE NAUSEA AND VOMITING IN WOMEN FOLLOWING CESAREAN DELIVERY

YaGiun Chao, Lorraine Evangelista, Kim Mullen,
Sandy Artinian, Kristi Rietzel

EFFECTIVENESS OF BREASTFEEDING EMPOWERMENT PROGRAMME AMONG PRIMIGRAVIDAE

N. Gayathri Priya, L. Eilean Victoria, A. Porkodi, Linda Eaton, Ardith Z. Doorenbos

POSTPARTUM WOMEN'S WEIGHT CHANGES IN GROUP AND INDIVIDUAL NURSE-MIDWIFERY CARE

Kim J. Cox, Barbara Overman, Felina Ortiz, Christine Cogil

CONTINGENCY MANAGEMENT + ENTERTAINMENT EDUCATION

Celestina Barbosa-Leiker, JoAnn Dotson, Sterling McPherson,
Roberta Kelly, Stacey Hust, Michelle Kistler, Therese Grant, John Roll

COUPLES' EXPERIENCES OF EARLY PARENTHOOD IN THE CONTEXT OF POSTPARTUM DEPRESSION

Alyssa J. Abraham

GENDERED HEALTH NEEDS AMONG MIDDLE AGE AND OLDER HOMELESS ADULTS

Benissa E. Salem, Adeline Nyamathi

WEIGHT-RELATED HEALTH-PROMOTING BEHAVIORS IN PERIMENOPAUSAL HISPANIC WOMEN

Daisy Garcia

COMMUNITY-BASED SOCIAL SUPPORT PROGRAM FOR WOMEN WITH POSTPARTUM DEPRESSION

Ana C. Sanchez Birkhead

Home

◀ ▶ go to PG.

Examining the Predictors of Postoperative Nausea and Vomiting in Women Following Cesarean Delivery

YaGiun Chao, MSN, RNC-MNN, Mother Baby Unit[1]
Lorraine Evangelista, PhD, RN, CNS, FAHA, FAAN, School of Nursing[2]
Kim Mullen, MSN, Nursing Education[1]
Sandy Artinian, BSN, RNC, Mother Baby Unit[1]
Kristi Rietzel, BSN, RNC, Mother Baby Unit[1]

[1]*Hoag Memorial Hospital Presbyterian, Newport Beach, CA*
[2]*University of California, Irvine, Irvine, CA*

Purposes/Aims: Postoperative nausea and vomiting (PONV) is a common complaint of women who receive intrathecal morphine for analgesia during cesarean delivery. There is a paucity of evidence to support implementation of strategies to reduce PONV and minimize the negative outcomes associated with PONV following cesarean delivery. The study aimed to answer the following research questions: 1) What is the incidence and severity of PONV for women during the 24 hour period following surgery; 2) What are the relationships between socio-demographics, OB-GYN history, and antiemetic received (e.g. type(s), timing, and frequency) and incidence and severity of PONV; and 3) Does the timing, type, and frequency of anti-emetic use predict the incidence and severity of PONV when other known predictors are considered?

Background: The integration of PONV evidence-based practice protocols to enhance patient centered care in women following cesarean section has been limited by the paucity of evidence to support best practice. This study was conducted to identify the predictors of post-operative nausea and vomiting in women undergoing cesarean delivery. Data from the study will be used to guide the development of protocols that would potentially enhance maternal child care outcomes.

Methods: Sixty medical records randomly selected within three months period while patients had been discharged following cesarean delivery. Anonymous medical record retrieval includes socio-demographic data, clinical data and information on treatment received during current cesarean delivery. The severity of nausea and vomiting was measured using a 5-point Likert assessment scale. Data were analyzed using SPSS for Windows.

Result: 50% of 60 women reported having PONV during the 24 hour period after surgery and interventions given based on patient's self-reported symptoms of PONV. No difference was noted in socio-demographic and clinical characteristics between the two group women with and without PONV after surgery except the employment status. Work related stress can influence the operative outcome in women following cesarean delivery. In addition, the study showed the antiemetic intervention during the surgery was significant with prevention of PONV (P=.000) and pharmacological multimodal approach was significant effectiveness to PONV intervention (P=.018) for women after cesarean deliveries.

Conclusion: Findings show that the use of multimodal anti-emetics during and after cesarean delivery immediately reduces the incidence and severity of PONV. Prospective studies examining the predictors of PONV in women after cesarean delivery are warranted to better explain this phenomenon and to guide clinical nurses into the development of policies and pathways to help reduce PONV in specified population in women health and to collaborate mother-baby care with other health care providers.

Home ◀ ▶ go to PG.

GENDER AND WOMEN’S HEALTH

Effectiveness of Breastfeeding Empowerment Programme among Primigravidae

N. Gayathri Priya, PhD, RN, Reader[1]
L. Eilean Victoria, PhD, RN, Reader[1]
A. Porkodi, PhD, RN, Reader[1]
Linda Eaton, MN, RN, AOCN, Clinical Instructor[2]
Ardith Z. Doorenbos, PhD, RN, FAAN, Associate Professor[2]

[1]*Obstetrics & Gynaecological Nursing, Sri Ramachandra Univ, Chennai, Tamil Nadu*
[2]*Biobehavioral Nursing & Health Systems, University of Washington, Seattle, WA*

Purpose: The purpose of the study was to help antenatal women achieve better breastfeeding outcomes and to minimize breastfeeding complications during the postnatal period.
Background and Conceptual Basis: Breastfeeding education should begin at conception and continue throughout the perinatal period. The initiation and continuation of breastfeeding is crucial especially among primi postnatal mothers. Breastfeeding among primi mothers during early postnatal period is less frequent and complications are greater; therefore, education of primi postnatal mothers on the importance of breastfeeding is needed. The organizing model for this study was King’s Goal Attainment Model.
Methods: A randomized controlled trial was used for this study and approval was obtained from the Institutional Ethics Committee. The study was conducted in one university hospital in South India. Study participants were 300 women (150 intervention group, 150 control group) over 18 years of age and at 32 weeks gestation with an anticipated normal delivery. The intervention was a Breastfeeding Empowerment Program which provided breast feeding information and practices. The intervention was delivered via a laptop computer to mothers in a one 30 minute session. Data were collected at baseline (32 weeks gestation) and for three days after delivery. Surveys included demographic variables, maternal variables, and neonatal variables. At baseline, demographics, breast feeding knowledge and self-efficacy were assessed. At the three post delivery assessments, the breast feeding knowledge skill performance observation checklist, breastfeeding self-efficacy scale, LATCHES scale, nipple pain scale, and breast engorgement scale were completed. The data were coded and analyzed using descriptive and inferential statistics.
Results: The overall level of breast feeding knowledge ($p<0.000$) and breast feeding skill ($p<0.000$) were greater among women in the intervention group compared to the control group. At all three time points post delivery, the intervention group had better LATCHES ($p<0.000$), less pain ($p<0.000$), and less breast engorgement ($p<0.000$) than the control group. A positive correlation ($p< 0.00$) was found between skill and LATCHES on the third day of the postpartum period. The intervention group had a higher level of self-efficacy at the end of the study compared to the control group ($p<0.000$). Breastfeeding skill performance and self-efficacy was positively correlated, but knowledge and self-efficacy was not correlated.
Implications: The Breastfeeding Empowerment Program was found to effectively prepare mothers antenatally on breast/nipple preparation and breastfeeding. Structured video-assisted teaching and instructional materials, A.V. aids, and demonstrations were successful teaching methods for increasing the breastfeeding knowledge and practice of primi mothers. Nurses in the maternity wards, outpatient departments and also in community midwifery practice can use these breastfeeding instructional materials. If the mothers are prepared adequately during the antenatal period, it may increase the rates of breastfeeding.

Home ◀ ▶ go to PG.

GENDER AND WOMEN'S HEALTH

Postpartum Women's Weight Changes in Group and Individual Nurse-Midwifery Care

Kim J. Cox, PhD, CNM, RN
Assistant Professor
College of Nursing
University of New Mexico
Albuquerque, NM

Barbara Overman, PhD, CNM, RN
Clinician Educator Associate Professor
College of Nursing
University of New Mexico
Albuquerque, NM

Felina Ortiz, MSN, CNM, RN
Instructor
College of Nursing
University of New Mexico
Albuquerque, NM

Christine Cogil, MSN, FNP
Instructor
College of Nursing
University of New Mexico
Albuquerque, NM

Purposes/Aims: To compare the effectiveness of two different models of nurse-midwifery care delivery on women's weight changes in the first six months following childbirth. The specific aims and hypotheses are: **1)** Do women in a group model of nurse-midwifery care lose more weight and have leaner body mass in the first six months postpartum than women in an individual model of nurse-midwifery care?
H: Women in the group model of care will lose more weight and have a greater percentage of lean body mass than those in the individual model of care by 6 months postpartum.
2) From women's perspectives, what were the barriers and facilitators that helped them lose weight (or not) in the first six months postpartum?
Background/Significance: Weight gained during pregnancy is often retained indefinitely, and once the traditional 6-week postpartum visit is completed, women may lose health insurance coverage and their on-going contact with a health care provider. Although research has shown that gestational weight gain is the most significant predictor of postpartum weight retention, there are few interventions in place to assist postpartum women to lose weight.
Methods: Mixed-methods pilot study. Two groups of 20-30 rural, low-income women at low risk for medical complications were recruited from 2 CNM practices in central New Mexico. The intervention group received group care in pregnancy and through the first 6 months postpartum. Group educational content included in-depth information about nutrition and physical activity. Women in the control group received usual, individual care through the first six weeks postpartum. Weight and body composition measures were taken at 2 weeks and 6 months postpartum using the InBody (an electrical impedance device). Weight and body composition changes, as well as weight loss as a proportion of total pregnancy weight gain, are being compared between the experimental and control groups using two-sample t-tests. Qualitative interviews for up to 20 women are in progress and will be analyzed via content analysis.
Results: Research is in progress.
Implications: This study will provide important information about the effectiveness of a group care model in helping women maintain a healthy weight in the year following childbirth and provide preliminary data for development of a larger study to test the model.

Funding: University of New Mexico Clinical & Translational Science Center, #1UL1RR031977-01.

Home ◀ ▶ go to PG.

Contingency Management + Entertainment Education

Celestina Barbosa-Leiker, PhD[1]; JoAnn Dotson, RN, PhD[1]; Sterling McPherson, PhD[1]; Roberta Kelly, MS[2]; Stacey Hust, PhD[2]; Michelle Kistler, PhD[2]; Therese Grant, PhD[3]; John Roll, PhD[1]

[1]College of Nursing, Washington State University, Spokane, WA, [2]The Edward R. Murrow College of Communication, Washington State University, Pullman, WA, [3]University of Washington, School of Medicine, Seattle, WA

Purpose: This proposal describes a randomized clinical trial (pilot study) designed to assess the efficacy of a contingency management (CM) + entertainment education (EE) strategy focused on smoking behaviors of rural post-partum mothers enrolled in the Washington State Parent-Child Assistance Program (PCAP).

Background: While many women successfully quit smoking during the prenatal period, approximately 80% resume smoking post-partum. CM, an evidence-based treatment approach based on positive reinforcement to alter an individual's behavior, has been shown to help initiate smoking cessation as well as decrease rates of smoking over time. As part of the standard CM protocol for smoking, participants repeatedly supply saliva samples to the researcher throughout the course of the study; this repeated engagement with a researcher (~20 min.) presents a unique opportunity for a more integrated intervention. EE is a strategy that utilizes entertainment media to educate the audience. EE messages provide examples of healthy behavior through a pattern of communication that encourages viewers to model the healthy behavior and increases their efficacy in adopting such behaviors.

Methods: Forty post-partum mothers will be randomized to the four trial arms (CM only, non-CM only, non-CM + entertainment education, CM + EE). The primary outcome of smoking abstinence will consist of the total number of cotinine negative ($<$ 3, indicating 100 – 200 ng/ml nicotine level) saliva samples submitted over a 1 month period (2 samples per week). Secondary outcomes included knowledge, attitudes and self-efficacy regarding maintaining tobacco abstinence. Participants in the EE conditions will view a website that contains EE messaging via audio narration while waiting for cotinine results. Cotinine testing and website viewing will be conducted in the participant's home or long-term residential inpatient treatment facility for maximal external validity for rural participants.

Results: Smoking abstinence will be compared via a 2 (CM group) x 2 (EE group) between-groups ANOVA. Knowledge, attitudes and self-efficacy regarding maintaining tobacco abstinence post-partum will be compared via a 2 (CM group) x 2 (EE group) x 2 (time: 8 assessments) mixed ANOVA. Post hoc tests will be performed to determine differences across groups at specific time points during the study. Statistical tests will be considered significant at $p \leq .05$.

Implications: This study will test the ability of CM, coupled with entertainment education, to significantly increase smoking abstinence in young, postpartum women living in rural communities where treatment may be less accessible. This project is significant because it offers an additional intervention specifically tailored to post-partum mothers during their traditional CM protocol.

Funding: This study is supported by a Washington State University Faculty Seed Grant (Celestina Barbosa-Leiker, PI) and Governor's Life Science Discovery Fund to the Program of Excellence in Rural Mental Health and Substance Abuse Treatment 13A-2483-0286 (John Roll, PI).

Home ◀ ▶ go to PG.

GENDER AND WOMEN'S HEALTH

Couples' Experiences of Early Parenthood in the Context of Postpartum Depression

Alyssa J. Abraham, RN, MS, PhDc
Doctoral Candidate
Department of Family Health Care Nursing
University of California, San Francisco
San Francisco, CA

Aims: The purpose of this qualitative, interpretive study is to acquire a better understanding of how maternal postpartum depression (PPD) influences processes and practices within the partner relationship during the transition to parenthood. This enhanced understanding may then be used in the development of therapeutic interventions for couples experiencing maternal PPD.

With a community-based sample of couples who have experienced the diagnosis of maternal PPD the specific aims of this study are to:

1. Examine the **patterns of emotional response, in mothers and their partners,** to maternal postpartum depression.
2. Examine the **couple's processes and practices** of child-care and interaction.
3. Examine how anticipated **parenting and partner roles** are affected by maternal postpartum depression.

Conceptual Basis: The synthesized framework for this research incorporates a theoretical approach that highlights family processes, as well as depression in the individual. The concepts within Patterson's (2002) FAAR model allow for a deeper understanding of how couples navigate through life transitions and unexpected experiences. The theoretical underpinnings of The Elaborated Cognitive Vulnerability-Transactional Stress model presented by Hankin and Abramson (2001) allow for a clear and parsimonious understanding of depression.

Methods: This ongoing study is following an interpretive phenomenological design and is enrolling a convenience sample of 20 women diagnosed with and treated for PPD, and their partners (N=40). The sample is being recruited using advertisements in local parenting newsletters, internet list-serves and word of mouth from participants and local care providers. Interviews are conducted in the participants homes, whenever possible, to allow for a rich description of family interactions. Data collection includes semi-structured interviews, as well as descriptive demographic information and the researcher's notes of interviews and observations. Analysis of the data will involve both reflexive and narrative analysis using both a within case and an across case methodology.

Results: Analysis of the data is ongoing and the results are expected to provide new and much needed information about the life experiences of couples dealing with PPD during the transition to parenthood.

Implications: In addition to allowing access to a deeper understanding of this experience, exploring these aims will help to create a theory of couples' practices and engagement during this complex transition. This theory can drive the development of new best practice methods for nurses caring for couples coping with maternal PPD as well as the development of new supportive resources that will address the needs of new parents. The creation of new resources has the potential to improve the lives of individual women, new parents, and their young children during throughout the perinatal period and beyond.

References:

Hankin, B. L., & Abramson, L. Y. (2001). Development of gender differences in depression: An elaborated cognitive vulnerability-transactional stress theory. *Psychological Bulletin, 127*(6), 773-796.

Patterson, J. M. (2002). Understanding family resilience. *Journal of Clinical Psychology, 58*(3), 233-246.

Home ◀ ▶ go to PG.

GENDER AND WOMEN'S HEALTH

Gendered Health Needs among Middle Age and Older Homeless Adults

Benissa E. Salem, RN, MSN, PHN, CNL
Doctoral Candidate
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Adeline Nyamathi, ANP, PhD, FAAN
Distinguished Professor
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Purpose: To explore gender differences in terms of health and other covariates among middle age and older homeless men and women residing in Los Angeles.

Background: Demographic trends suggest that homeless adults are aging and expected to double within three decades. Gender differences among homeless men and women are important to explore as there may be unique areas to target with nurse led community-based health initiatives.

Methods: The Frailty Framework among Homeless and Other Vulnerable Populations guided inclusion of variables in this study (N = 150; age 40-73). Quantitative methods were used to explore gender differences in terms of age, length of time homeless, grip strength, nutrition, comorbid conditions, physical functioning, depressive symptomology, drug use and dependency, social support, resilience, and frailty. Descriptive statistics and frequencies were used to explore general differences and independent samples *t*-tests were used to determine differences among covariates.

Results: Data reveal that the mean age was 52.4 (SD 6.80). Slightly over half of the participants (59.3%) were over the age of 50 and gender was equally distributed. The majority were African American (63.3%), followed by Caucasian (12%), Hispanic/ Latino (10.7%) and other groups (14%). Significant differences were found between gender and length of time homeless, comorbid conditions, physical functioning, drug use, grip strength, and frailty. Compared to men, women had a higher number of comorbid conditions ($p<.05$), lower physical functioning scores ($p<.05$), and lower grip strength ($p<.001$). Women were more likely to be pre frail and frail when compared to men.

Implications: Women are significantly more likely to have comorbid conditions, poorer physical functioning, grip strength and frailty. These findings serve as an impetus and a foundation for understanding gender differences which will undoubtedly inform future nurse-led health promotion interventions.

Funding: This research was supported by the NIH National Institute of Nursing Research (NINR) T32 NR007077, UCLA Dissertation Year Fellowship Award; UCLA Community Academic Partnership for Research in Aging (L.A. CAPRA) Center NIH Grant 1RC4AG038182-01.

Home ◀ ▶ go to PG.

GENDER AND WOMEN’S HEALTH

Weight-Related Health-Promoting Behaviors in Perimenopausal Hispanic Women

Daisy Garcia, MSN, RN
University of Washington
School of Nursing
Seattle, WA

The health consequences related to obesity are extensive. In the U.S., Hispanic women have the second highest prevalence of obesity. Despite the increase in nursing research addressing Hispanic women’s health behaviors to deter obesity, there is a void in the literature about perimenopausal Hispanic women’s self-efficacy associated with health behaviors promoting healthy weight while adjusting to the U.S. Perimenopausal Hispanic women deserve attention because the menopausal transition symptoms challenge their life-style choices and their confidence to perform weight-related health behaviors.

Much of the literature on Hispanic women’s health behaviors is centered on acculturation, the adoption of behavior patterns of the surrounding culture, as an influential mechanism to counteract immigrants’ obesogenic behaviors. Yet, how culture affects cognition and health behaviors is not well understood. Researchers have not explored the psychological process of cognitive dissonance that arises from condoning behaviors that are inconsistent with the newcomers’ own values or attitudes[1] affecting their health behaviors self-efficacy. Hence, the purposes of this study are (a) to examine the relationship of Hispanic women’s’ self-reported physical activity and nutrition self-efficacy on weight-related health-promoting behaviors, and (b) to explore the effect of cognitive dissonance in the self-efficacy-health behavior relationship.

The combined theoretical frameworks informing this study are Pender’s Health Promotion Model and Festinger’s Cognitive Dissonance theory. Pender’s model focuses on the biopsychosocial processes influencing health behaviors while Festinger’s theory focuses on how cognitive dissonance encourages attitude change (aversive or motivating) [2] to achieve mental consonance. Using a descriptive correlational design, a multivariate analysis is planned to examine the study’s variables relationships. A sample of King County Hispanic perimenopausal women aged 40-50 recruited from settings where Hispanic women congregate such as churches and community centers will be surveyed using the following measurements: the Exercise Self-Efficacy Scale, the Diet Self-Efficacy Scale, the International Physical Activity Questionnaire, the Diet Quality Index-International, the modified Cognitive Dissonance Scale[3], and the body mass index (BMI). All questionnaires will be back-translated into English and validated to assure accurate meaning translation into Spanish. The study’s results will inform health care providers on the significance of weight-related modifiable psychosocial behaviors, particularly those affected by the mental discomfort (cognitive dissonance), to support perimenopausal Hispanic women in redefining their lifestyle while transitioning to their new country of residence. This in return will decrease the risk of obesity co-morbidities.

References:

[1,2] Maertz, C. P., Hassan, A., & Magnusson, P. (2009). When learning is not enough: A process model of expatriate adjustment as cultural cognitive dissonance reduction. *Organizational Behavior and Human Decision Processes,*108, 66-78. doi:10.1016/j.obhdp.2008.05.003

[3]Because of the non-existing cognitive dissonance instrument for health behaviors, part of this study is to adapt the only cognitive dissonance found in the literature using vignettes.

Community-Based Social Support Program for Women with Postpartum Depression

Ana C. Sanchez Birkhead, RN, WHNP-BC, PhD
College of Nursing
University of Utah
Salt Lake City, UT

Purposes/Aims: The purpose of this exploratory, descriptive study was to examine the effectiveness of this unique collaborative educational intervention in meeting the needs of the women in Utah County, Utah who were suffering from mild to moderate postpartum depression (PPD). An additional aim of this study was to examine the experiences of women suffering from PPD as they participated in a social support intervention. There are currently no social support group resources for women suffering from postpartum depression in Utah County, Utah.

Rationale/Conceptual Basis/Background: In a recent national study, 903 women (ages 18-45) were surveyed regarding their postpartum experiences. At six months or more after giving birth, 43% of the women reported feeling significantly stressed, 40% had problems with weight control, 34% experienced sleep loss, and 26% a lack of sexual desire. One third reported that during the first two months after giving birth, their physical health and their emotional health interfered with their ability to care for their newborns (Declercq, Sakala, Corry, Applebaum, 2008, p. 2). In the state of Utah, 14.7% of women who responded to the Utah Pregnancy Risk Assessment Monitoring System (PRAMS) reported experiencing postpartum depression. Sixty percent of these Utah women who reported having postpartum depression did not seek help (McGarry, Kim, Sheng, Egger, & Baksh, 2010). Several studies have found that effective non-pharmacological programs including social support and psychosocial interventions can be beneficial and effective treatments for women suffering from mild to moderate depression (Glavin, Smith, Sorum, & Ellefsen 2010; Morrell et al, 2009; Dennis & Hodnett, 2007).

Methods: In a collaborative effort with key community stakeholders in the Utah County Health Department's Welcome Baby program, and United Way's Early Childhood Initiative program, the principal investigator (PI) and a group of trained undergraduate nursing students offered an 8 week educational support group intervention for mothers. IRB approval was attained for this study. Women were recruited, consented, and screened using the EPDS scale by trained home visiting registered nurses. Only women who were mild to moderately depressed were included in the study.

Results: Participants reported significant improvement in their understanding of postpartum depression, pharmacological and non-pharmacological treatment options, self-care management skills, family and community resources, and the benefits of social support for their depressive symptoms. Participants also reported a decrease in PPD symptoms. Community interest by health care providers in local hospitals and clinics increased as word of the social support group was spread by participants. Transportation and childcare presented challenges for some women.

Implications: This new program will be of tremendous benefit to women who desire a nonpharmocologic, educational and social support resource. Nurse run social support programs for postpartum depression and other chronic illnesses should be considered by community health and public health nurses.

Home ◀ ▶ go to PG.

GERONTOLOGICAL CURRICULAR AND CENTER INNOVATIONS FOR ADVANCED PRACTICE

OVERVIEW: GERONTOLOGICAL CURRICULAR AND CENTER INNOVATIONS FOR ADVANCED PRACTICE

Basia Belza

INNOVATIVE ASSIGNMENTS FOR USE IN DISTANCE LEARNING GERONTOLOGY COURSES

Musetta C. Fu, Janet Lenart, Margaret W. Baker, Sun Hye Kim, Basia Belza

---

CGEP: RESOURCES SUPPORTING ADULT/GERONTOLOGY NURSE PRACTITIONER EDUCATION

Eleanor F. Bond, Phyllis Christianson, Elisabeth Lindley, Barbara Cochrane, Hilaire Thompson

---

FROM CENTER MISSION TO REALITY: A CATALYST FOR GERONTOLOGICAL INITIATIVES

Barbara B. Cochrane, Emily A. Hilderman, Heather Wicklein Sanchez

Home ◀ ▶ go to PG.

GERONTOLOGICAL CURRICULAR AND CENTER INNOVATIONS FOR ADVANCED PRACTICE

Overview: Gerontological Curricular and Center Innovations for Advanced Practice

Basia Belza, PhD, RN, FAAN
Professor and Aljoya Endowed Professor in Aging
School of Nursing
University of Washington
Seattle, WA

This symposium will include exemplars of curricular and center initiatives that share the goal of improving competencies of advanced practice nurses in the care of older adults. The University of Washington (UW) School of Nursing is committed to preparing a work force to provide improved care to older adults in community and clinical settings.

The first poster presents several innovative teaching assignments that prepare advanced practice nurses in the care of older adults. These assignments originate from a newly revised course *Aging and Health in Contemporary Society* that is offered in a hybrid format (taught in-person and online). The objectives of the course are to explore the cultural, psychosocial, political and ethical context of aging and health. The course content is based on empirical data and policy statements on aging. Although the course is open to all health science students, the objectives specifically address Doctor of Nursing Practice (DNP) outcome competencies. The three innovative teaching strategies are: students write a *This I Believe* essay about healthy aging, the assignment is modeled after the National Public Radio (NPR) series of the same name; students conduct four interviews with an older adult over the course of the quarter and use the course content to drive the interviews; and students complete a web-based unfolding case on elder mistreatment.

The second poster focuses on the Comprehensive Geriatric Education Program (CGEP) which offers support for the development and dissemination of gerontology curricula, as well as traineeships for students preparing for advanced practice nursing careers in gerontological primary care. The purpose of this poster is to describe the ways in which CGEP resources facilitate gerontology nursing training at a major university. Enhanced resources such as those provided by CGEP contribute to preparing providers to enter practice more efficiently with enhanced preparation in serving older adults from underserved communities.

The third poster highlights the work of the de Tornyay Center for Healthy Aging which serves as a catalyst for promoting healthy aging through research and education in gerontology for the School of Nursing, the UW, and the broader community. The Center has sponsored regular activities through multiple channels, programs, and networks in order to enhance the visibility and capacity for gerontological nursing research, education, and practice. These activities have enhanced aging-related curricular resources as well as advanced practice gerontological nursing and interprofessional experiences within the School and the larger community.

In summary, these curricular innovations will strengthen the development of advanced practice nurses in providing direct care services in a complex, evolving health care system, particularly focusing on caring for older adults from underserved communities.

GERONTOLOGICAL CURRICULAR AND CENTER INNOVATIONS FOR ADVANCED PRACTICE

Innovative Assignments for Use in Distance Learning Gerontology Courses

Musetta C. Fu, RN, MM, MT-BC
PhD Student in Nursing Science

Janet Lenart, RN, MN, MPH
Senior Lecturer

Margaret W. Baker, PhD, RN, CNL
Associate Professor

Sun Hye Kim, RN, MN
Graduate Assistant

Basia Belza, PhD, RN, FAAN
Professor

Biobehavioral Nursing & Health Systems
University of Washington
Seattle, WA

Introduction: Educators are challenged to develop and implement innovations in teaching. We are in the midst of a major paradigm shift in moving instruction from the traditional classroom setting to on-line learning. Creative teaching strategies are essential to motivate students' active engagement in course activities and stimulate higher levels of learning experiences. The purpose of this paper is to describe three learning activities we developed for use in online teaching of gerontology content.
Method: Our team developed three innovative learning activities. 1) *This I Believe* Essay on Aging. Based on the National Public Radio (NPR) program by the same name, students wrote 500 word essays about a belief they had about aging. They then audiotaped the essay, and students listened to and commented on each other's essays. 2) *Pairing Students with Older Adults*. We recruited older adults as key informants and paired them with students enrolled in a gerontology class. Students interviewed the older adults four times over the course of the academic quarter. The topics of the interviews paralleled the course content. 3) *Unfolding Case.* Our curriculum was in need of a case on elder mistreatment, yet when we searched available online resources, we were unable to locate a case on this topic. We developed an unfolding case with supporting resources from the *Try Thi*s series and modified content from prior lectures and cases that had been developed by faculty.
Results: These three activities are in various stages of deployment. The *This I Believe Essay* has been used in a class with 24 graduate nursing students. Students said the assignment was valuable and gave them the liberty to be creative, something they do not experience in most class assignments. They had to think about the course content differently. Whereas most assignments focus on what other people believe, this assignment had them think about what they believe. The assignment to interview an older adult was well received, including by students who had experience working with older adults prior to returning to school. Students were inspired by their older adult and came away from the interviews with a vastly different perspective on healthy aging as well as other topics, such as advance directives and ways older adults want to interface with the health care system. The unfolding case will be piloted in a clinical course during Winter 2013 quarter.
Conclusion: These are three creative teaching strategies that can be used with students from various health science disciplines, as well as in courses in which there is a distance-learning component to increase knowledge and skills in the care of older adults.

Funding: Division of Nursing, Bureau of Health Professions, U.S. DHHS #D09HP18798.

Home ◀ ▶ go to PG.

GERONTOLOGICAL CURRICULAR AND CENTER INNOVATIONS FOR ADVANCED PRACTICE

CGEP: Resources Supporting Adult/Gerontology Nurse Practitioner Education

Eleanor F. Bond, PhD, RN, FAAN
Professor, Vice Chair for Education
Biobehavioral Nursing and Health Systems (BNHS) Department
University of Washington (UW) School of Nursing (SON)
Seattle, WA

Phyllis Christianson, MN, APRN, GNP-BC
Senior Lecturer
BNHS, UW SON
Seattle, WA

Elisabeth Lindley, MN, RN, ANP-BC
Research Nurse
BNHS, UW SON
Seattle, WA

Barbara Cochrane, PhD, RN, FAAN
Associate Professor
de Tornyay Professor for Healthy Aging
Family and Child Nursing, UW SON
Seattle, WA

Hilaire Thompson, PhD, RN, CNRN, ACNP-BC, FAAN
Associate Professor
BNHS, UW SON
Seattle, WA

Registered nurses and nurse practitioners (NPs) are needed to provide care services for an aging population; Nursing Schools are tasked to address this need. The federally funded Comprehensive Geriatric Education Program (CGEP) supports development/dissemination of gerontology curricula, as well as traineeships for students preparing for advanced practice nursing careers in gerontology primary care. The purpose of this paper is to describe the ways in which CGEP resources facilitate gerontology nursing preparation at a major university. An inventory demonstrated that many gerontology resources were available but a central archive was needed to improve access to those resources; CGEP is supporting the creation of a *Geriatrics Information Portal (GIP)* to serve as a central on-line repository for Geriatric Healthcare Lectures, Interdisciplinary Patient Cases, and other materials. The GIP will be accessible to providers, faculty, and students. Also supported is an initiative to form academic-clinical partnerships with selected agencies, called *Geriatrics Best Practice Teams (GBPTs*). The GBPTs are designed to enhance clinical practicum and project opportunities for students. The school has 56 students enrolled in the Adult/Gerontology (A/G) Primary Care NP specialty. These students were queried to identify the impact traineeship funding would have on their studies and career choices. Thirty two (57%) students responded, primarily entering students (81% of this group replied). Students noted that increased funding would provide opportunity to increase their focus on academic and clinical practicum work (65%); reduce employment hours while in school (53%); graduate sooner (53%); pursue more course work (18%) and other scholarly activities (34%); and incur less debt (15%). All students noted an aspiration to work with disadvantaged and underserved elderly populations following graduation. Several (15%) noted that traineeship funding would make it possible to graduate with less debt and noted that a lower debt load would, in turn, allow them more flexibility in terms of working with needy populations. Enhanced resources such as CGEP contribute importantly to preparing providers to enter practice more efficiently and with enhanced preparation to care for elderly. Students predict that lower education-related debt will increase their likelihood of working in venues serving disadvantaged patients.

Funding: This project is supported by funds from Department of Health and Human Services (DHHS), Health Resources Services Administration (HRSA), Bureau of Health Professions (BHPr), Division of Public Health Interdisciplinary Education (DPHIE), under grant number D62HP24194, Improving Geriatric Care for $808,663. The information, content, and conclusions are those of the authors and should not be construed as an endorsement of or the official position or policy of the US Government, DHHS, HRSA, BHPR or DPHIE.

Home

go to PG.

GERONTOLOGICAL CURRICULAR AND CENTER INNOVATIONS FOR ADVANCED PRACTICE

From Center Mission to Reality: A Catalyst for Gerontological Initiatives

Barbara B. Cochrane, PhD, RN, FAAN
Associate Professor and de Tornyay Endowed Professor for Healthy Aging

Emily A. Hilderman, MN, APRN
DNP Student/Graduate Staff Associate

Heather Wicklein Sanchez, BS
Manager, de Tornyay Center

School of Nursing
University of Washington
Seattle, WA

Purpose: To describe strategic planning and implementation of Center initiatives to promote advanced practice nursing students' gerontological resources in the School of Nursing (SoN), the University of Washington (UW), and the broader professional community.

Background: Since 1998, the de Tornyay Center for Healthy Aging's mission has been to serve as a catalyst for promoting healthy aging by supporting research and education in gerontology for the SoN, the UW, and the broader community.

Brief Description of the Undertaking: Over the last 5 years, the Center has taken on several new initiatives and provided infrastructure support for others to enhance the visibility and capacity for gerontological nursing research, education, and practice within the SoN and the larger community. Center website and Facebook pages have been developed and are updated on a regular basis by the Center's graduate staff associate. Competitive healthy aging scholarships are now awarded annually to students at all program levels. Scholarship students conduct a research/inquiry project during the year, after which they present their findings to faculty, students, and family at a retirement community reception to which the community members are also invited. The Center co-sponsors the Northwest Geriatric Education Center's annual 10-week Geriatric Health lecture series for community professionals from Alaska to Wyoming; it also coordinates a distance learning interprofessional offering of this series for academic credit. Center programs are held bi-monthly with community professionals and monthly with faculty, students, and staff. In addition, the Center initiated and sponsored for one year an initiative to found the Northwest Chapter of the National Gerontological Nursing Association (NW NGNA).

Outcomes Achieved: The Center's Facebook page has 79 "likes;" the total reach for one week has gone as high as 288 unique people. Applications for healthy aging scholarships exceed their availability, and interprofessional participation (via online discussions) in the Geriatric Health lecture series includes 50 to 60 students meeting from across health sciences. Students have the opportunity to interact regularly with faculty and community professionals through the Center's program offerings. However, attendance at these events varies a great deal in number and configuration. Advanced practice nursing students are now involved in NW NGNA leadership, outreach, and programming efforts, and the chapter is about to apply for its charter from national NGNA.

Conclusions and Implications: The Center has built a reputation at the UW and in the local community as a resource and focal point for aging-related activities. Advanced practice nursing students have regular reminders and opportunities for gerontological nursing and interprofessional activities, as well as community networking and partnerships that enhance their research and educational programs. A goal for the coming year is to identify student representatives within each program to enhance regular participation in Center initiatives.

Funding: de Tornyay Center for Healthy Aging, UW School of Nursing.

Home ◀ ▶ go to PG.

HEALTH GAMES FOR BEHAVIOR CHANGE, SELF-MANAGEMENT AND PATIENT SAFETY

OVERVIEW: HEALTH GAMES, BEHAVIOR CHANGE, SELF-MANAGEMENT & PATIENT SAFETY

Janine K. Cataldo

A VIDEOGAME-BASED PHYSICAL ACTIVITY PROGRAM FOR OLDER ADULTS WITH SCHIZOPHRENIA

Heather Leutwyler, Sophia Vinogrado, Glenna Dowling

VIRTUALLY SMOKING: HOW YOUNG ADULTS PERCEIVE SMOKING IMAGERY IN VIDEO GAMES: A PRELIMINARY QUALITATIVE STUDY

Susan R. Forsyth

VIRTUAL HEALTH GAME TO MITIGATE LUNG CANCER STIGMA AND IMPROVE SELF-MANAGEMENT

Janine K. Cataldo

DRIVING PATIENT CARE SAFETY AND QUALITY THROUGH GAMIFICATION

Arup Roy-Burman, Lindsey Lightbody, Ed Martin,
Robyn Huey, Mary E. Lynch

Home

◀ ▶ go to PG.

HEALTH GAMES FOR BEHAVIOR CHANGE, SELF-MANAGEMENT AND PATIENT SAFETY

Overview: Health Games, Behavior Change, Self-Management & Patient Safety

Janine K. Cataldo, PhD, APRN-BC
Assistant Professor, Physiological Nursing
University of California, San Francisco
San Francisco, CA

To transform our health care system, three priorities are needed, improve: access to health care; patient self-management; and patient safety. To promote self-management and patient safety, virtual activities, health games, computer based simulations and interactive multiplayer videogames are being developed to specifically encourage health-related behavior change. The Affordable Care Act (ACA) includes $10 billion for disease prevention and health promotion over the next 5 years. There is a mandate in the ACA for insurance issuers to spend a minimum percentage of premiums on activities that improve health care quality. Under these "medical loss ratio" rules, Web-based interactions are specifically included in the definitions, thus, health games qualify as health promotion programs. National safety initiatives are increasingly used by utilized by regulatory agencies. Health games are a tool on the cutting edge of behavior science that can be used by nursing across all populations and settings to improve patient care. Today's health technology users and gamers defy old stereotypes: The average game player is 34 years old; 40% of players are female, and 26% are 50 years old or older. Older adults are no longer reluctant to use technical devises or play virtual games and nurses have been introduced to gaming as a quality improvement methodology. Gaming is now woven into the fabric of American life and soon to be woven into health care. Successful entertainment game designs draw on theoretical and evidence based features, such as a narrative setting that motivates goals, systems of feedback, points, levels, competition, teamwork, trading, and often, use of avatars. The extent to which a game is engaging and effective, depends on the skill with which these are implemented as a package for a particular audience. This symposium will present four research projects that include populations of all ages, special populations, and self-management from prevention to chronic illness, and patient safety: 1) MOVE (Moving with video game based exercise) a videogame-based physical activity program using the *Kinect for Xbox 360* game system in older adults with schizophrenia; 2) mHealth TLC (Tool for Lung Cancer), a 3-D virtual health game to mitigate lung cancer stigma and improve patient/clinician communication; 3) A qualitative study that seeks to understand young adults motivation to play video games, the meaning they ascribed to smoking imagery in games and their perceptions of smoking as modeled in the games; and 4) Driving patient care safety and quality through gamification, to engage bedside nurses and measure and motivate performance, highlighting individual as well as unit based achievement. There is potential promise for games of all types to improve quality of care and multiple health outcomes for many hard to reach populations. Further nursing research will help build evidence in this emerging area.

Home ◀ ▶ go to PG.

A Videogame-Based Physical Activity Program for Older Adults with Schizophrenia

Heather Leutwyler, RN, PhD, FNP-BC, CNS
Assistant Professor
Department of Physiological Nursing

Sophia Vinogrado, MD
Professor-in-Residence and Vice Chair
Department of Psychiatry

Glenna Dowling, RN, PhD, FAAN
Professor and Chair
Department of Physiological Nursing

University of California, San Francisco
San Francisco, CA

Background and Purpose: Adults with schizophrenia are a growing segment of the older adult population. Evidence suggests that they engage in limited physical activity. Interventions are needed that are tailored around their unique limitations, such as paranoia. An active videogame-based physical activity program that can be offered at a treatment facility can overcome these barriers and increase motivation to engage in physical activity. The purpose of this report is to describe the adherence to a videogame-based physical activity program using the *Kinect for Xbox 360* game system (Microsoft, Redmond, WA) in older adults with schizophrenia.

Methods: A descriptive longitudinal study is in process to establish the adherence to an active videogame-based physical activity program among older adults with schizophrenia. In our ongoing program, once a week for 6 weeks**,** participants play an active video game, using the *Kinect for Xbox 360* game system, for 30-minutes. At each weekly session, participants choose from a variety of games and are encouraged to use a different game each week. Off-the-shelf video games played to date include*:* *Kinect Sports* (including bowling and darts), *Kinect Carnival Games*, *Kinect Dance Central 2*, *Kinect Adventures*, and *Kinect Your Shape Fitness Evolved*. Participants engage in the program in groups of 3 to 4 at a time and rate the games on appeal, ease of use, and graphics at the end of each session. The program takes place at the facility the person attends: an outpatient community treatment center or a locked mental health facility. Adherence is measured with a count of sessions attended and with the percent of total minutes attended out of the possible total minutes of attendance (180). Research staff log the participants' attendance at the session and monitor participants throughout the session in order to determine the percent of minutes attended as it is possible that participants may leave at any point during the group.

Results: Fifteen older adults with schizophrenia have completed the study to date. Ninety-three percent completed the program and sixty-three percent had perfect attendance. Nine attended all six sessions for a total of 180 minutes, two participants attended five sessions (150 minutes), one participant attended four sessions (120 minutes), and three participants attended three sessions (90 minutes).

Implications: Older adults with schizophrenia need accessible physical activity programs. Video games that use the *Kinect for X-Box 360* game system are an innovative way to make physical activity accessible to this population. Nurses involved in the care of older adults with serious mental illnesses should consider active video games as one way to increase physical activity in this vulnerable population.

Funding: This work was supported by the National Center for Research Resources (grant KL2R024130 and UCSF-CTSI grant UL1 RR024131).

Home ◀ ▶ go to PG.

HEALTH GAMES FOR BEHAVIOR CHANGE, SELF-MANAGEMENT AND PATIENT SAFETY

Virtually Smoking: How Young Adults Perceive Smoking Imagery in Video Games: A Preliminary Qualitative Study

Susan R. Forsyth, RN, MS
Doctoral Student
Department of Social and Behavioral Sciences
University of California, San Francisco
San Francisco, CA

Background and Purpose: In 2009, 8.2% of U.S. middle school students and 23.9% of high school students reported current tobacco use, with rates remaining essentially unchanged since 2006 (1). Exposure to smoking imagery from a variety of media sources has been linked to increased smoking rates (2). Adolescents and young adults are spending more time playing video games. In 2009, adolescents and young adults played an average of 1 hour and 13 minutes a day (3). Smoking imagery in video games has been rapidly increasing, now with over 12% of games including references to smoking (4). In this study, we sought understand young adults motivation to play, the meaning they ascribed to smoking imagery in games and their perceptions of smoking as modeled in the games.

Method: Using semi-structured, open-ended questions, we interviewed eight young adults aged 18-21 who played video games for at least two hours a day. Interviews were recorded, transcribed and coded for themes using Atlas ti.

Findings: We found that video games were an important part of the participant's lives, and were used to fill a variety of social and entertainment needs. We found that video games were often immersive, performative environments where young adults can practice identities, the effects of which can spill over into the ways they perceive themselves in actual life. We also found that smoking was ubiquitous within many games and that virtual smoking imagery serves a normative role, with the participants readily accepting the concept of smoking within the virtual world.

Implications: The importance and power that gaming has in many young adult's lives suggests that the imagery experienced within the games may be quite influential, including smoking imagery. More research needs to be done in order to understand how interaction with smoking imagery within video games may be influencing adolescent and young adult's decision-making around smoking uptake and smoking acceptability.

References:
1. Arrazola RA, Dube SR, Kaufman RB, Caraballo RS, Pechacek T. Tobacco use among middle and high school students --- United States, 2000-2009. MMWR Morb Mortal Wkly Rep. 2010 Aug 27;59(33):1063-8.
2. Lovato C, Linn G, Stead LF, Best A. Impact of tobacco advertising and promotion on increasing adolescent smoking behaviours. Cochrane Database Syst Rev. 2003(4):CD003439.
3. Rideout VJ, Foehr UG, Roberts DF. Generation M2: Media in the Lives of 8-18-Year-Olds. Menlo Park: Kaiser Family Foundation 2010.
4. Barrientos-Gutierrez T, Barrientos-Gutierrez I, Lazcano-Ponce E, Thrasher JF. Tobacco content in video games: 1994-2011. The Lancet Oncology. 2012;13(3):237-8.

HEALTH GAMES FOR BEHAVIOR CHANGE, SELF-MANAGEMENT AND PATIENT SAFETY

Virtual Health Game to Mitigate Lung Cancer Stigma and Improve Self-Management

Janine K. Cataldo, PhD, APRN-BC
Assistant Professor, Physiological Nursing
University of California, San Francisco
San Francisco, CA

Background: Worldwide, there are 1.4 million lung cancer deaths per year. Lung cancer has the highest psychological distress of all cancers. Stigma contributes to increased morbidity and mortality and diminished quality of life. Lung cancer stigma (LCS) is a significant barrier to effective patient/clinician communication and self-management. Currently there are no interventions for LCS. Health games are a tool on the cutting edge of behavior science, because entertainment technology is ubiquitous, older adults are no longer reluctant to use technical devises or play virtual games. Successful entertainment game designs include such features as a narrative setting that motivates goals, systems of feedback, points, levels, competition, trading, and often, use of avatars. The extent to which a game is engaging and effective, depends on whether the game was tailored to a specific audience. Videogames for health and narratives (immersion) have demonstrated the capacity for promoting knowledge based, attitudinal and behavioral change. Immersion in a virtual world has the capacity to "transport" people into the story world and be changed by the "journey." Immersion is a phenomenological experience of people's engagement with narratives, in a safe and non-judgemental environment. The **purpose** of this study was to test the usability and feasibility of mHealth TLC to decrease LCS, improve patient/clinician communication and promote self-management. mHealth TLC is an immersive game, virtual journey through an oncology clinic visit that includes encounter s with a receptionist, medical assistant and provider. The goal for the patient is to navigate the visit, and choose reponses that lead to the receipt of the most information and resources to self-manage their care. At the end of the game patients receive points that allow them to measure their success, printouts of questions they chose to ask their provider, and selected information on lung cancer issues and symptom management.

Methods: Sample consisted of 21 healthy adults >18 years old (nursing faculty, graduate students, and post-doc fellows). Recruitment ceased when theoretical saturation of statements was reached. An interview script was used and all sessions were video recorded. Reactions were assessed using a semi-structured interview that included open-ended questions, prompts, and probes.

Data Analysis: Audio-recordings were transcribed; transcriptions were checked against the audio-recording and imported to NVivo. Responses were thematically classified by question. Codes were derived as the classification proceeded and reviewed by the research group. Discrepancies were resolved by consensus.

Results: Themes identified were: Avatars, Sense of anxiety, Understanding of the game, Feedback, Dialogue, Game Function, Technicalities, Overall impression/ approval. This is the first report of usability testing of a virtual world game for lung cancer patients. The method detected how the people interpreted response choices, responded to avatars and scripted dialogue. Requests were received for clarification, more instructions, and feedback throughout. Next steps are game revisions and testing with lung cancer patients.

Conclusion: Virtual health games can be an important tool for nurses to promote self-management.

Home ◀ ▶ go to PG.

HEALTH GAMES FOR BEHAVIOR CHANGE, SELF-MANAGEMENT AND PATIENT SAFETY

Driving Patient Care Safety and Quality through Gamification

Arup Roy-Burman, MD, Medical Director, UCSF Pediatric ICU,
Associate Professor, Department of Pediatrics;
Lindsey Lightbody, MA, Analyst, Department of Pediatrics;
Ed Martin, Deputy Director, Sales Force and Website Services;
Robyn Huey, DNP,CPNP-AC, Pediatrics ICU;
Mary E. Lynch, RN, MS, MPH, PNP, Director, Advanced Practice Pediatric
and Neonatal Nursing, Professor of Family Health Nursing
University of California, San Francisco, CA

High quality delivery of increasingly complex healthcare is critically dependent upon the performance of nurses at the bedside. Hospital-acquired infections, such as central line-associated blood stream infection (CLABSI), may account for nearly 100,000 deaths annually in the United States. Such complications may be reduced by increased awareness of risk factors and standardization of management practices. National patient safety initiatives are increasingly utilized by regulatory agencies, the insurance industry, and the public, to encourage hospitals to improve quality through performance in the respective associated safety metrics. Success requires participation of all members of the health care team. Qualities of previous successful initiatives include engagement of staff; driving of participation; collaboration across disciplines/ professions; and competition. Essentially, this is gaming. “Gamification” is the application of gaming mechanics to measure and motivate individual use of a tool or service which already exists—and reframe the experience to engage all eligible participants. The healthcare enterprise is challenged by the need for systematic engagement of nursing staff in practice improvement and compliance with quality processes. UCSF Benioff Children’s Hospital is partnering with the cloud-computing/social collaboration firm Salesforce and the gamification firm Bunchball in the first implementation of their Nitro gaming engine in healthcare. Gaming mechanics are leveraged to engage bedside nurses, measure and motivate performance, and highlighting individual, as well as unit-based, achievement. Key elements of gamification include Performance (real-time feedback, transparency, and goal-setting); Achievement (on-boarding, badges/leveling up, relevant rewards); and Social Interaction (communication, collaboration, and competition). Nurses will compete as both individuals and in a hierarchy of teams/”leagues” (from shift, to ICU, to hospital). The initial gamification pilot incorporates approximately 100 critical care nurses in the Pediatric ICU and Pediatric Cardiac ICU. Specific areas of focus include CLABSI maintenance bundle performance, continuing staff education, unit-based communication, and peer-recognition. CLABSI bundle compliance has been historically measured through monthly audits, capturing a minority of care instances. Through self-reporting, this gamification pilot allows near real-time measurement of compliance, with coverage of essentially all instances; with audits continuing in parallel throughout the duration of the pilot, audit data will be used to validate self-reporting. Continual education is provided through a series of topical instructional videos/presentations available through the gamification platform, accessible while at work, as well as remotely; content is accessible to users at any time. Similarly, review of weekly unit updates is incentivized through the gaming platform; management is able to track efficiency of information distribution, and can additionally address common questions to all staff through team-based social media. Additionally, nurses are able recognize peer performance at the bedside, with recognition displayed on digital profiles and shared through social media. With these processes, both horizontal communication (between staff nurses) and vertical communication (between nurses and management) can be strengthened. In addition to comparison with CLABSI audits, nursing performance will be measured through a series of pre- and post-implementation surveys targeting each of the four areas of focus, with a goal of demonstrating an improvement in nursing engagement and satisfaction, and ultimately, an improvement in associated patient outcomes.

Home ◀ ▶ go to PG.

HEALTH PROMOTION

PHN HEALTH PROMOTING BEHAVIORS: DO THEY PRACTICE WHAT THEY PREACH?

Kathleen Gilchrist, Cherie Rector

HEALTH CHATS: USING PUBLIC SPACES TO PROMOTE HEALTH

Jill Berg, Ellen Olshansky, Phyllis Agran, Robynn Zender

GROUP EXERCISE PROGRAM FOR CANCER SURVIVORS: LESSONS LEARNED

Joy Kiviat

IS TAI CHI EFFECTIVE IN REDUCING FALLS AMONG COMMUNITY DWELLING OLDER ADULTS?

Michelle Pui-Yan Yip, Cindy Sayre, Jungeun Lee

FACTORS INFLUENCING COLORECTAL CANCER PROGRAM IMPLEMENTATION AT A COMMUNITY CLINIC

Mo-Kyung Sin, Mei-Po Yip, Amanda Kimura, Shin-Ping Tu

IMPROVING TOBACCO CESSATION FOR PREGNANT & POSTPARTUM WOMEN

Jo Ann Walsh Dotson

DEVELOPING AN EDUCATIONAL INTERVENTION TO REDUCE PESTICIDE EXPOSURE OF FARM WORKERS

Lorenza A. Murphy

Home

◀ ▶ go to PG.

FEASIBILITY OF UTILIZING ETHNIC BEAUTY SALONS FOR CERVICAL CANCER SCREENING EDUCATION

Jongwon Lee, Mauricio Carvallo, Eunice Lee

SOCIO-ECOLOGICAL PERSPECTIVES ON ASIAN WOMEN'S CERVICAL CANCER SCREENING BEHAVIORS

Jongwon Lee, Eunice Lee, Mauricio Carvallo

BREAST AND CERVICAL CANCER SCREENING INTERVENTIONS FOR ASIAN WOMEN: SYSTEMATIC REVIEW

Jongwon Lee, Mauricio Carvallo

CPHC SURVEY: HEALTH SCREENING PARTICIPANTS' VIEWS ABOUT HEALTH PROMOTION BEHAVIORS

Judy H. Pedro

EFFECTS OF AN EDUCATIONAL PROGRAM ON THE HEALTH OF THE WORKPLACE

Laura Mood, Kathie Lasater, Debbie Buchwach

SUCCESSFUL AGING AMONG OLDER ADULT ASSISTED LIVING COMMUNITY RESIDENTS

M. K. Westman, Meredith Troutman-Jordan, Mary A. Nies

Home ◀ ▶ go to PG.

PHN Health Promoting Behaviors: Do They Practice What They Preach?

Kathleen Gilchrist, PhD, FNP, CCRN, PHN
Professor
California State University
Bakersfield, CA

Cherie Rector, PhD, RN, PHN
Professor Emeritus
California State University
Bakersfield, CA

Purpose: To determine the health-promoting behaviors of Public Health Nurses (PHN) employed at a large public health department in California.

Background: According to Pender's mid-range theory, health promotion is not the same as disease prevention; it is a proactive, goal-directed behavior that improves health and wellbeing. Motivational dynamics are involved, as people are posited to more likely change behaviors if they feel some connection between engaging in the new behavior and gaining the desired result. Important constructs include the value others place on the outcome and if the person feels a sense of self-efficacy. Health promoting actions can be influenced by: a) perceived barriers that can hinder commitment, b) environmental influences (peers, situations) that can either increase/decrease commitment, and c) competing/uncontrollable demands that may lead to the loss of attention to commitment. Health promotion is a key functional role of PHNs who help clients develop a more proactive stance in regard to their health, but little is known about PHNs health promoting behaviors.

Methods: Descriptive, cross-sectional study utilizing a well-researched survey tool, the Health-Promoting Lifestyle Profile II (HPLP II) (Walker, Sechrist, & Pender, 1997). This 52-item instrument utilizes a 4-point Likert scale to produce a total score and 6 subscale scores (i.e., health responsibility, physical activity, nutrition, spiritual growth, interpersonal relations, and stress management). Demographic information was collected (e.g., age, ethnicity, educational level, years in nursing/PHN, height, weight) from a convenience sample of PHNs.

Outcomes: Of 75 possible participants, 42 PHNs completed the survey (56% completion rate). Mean age was 49.1 years, 57.1% were White, 83.3% were female, and over 71% had a BSN. Mean years in nursing were 17.6, with 11 years in PHN. Average height was almost 65.5 inches, and weight almost 161.5 lbs. Average BMI was 26.5; over 52% characterized themselves as overweight, while 31% stated they were of normal weight. Total HPLPII mean score was 2.691 (s.d.=.428); subscale means were Health Responsibility (2.759), Physical Activity (2.280), Nutrition (2.804), Spiritual Growth (3.094), Interpersonal Relations (2.978), and Stress Management (2.527). Correlation of demographic variables with total HPLPII scores and subscale scores revealed that Years as a PHN was positively associated with total HPLPII scores (r=.433, p=.007), and Health Responsibility (r=.456, p=.003), Nutrition (r=.469, p=.002), Spiritual Growth (r=.377, p=.018), Interpersonal Relations (r=.371, p=.019), and Stress Management (r=.358, p=.022) subscale scores. A prior study of nursing students revealed a total HPLPII mean of 2.84; another study of hospital RNs reported a total mean of 2.6. PHNs in this study scored lower on total HPLPII than nursing students, but similarly to hospital nurses.

Conclusions: With today's focus on health promotion in public health, PHNs have substantial knowledge of this subject. This study indicates that PHN behaviors may not be congruent with their knowledge. While number of years as a PHN was positively associated with health promotion scores, PHNs may experience important health promotion barriers much like their clients. Further research is needed to examine health promotion among PHNs and reasons for lower scores on physical activity and stress management subscales.

Home ◀ ▶ go to PG.

Health Chats: Using Public Spaces to Promote Health

Jill Berg, PhD, Associate Professor, jpberg@uci.edu[1]
Ellen Olshansky, PhD, RN, WHNP, Director and Professor[1]
Phyllis Agran, MD, Physician[2]
Robynn Zender, MS, Project Manager[1]

[1]*Program in Nursing Science, University of California, Irvine, CA*
[2]*Pediatric Gastroenterology, Private Practice, Orange, CA*

Purpose: Health Chats, a nursing-conceived program currently under development, aims to determine how public spaces (farmer's markets, parks, community centers, etc.) might be used most effectively for free health consultations to help patients take control of their health. The ultimate goal is to develop an adaptable program for nationwide dissemination and implementation.

Background: Health promotion and chronic disease prevention and management constitute the greatest challenges to population health in the U.S., due in a large part to the embedded nature of health within the daily lives of individuals. Cultural, social, economic, and environmental forces shape individuals' lifestyles, and thus, health. As healthcare attempts to address these broader factors by adopting a more holistic mindset, a shift toward utilizing a broader base of experts to address current health challenges is underway. This broader base of experts moves beyond the traditional network of physicians, nurses, and adjunct service providers to include both lay community workers and patients. Involving this broad-ranging "community of experts" requires a social re-framing of the way health, illness, wellness, recovery, and management are conceptualized; it necessitates a real understanding of those suffering with, or struggling to prevent, chronic disease. These "experts" possess critical evidence of illness and a context that is essential to healing, but may need to understand how vital their own engagement is for improved health and wellbeing.

Methods: The Health Chats project envisions a community-based participatory approach that will unfold in four phases: Information Gathering, Data Analysis and Verification, Program Development and Evaluation, and Broadening the Intervention for other communities. The first phase entails recruiting individuals from diverse populations of Orange County, California, including healthcare professionals, for individual and focus group interviews. An advisory committee, comprised of a subset of these participants, will also be formed. Once initial interviews have been completed, data will be analyzed qualitatively and results taken to the advisory committee for validation, accuracy, and clarification. Utilizing the interview and advisory committee results, a Health Chats program will be developed and evaluated qualitatively and quantitatively for its impact, efficacy, and sustainability. Finally, based on all that is learned during the first three phases, the program will be disseminated as a model for other communities, including concrete methods for adapting the program to specific contexts.

Outcomes: Development of community partnerships with existing service-providing organizations; establishment of a community advisory board that represents the broad demographic make-up of the county; acquiring an in-depth understanding of needs, barriers, and social factors contributing to health; obtainment of perspectives and opinions on how Health Chats can be created for maximum impact, benefit, and sustainability; and the development of an adaptable, effective, long-term health intervention.

Implications: Success with the Health Chats program could drastically improve population health through increasing access, and providing anonymous, tailored services that increase self-efficacy through addressing root causes of poor health. The Health Chats program is an innovative approach to health promotion within a novel setting that situates basic nursing tenets of caring practice on the new front line of context-based healthcare.

Home ◀ ▶ go to PG.

Group Exercise Program for Cancer Survivors: Lessons Learned

Joy Kiviat, PhD, MSN, RN
Clinical Instructor
College of Nursing
The University of Arizona
Tucson, AZ

Purpose: To describe lessons learned in initiating a nurse-led, community-based exercise class for cancer survivors intended to promote physical and emotional well-being.

Rationale: The value of exercise in enhancing recovery and quality of life after cancer treatment has been firmly established. Growing evidence suggests that survivors who exercise may reduce their risk of cancer recurrence and lead longer, healthier lives. The American Cancer Society, together with the American College of Sports Medicine, have published guidelines that strongly support exercise as an important component of survivorship care planning. However, recent studies document that a large proportion of cancer survivors do not engage in exercise activities.

Description: A weekly group exercise class for cancer survivors, incorporating stretching, aerobic activity, and resistance work, was implemented by an oncology certified nurse. A location was selected based on proximity to oncology group offices and an infusion center. Promotional emails were sent and flyers distributed to area oncologists. Local media published reports of the class, including contact information. A video about the class was promoted through the College of Nursing website. The instructor contacted prospective enrollees to determine their goals and readiness to exercise. Each participant completed a brief survey of physical and emotional well-being prior to starting the class, and was asked to complete a follow-up survey six weeks after starting or upon discontinuing the class. Efforts to expand enrollment included additional flyer placement at other oncologist offices, cancer centers, area churches, and a prosthetic boutique. In addition, two additional class locations and times were offered, both at cancer treatment centers.

Outcomes: A total of seven cancer survivors enrolled at the original location. After one year of weekly exercise classes, five of the original participants continue to attend class regularly. The surveys showed that the participants achieved their exercise goals and described increased strength, endurance, and improved mood as a result of the class. Only one person enrolled in the classes offered at the cancer centers. Feedback from center staff suggested that patients in active treatment were too fatigued to enroll, or were not encouraged by their physician to engage in exercise. Individuals who inquired but chose not to enroll stated they were uncertain if it was safe to participate as their oncologist had not advised them regarding appropriate physical activities.

Conclusions: Nurses and other healthcare providers who intend to promote exercise among cancer survivors can benefit from the lessons learned through this project. Based on the above findings, planning of a new cancer survivor exercise project is underway in a neighboring municipality. Support and engagement of community leaders and active promotion of exercise benefits to cancer support groups, oncologists, and primary care providers will be essential in this and other cancer survivor exercise projects.

Home ◀ ▶ go to PG.

Is Tai Chi Effective in Reducing Falls among Community Dwelling Older Adults?

Michelle Pui-Yan Yip, MN, MHA, RN
Doctoral Student
School of Nursing
University of Washington
Seattle, WA

Cindy Sayre, MN, ARNP
Director, Professional Practice and Patient and Family Centered Care Department
University of Washington
Seattle, WA

Jungeun Lee, MS, RN
Doctoral Student
School of Nursing
University of Washington
Seattle, WA

Purposes/Aims: The purpose of this poster presentation is to provide a systematic review of research literature on the effectiveness of Tai Chi as a therapeutic intervention in reducing falls among community dwelling older adults.

Rationale/Background: Falls are the leading cause of injury related death among older adults. Twenty to thirty percent of those who fall sustain moderate to severe injury. The Centers for Disease Control and Prevention recommend regular physical activity such as balance training, at least 3 days per week to reduce falls. Tai Chi is a slow form of physical exercise that aims to enhance one's balance and flexibility, improve lower extremity strength, and promote postural control. Therefore, Tai Chi is thought to be particularly appropriate for older adults.

Methods: The authors conducted a systematic and integrative review of relevant research literature in Pubmed, CINAHL, and the Cochrane Library for empirical studies on Tai Chi as an intervention for fall reduction among older adults residing independently in communities. Search terms used included Tai Chi, falls, and older adults, with limitations set to focus on participants aged 65 years and older and English publications only. Inclusion criteria were clinical trials and fall as the outcome measurement. Studies on institutionalized individuals and participants with specific diagnosis were excluded. The authors reviewed all abstracts identified and manually selected and analyzed eight articles (including six randomized controlled trials, one quasi-experiment, and one systematic review) that met the criteria.

Outcomes: The studies demonstrated that the intervention of a Tai Chi exercise program has not been standardized. Program elements such as Tai Chi styles, class size, duration of each session, and frequency and length of therapy varied widely across studies. The effects of Tai Chi in fall reduction were inconsistent among the eight studies. Only three studies showed positive outcomes on the number of falls. Two studies that combined Tai Chi and health promotion education had more promising results. In addition, Tai Chi is more beneficial for older adults who are less frail.

Conclusion: This systematic review demonstrates that the need for a standardized approach in the study of Tai Chi as a fall prevention intervention (in order to compare outcomes across studies). Therefore, future studies are needed to focus on developing more standardized conceptual and operational definitions of Tai Chi, as well as exploring the mediating effects of Tai Chi on fall reduction, and determining the best Tai Chi practice for certain type of older adults.

Home ◀ ▶ go to PG.

Factors Influencing Colorectal Cancer Program Implementation at a Community Clinic

Mo-Kyung Sin, DSN, RN
Assistant Professor
Seattle University
College of Nursing
Seattle, WA

Mei-Po Yip, PhD
Assistant Professor
Department of Medicine
University of Washington

Amanda Kimura, BS
Research Coordinator
Department of Medicine
University of Washington

Shin-Ping Tu, MD, MPH
Associate Professor
Department of Medicine
University of Washington

Background: A great deal of innovation failure is from ineffective implementation rather than innovation itself. Very little is published about factors both facilitate and hinder the innovation dissemination process.

Purpose: The purpose of this study is to examine factors that facilitate and hinder colorectal cancer program implementation and maintenance in Vietnamese in a community health clinic located in the Puget Sound area of Washington.

Methods: Focus group discussions of medical assistants (n=13) who were the colorectal cancer intervention agents were conducted at the Community Health Services clinic. To increase trustworthiness, three research team members analyzed the data using content analysis and reached consensus. The themes were categorized into four groups: delivery agents, delivery system (environment), intervention, and intervention recipients based on medical assistants' perspectives by barriers and facilitators.

Results: The study findings indicated the importance of identifying delivery agents for effective innovation dissemination.

Implication: Any intervention programs need to be easily implemented by the delivery agents considering their workload. Future studies may consider expanding the role of delivery agents to all health care providers including physicians, interpreters, and receptionists as well as patients for their families, friends and community to whom they belong.

HEALTH PROMOTION

Improving Tobacco Cessation for Pregnant & Postpartum Women

Jo Ann Walsh Dotson, RN, PhD
Assistant Professor, College of Nursing
Washington State University
Spokane, WA

Purposes/Aims: Examine the literature for evidence based practices that may positively impact tobacco cessation in pregnant and postpartum women in public and private practices in urban and rural settings.

Rationale/Background: Tobacco use is the single most preventable cause of death and disease in the United States (CDC, 2011). The association between tobacco and increased risk for low birth weight and premature birth is well established in the literature (CDC, 2001). The US Surgeon General's Report also notes that infants and young children also negatively impact child health and development, contributing to the incidence of Sudden Infant Death Syndrome (SIDS), asthma, bronchitis, pneumonia, middle ear infection, and other diseases (DHHS, 2006). The long range negative effects of tobacco exposure are also becoming more apparent, with both prenatal and postnatal exposure linked to respiratory problems in adults.

Despite the extensive documentation of risks associated with tobacco use in pregnancy, tobacco use continues to be a public health concern, with estimates of 12 – 15% of women smoking during pregnancy (Keegan, Parva, Finnegan, Gerson, & Belden, 2010). Women with low incomes, histories of substance abuse, and with less than a high school education are also more likely to smoke (CDC, 2007), as are women living in rural areas. Tobacco use is more prevalent in rural areas; 30.1% of rural respondents admitted to cigarette use in 2006, compared to 23.3% non-rural respondents (SAMHSA, 2007). Despite the disproportionate incidence of tobacco use in rural areas, policies and programs supporting tobacco cessation are less accessible in rural settings (Doescher, Jackson, Jerant, & Hart, 2006; Vander Weg, Cunningham, Howren, & Cai, 2011). And despite the fact that many women are motivated to and successfully quit smoking during the prenatal period approximately 80% resume smoking by the time their infants are one year of age (Colman & Joyce, 2003; Yunsheng, Goins, Pbert, & Ockene, 2005).

Undertaking/Best Practice/Approach/Methods/Process: The U.S. Preventive Services Task Force recommended that practices serving pregnant women institute "tobacco user identification system" and that clinicians offer "…education, resources, and feedback" to promote tobacco cessation **(**U.S. Preventive Services Task Force, 2009).

Outcomes Achieved/Documented: Researchers have demonstrated improved rates of tobacco cessation in populations, including pregnant and postpartum women, using contingency management. Contingency Management offers a unique, low-cost, low-risk, non-invasive behavioral treatment strategy that could leverage the behavioral momentum of smoking abstinence obtained during pregnancy into continued abstinence postpartum (Heil, et al., 2008 & Higgins, et. al., 2010). Dallery and associates have also documented improved tobacco cessation in rural, non-pregnant or postpartum populations in rural settings using contingency management facilitated by remote reporting methods (Dallery, Glenn, & Raiff, 2007).

Conclusions: A review of literature revealed a gap in knowledge regarding mechanisms to address tobacco recidivism in postpartum populations, especially those in high risk populations. Existing studies have focused on prenatal cessation, with limited or decreased effort on the postpartum period. The feasibility of remote reporting for postpartum populations has also not been explored.

Home ◀ ▶ go to PG.

HEALTH PROMOTION

Developing an Educational Intervention to Reduce Pesticide Exposure of Farm Workers

Lorenza A. Murphy, MSN, RN
PhD Student
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ

Purposes/Aims: The aim of this proposed research study is to bring awareness of pesticide exposure and the subsequent higher risk for certain acute and chronic illness associated with this exposure in migrant seasonal farm workers in Southwestern, AZ. The intervention will be delivered by the health workers who reside in the community. The *Promotoras* along with other community leaders will be involved in the development and delivery of the educational intervention which will focus on reducing pesticide exposure to optimize the health and wellness of a vulnerable population.

Background: Migrant seasonal farm workers (MSFW) are known to be exposed to pesticides on an annual basis. The harmful effects of this exposure include eye irritation, nausea, vomiting and cancer. Because of the migratory status of the farm worker it is difficult to document and identify whether these workers have received information about how an individual/family can limit or reduce their exposure. Occupational health agencies may provide some informal information to MSFWs, it is unknown if the content of the material presented is culturally appropriate and if the terminology used is lost in translation. A community-based health center in Southwestern Arizona near the Arizona-Mexico border is the proposed site for this intervention study. The setting has a large population of Mexican nationals that come to work in the fields where pesticide exposure occurs.

Methods: Lay health workers or community health workers known as *Promotoras* have been used to deliver educational interventions since the 1950's. Until recently research has been conducted to validate the effectiveness of using *Promotoras* to deliver culturally responsive health care to vulnerable populations. Currently a more formal approach is to include *Promotoras* in the actual development and implementation of an educational intervention to a specified population of which they are a member. PauloFreire's concept "is grounded in the principles of community organization: fairness, justice, empowerment, participation, and self-determination." The Freirian concept will be used as a conceptual framework to assist in guiding the inclusion of *Promotoras* in the development of educational interventions and research process.

Implications: The community-based health center identified for this proposed research serves as a valuable health resource for the MSFWs. The community center retains *Promotoras* to provide translation for physicians and to educate the community about diabetes and hypertension. To date there has been no education provided to the workers about the risk of pesticide exposure. Participatory efforts are being initiated between this researcher, the *Promotoras* and other personnel in the community-based health center to develop together a culturally based educational intervention for MSFWs that focuses on reducing exposure to pesticides. It is vitally important to include *Promotoras* and other community leaders in the development and implementation process if sustainability of the intervention within the community is to occur. Community-based educational programs delivered by *Promotoras* are shown to significantly decrease health disparities of the underserved communities they live.

Home ◀ ▶ go to PG.

Feasibility of Utilizing Ethnic Beauty Salons for Cervical Cancer Screening Education

Jongwon Lee
Assistant Professor
College of Nursing
University of New Mexico
Albuquerque, NM

Mauricio Carvallo
Assistant Professor
Department of Psychology
University of Oklahoma
Norman, OK

Eunice Lee
Associate Professor
School of Nursing
University of California
Los Angeles, CA

Background and Significance: Disparities in cancer screening among ethnic groups continue to be a severe health problem and are more likely to affect Vietnamese American women (VAW) and Korean American women (KAW). These two groups consistently report much lower rates for cervical cancer screening than other Asian subgroups and non-Hispanic Whites. This disparity underscore: (a) the need for additional research on innovative interventions that help maximize cancer screening among this population, and (b) the importance of identifying settings where interventions can maximize the access to hard-to-reach populations. Ethnic beauty salons may constitute an optimal place to implement such interventions to VAW and KAW. To date, no studies have assessed the feasibility of utilizing ethnic beauty salons to deliver cervical cancer screening education for these groups.

Purpose: The purpose of this research is to (1) assess the feasibility of utilizing ethnic beauty salons to reach out VAW and KAW for cervical cancer screening education.

Design and Methods: A descriptive quantitative research design was applied to assess the feasibility of utilizing ethnic beauty salons for future cervical cancer screening education. The sample (n = 60) consisted of VAW and KAW cosmetologists (n = 20) and their customers of the same ethnicity (n = 40). Participants were conveniently recruited from ethnic beauty salons by two bilingual research coordinators (one Korean and one Vietnamese). Two types of survey questionnaires were administered (i.e., one for cosmetologists and the other for customers). The questionnaire for cosmetologists consists of 19 items assessing the characteristics of the beauty salons (e.g., average amount of time spent with each customer, etc.), cosmetologists' level of confidence and comfort discussing cervical cancer related materials with their customers, their level of interest and preferred ways of learning about cervical cancer related materials, their preferred methods for sharing this information with customers, major topics discussed with customers during each visit (e.g., family or health problems), etc. The questionnaire for customers consists of nine items assessing customers' interest and comfort discussing cervical cancer related material with their cosmetologists, etc.

Data Analysis: The data will be entered and analyzed using SPSS statistical software program (version 20). Descriptive statistics will be applied to determine whether it is appropriate to utilize ethnic beauty salons for future cervical cancer screening education. The analyses of frequency distributions will provide overall information on the: (a) characteristics of the beauty salons, (b) cosmetologists' level of interest, comfort, and confidence in sharing cervical cancer-related material with their customers, and (c) customer's interest and comfort discussing cervical cancer-related material with their cosmetologists.

Results: The results of this study will be discussed at the time of presentation.

Implication: The study findings will provide researchers with in-depth insight on whether ethnic beauty salons can be utilized as a gateway to distribute cervical cancer screening education to VAW and KAW, and will help develop and implement culturally tailored educational programs aimed to reduce cervical cancer-related mortality among this population.

Home ◀ ▶ go to PG.

Socio-Ecological Perspectives on Asian Women's Cervical Cancer Screening Behaviors

Jongwon Lee
Assistant Professor
College of Nursing
University of New Mexico
Albuquerque, NM

Eunice Lee
Associate Professor
School of Nursing
University of California
Los Angeles, CA

Mauricio Carvallo
Assistant Professor
Department of Psychology
University of Oklahoma
Norman, OK

Background and Significance: Cervical cancer is the number one cause of death for Vietnamese American women (VAW) and the second leading cause of death for Korean American women (KAW). Despite this high incidence and mortality rates, VAW and KAW consistently report lower screening and early detection rates for cervical cancer than any other groups. Compared to other Asian subgroups (69-86%) and non-Hispanic Whites (83.8%), KAW rank last (68%) and VAW rank third lowest (69%) in the U.S. A survey conducted recently in California revealed similar findings. Compared to other Asian subgroups (80- 89%) and non-Hispanic Whites (NHW: 88%), KAW and VAW reported the lowest and third lowest rates of cervical cancer screening, respectively (79%; 81%, respectively). These rates are far below the Healthy People 2020 goal for 93% of women aged 21-65 to have received a cervical cancer screening within the past three years. This underscores the critical need for additional research exploring factors underlying such low screening behaviors from multidimensional perspectives.

Purpose: The purpose of this research is to explore the underlying factors related to cervical cancer screening among VAW and KAW.

Design and Methods: This study applied a qualitative research design. A total of 60 participants were conveniently recruited from beauty salons of their same ethnicity, including cosmetologists. Two bilingual research coordinators conducted personal interviews with participants of their same ethnicity. A semi-structured interview guide was used for interviews. Each interview lasted approximately 40 minutes, was tape-recorded, and later transcribed by the two transcriptionists. Each Vietnamese and Korean transcription was further translated into English for analysis.

Data Analysis: All transcripts have been analyzed line-by-line to identify similar words, phrases, and patterns within and across the transcripts. The primary investigator has begun an initial analysis of transcripts to identify recurring themes and codes (manually and using a computer software program). Categories have been constructed and labeled by grouping substantive themes and codes with similar meanings, and patterns will be compared. To enhance the scientific rigor of the findings, the following procedures have been applied in the analyses. First, the research coordinators have used the same interview guide for each participant's interview and have followed a standardized interview protocol. Second, a codebook was developed to include the code, its brief definition, and example quotes. Third, a detailed audit trail has been developed and maintained throughout the study. Lastly, the primary and secondary investigators will analyze the data independently. The codes and themes that emerge from both analyses will be compared to assess inter-rater reliability. Any discrepancies will be resolved by the primary and secondary investigators.

Results: The results of this study will be discussed at the time of presentation.

Implication: Findings from this study will help health care researchers to better understand the psychosocial and cultural beliefs, myths, and knowledge associated with cervical cancer and screening among KAW and VAW. The findings will also help to develop and implement more effective cervical cancer screening psycho-educational programs that are unique to the needs and culture of this population.

Home ◀ ▶ go to PG.

Breast and Cervical Cancer Screening Interventions for Asian Women: Systematic Review

Jongwon Lee
Assistant Professor
College of Nursing
University of New Mexico
Albuquerque, NM

Mauricio Carvallo
Assistant Professor
Department of Psychology
University of Oklahoma
Norman, OK

Background and Significance: A number of intervention studies have been developed in an effort to increase the screening rates for breast and cervical cancer (BCC) in Asian American women, yet little attention has been paid on evaluating the effectiveness of such interventions. The interventions that are most culturally sensitive must be identified to maximize the access to hard-to-reach populations in the U.S., for example, Korean women who have never been screened for cervical cancer.

Purpose: The purpose of this study is to: (a) systematically review the literature on BCC screening interventions among Asian American women, (b) examine the effectiveness of such interventions in improving BCC screening of this population, and (c) provide guidance with respect to the most appropriate interventions available to help maximize cancer screening in this population.

Methods: Four electronic databases (i.e., PubMed, CINAHL, PsycINFO, and Web of Knowledge) were searched to identify the intervention studies aimed to increase BCC screening among Asian American women. The key words entered, separately or in combination, for searching relevant articles were, breast cancer, cervical cancer, screening, intervention(s), outcomes, Asian, mammogram, and Pap tests. The literature search was limited to intervention studies conducted in the U.S. targeting Asian women and measuring their adherence and screening rates for either breast or cervical cancer, as outcomes. Twenty-one articles were considered relevant and included in this review. To synthesize the findings of the selected studies, Garrard's guideline for review of the literature was applied.

Results: Among 21 studies reviewed, 10 studies implemented individual-focused intervention programs (e.g., one-on-one home visits); and 11 studies implemented large scale community-based intervention programs (e.g., mass media). Most studies reviewed (n = 17) implemented interventions aimed to enhance Asian women's awareness (e.g., importance of early detection) and access (e.g., low-cost) to screening. Eleven out of 21 studies reviewed reported that their interventions were effective; five studies reported partially effective results; and five additional studies produced ineffective results. Those studies reporting partially effective or ineffective interventions mostly utilized a large adjacent regional community as a comparison group. It is likely that the use of these control groups may have introduced confounding factors that resulted in decreasing the effects of the intervention programs (e.g., diffusion of intervention programs to the control region). In addition, some of these studies indicated that short intervention intervals, use of church-goers as Lay Health Workers (LHWs), or use of women with no screening history as a target sample contributed to ineffective intervention outcomes.

Implication: To develop and implement much more effective intervention programs that can help maximize Asian American women's breast and cervical cancer screening, researchers must consider to: (a) avoid the use of a proximal community as a control region (group) in their community intervention studies, (b) apply long intervention intervals to fully capture screening rates, (c) evaluate indirect intervention outcomes (e.g., rescreening rates), (d) assess the cost-effectiveness of different types of interventions separately or in combination (e.g., LHWs vs. media-led campaign), and (e) develop BCC screening interventions along with other prevention programs (e.g., hepatitis).

Home ◀ ▶ go to PG.

HEALTH PROMOTION

CPHC Survey: Health Screening Participants' Views about Health Promotion Behaviors

Judy H. Pedro, MSN, RN, PHN, CNS
Assistant Professor
Department of Nursing
California State University, Bakersfield
Bakersfield, CA
jpedro@csub.edu

Purpose: The purpose of this research study was to examine the perceptions of participants of a health screening program called Community Preventive Health Collaborative (CPHC) related to primary health care, health promotion behaviors, and services provided by student nurses.

Background: CPHC is a program that allows student nurses at California State University Bakersfield to provide health screenings to underserved populations in Kern County. Of the population in Kern County, 20% do not have a usual source of health care, 20% of people are living beneath the poverty line, and only 68.5% of Kern residents age 25 graduated from high school (healthykern.org, 2011). There are high rates of diabetes, hypertension, obesity, and heart disease. CPHC provides health teaching and linking of individuals to health resources. Screening services performed include a health history, blood pressure, blood sugar, total cholesterol, and BMI evaluation. In addition, gathering information from underserved populations is important in order to understand common barriers to health promotion and preventive health services.

Methods: Permission to conduct the study was obtained by the California State University Bakersfield Institutional Review Board. Student nurses received Human Subjects Protection Training and received orientation on how to administer the survey. After completion of the health screening, participants were informed of the CPHC survey and invited to participate by the student nurse. If the participant agreed to participate they were given the consent form and the 20 question survey in English or Spanish. The student nurse was available to answer questions or read the consent and survey questions to the participant if needed.

Results: A total of 191 surveys were collected from February 2011 through June 2012. Males were 36% of the participants and females were 64%. Hispanics were 58% of the participants, Whites 26%, Black 8%, Asian 4%, and other 4%. Ages of participants ranged from 18 – 83 years. Body weight was the most common problem reported from the health screening (23%) followed by high blood pressure (15%). Forty-eight percent of participants were not aware of this problem. Only 66% reported seeing a doctor regularly. The most common reason for not seeking primary care was that it costs too much (38%) while 96% of participants reported that seeing a doctor regularly is important for good health. Ninety-one percent thought they should increase fruits, vegetables, and whole grains in their diet while 85% thought they should increase their daily exercise. The participants get information about health topics from their doctor (42%) and the internet (35%). Participants indicated they received helpful information from the screening (99%) and that the student nurse was able to answer their questions (99%).

Implications: Community health nursing programs can be developed in collaboration with community partners to meet the needs of at risk populations. Programs that offer these services at no cost are important to provide teaching related to healthy behaviors and detect problems early in order to minimize costly complications. Student nurses are a resource for populations that lack access to health promotion and preventive health services.

Home ◀ ▶ go to PG.

Effects of an Educational Program on the Health of the Workplace

Laura Mood, MSN, RN, Doctoral Student, Clinical Instructor/Coordinator[1]
Kathie Lasater, EdD, RN, ANEF, Associate Professor[1]
Debbie Buchwach, MSN, RN-BC, Director of Professional Development[2]
[1]*School of Nursing, Oregon Health & Science University, Portland, OR*
[2]*Kaiser Sunnyside Medical Center & Kaiser Westside Medical Center, Clackamas, OR*

Incivility is low intensity deviant behavior toward another person involving an ambiguous intent to harm (Anderson & Pearson, 1999). Incivility in healthcare settings is a significant and mounting problem that can result in psychological and physiological distress for those involved. When unaddressed, incivility has negative effects on the health of the entire environment. There is strong evidence suggesting that incivility among healthcare team members contributes to negative patient outcomes (IOM, 1999). Nursing attrition is in part the result of unmanaged incivility in the workplace (Griffin 2004; Roberts et al., 2009). Incivility can lead to threatening, aggressive, and/or violent behavior. Violent acts can be reduced by decreasing the occurrence of uncivil behavior (Clark, 2011).

The World Health Organization (WHO) posits that a healthy work environment is one where staff and managers collaborate in continuous quality improvement efforts to protect and promote the health, safety, and well-being of all employees and the sustainability of the workplace. Organizations can foster healthy work environments by focusing improvement efforts on conditions of the physical and psychosocial work environments; workplace culture; employee health resources; and community health improvements (Burton, 2010).

This mixed-methods study sought to determine if a 3-part Healthy Workplace educational program improved the health of the work environment within a selected surgical services unit (SSU) and labor and delivery unit (L&D) over time. A descriptive, prospective cohort design including a convenience sample of all consenting SSU staff (n=31) and L&D staff (n=63) was implemented to assess program effectiveness. The independent variable was the three-part Healthy Workplace educational program, and outcome variables included staffs' perceptions of incivility in the workplace; self-efficacy; workplace collective efficacy; and nursing satisfaction. Program effects were assessed at designated time points within an 18-month period (January 2011 – June 2012) using the General Self Efficacy Scale (GSES); Nursing Incivility Scale (NIS); Workplace Collective Efficacy Scale (WCES), and nursing satisfaction scores via the National Database of Nursing Quality Indicators (NDNQI). Three hypotheses were tested. It was anticipated that over time, and following staffs' participation in a three-part Healthy Workplace educational program: (1) incidence of incivility in the workplace would decrease; (2) self-efficacy would increase; (3) workplace collective efficacy would increase; and (4) nursing satisfaction would increase. The program was also evaluated via semi-structured individual qualitative interviews of volunteer participants (nOR = 4; nL&D = 4) after completion of the educational sessions.

Upon final analysis of all data, quantitative findings will be presented using descriptive statistics, as well as between and within group comparisons. The qualitative interviews will be analyzed using thematic and content analyses to identify and illuminate key issues and participant patterns of response relevant to participation in the study. Although the data collection has concluded, results are pending final analyses and anticipated in early 2013.

References:

Anderson, L. M., & Pearson, C.M. (1999). Tit for tat? The spiraling effect of incivility in the workplace. *Academy of Management Review, 24*, 452-471.

Burton, J. (2010). WHO healthy workplace framework and model: Background and supporting literature and practices. Retrieved from http://www.who.int/occupational_health/healthy_workplace_framework.pdf

Clark, C. M., Olender, L., Cardoni, C., & Kenski, D. (2011). Fostering civility in nursing education and practice: Nurse leader perspectives. *Journal Of Nursing Administration, 41* (7/8), 324-330. doi:10.1097/NNA.0b013e31822509c4

Griffin, M. (2004). Teaching cognitive rehearsal as a shield for lateral violence: An intervention for newly licensed nurses. *The Journal of Continuing Education in Nursing, 35* (6), 257-263.

Institute of Medicine (1999). To Err is Human: Building a Safer Health System. Retrieved from http://www.iom.edu/~/media/Files/Report%20Files/1999/To-Err-is-Human/To%20Err%20is%20Human%201999%20%20report%20brief.pdf

Roberts, S. J., Demarco, R., & Griffin, M. (2009). The effect of oppressed group behaviors on the culture of the nursing workplace: A review of the evidence and interventions for change. *Journal of Nursing Management, 17* (3), 288-293.

Home ◀ ▶ go to PG.

Successful Aging among Older Adult Assisted Living Community Residents

M. K. Westman, MSN
Instructor
University of North Carolina, Charlotte
Charlotte, NC

Meredith Troutman-Jordan
Associate Professor
University of North Carolina, Charlotte
Charlotte, NC

Mary A. Nies, PhD, RN, FAAN, FAAHB
Associate Dean and Director of Nursing
School of Nursing
Idaho State University
Pocatello, ID

Purpose: The purpose of this study was to pilot the Successful Aging Inventory (SAI) with older adult assisted living community (ALC) residents. Specific aims of the study were to evaluate the feasibility and determine psychometric properties of the SAI with ALC residents, and assess characteristics of successful aging in this population.

Research Question/Hypothesis: Little is known about successful aging in ALC residents, who are more likely to experience health problems and functional impairments than the general older adult population. Therefore, they might be expected to age less successfully.

Background/Significance: ALCs provide care to a vulnerable population, most of whom require some assistance with activities of daily living and instrumental activities of daily living. Many of these older adults are not aging successfully according to commonly used criteria. As the population ages, greater numbers of older adults with health, functional, and self-care limitations can be expected, and a greater incidence of chronic illnesses means that many more older adults will require ALC services. Therefore, it is imperative that we broaden our understanding of successful aging to include older adults who reside in ALCs, who may benefit from interventions aimed at promoting successful aging.

Research Design and Method: A cross-sectional descriptive design was used. The instrument includes the SAI, Purpose in Life Test, Life Satisfaction Inventory-A, Centers for Epidemiogic Studies Depression Scale, Brain Health Questionairre, and Lubben Social Network Scale-Revised.

Results/Statistical Analysis Methodology: Data collection remains underway. Descriptive and correlational statistical analyses will be done, as well as internal reliability analysis of the SAI.

Setting/Population/Sample Size: Participants are ALC residents age 65 or older. Data has been collected from 189 of the desired 200 participants.

Conclusions: We will determine how useful the SAI is in the ALC population and identify foci for future interventions targeting successful aging.

Implications for Practice: This study will yield greater understanding of successful aging in this population. Greater understanding of successful aging will equip caregivers to add to their toolbox of health promotion and well-being strategies. Subsequent research will include identification and refinement of strategies to promote successful aging in this population, through an intervention study.

IMPROVING CARE OF THE OLDER ADULT

SYMPTOMS PREDICTIVE OF URINARY TRACT INFECTIONS IN A GERIATRIC POPULATION

Joan M. Nelson, Paul F. Cook

FALL RISKS IN THE ELDERLY: SCREENING AND MANAGEMENT

Mary Jo Clark, Ellen Ward

ANALYTIC REVIEW OF THE PREDICTABILITY OF THREE FALL RISK ASSESSMENT TOOLS

Peggy Kalowes, Erin Burns, Myrna Czaplicki, Tomo Nakamura

RAISING AWARENESS OF ELDER ABUSE PREVENTION IN THE COMMUNITY VIA A CBPR APPROACH

Johnelle Chock, Alice M. Tse

GROUP-SINGING PROGRAM: INSIGHTS OF RESIDENTS AND STAFF IN A RETIREMENT COMMUNITY

Musetta Changchi Fu, Qian Tu, Marianne Rose Unite

WHEN MORE IS NECESSARY: TRANSITION TO ASSISTED LIVING

Linda Hansen-Kyle, Patricia Roth

INTERVENTIONS ON MEALTIME DIFFICULTIES IN OLDER ADULTS WITH DEMENTIA: A SYSTEMATIC REVIEW

Wen Liu, Jooyoung Cheon, Sue A. Thomas

M-HEALTH TO PROMOTE SELF-MANAGEMENT IN OLDER ADULTS ON ANTICOAGULATION: FOCUS GROUP

Jung-Ah Lee, Alpesh Amin, Jill Berg, Lorraine Evangelista, Mark Bachman, Walt Scacchi, Alfred Kobsa, Yunan Chen, Vincent Kennedy

Home ◀ ▶ go to PG.

Symptoms Predictive of Urinary Tract Infections in a Geriatric Population

Joan M. Nelson, DNP, APRN-BC *Paul F. Cook, PhD*

University of Colorado
College of Nursing
Aurora, CO

Aim: To identify symptoms correlated with positive urinalysis results in frail, older adults. These findings will eventually be used to create a symptom scoring tool, to effectively diagnose and treat urinary tract infections (UTIs) and avoid urosepsis, without overtreating these infections and risking antibiotic resistance.

Background: Overuse of urinalysis to investigate vague changes in condition for elderly and disabled patients has led to overtreatment of assymptomatic bacteriuria (ASB) and associated antibiotic resistance. On the other hand, failure to treat UTI can lead to falls and sepsis. A minimum set of criteria to guide urinalyses ordering in long term care settings was identified and developed in 1989 (McGeer, et al., 1991) and updated and revised eleven years later (Loeb, et al, 2001a). Most criteria rely on older adults' reporting of subjective symptoms, such as dysuria, increased incontinence, frequency, urgency or suprapubic pain. However, this information is not obtainable in older adults who are cognitively impaired. These criteria have been widely adopted for use in long term care but they remain expert opinion without supporting evidence. Symptoms included in these criteria are difficult to assess in patients who are incontinent and have cognitive impairment.

Methods: A questionnaire was developed for use by providers who were considering ordering a urinalysis. Providers were required to complete a checklist of symptoms or risk factors which precipitated the order each time a urinalysis was requested. Checklist items included altered mental status, change in urine characteristics, fever, chills, tachycardia, dysuria, suprapubic pain, hematuria, purulent discharge, falls, history of recurrent UTIs and incontinence. All checklists completed in 2011 (n=71) were sent to the investigator who followed up with a chart review one week later, to obtain urinalysis and culture results. Symptoms were analyzed, using logistic regression, to determine which were predictive of positive urinalysis results. Subjects were divided into two groups, those with and without dementia, for analysis.

Results: Only fever and chills predicted positive urinalysis in either subgroup. Patients with dementia often had altered mental status as the precipitating symptom for testing, but this symptom was not predictive of positive urinalysis results in either this subgroup or the full sample.

Conclusion: Guidelines related to diagnosis of UTI in older adults are desperately needed to prevent unnecessary treatment of asymptomatic bacteriuria while effectively treating true infection. Aside from fever and chills, which are late signs of infection in older adults, no symptom was found to predict urinary tract infections in frail, older adults. We plan to refine our questionnaire and conduct a follow-up study to inform development of a symptom scoring tool for older adults.

References:

McGeer, A., Campbell, B., Emori, T.G., Hierholzer, W.J., Jackson, M.M., Nicolle, L.E., Peppler, C., Rivera, A., Schollenberger, D.G., Simor, A.E., Smith, P.W., & Wang, E. (1991). Definitions of Infection for Surveillance in Long Term Care Facilities. *American Journal of Infection Control, 19* (1), 1-7.

Loeb M, Bentley DW, et al. (2001). Development of minimum criteria for the initiation of antibiotics in residents of long-term care facilities. *Infection Control and Hospital Epidemiology, (22),* 120-4.

Home ◀ ▶ go to PG.

IMPROVING CARE OF THE OLDER ADULT

Fall Risks in the Elderly: Screening and Management

Mary Jo Clark, PhD, RN
Professor
Hahn School of Nursing
and Health Science
University of San Diego
San Diego, CA

Ellen Ward, MSN
Nurse Practitioner
Hahn School of Nursing
and Health Science
University of San Diego
San Diego, CA

Aim/Purpose of the Project: This evidence-based project was designed to study the effects of implementing a fall risk screening program, followed by multifactorial risk assessment, on fall rates in the community-dwelling elderly population.

Background: According to the Centers of Disease Control, about 10-30% of falls result in serious injury, and injury care is costly. Among adults 65 or older, falls are the leading cause of injury death. They are also the most common cause of nonfatal injuries and hospital admissions for trauma. Falls among the elderly are preventable. According to the American Geriatrics Society (AGS) and British Geriatrics Society (BGS) 2010 clinical practice guidelines, all patients older than 65 should be asked annually about whether they have fallen, the number of falls they have had, and whether they have difficulty walking or with balance. They also recommend that a multifactorial fall risk assessment be performed and interventions tailored to the identified risk factors for all community-dwelling adults. Persons who screen positive for fall risks should receive further detailed assessments (Fabre, 2010). More than 60 studies, including multifactorial targeted risk factor intervention studies, have resulted in an approximate 30% relative risk reduction in fall rate (Inouye, 2007).

Design and Methods: The project employed a quasi-experimental pre-and posttest design without randomization and with participants serving as their own controls. The Elderly Fall Screening Tool (Cwikel, 1998) will be administered to patients during a routine office visit. If the patient's score indicates he or she is at high risk for falling, the patient will be scheduled for an in-depth fall risk assessment by a nurse practitioner to identify individual risk factors and develop a fall prevention plan. The percent of patients screened, changes in risk factors, and ER visit and fall rates before and after implementation will be examined.

Results and Outcomes: In progress.

Implications and Conclusions: To be determined following analysis of results and interpretation of results. It is expected that fall screening will be conducted with at least 75% of patients and fall risk factors will be identified and modified, therefore decreasing falls in the elderly.

IMPROVING CARE OF THE OLDER ADULT

Analytic Review of the Predictability of Three Fall Risk Assessment Tools

Peggy Kalowes, RN, PhD, CNS, FAHA
Director, Nursing Research and Evidence Based Practice, Long Beach Memorial
Long Beach, CA

Erin Burns, RN, BSN
Staff Nurse, ICU
Long Beach Memorial
Long Beach, CA

Myrna Czaplicki, RN, BSN
Staff Nurse, ICU
Long Beach Memorial
Long Beach, CA

Tomo Nakamura, RN, BSN
Staff Nurse, ICU
Long Beach Memorial
Long Beach, CA

Project Aims: The aim of this evidence based practice (EBP) project was to observe the fall rate incidence and to examine the predictive value and specificity of three fall risk assessment tools—namely the Morse Fall Scale (MFS), Hendrich II and the John Hopkins Fall Risk Assessment Tool (FRAT) among intensive care unit (ICU) adults.

Background: Patient falls make up 40% of all adverse events occurring in hospital settings, and result in physical and undesirable emotional/ financial outcomes for hospitals and patients. About a third of people > age 65 will fall a year; 5 to 10% causing serious injury. Falls are associated with poor prognosis, excess mortality and premature nursing home placement. In 2010, the average extended length of stay (LOS) post-fall was 4-7 days, and cost per fall with injury was around $4,000.

Study Design: A descriptive, cross-sectional design was used to examine fall-rate incidence among ICU patients. 2,400 patients were admitted to adult ICU during the 12-month data collection period, with inclusion of 820 (34%) of 2,400 patients.

Data Collection Procedures: Project nurse(s) recorded the FRAT Score and completed the additional fall risk assessments daily, using the clinical data from the patient record. If patients scored (13+ High Risk) on the FRAT, clinical interventions for prevention were recorded. Demographic data (age, race; language; gender; family status; LOS; Co-morbidities; APACHE III Score) was collected to help determine any predictive variables for falls.

Outcomes: Cohort had mean age of 67.5; ≥ 3.11 Co-Morbidities; (51.8%) Male; (48.1) Female, with average LOS (6.8) days. Factors strongly associated ($r = 0.75$) with risk of falling were a history of prior falls (6.3% of subjects), muscle weakness, visual impairment, use of psychotropic, analgesic and sedation meds. An occurrence of (11 falls) was noted over the 12 month period, with a fall rate of 1.34 falls per 1,000 patient days. The majority of the 11 fallers (81.3%) (n=9/11) had no injury; while 18% (n=2/11) sustained a mild injury. 31% of the cohort was scored at 'High Risk" regardless of tool. The sensitivity of the Morse Fall Scale (MFS) and Hendrich II Falls Risk Scale were similar (77.2% and 64.9%, respectively). Specificity was highest with the MFS (77.2%) between these 2 instruments. The FRAT showed greatest sensitivity at (88.2%) and specificity (86.4%), ($P<.001$). Policy-driven nursing interventions to prevent falls were used only 65% of the time.

Conclusions: Significant differences among the performance and complexity of the three risk instruments were found, thus if screening measures are to be used to identify potential fallers, reliable measures such as the (FRAT), should be used. A more integrated, nurse-driven fall risk campaign is needed in our medical center for 'Fall Prevention', to raise awareness to engage nurses, patients and families more fully, to prevent high-risk patients from falls and injuries in the hospital and at home.

Home ◀ ▶ go to PG.

Raising Awareness of Elder Abuse Prevention in the Community via a CBPR Approach

Johnelle Chock, BS, RN
Graduate Student
Department of Nursing
University of Hawaii at Manoa
Honolulu, HI

Alice M. Tse, PhD, APRN
Associate Professor
Department of Nursing
University of Hawaii at Manoa
Honolulu, HI

Purpose: To increase the capacity of independent-living elders in urban Honolulu and to identify health issues and address health promotion and disease prevention using a community-based participatory research (CBPR) methodology with healthy community-dwelling elders.

Background and Rationale: The goal was to empower elders who face health disparities to take action on issues affecting their well-being via a collaborative partnered approach. Recognizing a need to empower healthy community-dwelling elders, an academic-agency-community partnership was developed. Four community partners (elders aged 75-89 years) from a mixed-Asian community, a non-profit community-based organization, Project Dana, which provides support services to the elderly community, and two academic researchers from the University participated as a partnership. The community partners selected the topic of elder abuse prevention to take action on. This issue was highly significant to the community. In addition to carrying physical and social implications, from an Asian perspective there is an element of losing face and bringing family shame.

Methods: Initially the community partners couldn't believe they had capacity to take on issues affecting their well-being. Upon topic identification, the partners self-organized and decided on how to take action on their topic, and the academic researchers served as consultants. Progress became evident as each member contributed, and the group become energized to evolve a solution and design the intervention, which was a pamphlet to address elder abuse. The Community partners determined the most effective and realistic way to disseminate the pamphlet to their own communities-of-reference through the network of churches and other linkages associated with Project Dana. Evaluation was accomplished informally by the elders using a face-to-face story-telling approach to their audiences within the community-at-large.

Outcomes: Over 100 pamphlets were distributed using the personalized face-to-face approach. The pamphlet stimulated awareness and legitimized the presence of elder abuse to a variety of audiences: the elder community, community health centers, caregivers, non-profit organizations, and church leaders. When the community partners informed other elders about elder abuse prevention, they became empowered by gaining advocacy skills. The movement towards awareness of elder abuse prevention has now been integrated into the client service approaches of the Project Dana staff and volunteers, thus prompting social change. This CBPR study demonstrates the capacity of community-dwelling elders who face health disparities to become empowered to take an active stance on critical issues affecting the well-being.

Conclusion: This study empowered a group of community-dwelling elders and a community-based organization, to take action. Further exploration of how academic-community partnered approaches can efficiently address the health disparities and other complex health needs of elders is needed to inform decision-making and public policy.

Home

◀ ▶ go to PG.

Group-Singing Program: Insights of Residents and Staff in a Retirement Community

Musetta Changchi Fu, RN, MM, MT-BC
PhD Student in Nursing Science
School of Nursing
University of Washington
Seattle, WA

Qian Tu, MSN
PhD Student in Nursing Science
School of Nursing
University of Washington
Seattle, WA

Marianne Rose Unite
BSN Student
School of Nursing
University of Washington
Seattle, WA

Background: Aging contributes to biological, cognitive, and physical decline that affects older adults' functioning and psychosocial well-being. Group singing may be beneficial to older adults' cognitive, pulmonary, and psychological health. The purpose of this study was to gather perspectives about a group-singing program that could inform the development of a future group-singing program for older adults.

Methods: Participants were recruited from independent-living residents of a retirement community and life enrichment directors of eight retirement communities, in King County, WA. We conducted focus groups (FG). Demographic information was collected. Focus group discussions were transcribed and subsequently analyzed to identify key themes.

Results: Four resident FGs and one staff FG were held. Twenty-eight residents (mean age 88 ± 9, 92% Caucasian, 8% Native American) and six life enrichment directors (mean age 42± 12, 100% Caucasian) participated in the study. Participants' earliest images of singing were: their mother or other family members singing to them, singing by a campfire, and singing in church choirs. Participants reported that when they sing they feel happiness, enjoyment, and nostalgia. Most of the residents and life enrichment directors reported that group-singing provides social interaction and reminiscing. There was a wide range of type of music including classical, country, Broadway, patriotic songs, and jazz. The most preferred music among residents were traditional folk songs and those popularized in their teens and early adulthood (In their age of 20s). Important features to a group singing program was a leisurely singing format, consistent leadership, and good musical accompaniment. Weekly, 1-hour, and afternoon gatherings were preferred.

Conclusion: The participants identified psychosocial benefits of group-singing activities, a few participants recognized potential benefits to pulmonary and cognitive health. The findings have important implications for content and logistics that could be used for the development of an older adult group-singing program. The program will be further tested for its impact on older adults' cognitive, pulmonary, and psychosocial health.

Funding: NCATS Grant TL1 TR000422, de Tornyay Doctoral Healthy Aging Scholarship, and ARCS Scholarship.

Home ◀ ▶ go to PG.

When More Is Necessary: Transition to Assisted Living

Linda Hansen-Kyle, PhD, RN, CCM
Adjunct Faculty
Azusa Pacific University School of Nursing
San Diego, CA

Patricia Roth, EdD, RN
Director, PhD Program
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA

Purpose/Aims: This in-process study is exploring the transition experience to an assisted living retirement community from the perspective of the resident and family caregiver. The aims of the study are to: 1) discover the overall trajectory of the transition experience from the perspectives of the individual resident and the family caregiver; 2) determine the perceived barriers and facilitators of the transition to AL; and 3) describe engagement within the new community.

Rationale/Conceptual Basis/Background: Currently, it is estimated that assisted living (AL) residences serve more than 1 million older adults and that number is expected to increase. AL is a model of long term care that provides a network of social, health, and safety support structures and bridges the gap between community-based care in one's own home and long term or institutional care. The underlying philosophy of AL is a focus on autonomy, dignity and service flexibility, fostering maximum independence and aging-in-place. AL research has focused on a variety aspects including perceptions of residents or family care-givers regarding the assisted living environment and cognitive changes that may precipitate this transition. Research from the residents' perspective or from the dual perspective of the resident and family caregiver who participated in this decision is limited. Clearly, there is a need for further research regarding the transition to AL.

Method: A grounded theory approach (Strauss and Corbin) that focuses on social processes grounded in individual experiences is utilized in this study. Participants include older adults and the family caregiver, who has coordinated or provided direct care. In-depth, semi-structured interviews are being conducted with the resident and family caregiver within four weeks of the transition to AL and again at 6-7 months, providing data on two distinct transition experiences.

Analysis/Results: Audio-recorded, transcribed data is being analyzed and coded. Major dimensions are being identified and their linkages examined. Dimensional analysis (Schatzman) further enhances the plausibility and consistency of the findings. Data analysis continues as parallel and intersecting themes are identified within the context of the transition process.

Implications: This research promotes an understanding of the experiences of older adults and their family caregiver during a period of transition to an assisted living environment. The context, conditions, processes, and consequences define the participants' and caregivers experience, leading to the expansion of a theory focusing on older adults in transition to supportive community environments.

Home ◀ ▶ go to PG.

Interventions on Mealtime Difficulties in Older Adults with Dementia: A Systematic Review

Wen Liu, MMed
Doctoral Student
wen.liu@umaryland.edu

Jooyoung Cheon, MSN, RN
Doctoral Student

Sue A. Thomas, PhD, RN, FAAN
Professor, Assistant Dean for PhD Studies

School of Nursing
University of Maryland
Baltimore, MD

Objectives: To evaluate the effects of interventions on mealtime behaviors in older adults with dementia.
Design: A systematic review using the *PRISMA* reporting guideline.
Data Sources: Pubmed, Medline (OVID), CINAHL (EBSCOHost), EBM Reviews (OVID) and PsychINFO (OVID) were searched between January 2004 and September 2012 by using keywords as dementia, Alzheimer, feed(ing), eat(ing), mealtime(s), oral intake, nutrition, intervention, experimental, quasi-experimental and any matched terms. Other sources included Google Scholar and relevant bibliographies.
Review Methods: Eligibility criteria were established by defining the population, intervention, comparator, outcomes, timing and setting of interest. Studies were reviewed by screening title and abstract and assessing full-text for eligibility. Data were abstracted from eligible studies using a self-made structured tool. Eligible studies were classified by intervention, accessed for quality using the Quality Assessment Tool for Quantitative Studies, and graded for evidence using the Grading of Recommendations, Assessment, Development and Evaluation Working Group criteria.
Results: Twenty-two intervention studies (9 RCTs), including a total of 2082 older adults with dementia and 95 professionals from more than 85 long-term care facilities, were selected, and classified into five types: nutritional supplements, training programs, environment/routine modification, feeding assistance and mixed interventions. Eight studies were strong, eleven moderate and three weak in quality. Limitations of body of research included lack of randomization and/or control group, small sample size without power analysis, lack of theory-based interventions and blinding, inadequate statistical analysis and plausible confounding bias. "Nutritional supplements" showed moderate evidence to increase food intake, body weight and BMI. "Training programs" demonstrated moderate evidence to increase eating time and decrease feeding difficulty. Both "training programs" and "feeding assistance" were insufficient to increase food intake. "Environment/routine modification" indicated low evidence to increase food intake, and insufficient to decrease agitation. Evidence was sparse on nutritional status, eating ability, behavior disturbance, behavioral and cognitive function, or level of dependence.
Conclusions: This review provides updated evidence for clinical practice and points out priorities for nursing research. In practice, specific types of interventions can be used by nursing staff or family caregivers to improve certain patient outcomes. Future research should focus on standardized interventions and potential effects of mixed interventions. Current evidence is based on a body of research with moderate quality and existing limitations, and needs to be further explored with more methodologically rigorous studies.
Key Words: dementia, interventions, mealtime behaviors, older adults, study quality, systematic review

Home ◀ ▶ go to PG.

m-Health to Promote Self-Management in Older Adults on Anticoagulation: Focus Group

Jung-Ah Lee, PhD, RN, Assistant Professor, Nursing Science
Alpesh Amin, MD, MBA, Professor, Chair, Department of Medicine, School of Medicine
Jill Berg, PhD, RN, Associate Professor, Nursing Science
Lorraine Evangelista, PhD, RN, Associate Professor, Nursing Science
Mark Bachman, PhD, Assistant Professor, Director, School of Engineering, Calit2
Walt Scacchi, PhD, Sr. Research Scientist, Director, Computer Games/Virtual Worlds
Alfred Kobsa, PhD, Professor, School of Information and Computer Sciences
Yunan Chen, PhD, MD, Assistant Professor, School of Information and Computer Sciences
Vincent Kennedy, MHP, Research Associate, Nursing Science
University of California, Irvine, CA

Background: Older adults are at substantial risk for cardiovascular (CV) disorders that require long-term oral anticoagulation treatment (OAT). However, despite its proven benefits, older adults report dissatisfaction and reduced quality of life, which lead to low adherence to OAT and decreased treatment efficacy. Dissatisfaction with treatment has been attributed to a variety of reasons including need for frequent visits to healthcare provider clinics to monitor international normalized ratio (INR), lifestyle limitations (e.g. restrictions on diet and activities), and fear of potential side effects (e.g. bleeding and/or bruising). Such obstacles have prompted the search for alternative strategies that enhance positive attitudes toward OAT and reduce perceived barriers to ensure that older adults who require long-term OAT are more optimally and consistently treated. Advances in the area of mobile Health (mHealth) along with improvements in information science allow the design and development of new patient-centric models for the provision of personalized healthcare services, increase of patient independence, and improvement of patients' self-control and self-management capabilities. Despite the many research efforts, mHealth tools often fail to include or address older adults as potential end users and to recognize their information needs. Thus, research on the use of mHealth tools (e.g., health applications via smartphones or portable tablet computers) to promote self-management in older adults with OAT, are warranted to improve safe OAT and therapeutic INRs in older adults with OAT.

Purpose: The purpose of this study is to gather information through a focus group strategy about the attitudes and preferences of older adults treated with OAT, regarding the use of mHealth devices to gain skills for self-management.

Methods: We will recruit approximately 20 older adults with OAT from primary care clinics affiliated with an academic center. We will exclude older adults whose mental status is not clear. We expect to have 3 focus groups for eligible older adults. We will then show a few health applications regarding medication management and health behavior promotion to participants one at a time, and then ask participants to use/play each one briefly. We will then solicit their opinions on health applications throughout the focus group interviews. The focus group sessions will be audio-recorded and then transcribed. Transcripts will be reviewed by the research team. Common themes will be pulled out and then described.

Results: Preliminary results from the focus group study will be presented at the conference.

Conclusions/Implications: The findings from the focus group study will be used to develop an elderly-centered, interactive health application to promote self- management in older adults with OAT. Ultimately, our study proposes to expand the use of mHealth, specifically health applications, which is highly relevant and has the potential to impact major clinical outcomes in older adults on OAT.

Funding: University of California Irvine, Institute for Clinical and Translational Sciences, Pilot Study Award 2012-2013.

Home

◀ ▶ go to PG.

INFORMATICS-ENABLED EVALUATION METHODS FOR OPTIMAL OUTCOMES

OVERVIEW: INFORMATICS-ENABLED EVALUATION METHODS FOR OPTIMAL OUTCOMES

Kimberly Shea

A METHOD FOR EVALUATING THE USABILITY OF TECHNOLOGY FOR PATIENT CARE

Kimberly Shea

PREDICTIVE MODELING USING EHR DATA TO DEVELOP GUTCHECK^{NEC}

Sheila M. Gephart, Alan R. Spitzer, Judith A. Effken

USE OF LIWC TO EXPLORE NURSE COMMUNICATION

Jane M. Carrington, Joyce Verran, Jamie Richards, Matt Jones

EVALUATING THE INFLUENCE OF HEALTH TECHNOLOGY USE FOR CLINICAL DECISIONS

Jason T. Shuffitt

EVALUATING A DIGITAL PEN AND PAPER SYSTEM FOR ANESTHESIA DOCUMENTATION

Kathleen A. Piotrowski, Judith A. Effken

INFORMATICS-ENABLED EVALUATION METHODS FOR OPTIMAL OUTCOMES

Overview: Informatics-Enabled Evaluation Methods for Optimal Outcomes

Kimberly Shea, PhD, RN
Assistant Professor
College of Nursing
The University of Arizona
Tucson, AZ

Purpose: In this symposium, we will present innovative applications of informatics-enabled research to optimize patient outcomes. Our team consists of five advance practice, doctorally prepared nurses. The presentation contains a synergistic perspective of different methods of evaluating the use of technology to improve patient care across the healthcare continuum that includes acute, ambulatory and community environments. Threaded through each of these five presentations is an emphasis on evaluation of informatics tools that can be used by nurses and/or patients to improve clinical and patient outcomes.

Background: Although showing great promise to improve the quality, safety and efficiency of healthcare delivery, technological innovations often fail if the design, environment and user do not function together to achieve the goal. In order to facilitate adoption of technology, informatics-enabled methods can test usability, acceptance and adoption. Understanding the users' level of satisfaction with and ability to use technology will help guide adoption and ultimately result in successful implementation. In nursing, high workloads, complex patient conditions, time pressures, multiple task coordination and multifaceted environments necessitate evaluations that consider human factors and designs of information technology that supports workflow and goal directed care. Nurses are patient advocates and technology should provide support that helps them to do their work efficiently and effectively. Evaluation procedures should be an integral component at every stage of the life cycle of interaction between nurse and technology. Evaluations are useful for assessment, planning, development, implementation and testing of technological innovations that will ultimately lead to safe patient outcomes.

Symposium Organization: Dr. Gephart will describe a successful use of data mined from an electronic health record, the Pediatrix BabySteps Clinical Data Warehouse (CDW) to derive and validate a composite risk index for a costly, deadly and relatively rare complication of prematurity, Necrotizing Enterocolitis. Dr. Shea will present a pilot of a usability evaluation procedure that incorporates cognitive walkthrough, education theory and heuristics to enable nurses to evaluate human-computer interaction and make recommendations about the success of a technology by specific populations. Dr. Shuffitt will report on the use of Kentucky nurse practitioners' use of clinical decision tools, one form of health information technology with promise to improve adherence to clinical guidelines and improve care. His findings support APRN's use of CDT continue to lag behind national goals and suggest that future interventions and research should investigate barriers to use. Dr. Piotrowski will present a feasibility study of a test of the use of a digital pen and paper technology to improve the capture and communication of anesthesia information during surgery. The digital pen is a novel solution to addressing the barriers inherent to the safety risks inherent in the operating room. Dr. Carrington will present how to use Language Inquiry and Word Count (LIWC) as a method of analysis to explore nurse communication. Using this method she has successfully identified language patterns used by nurses in the electronic health record (EHR), verbal change of shift report, and interviews to describe changes in patient status as a result of a clinical event.

Home ◀ ▶ go to PG.

INFORMATICS-ENABLED EVALUATION METHODS FOR OPTIMAL OUTCOMES

A Method for Evaluating the Usability of Technology for Patient Care

Kimberly Shea, PhD, RN
Assistant Professor, College of Nursing
The University of Arizona
Tucson, AZ
kshea@nursing.arizona.edu

The **purpose** of this pilot study is to test nurses' use of a usability evaluation based on a modified cognitive walkthrough procedure that provides a format for documenting recommendations for adoption of a healthcare technology.

Specific aims:

1. Compare expected actions to observed actions of technology.
2. Determine the usability of technology to achieve goals.
3. Provide documentation of recommendations for technology adoption.

Background: In 2008, the National League for Nursing (NLN) published a position paper that called for a nursing workforce capable of "practicing in a healthcare environment where technology continues to increase in amount and sophistication". Through educational programs, nurses are prepared to meet four major goals; interact with electronic health records, share evidence-based data and information, personalize care through the use of remote telehealth technologies and improve patient health through accessible information. Technology has become pervasive in acute, ambulatory and community healthcare. Nurses are to be critical decision makers with professional recommendations about the acceptability of technology for themselves and their patients. Technology designers typically perform simulations or walkthroughs on beta versions of devices and then make the corresponding changes before production. Despite the efforts, technology that is poorly designed for specific uses and populations is produced and marketed. A modified cognitive and physical walkthrough process can be used after a device has been produced to determine usability. This pilot usability evaluation combines the CE+ theory of exploratory learning (Lewis and Polson), group-based cognitive walkthrough techniques (Riemann et al.), usability heuristics (Nielsen) and nursing assessment. Small groups determine user personas, primary and secondary goals then compare expected to observed actions based on a user simulation. Reports contain an evaluation of human-computer interface and recommendations for adoption.

Methods: Nurses (students) in 8 groups of 3-5 members were assigned roles per the usability evaluation protocol. For this pilot all groups evaluated an electronic, state-of-the-art, portable, and FDA approved home medication administration device. The task to be completed is: A heart failure patient with arthritis is to take medications orally at 10:00 am. The simulated user is reminded, removes, ingests the candy medications and turns off all notification on the device.

Results: Initially the device was thought to be beneficial for helping patients to meet the goal of taking their medications on time. After performing the usability evaluation the study participants had documentation of inconsistencies between expected and observed actions. Users met goals, however, potential opportunities for errors were identified and the device was determined to be unsafe for most users but extremely unsafe for older adults with dexterity impairment. The user interface was identified as the greatest source of confusion. All groups recommended that the device not be adopted for use.

Implications: Nurses' skilled professional knowledge combined with a step-by-step usability evaluation results in evaluations that are documented and evidence-based. Nurses can readily provide a recommendation in small groups, in less than 1 hour.

Home ◀ ▶ go to PG.

INFORMATICS-ENABLED EVALUATION METHODS FOR OPTIMAL OUTCOMES

Predictive Modeling Using EHR Data to Develop GutCheck^{NEC}

Sheila M. Gephart, RN, PhD
Assistant Professor
The University of Arizona
Tucson, AZ

Alan R. Spitzer, MD
Vice President of Research and Quality
MEDNAX, Pediatrix Medical Group
Sunrise, FL

Judith A. Effken, PhD, RN
Professor Emerita
The University of Arizona
Tucson, AZ

Purposes/Aims: To describe a method using Electronic Health Record (EHR) data to derive, validate and test prediction of GutCheck^{NEC}, a composite risk index for Necrotizing Enterocolitis (NEC) and describe opportunities to build the science and practice of risk identification by applying this method in other practice-based evidence contexts.

Rationale/ Conceptual Basis/ Background: NEC leads to death in 30-50% of cases, accounts for nearly 20% of US neonatal intensive care (NICU) costs, and is a leading cause of neonatal death. Early identification of NEC is a formidable challenge. Infants who die from NEC are diagnosed, on average, 3 days later than survivors. Composite risk for NEC has not been rigorously tested, although several risk factors have been described. Standardizing communication of NEC risk across multiple handoffs using a risk score could improve treatment for the most vulnerable, improving nurse's ability to rescue infants with NEC.

Methods: Design: A 2-step process of empiric derivation and validation following Pollack's technique used to derive and test the PRISM III pediatric severity of illness measure was used. Sample: De-identified infant data contained in the Pediatrix BabySteps Clinical Data Warehouse, representing 20% of US NICU admissions from 284 NICUs with discharge dates from 2007-2011 was analyzed including all infants was born before 36 weeks and weighing < 1500 grams (N=58,818). Analysis: The dataset was randomly split into 2/3 for derivation (n=35,005) and 1/3 for validation (n=23,813). *Derivation:* Risk items were entered into a logistic model according to a theoretical model determined by E-Delphi of experts in Phase I. Risk items significant in univariate analysis ($p < .10$) were then entered into a multivariate model and then retained or deleted ($p < .05$). *Validation:* Beta weights for independent predictors were multiplied by 10, rounded up to the nearest integer value, then a summed risk score was computed. Prediction was tested using Receiver Operator Characteristic (ROC) Curve analysis. Results**:** Broad variations in NEC rates were identified across the 284 units. Retained items included 9 risk factors (gestational age, transfusion, Unit NEC risk, late onset sepsis, multiple infections, hypotension treated with Inotropic medications, Black or Hispanic race, birth in a different NICU, metabolic acidosis) and 2 risk reducers (human milk feeding on both day 7 and day 14 of life, probiotics). Prediction was good in the validation set for all NEC (AUC=.76, 95% CI .75-.78) and very good for surgical NEC (AUC=.84, 95% CI .82-.84) and NEC leading to death (AUC=.83, 95% CI .81-.85). At a cut-point of 33 (range 0-58), GutCheck^{NEC} was sensitive (.78) and specific (.74). Unit NEC risk carried the most weight in the summed score.

Implications: Future research is needed to explore institutional variation in NEC incidence, to inform a NEC-prevention bundle, complete psychometric testing of GutCheck^{NEC}, and automate it for clinical use. Using Electronic Health Record (EHR) data holds promise across settings to build and test clinically usable risk assessments to support just-in-time clinical rescue.

Funding: The National Institute of Nursing Research (NINR/NIH) 1F31NR012333-01A1.

Home ◀ ▶ go to PG.

INFORMATICS-ENABLED EVALUATION METHODS FOR OPTIMAL OUTCOMES

Use of LIWC to Explore Nurse Communication

Jane M. Carrington, PhD, RN
Assistant Professor
College of Nursing
The University of Arizona
Tucson, AZ

Joyce Verran, PhD, RN, FAAN
Professor
College of Nursing
University of Colorado
Aurora, CO

Jamie Richards, RN
Graduate Student
College of Nursing
University of Colorado
Aurora, CO

Matt Jones, PhD
Assistant Professor
Psychology and Neuroscience
University of Colorado
Boulder, CO

Purpose: Nurses communicate using two communication systems: electronic or electronic health record (EHR) and verbal change of shift report. A study was completed where nurses' notes from the EHR, recorded verbal report, and interviews associated clinical events were collected and analyzed using Language Inquiry and Word Count (LIWC). The purpose of this presentation is to describe the process of using LIWC as a method of analysis to identify language patterns associated with nurse communication.

Background: Failure to rescue, or patient deaths due to complications of receiving care, is a threat to patient safety has been associated with a number of systems issues. The impact of nurse communication on patient safety remains largely unknown. The link between communication and safety has been explored in other industries. The aviation industry has benefited from this method of analysis, where ineffective communication was the result of flight failures. Nursing can also benefit from this method of analysis and ultimately result increased patient safety.

Methods: The method of using LIWC was tested on data representing two clinical events.[1] Due to the success of this test, the complete study sample data associated with 11 (3 adult and 8 pediatric) clinical events were then analyzed using LIWC. A clinical event was conceptualized as a potential precursor to failure to rescue and defined as a sudden change in the patient's condition. Nurse dyads (responding RN caring for the patient and receiving RN continuing care) were recruited following IRB approval from the University of Colorado. Electronic notes, recorded verbal change of shift report, and interviews of both RNs were transcribed. The prepared text data was then analyzed using LIWC. LIWC "reads" the text data and searches for dictionary matches to words in the text file consisting of 85 language dimensions such as: activity, time, emotion, and cognitive mechanisms.

Results: The test results were suggestive of RNs use of cognitive mechanism words (insight, causation, tentative and inclusive, for example) and pronouns were greater in verbal report than EHR notes. In the larger analysis, we found this to be consistent and with the larger sample, found some variation which will be presented.

Implications: LIWC is a useful method of analysis for nurse communication and may ultimately contribute to increase understanding of the effectiveness of the EHR as a communication system and increase patient safety.

References:
[1] Carrington, J. M. & Verran, J. A. (2011). Using a novel method to reveal language patterns used by nurses to communication patient status associated with a clinical event [Abstract]. Improving Health: Informatics and IT Changing the World. *Annual meeting of the American Medical Informatics Association, Washington, DC. Pg 1707.*

Funding: This study was funded through the College of Nursing, University of Colorado.

INFORMATICS-ENABLED EVALUATION METHODS FOR OPTIMAL OUTCOMES

Evaluating the Influence of Health Technology Use for Clinical Decisions

Jason T. Shuffitt, DNP, APRN
Director Rural Health Professions Program
Clinical Assistant Professor
College of Nursing
The University of Arizona
Tucson, AZ

Purpose/Aims: The purpose of this research was to investigate the influence of HIT on the clinical decision making of Kentucky nurse practitioners and nurse midwives (Kentucky APRNs).

Rationale/Background: Information technology is ubiquitous in society and industry; however, healthcare is just beginning to explore how health information technology (HIT) can be optimized to support quality care. HIT can assist with standardizing care delivery, increasing access to evidence-based medicine, improving accuracy and ease of documentation, and assisting with patient education. Advanced Practice Registered Nurses (APRNs), specifically nurse practitioners (NPs) and certified nurse midwives (CNMs), play a pivotal role in the healthcare delivery system. To be effective practitioners, providers must manage, integrate, and assimilate a multitude of knowledge with each patient encounter. HIT can serve as the channel through which the NP and CNM provides cost-effective, efficient, and quality care. We know that adoption of HIT by healthcare providers is varied among provider and practice settings. However, few studies have examined the impact on and utilization of information technology by APRNs.

Methodology: A descriptive cross-sectional design using survey methodology and convenience sampling was employed. Participants were recruited from subscribers of a professional organization listserv and met the following inclusion criteria: (1) currently licensed Kentucky NPs or CNMs; (2) currently practice in Kentucky; and are (3) members of the professional organization listserv. Participants were asked to complete an author-modified, web-based survey tool that was based on current research. Building on a previous 27 item questionnaire, a 40-item questionnaire was developed to explore providers' attitudes and perceptions of technology, determine their knowledge and utilization of various electronic and traditional printed medical resources, and assess the penetration of and daily usage of HIT in practice.

Results: Of the 214 respondents, the majority were certified as family nurse practitioners (FNP) (66%, *n*=140). More than half of the respondents are currently using some type of electronic medical record that includes a variety of integrated decision support tools for medication management. Assessing medication interaction and reconciliation is one of the most used features. Unfortunately, most did not electronically exchange clinical data between other sites (hospital, clinic, etc.). More than one-half used some form of Clinical Decision Tools (CDT); however, they cited a lack of usable formatting as a deterrent for consistent utilization. Most respondents felt that HIT did not have a major impact on their knowledge of disease prevention and health promotion behaviors.

Implications: Findings suggested that APRNs in Kentucky are beginning to explore the benefits of HIT; however, additional research will be required to identify the true penetration and utilization of technology in Kentucky. Although additional research is needed, HIT appears to be having an overall impact on the clinical practice of Kentucky APRNs. Establishing exploratory Kentucky APRN findings will assist in replicating this study nationally to evaluate HIT utilization.

Home ◀ ▶ go to PG.

INFORMATICS-ENABLED EVALUATION METHODS FOR OPTIMAL OUTCOMES

Evaluating a Digital Pen and Paper System for Anesthesia Documentation

Kathleen A. Piotrowski, DNP, CRNA
Associate Professor
College of Health Science
Midwestern University
Glendale, AZ

Judith A. Effken, PhD, RN
Professor Emerita
The University of Arizona
Tucson, AZ

Purposes/Aims: The purpose of this feasibility project was to evaluate the usefulness and acceptability of a digital pen and paper (DPP) system for anesthesia documentation. The specific DPP technology used in this evaluation was a product developed by Shareable Ink®.
Rationale/Conceptual Basis/Background: In the anesthesia environment, the hand-written anesthesia record has been the documentation tool of choice because it is easy to use and flexible. In anesthesia, electronic medical records systems are commonly referred to as an anesthesia information management system (AIMS). In 2007, the AIMS adoption rate was reported to be between 5-10% in health centers, with a somewhat higher (14%) adoption rate in academic health centers (Egger Halbeis, Epstein, Macario, Pearl, Grunwald, Epstein, Vigoda, Feinstein, Cozad). Many barriers exist that prevent the goal of computerizing all health records such as high costs, usability problems, interface incompatibility, and fear of change. In addition, fully computerized anesthesia documentation systems present problems due to limited space, training requirements and the employment of temporary contracted providers. Advantages of a DPP system include familiarity to existing documentation methods, little training requirement and the potential to fit many anesthesia work environments.
Methods: Seven certified registered nurse anesthetists (CRNAs) evaluated the DPP system through a cognitive walkthrough procedure. During the cognitive walkthrough, the participants talked aloud as they carried out a series of anesthesia documentation tasks. After the cognitive walkthrough, a questionnaire was used to determine their satisfaction with the DPP system and their opinions about its usefulness for use in multiple anesthesia work settings. In the second phase of the project, interviews were conducted with other hospital stakeholders who would be affected by the implementation of a DPP system.
Results: The DPP system was observed to be physically and intellectually easy for a CRNA to use. This observation was confirmed by CRNA responses given in the user satisfaction survey. All participants rated the DPP system as very easy to learn. Furthermore, the hospital stakeholders suggested several potential applications of the DPP system. Overall, the device was not only found to be viewed as usable by providers but also acceptable to stakeholders. Some concerns voiced were due to the system being a demonstration model rather than a product designed for a particular institution. Therefore, this device could be deemed a feasible solution toward implementing electronic documentation particularly for anesthesia locations outside of the operating room or in surgical procedures of brief duration or with anesthesia groups and hospitals utilizing a large proportion of independently contracted anesthesia providers.
Implications: The results from the user satisfaction survey and the stakeholder interviews could be used by a hospital IT department to warrant an investigation of this product for implementation in the anesthesia department. A DPP system is capable of addressing all of the universal anesthesia documentation tasks needing to be accomplished by an electronic means. This is based on the high marks received from both CRNA participants on the user satisfaction survey and the positive comments given during the interview of other hospital stakeholders. Also, knowing the concerns that were expressed by the users and stakeholders could be helpful to the Shareable Ink® Company in improving their product.

Home ◀ ▶ go to PG.

INTERVENTIONS IN RURAL HEALTH

A MULTI-COMPONENT INTERVENTION TO INCREASE SMOKING ABSTINENCE IN SOUTHERN ARIZONA

Alexandra Spengler Riley, Donna Velasquez

USING PHOTOVOICE TO STRENGTHEN COMMUNITY CAPACITY IN AN AGRICULTURAL COMMUNITY

Julie Postma, Mary Jo Ybarra Vega

RURAL VS. URBAN PARTICIPANT DIFFERENCES IN THE PARENT-CHILD ASSISTANCE PROGRAM (PCAP)

Michele R. Shaw, Therese Grant, Celestina Barbosa-Leiker

A Multi-Component Intervention to Increase Smoking Abstinence in Southern Arizona

Alexandra Spengler Riley, RN, BSN
Donna Velasquez, PhD, FNP-BC, FAANP
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ

Purposes/Aims: The purpose of this clinical-applied project is to evaluate the effectiveness of a 5As-modeled counseling session with pharmacotherapy advice, referral to a quitline service (Arizona Smoker's Helpline), and telephone follow-up, in reducing patient smoking rates for adult tobacco users over 18 years of age at a rural practice site in Southern Arizona.

Rationale/Background: Cigarette smoking is the most prevalent preventable negative health behavior in the United States. Nationally, the highest smoking prevalence occurs among populations with less education and lower incomes. 2010 national health statistics demonstrate higher smoking rates for rural populations compared to those in metropolitan locations. Smoking rates are higher for adults 18 to 64 years compared to those 65 years and older, indicating that adults continue to smoke or start smoking despite widespread evidence of the deleterious health effects of tobacco use.

Due to declining reimbursements and increasing patient volume, primary healthcare providers need to learn efficient, evidenced-based interventions to promote smoking cessation for the most patients possible. A systematic search of the literature was performed across four academic databases. Two level I, seven level II, and two level VI studies were selected. Common across these studies is the use of the Transtheoretical Model of Change (TTM) as the conceptual framework to assess patient readiness. Findings suggest that multi-component tailored educational interventions with follow-up are most likely to improve smoking abstinence. Evidence supports patient-directed smoking cessation interventions even when limited time and resources prohibit larger-scale interventions.

Undertaking/Best Practice/Approach/Methods/Process: This project intervention uses a 5As-modeled counseling session for participating adult tobacco users in the TTM Contemplation stage or beyond. The 5As counseling method is best for patients willing to quit smoking. The intervention will include one face-to-face counseling session and two follow-up calls after four and eight weeks. The primary project outcome is to determine change in pre and post intervention smoking rates, and the secondary outcome is to determine pre and post intervention change in nicotine dependence. Outcome evaluation will include measurement of self-reported seven-day point prevalence abstinence rates and pre and post intervention change in the Fagerstrom Test for Nicotine Dependence.

Outcomes Achieved/Documented: IRB approval was obtained and this project is currently in the recruitment phase. Enrollment and data collection will end February 2013, with data analysis completed by March 2013. If the project outcomes show a change in smoking rates (i.e. increased short-term abstinence or decreased cigarette use), this will help to support the usefulness of the 5As counseling session at this rural clinical site.

Conclusions: This intervention aims to increase smoking cessation or decreased smoking rates for participants in rural southern Arizona. The overarching goal is to demonstrate the benefits of this AHRQ-endorsed, short counseling session which is usable by any primary care provider. By helping to reduce patient smoking rates, the intervention could potentially lead to longer term benefits such as increased patient quality of life, reduce mortality and lifetime medical expenditures, and improve productivity.

Home ◀ ▶ go to PG.

Using Photovoice to Strengthen Community Capacity in an Agricultural Community

Julie Postma, PhD, BSN, RN
Assistant Professor
WSU College of Nursing
Spokane, WA

Mary Jo Ybarra Vega, MS
Migrant Health Coordinator
Quincy Community Health Center
Quincy, WA

Purposes/Aims: The purpose of the study was to build trust between researchers, clinic leadership, and promotores (health promoters) to promote children's environmental health in an agricultural community. Specific aims of the second phase of this project were to engage promotores in strengthening community capacity to address children's environmental health in their community.

Rationale/Conceptual Basis/Background: Strengthening community capacity has been identified as one of three strategies used to reduce environmentally-induced diseases and inequities. Community-based participatory research is an approach to research used to increase community capacity by involving community members in the research process. Photovoice is a participatory methodology through which people identify, represent, and enhance their community by taking photographs that record their everyday realities.

Methods: After the initial, 4 session phase of this photovoice project in Fall of 2009, the six participating promotores prioritized housing as the most important environmental health issue to address. During the Spring of 2010, three subsequent sessions focused on taking photographs to represent that theme. The promotores recruited seven families willing to be photographed and talk about their housing conditions. Hundreds of photographs were taken capturing unhealthy homes, families that resided in those homes, and local assets. As a group we discussed the photographs, what they represented, and how they could be used to promote affordable and healthy housing. Promotores were interviewed and filmed talking about the photographs they took, the issues depicted, and the process of participating in the project. This footage was used alongside the photographs in a 14 minute multimedia video created to increase awareness housing needs in this community. A community impact tracking tool has been used over the past two years to document activities undertaken by the promotores to advance that goal.

Results: Activities to increase community capacity occurred at individual, organizational, and community levels and reflect Freudenberg's ten dimensions of community capacity relevant to environmental health action. At the individual level, the photovoice project primarily supported activities that strengthened leadership, participation, a sense of community, skill building, and critical reflection among the promotores. At the organizational level, the participating clinic fostered relationships with new networks (e.g. the local housing authority) and explored new avenues for resources (U.S. Department of Housing and Urban Development). At the community level, the photovoice project supported a shift in community values and power. Through their broad dissemination of the video the promotores and the clinic prompted community-wide discussion of housing needs which contributed to their participation in designing and conducting a city-wide, housing survey to document housing needs in the community.

Implications: Photovoice enabled disenfranschised community members to participate in research and build community capacity in supporting affordable and healthy housing in an agricultural community.

Funding: Provided by the Washington State University Spokane Faculty Seed Grant.

Home ◀ ▶ go to PG.

Rural vs. Urban Participant Differences in the Parent-Child Assistance Program (PCAP)

Michele R. Shaw, RN, PhD
Assistant Professor
College of Nursing
Washington State University
Spokane, WA

Therese Grant, PhD
Associate Professor
School of Medicine
University of Washington
Seattle, WA

Celestina Barbosa-Leiker
Assistant Professor
College of Nursing
Washington State University
Spokane, WA

Aims: The objective of this study is to describe differences between rural and urban Washington State participants in the Parent-Child Assistance Program (PCAP). PCAP is an evidence-based home visitation case-management model for mothers who abuse alcohol or drugs during pregnancy. Specific aims include: **1)** to describe and compare initial intake characteristics of rural versus urban PCAP participants, **2)** to examine if differences in PCAP participants' residence (urban, large rural, small rural or isolated areas) affects community services received during PCAP, and **3)** to examine if differences in PCAP participant's residence (urban, large rural, small rural or isolated areas) affects program outcomes (psychiatric symptoms, drug abstinence, and maternal stability indicators at 3 year program exit).

Background: According to the National Institute on Drug Abuse (NIDA) substance abuse among women is a serious societal issue effecting not only the individual, but often impacting their children, families, and community. For women who are of childbearing-age or who are currently pregnant, exposure to alcohol, tobacco, illicit and prescription drugs increases risk of negative health outcomes. Substance abuse during pregnancy can negatively affect the unborn child while in utero as well as increasing the pregnant woman's risk of experiencing placenta previa, abruption, premature rupture of membranes, and post partum hemorrhage. Geographic influence is an important factor when considering rural pregnant women often have higher rates of substance abuse with less access to resources when compared to pregnant women living in urban communities. Further research investigating differences between rural and urban child-bearing aged substance abusing women would identify specific characteristics and needs that may be influenced by maternal geographical location.

Methods: This is a longitudinal observational study that will utilize PCAP data reports to obtain data. Data will be analyzed from 1998-2012 with a sample size of 954 participants who completed initial intakes and 3-year exit interviews. Rural vs. urban cohorts will be compared in terms of initial intake characteristics (Addiction Severity Index at initial intake) as well as differences in program outcome measures (Addiction Severity Index and Service Ratio at 3-year exit).

Results: Data will be analyzed and results will be reported for the final poster presentation.

Implications: The significance of this study is that findings will increase our understanding of differences among urban and rural residence and how these differences can be applied to improving and developing treatment programs for pregnant and mothering substance abusing women and their families.

Funding: This project is supported by the 2012 Rural Mental Health & Substance Abuse-Treatment (RMHSAT) Program of Excellence Research Seed Grant.

Home go to PG.

ISSUES IN DISEASE MANAGEMENT

A REVIEW OF HEALTH LITERACY AND CHRONIC DISEASE OUTCOMES

Sarah E. Choi, Eileen Ong

MANAGING CHRONIC PAIN IN LOW INCOME OVERWEIGHT LATINOS: PROVIDER PERCEPTIONS

Dana N. Rutledge, Patricia Cantero, Jeanette Ruiz

VITAMIN D INSUFFICIENCY IN ADULT PATIENTS: A CLINICAL GUIDELINE FOR REPLACEMENT THERAPY

James E. Kohl

CULTURALLY-TAILORED DIABETES SELF-MANAGEMENT EDUCATION FOR AFRICAN AMERICANS

Cherrie Holland

THE EFFECT OF A CUSTOMIZED ASTHMA EDUCATION ON PATIENT KNOWLEDGE AND HEALTH OUTCOMES

Tina Ho, Mary-Rose Mueller

USING TELEPHONE FOLLOW-UP TO IMPROVE MEDICATION ADHERENCE IN HYPERTENSIVE PATIENTS

Beatrice Okoreeh-Kangah, Mary Jo Clark, Vanessa Reynolds

CORRELATION OF SELF-MANAGEMENT AND MOTIVATIONAL INTERVIEWING: A SMART STUDY REPORT

Teresa J. Sakraida, Paul F. Cook, Sarah J. Schmiege

Home

◀ ▶ go to PG.

ISSUES IN DISEASE MANAGEMENT

A Review of Health Literacy and Chronic Disease Outcomes

Sarah E. Choi, PhD, RN, FNP
Assistant Professor
Program in Nursing Science
University of California, Irvine
Irvine, CA

Eileen Ong, RN, BSN, PHN
Medical Telemetry Unit
University of California, Irvine
Medical Center
Irvine, CA

Purpose/Aims: To summarize findings on health literacy and chronic disease outcomes through a systematic review of recent literature.

Background: Chronic diseases constitute 6 of the top 10 leading causes of death in the U.S. Health literacy, defined as "the degree to which individuals have the capacity of obtain, process, and understand basic health information and services needed to make appropriate health decisions", is vital in enabling people to manage their chronic diseases. While inadequate health literacy is associated with poor health outcomes, there is little evidence supporting generalization of this association across chronic diseases. Because each chronic disease is associated with its own risk factors and management challenges, the association between health literacy and outcomes may be different.

Methods: Three prevalent chronic diseases (asthma, cardiovascular disease, and diabetes) were selected. A systematic literature search of English-language articles published between 2006-2011 was conducted in PubMed, Medline, and the Cumulative Index to Nursing and Allied Health Literature (CINAHL) to retrieve studies. The following key terms were used in various combinations during the search: [1] asthma, heart disease, cardiovascular disease, diabetes, [2] literacy, health literacy, and [3] patient outcomes, health outcomes, glycemic control, self-management, or health status. Studies were included if they used an adult sample, a study population diagnosed with one of the specified chronic illnesses, an assessment of each patient's health literacy using a validated screening tool, and a measurement and reporting of at least one patient health outcome or status. Secondary data analyses, meta-analyses, and reviews, or systematic reviews were excluded. 181 articles were initially identified: 76 related to diabetes, 41 to asthma, and 64 to cardiovascular disease. After screening for inclusion criteria, 24 articles were selected for further examination: 11 for diabetes, 6 for asthma, and 7 for cardiovascular disease. The number of participants ranged from 49 to 14,357 in the selected studies.

Results: Positive associations were found between health literacy and health outcomes in 8 of 11 studies on diabetes, 5 of 6 asthma studies, and 5 of 7 studies on cardiovascular disease, suggesting that, overall, increased health literacy is associated with better outcomes in individuals diagnosed with these conditions. Additionally, several gaps were identified in this review. First, few studies were conducted with ethnic minorities. Second, most studies were cross-sectional. Third, a small number of studies used standardized measures of health literacy. Lastly, most studies used self-report of perception (e.g., self efficacy for disease self-management) as an outcome measure rather than biological indicators.

Implications: Future research should consider addressing these gaps by selecting ethnically diverse samples for better representation of target populations and generalizability of the study findings, by conducting intervention and longitudinal studies to better assess the efficacy of programs created to improve health literacy, by using standardized measures of health literacy to allow comparison across studies and diseases, and by using objective indicators for outcome measures, such as HbA1c for diabetes research.

Managing Chronic Pain in Low Income Overweight Latinos: Provider Perceptions

Dana N. Rutledge, RN, PhD
Professor, School of Nursing
California State University, Fullerton
Fullerton, CA

Patricia Cantero, PhD
Director of Evaluation
Latino Health Access
Santa Ana, CA

Jeanette Ruiz
Student, Department of Psychology
California State University, Fullerton
Fullerton, CA

Purposes/Aims: In this group interview study[1], we examined strategies used to manage chronic pain from the perspective of the *individual*, along with barriers/facilitators to chronic pain management.

Background: Untreated chronic pain can lead to mobility difficulties and more complex activity limitations. In working age adults, it can result in lost work days and wages, along with work done poorly. Other consequences are diminished life quality, increased likelihood of suicide, and social costs. This substantial burden may be hidden among low income overweight Latinos, a subgroup among the vulnerable.

In a prior study, only 20% of 101 low-income overweight Latino adults with chronic pain (Zettel-Watson et al., 2011) reported using analgesics and fewer other pain-relieving medications. Study findings left us wondering how these adults were managing their pain.

Methods: Sixteen low income overweight Latino adults participated in two group interviews facilitated by a trained bilingual moderator who inquired about type of chronic pain suffered by participants, followed by specific questions about pain management. Interviews were audio-recorded, transcribed verbatim (Spanish), translated into English, and analyzed using thematic analysis.

Results: Mostly female, married/partnered, and with low levels of education, participants' current age ranged from 41 to 67 years. Pain varied in type/location. Predominant management strategies were rest/activity changes, OTC medications, or non-pharmacologic measures. Major themes coming from the interviews were Pain-related Life Alterations, Enduring Pain with/without Medications, Trying Different Strategies, Emotional Suffering, and Encounters with Health Care System/Providers. Participants discussed pain-related changes in activities/social life, and difficulties with health care providers who did not listen when they talked of pain. They expressed frustration at not understanding causes of their pain. What we did not hear participants describe was use of use of prescription analgesics, hot/cold strategies, and seeking information about pain management.

Implications: Our research contributes to an understanding of pain and pain self management among overweight low income Latinos. Many persons in our sample lacked understanding of the cause of their pain and wanted to know more; they also knew little about the possibility of pain prevention or reduction of intensity. Despite this, multiple strategies for chronic pain management were used, with many found helpful. Findings indicated that there are opportunities for nurses to improve care for this population by listening respectfully to how pain alters daily lives and assisting patients in feasible self management strategies. Our findings also may have value for researchers interested in design and evaluation of self-management strategies for chronic pain in low income Latinos.

Funding: [1] This study was supported by NIH under Prime Award no. UL1 RR031985 and The Regents of the University of California.

ISSUES IN DISEASE MANAGEMENT

Vitamin D Insufficiency in Adult Patients: A Clinical Guideline for Replacement Therapy

James E. Kohl, RN, DNP
CAPT, NC, USN(Ret)
Assistant Teaching Professor
College of Nursing
Brigham Young University

Background: Vitamin D insufficiency has reached epidemic proportions in the United States. It is estimated that over one billion people worldwide suffer from vitamin D insufficiency. Preventing and correcting insufficient levels of vitamin D could markedly reduce chronic health issues such as diabetes, hypertension, kidney disease, osteoporosis, deadly cancers, autoimmune diseases and infectious diseases.

Objective: To assess optimal doses of vitamin D replacement in patients with levels consistent with deficiency and insufficiency.

Methods: A meta-analysis was performed on 115 randomized controlled studies conducted between 2008-2012. Data collected from the compilation of these studies were used to determine optimal replacement therapy for adult patients.

Results: Guidelines define vitamin D deficiency as a 25-hydroxyvitamin D < 20 ng/mL, insufficiency as 21-29 ng/mL and sufficiency as 30-100 ng/mL. To prevent vitamin D deficiency current recommendations include high dose short term replacement followed by 1,500-2,000 IU/d in adult patients. Inpatient and clinic replacement protocols are critically lacking from our healthcare system.

Conclusions: Replacement protocols and supplementation of vitamin D in the majority of adults is a low risk, inexpensive intervention which has the potential to decrease mortality, improve the quality of life and reduce the overall economic burden placed on individuals and this nation.

Culturally-Tailored Diabetes Self-Management Education for African Americans

Cherrie Holland
Arizona State University, Phoenix, AZ

Purpose: The purpose of this review is to identify and describe culturally tailored DSME interventions for African Americans with T2DM. Specifically, the objectives are to: 1) describe factors associated culturally tailored interventions; and 2) evaluate the culturally tailored interventions associated with dietary knowledge, physical activity, social support and self-efficacy related to self-management.

Rationale: According to the National Medical Association (2008) the prevalence of type 2 diabetes mellitus (T2DM) among African Americans continues to increase at epidemic rates compared to the general population. This disproportionate burden of diabetes among African Americans supports the need for culturally tailored diabetes self-management education (DSME) interventions. Anderson and Wisdom (1998) indicated that "diabetes care must be tailored to the lived experience of the individual. By developing individually tailored self-management interventions, the importance of culture, goals, resources, and values are acknowledged. Cultural differences influence the way in which messages about diabetes self-management are received and these differences contributes to the success of diabetes self-management practices (Kutob, Senf & Harris, 2009).

Method: Cochrane, CINAHL, Google Scholar, and PubMed databases were searched using the key words African American, diabetes self-management education, glycemic control, dietary knowledge, and physical activity, cultural relevancy, cultural competency, cultural tailoring.

The initial search yielded 319 articles. The following inclusion criteria were used: (a) cultural intervention to promote self-management, (b) studies with primarily African Americans samples, (c) outcomes specifically related to self-management: HbA1c%, daily glucose monitoring, dietary knowledge, physical activity, and foot care, and (d) social support and self-efficacy. Studies were included if they were written in English with a sample that included at least 50% African Americans, and participants had a mean age ≥ to 40 years of age. Fifteen studies met the inclusion criteria for this review.

Results: Culturally tailored interventions in the literature were multifaceted: storytelling, peer mentors, cultural diabetes social support groups, family participation, cultural modified dietary foods and recipes. Although attempts at culturally relevant interventions and strategies were developed to improve self-management and self-care outcomes, few studies noted sustaining outcomes in glycated hemoglobin (HbA1c) levels, weight loss, or physical activity in the participants. Some contributing factors were lack of long-term research and difficulties in defining the terms cultural relevancy, cultural competency, and cultural tailoring.

Conclusions: African Americans do not share a single monolithic culture. Rather, many cultural subgroups exist, and many African American may belong to one, none, or several (Kreuter, Lukwago & Bucholtz, 2003). The gap in the literature is the lack of interconnected solution that defines culturally relevant interventions. By recognizing the strength of African American's, racial pride and understanding their beliefs and practices related to health, researchers can address health issues more directly and meaningfully. Everyday African Americans make daily decisions about their chronic disease management based on culturally informed experiences (Shaw, Armin, Orzech, Huebner, & Vivian, 2009). Given the incidence of poor outcomes within this population and the lack of data specifically for culturally relevant interventions, this research area warrants further investigation.

The Effect of a Customized Asthma Education on Patient Knowledge and Health Outcomes

Tina Ho, RN, PHN, FNP-c
DNP Student
Hahn School of Nursing
University of San Diego
San Diego, CA

Mary-Rose Mueller, MSN, PhD
Associate Professor
Hahn School of Nursing
University of San Diego
San Diego, CA

Background: Asthma is the third most common childhood chronic disease in the United States (CDC, 2009). Approximately 9.6% of the nation's children have been diagnosed with asthma, with disproportionately higher rates seen in poor (13.5%) and non-Hispanic black children (17%) (CDC, 2009). In California, 163,008 people including 27,496 children under 5, sought care in hospital emergency departments for asthma attacks, and 10.5 million physician office visits were devoted to asthma-related problems (California Department of Public Health, 2009). Annual medical care costs for asthma care are estimated at $50.1 billion, and missed school or work due to asthma accounts for $3.8 billion in lost revenue (CDC, 2009). To achieve asthma control and asthma exacerbation prevention, the National Health, Lung and Blood Institute (2007) recommends that healthcare providers offer effective short and long-term pharmacological treatment, provide patient education on the disease process and treatment plan, set-up and offer a written asthma action plan, and maintain a consistent monitoring and follow-up system. However, Centers for Disease Control and Prevention (2011) reports indicate that among asthma sufferers only a third (34.2%) have received a written asthma action plan, and only 32% have been instructed on the appropriate response to symptoms of an asthma attack. Moreover, only about one third of children were using long-term control medicines such as corticosteroids (CDC, 2011).

Aim/Purpose of the Project: An evidence based practice project was designed to address the unmet asthma needs of Vietnamese and English-speaking children with asthma receiving care in an urban pediatric practice setting. The goal of this project was to reduce the number of uncontrolled asthma cases using a customized education plan based on the National Heart, Lung, and Blood Institute (NHLBI) guidelines but tailored to the specific pediatric population to improve patient/caretaker knowledge of asthma control and prevention and medication compliance. Customization included the provision of materials and instructions in both Vietnamese and English to accommodate the language preferences of caretakers and children.

Design and Methods: The pre and post quasi-experimental time series design project included three phases: 1) baseline data collection related to age, gender, education level, and insurance information as well as completion of baseline Asthma Knowledge Check Questionnaire (AKC), Asthma Control Test (ACT), and Peak Flow Meter measurements (PFM); 2) presentation of an asthma education video and education on inhaler use and post instruction administration of AKC; and 3) collection of ACT and PFM scores for three consecutive months following instruction.

Results and Outcomes: In progress.

Implications and Conclusions: To be determined following review and analysis of results. It is expected that the customized asthma education will improve patients' knowledge of asthma and compliance with the medical regimen, thus reducing the incidence of monthly asthma exacerbations.

Home ◀ ▶ go to PG.

Using Telephone Follow-up to Improve Medication Adherence in Hypertensive Patients

Beatrice Okoreeh-Kangah, DNP(c), FNP-BC
Hahn School of Nursing
University of San Diego
Highland, CA

Mary Jo Clark, PhD, RN
Professor
Hahn School of Nursing
University of San Diego
San Diego, CA

Vanessa Reynolds, MD
Physician, Primary Care
Ultimate Medical Practice, Inc
Highland, CA

Background: Hypertension (HTN) has been identified as one of the most common health problems affecting Americans. Control of hypertension remains poor, and a lack of adherence to medication is considered the main reason. Approximately 70 million American adults are living with uncontrolled HTN (Shah et al., 2009). Medication adherence is crucial in achieving the desired patient outcomes in chronic conditions such as HTN. Despite available effective treatment, more than 50% of HTN patients treated choose to discontinue their medications after a few months because they have not been educated adequately. The remaining 50% of patients take only 80% of their hypertensive medications. Therefore, 75% of patients with a diagnosis of HTN do not achieve optimum blood pressure (BP) control (Jayasinghe, 2008).

Aim/Purpose of the Project: This evidence-based project evaluated the effectiveness of telephone follow-up calls after baseline education to improve medication adherence in hypertensive patients.

Design and Methods: The project used a one group pretest/posttest quasi-experimental design. Participants for the project were 30 non-adherent HTN patients on BP medications for 2 to 12 months. Patients with BP 140/90 were identified by chart review and provider referrals. Patients' medication compliance behavior was measured before intervention using a simple 8-item structured self-reported Likert-type questionnaire. The intervention included baseline education using a 4th grade reading level brochure called "Healthy Advice" presented in sessions that lasted approximately 20 minutes. A medical assistant obtained a baseline BP. Patients received a 30-day prescription for their HTN medications and were encouraged to facilitate monthly refills for three months. Patients were called every two weeks for 10 weeks to encourage, support, educate, and remind them to take their medications. Intervention effectiveness was evaluated based on changes in patient behavior reported on the tool, increased adherence, and improvement in blood pressure control. Data were collected over a period of 3 months.

Results and Outcomes: In progress.

Implications and Conclusions: To be determined once all data are collected and analyzed; however, positive results will support the need for a routine process of telephone follow-up for clients who do not achieve blood pressure control within two months of medication initiation.

Home ◀ ▶ go to PG.

Correlation of Self-Management and Motivational Interviewing: A SMaRT Study Report

Teresa J. Sakraida, PhD, RN
Assistant Professor, College of Nursing
Teresa.Sakraida@ucdenver.edu

Paul F. Cook, PhD
Associate Professor
College of Nursing

Sarah J. Schmiege, PhD
Assistant Research Professor
Colorado School of Public Health
Department of Biostatistics and Informatics

University of Colorado
Aurora, CO

Aims: The Self-Management and Resourceful Transition (SMaRT) study refined an education and behavioral counseling intervention that included tailored computer assisted learning about T2DM and CKD and telephone counseling using motivational interviewing (MI). This report examines intervention impact by looking at the relationship of self-management behaviors with three MI treatment fidelity variables: (a) the average of global therapist rating scale items (acceptance, egalitarianism, empathy, genuineness, warmth, and spirit); (b) the percentage of counselor statements rated MI consistent; and (c) the participant's change talk per minute.

Background: Diabetic Kidney Disease is a complex chronic illness that calls for preventive and lifestyle self-management (SM). Moderate evidence supports education and counseling for self-management support. MI treatment fidelity variables have been shown to predict behavior change in previous MI research.

Methods: Patients from clinics were randomly assigned to either standard patient education and reminder calls or the SMaRT program of telephone MI counseling and tailored education about T2DM and CKD. An independent rater coded audio-recordings of the standard reminder calls and the intervention MI calls, using the Motivational Interviewing Skills Code rating tool. Analyses were based on coded recordings of 2-4 calls that were averaged to create a single score per patient on behavioral coding variables, including a Global Therapist Rating Scale (GTRS) score on counselors' overall "spirit" of MI fidelity, a count of MI-consistent counselor statements, and a patient statement count coded as "change talk" per minute of the call. On a SM checklist, participants indicated SM actions during the study: talking about concerns, getting lab tests, sharing wallet card with provider, engaging in self-glucose checks, carb-counting, physical activity, weight plan, tool kit use, and website resources use. The SM actions were aggregated into a total score per participant. The relationship of this total score to the three MI variables was examined using Spearman's rho.

Results: The SM score correlated $r = 0.197$ ($p = 0.42$) with the GTRS; $r = 0.526$ ($p = 0.02$) with the percent of counselor's MI-consistent statements; and $r = 0.371$ ($p = 0.12$) with the participant's change talk per minute. The correlation with percentage of MI-consistent statements was the only one of the three that met conventional levels of significance; however, the sample size for these correlations was only $n = 19$ and the magnitude of the other two correlations was small to moderate.

Conclusion: The percentage of MI-consistent counselor statements during telephone counseling in this small sample was significantly associated with self-management behavior. The participant's change talk per minute also showed a positive trend. MI has clinical practice implications for this population.

Funding: Robert Wood Johnson Foundation Nurse Faculty Scholar Program, Grant 64198; NIH/NCRR Colorado CTSI Grant Number UL1 RR025780.

MENTAL HEALTH

PSYCHOLOGICAL WELL-BEING OF MOTHERS WITH PRETERM INFANTS

Katie K. Cheon, Nancy Pike, Adeline Nyamathi,
Lillian Gelberg, Deborah Koniak-Griffin

DEVELOPING A MEDICATION ADHERENCE PROGRAM FOR AN OUTPATIENT MENTAL HEALTH PRACTICE

Stephen Brown, Michael Terry, Mary Jo Clark

FAMILY INTERPRETATION AND MANAGEMENT OF MENTAL ILLNESS ACROSS CULTURES

Karen G. Schepp, Hyun Jung Kim

ADHERENCE TO COGNITIVE BEHAVIORAL THERAPY FOR INSOMNIA

Ellyn E. Matthews, Michaela S. McCarthy

Home ◀ ▶ go to PG.

Psychological Well-Being of Mothers with Preterm Infants

Katie K. Cheon, PhD
Neonatal Nurse Practitioner
Department of Neonatology
Good Samaritan Hospital
Los Angeles, CA
kcheon10@gmail.com

Nancy Pike, PhD
Assistant Professor
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Adeline Nyamathi
Associate Dean
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Lillian Gelberg, MD
Associate Professor
Department of Family Medicine
University of California, Los Angeles
Los Angeles, CA

Deborah Koniak-Griffin
Professor
Health Promotion Sciences
University of California, Los Angeles
Los Angeles, CA

Purposes: Examine the impact of maternal stress, type of coping strategies, perceived social/nursing support, and maternal/infant characteristics on the PWB of mothers with preterm infants in the NICU from admission to 2 weeks.
Background: A preterm infant's admission to the Neonatal Intensive Care Unit (NICU) is associated with maternal stress. However, the impact of hospitalization on coping and psychological well-being (PWB) is poorly understood.
Methods: Mothers recruited from three NICUs in Los Angeles. PWB was measured using the Brief Symptom Inventory, Patient Health Questionnaire 9, and General Well-Being Schedule. Other outcomes measured included the maternal stress, coping strategies, and social/nursing support. Data were analyzed with multiple linear regression.
Results: One hundred mothers who participated were primarily over 30 (55%), Hispanic (62%), low income (67%), and living with spouse or partner (74%). Infants were 32 weeks (± 3.3) gestation with birth weight 1848g (± 730). Maternal stress accounted for 43% of the variance for anxiety and 22% for depression. Hispanic mothers had more severe depressive symptoms than non-Hispanic mothers. Perceived social support predicted PWB while nursing support did not. Emotion-focused coping was used more at admission ($p < .001$), and problem-focused coping more at two weeks ($p < .001$). Infant characteristics (gestational age, infant morbidity score, hospital discharge < 2 weeks) and maternal characteristics (race/ethnicity, language, education, marital status, income, employment status, pregnancy complications, breastfeeding) were predictors of PWB.
Conclusions: Maternal PWB is adversely influenced by preterm infant's NICU admission, however, improved by 2 weeks. Problem-focused coping strategies were used by 2 weeks and can provide a bench-mark for teaching readiness. Future research to assess PWB past 2 weeks is needed.
Implications: Depression screening may be useful in identifying mothers at risk. Teaching the nursing staff how to identify the mother's coping style and the use of the 2 week time point for the transition to problem-focused coping as a bench mark for the start of didactic instruction.

Funding: Sigma Theta Tau International Gamma Chapter Research Grant.

Home ◀ ▶ go to PG.

MENTAL HEALTH

Developing a Medication Adherence Program for an Outpatient Mental Health Practice

Stephen Brown, PMHNP-BC
DNP Student
Windstone Behavioral Health
Garden Grove, CA

Michael Terry, DNP, RN
Associate Clinical Professor
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA

Mary Jo Clark, PhD, RN
Professor of Nursing
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA

Background: Patients frequently do not adhere to essential medications, with substantial consequences to public health. Medication non-adherence is an enormous burden to the world's health care systems. Half of the 3.2 billion annual prescriptions dispensed in the United States are not taken as prescribed. Numerous studies have shown that patients with chronic conditions adhere only to 50-60% of medications as prescribed, despite evidence that medication therapy improves life expectancy and quality of life. Approximately 125,000 deaths per year in the United States are linked to medication non-adherence. Between 33% and 69% of medication-related hospital admissions in the U.S. are due to poor adherence with total cost estimates for non-adherence ranging from $100-300 billion each year including costs for additional provider visits, emergency room visits, hospital admissions, and additional medicines.

Aim/Purpose of Project: The purpose of this project was to assess the effectiveness of an educational video in increasing medication compliance among mental health clients.

Design and Methods: A pre and post quasi-experimental time series design was used. The project included three phases. (1) Pre implementation data collection using retrospective review of mental health charts to for age, gender, psychiatric diagnosis, housing status and current medication compliance rate. (2) Use of data to support the design of the educational video. (3) The educational video and an electronic medication dispenser were given to each of 100 clients identified as having poor compliance. Post implementation data collection on compliance outcomes occurred at months 1, 2, and 3. To determine if the aims of the project were met, an independent t test will be performed to compare baseline compliance data with data collected after program implementation.

Results and Outcomes: In progress.

Implications and Conclusions: To be determined following review and analysis of results. It is expected that this evidenced- based educational program will increase medication compliance and promote quality of care in a mental health clinic.

Family Interpretation and Management of Mental Illness across Cultures

Karen G. Schepp, PhD, RN, PMHCNS-BC, FAAN, Associate Professor
Interim Chair for Psychosocial & Community Health
University of Washington
Seattle, WA

Hyun Jung Kim, PhD, RN, PMHNP-BC
Assistant Professor
Psychosocial & Community Health
College of Nursing
Seattle University
Seattle, WA

Purpose: The purpose of this presentation is to identify the many different interpretations families have of schizophrenia and the implications for how they manage the illness when they have a family member with schizophrenia.

Background: There is an increasing interest in global mental health and increasing awareness of the many different ways mental health conditions such as schizophrenia can be perceived. With the increase in immigrant families from a broad range of countries and different cultures, mental health providers are challenged to learn how a family makes sense of a diagnosis of schizophrenia and what that means to the individual. The family's interpretation of the diagnosis impacts the way they treat the family member and what types of treatment they seek for their family member. It also makes a difference in how closely they adhere to the prescribed treatment. Mental health providers have many challenges as they try to provide culturally sensitive care to these diverse patients and their families. From a cross cultural perspective, schizophrenia is an example of a mental health condition with multiple interpretations. In Western culture, schizophrenia, with all the delusions and hallucinations, is considered to be the most severe and devastating of all mental illnesses. It occurs in 1.1% of the world's population and is found in all cultures. Some cultures view schizophrenia as a very positive affliction. For example, the person schizophrenia may be viewed as a highly spiritual person with close connections to the spirit world. Others believe the person is a natural born healer with special powers. Still others have a negative perception and believe the person is possessed by evil spirits. The different interpretations lead to different ways of managing the family member's behavior. When interpretation of the disorder is incongruent with the treatment, the overall management is ineffective.

Methods: A qualitative research method was used to address this study aim. The subjects were 40 culturally mixed families who had an adolescent with schizophrenia in a parent study which was a two-group randomized clinical trial. Qualitative data in the form of short-answer written and verbal responses to questions about the illness on the questionnaires and during the structured interviews were obtained from the family members on initial intake and during the 4 data collection points over 14 months. The data were analyzed using thematic analysis to identify interpretations of mental health disorders by the families from the different cultures.

Results: Quotes and paraphrases from the survey and interview data from the 40 families were sorted according to positive and negative interpretations of schizophrenia and according to typical treatment approaches used by that culture.

Conclusion: Mental health providers may note paradigm shifts in mental health treatment as families with a member with schizophrenia share their diverse interpretations of the illness and how they manage the illness in their family member. Mental health culture brokers are valuable members of the mental health team to help families bridge the cultural divide to provide more effective & culturally sensitive care.

Funding: NIMH R01-MH56580.

Home

go to PG.

Adherence to Cognitive Behavioral Therapy for Insomnia

Ellyn E. Matthews, PhD, RN, AOCN
Associate Professor of Nursing
University of Colorado Denver
College of Nursing
Aurora, CO

Michaela S. McCarthy, MSN
PhD Student
University of Colorado Denver
College of Nursing
Aurora, CO

Purpose: The purpose of this review was to conduct a comprehensive search for the use of Cognitive Behavioral Therapy for Insomnia (CBTI) in current literature and to determine which studies specifically evaluated adherence to treatment.

Background: Chronic insomnia is a significant health problem that affects 10-15% of people worldwide. Insomnia has been implicated in higher cardiovascular risks in the general population and increased tumor progression in the cancer population. In addition, insomnia is associated with social costs such as greater healthcare utilization and work absenteeism. CBTI has been shown to be an efficacious treatment, but few studies address the role of adherence to treatment. Without an understanding of adherence to CBTI, both motivations and barriers, we lack the ability to identify targeted ways to improve treatment.

Methods: A systematic review of the literature was conducted using databases including PubMed, Psychinfo, and MEDLINE. Studies that used CBTI as a therapy and evaluated adherence as a primary or secondary outcome were included. The final review included studies that used: valid and reliable measures of sleep and an independent measure of adherence, CBTI as a therapy in an adult population, and were published in peer reviewed journals in the English language.

Results: A total of 821 publications from 1981-2012 were identified from the database search. Of these, 227 articles were further reviewed; 212 articles were excluded based on the criteria listed above and duplicate results were noted. There were 15 studies published between 1992 and 2012 that measured adherence to treatment using methods other than study withdrawals. These studies were included in the final review. Insomnia comorbid with breast cancer was examined in four studies, primary insomnia in six, and mixed samples of primary and comorbid insomnia in five studies. An evaluation of study design revealed eight randomized controlled trials (RCT), one-group pre-post or repeated measures design, and one cross-sectional analysis. No demographic or medical characteristics were consistently associated with adherence, although some studies showed psychological characteristics (depression, anxiety) to be potential predictors of poor adherence. Some evidence was found linking attitudes toward CBTI and motivation to change sleep behaviors with adherence to treatment.

Implications: While CBTI is currently used as a treatment for both primary and comorbid insomnia in a variety of populations, the role of adherence to treatment remains understudied. Small gains in adherence to treatment could product significant clinical gains. Further research is needed into the specifics of adherence to CBTI including: standardized measures and definitions of adherence and treatment response, the role of patient expectations, motivation, and perceived barriers to treatment adherence, and psychological characteristics that might predispose patients to poor adherence to treatment.

Funding: This study was funded by the National Institute of Health and National Institute of Nursing Research (1K23NR010587), the American Nurses Foundation (#2010-049), and a Ruth L. Kirschstein National Research Service Award (NR012097-03).

Home ◀ ▶ go to PG.

NEONATES

BABIES HAVING BABIES: A CONCEPT ANALYSIS OF UNINTENTIONAL PREGNANCY AMONG TEENS

Tiffany M. Montgomery

OXYGEN SATURATION HISTOGRAM: UTILIZING TRENDS IN THE NICU TO IMPROVE OUTCOMES

Kathryn Friddle, Robert DiGeronimo

USING ALLOSTATIC LOAD AS A FRAMEWORK FOR NEONATAL RESEARCH

Amanda Claire Burke-Aaronson

USE OF A LIQUID BARRIER TO PREVENT SKIN BREAKDOWN FROM PICC DRESSING IN THE NEONATE: A RCT

Ching Ching Tay, Peggy Kalowes, Jeena Stanford,
Mary Sullivan, Heather Schagrin, Katrina Limfueco

Home

◀ ▶ go to PG.

Babies Having Babies: A Concept Analysis of Unintentional Pregnancy among Teens

Tiffany M. Montgomery, MSN, RNC-OB, C-EFM
Doctoral Student
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Purpose/Aim: This poster presents a critical analysis of the concept of unintentional pregnancy.

Description of Concept: Unintentional pregnancy is a concept used to represent the phenomenon of becoming pregnant at as a result of inadvertent conception. Literature using this concept is separated into two distinct categories: mistimed pregnancy and unwanted pregnancy.

Internal Consistency of the Concept: The analysis of the concept of unintentional pregnancy and a review of its internal consistency was based upon the writings of Dr. Afaf Meleis. Following Meleis' direction, the concept analysis included a discussion of critical attributes, empirical referents, antecedents, consequences, and like-concepts of unintentional pregnancy.

Logic Linking Concept to Practice/Research Problem: Unintentional pregnancy is a health disparity in the US that disproportionately affects the most vulnerable populations, including Hispanic and African-American teens. The current US teen pregnancy rate is at its lowest recorded rate in history, yet this number is still higher than that of any other industrialized country. Consequently, the decrease of both unintentional pregnancy and teen pregnancy are national public health goals. The purpose of these public health goals is not to simply reduce the number of unplanned childbirths in the country; the greater intention is a reduction in the number of unintentional conceptions that lead to pregnancy. A clear understanding of the factors leading to unintentional conception can result in novel, innovative research that aims to decrease the rate of teen pregnancy even more.

Conclusions, including Utility of Concept: Following a thorough analysis of the concept of unintentional pregnancy, it was clear that the term "unintentional pregnancy" is slightly misleading. An appreciation of the elements leading to the concept is useful in both nursing research and practice, but the term itself can be confusing. A more useful and appropriate term for this concept is "unintentional conception". Healthcare providers who are aware of the antecedents and consequences of unintentional conception can educate their non-pregnant teen patients in hopes of preventing this phenomenon and prepare those who are currently pregnant as a result of unintentional conception to attempt to avert subsequent unintentional conceptions or otherwise cope with its consequences.

Home ◀ ▶ go to PG.

NEONATES

Oxygen Saturation Histogram: Utilizing Trends in the NICU to Improve Outcomes

Kathryn Friddle, MS, APRN
Newborn Intensive Care
Primary Children's Medical Center
Salt Lake City, UT
Kim.friddle@imail.org

Robert DiGeronimo
Division of Neonatology
University of Utah
Salt Lake City, UT

Purpose of the Study or Research Questions: This Quality Improvement project was to improve oxygen management in the NICU through the use of 24 hour histograms. This information was used to help define normal saturation ranges for infants on room air at 1500 meters as well as make decisions on daily patient oxygen management.

Background/Significance: Histogram reports are available through the Phillips IntelliVue Patient Monitor. Traditionally nurses record infant saturation levels every 1 to 3 hours on the flowsheet. The 24 hours histogram records one saturation value every 5 minutes reporting the % of time the infant is in a given saturation level. In July 2011, 24 hour histograms were incorporated into daily patient rounds.

Methods: Evaluation of 82 infants on room air before and after saturation target change and institution of 24 hour histograms in rounds. Independent-sample t-test of infants breathing room air with two different oxygen targets.

Results: Patients at 1500 meters altitude were able to maintain oxygen saturations ≥ 92%. The patients with a higher oxygen target were significantly more likely to achieve the saturation target than those with a lower saturation target.

Conclusion/Recommendations: Incorporation of the 24 hours histogram has helped to identify infants with a significant period out of targeted saturation range, improve decision making on the use of supplemental oxygen, and maintain targeted oxygen saturation range.

Home ◀ ▶ go to PG.

Using Allostatic Load as a Framework for Neonatal Research

Amanda Claire Burke-Aaronson, RN, MSN, PhD
Assistant Professor
School of Nursing and Health Professions
University of San Francisco
San Francisco, CA

Purposes/Aims: Neonates are not blank slates. They have been subjected to maternal stressors (in cortisol crossing the placenta), as well as physical stressors that may occur during the pregnancy (such as early bleeding, genetic screening, maternal diabetes or hypertension, or preterm labor). Labor is a natural and necessary stress, which alters vital functions for adjustment to extra-uterine life for an effective transition. The purpose of this paper is to describe how the theory of allostatic load can be used to frame neonatal research.

Description of Theory: The theory of allostatic load, introduced by McEwen and Stellar in 1993, illustrates how one's physical health can be a result of stress accumulation and how, by minimizing that stress, we can improve short and long-term health.

Internal Consistency of the Theory: The main concept of stressors, perceived differently by the individual based on physical or emotional (such as previous experience and coping skills) attributes, is consistent with the concept of the outcome of physical or emotional threats to health.

Linking the Theory to Practice: As demonstrated in animal studies, glucocorticoids crossing the placenta result in an increase in the fetal Hypothalamic-Pituitary-Adrenal (HPA) axis activity. This response to fetal stress has been shown to alter brain development due to rapid brain growth at this time (Lupien, McEwen, Gunnar & Heim, 2009).

While birth is a necessary stressor for neonatal adaptation to extra-uterine life, non-spontaneous labors, interventions in labor, and high-risk labors add stressors that can have repercussions. McEwen and Stellar (1993) indicate that genetics, age (in this case gestational age), and gender will have an effect on what level of stress the infant perceives, and what effect the load achieved at birth will have.

The long-term implications of accumulation of allostatic load on the individual from birth can be seen both in development of physiologic disease (for example tendency toward asthma as a result of autonomic nervous system damage, or diabetes as a result of neuro-endocrine damage) and in emotional adjustment, as illustrated by Anand and Scalzo (2000) who found traumatic deliveries to be a risk factor in risk-taking behaviors and suicides among adults.

Conclusion: The theory of allostatic load applies well as a framework for evaluation of neonatal illness, behaviors and temperament, as well as in the development of strategies for optimizing fetal-to-neonatal transition.

References:

Anand, K.J., & Scalzo. F.M. (2000). Can adverse neonatal experiences alter brain development and subsequent behavior? *Biology of the Neonate, 77*(2), 69-82.

Lupien, McEwen, Gunnar & Heim, 2009 Effects of stress throughout the lifespan on the brain, behaviour and cognition. *National Review of Neuroscience, 10*(6), 434-445.

McEwen, B.S., & Stellar, E. (1993). Stress and the individual, mechanisms leading to disease. *Archives of Internal Medicine, 153*, 2093-2101.

NEONATES

Use of a Liquid Barrier to Prevent Skin Breakdown from PICC Dressing in the Neonate: A RCT

Ching Ching Tay, MSN, CNS, RNC-NIC
Clinical Nurse Specialist[1]

Peggy Kalowes, RN, PhD, CNS, FAHA
Director, Nursing Research
and Evidence Based Practice[2]

Jeena Stanford, RN
Staff Nurse[1]

Mary Sullivan, MSN, CNS, RNC-NIC
Clinical Nurse Specialist[1]

Heather Schagrin, RN
Staff Nurse[1]

Katrina Limfueco, RN
Staff Nurse[1]

[1]*Neonatal Intensive Care Unit, Miller Children's Hospital Long Beach, Long Beach, CA*
[2]*Long Beach Memorial, Long Beach, CA*

Aims: The primary aim of this clinical trial is to determine the efficacy of a liquid skin barrier film in the protection of skin integrity of the extreme low birth weight (ELBW) infant when applied under peripherally inserted central catheter (PICC) dressing compared to a control group receiving *standard care*. The study will also examine the ongoing validity and reliability of the Neonatal Skin Condition Score (NSCS) tool. A secondary aim is to measure parents' perception of nursing support they received in the care of their infant with a PICC line in the neonatal intensive care unit (NICU), using the Nurse-Parent Support Tool (NPST).

Background: Central line associated bloodstream infection (CLABSI) is associated with increased cost, LOS, and mortality in the ELBW population. PICCs are a lifeline for ELBW infants in the NICU, yet, CLABSI is a major complication associated with PICCs, with skin flora as a risk factor.

Understanding the parents' perception can help NICU nurses to identify areas where additional support or information needs to be provided to enhance parent involvement and strengthen the model of family-centered care.

Methods: A prospective, RCT using a 2-group study design will be used to enroll a convenience sample of all infants ≤28 weeks gestational age with birth weight <1000 grams admitted to the NICU, requiring a PICC. Subjects will be randomized on a 1:1 basis into the intervention group receiving standard care and the liquid skin barrier film, or the control group receiving standard care. To achieve the secondary aim, parents of enrolled subjects will be asked to complete the NPST questionnaire.

Results: Data collection is in progress. Data will be analyzed using descriptive statistics to describe the sample population, CLABSI incidence rate, skin condition, and the frequency of nursing support perceived by parents using the NPST. Student's t-test and ANOVA will be used to analyze the differences among the groups.

Implications: Study findings will serve to increase nursing knowledge and to develop best practices related to care of PICC lines among NICU patients. Parental findings will help to identify areas for improvement in emotional and caregiving support that NICU nurses provide to parents.

THE NEXT STEPS IN THE SUBCULTURE OF SIMULATION WITHIN NURSING HIGHER EDUCATION

OVERVIEW: THE NEXT STEPS IN THE SUBCULTURE OF SIMULATION WITHIN NURSING HIGHER EDUCATION

Ann O. Hubbert

FACULTY MONETARY AND WORKLOAD INCENTIVES TO INITIATE A SIMULATION CULTURE IN NURSING EDUCATION

Becky Bunderson

BEHAVIORAL HEALTH EMERGENCY: CREATING CLINICALS AND A NEW EDUCATIONAL SUBCULTURE

Shoni Davis

THE CULTURE OF SIMULATION SUPPORTS MATERNITY NURSING EDUCATION

Kelley Connor

ENHANCING THE SUBCULTURE OF CLINICAL SIMULATION WITH A STANDARDIZED PATIENT PROGRAM

Rosemary Macy

THE NEXT STEPS IN THE SUBCULTURE OF SIMULATION WITHIN NURSING HIGHER EDUCATION

Overview: The Next Steps in the Subculture of Simulation within Nursing Higher Education

Ann O. Hubbert, PhD, RN, CTN-A
Chair, Undergraduate Nursing Studies
School of Nursing
Boise State University
Boise, ID

Purpose: Culture Care Theory (CCT) is presented as the theoretical framework and guide for the educators' actions to positively generate new levels of clinical simulation in our nursing higher education culture. Clinical simulation education is a growing subculture within the dominant nursing higher education culture. These projects all represent aspects of this subculture movement, and are not yet generally addressed in the literature. Discussions include new insights and perspectives based on beliefs, values, and practices of clinical simulation as a unique subculture within nursing education.

Background: Leininger's Culture Care Diversity and Universality Theory (Culture Care Theory: CCT) is built on, and ever evolving from, a scientifically sound and humanistic base. The theory is a foundation for approaching relationships to work between and among any variety of cultures and subcultures, in this case, nursing, nursing education, and the emerging subculture of simulation. Educational barriers, such as ethnocentric views of education "clinical education is best at the bedside" or cultural biases "real teachers are better than simulations," are decreased when CCT is "brought into action."

Application of the CCT *Sunrise Enabler* helps track Social Dimensions that impact a subculture's *Worldview*, and suggest ways to blend cultures together for positive changes to occur through the CCT *Three Modes of Action* (preservation, accommodation, restructuring).

Approaches: Four specific projects are addressed using the CCT framework of the Sunrise Enabler: (1) faculty selection and development, (2) clinical behavioral health education, (3) maternity nursing education, and (4) a standardized patient program within a freestanding nursing program. Each paper will share: (1) the W*orldview* that influenced the project creation, (2) the *Social Dimensions* applicable to the project, and (3) the *Three Modes of Action* employed representing both the blending of the dominant nursing higher education culture and the emerging clinical simulation subculture.

Outcomes: Expressions and patterns of the clinical simulation subculture in nursing education are explicated through the outcomes presented for each of the four projects. In addition, a "roadmap" of how to use this approach is offered with each project. Educators will have a model foundation of how to implement the CCT within their own programs to enhance the adoption of simulation within nursing education.

Conclusions: Using the CCT with the Three Modes of Action: preserving the best of the past, adopting new methodologies that solve problems, and accommodating all levels of faculty from innovators to late adopters can assist with a planned evolution of educational culture within a nursing program.

Home ◀ ▶ go to PG.

THE NEXT STEPS IN THE SUBCULTURE OF SIMULATION WITHIN NURSING HIGHER EDUCATION

Faculty Monetary and Workload Incentives to Initiate a Simulation Culture in Nursing Education

Becky Bunderson, RN, MS
College of Health Sciences Simulation Center, Director
School of Nursing
Boise State University
Boise, ID

Purpose: This presentation will demonstrate the application of Leininger's Culture Care Theory (CCT) in the development of faculty expertise in simulation methodologies. Simulation is a specialization that deserves targeted faculty development and recognition as an area of expertise and hence an evolving subculture of nursing education.

Background: The CCT's cultural and social structure dimensions provide rationale for faculty development in simulation. Technology: Some faculty are "digital immigrants," and the technologies used in simulation can be an obstacle. Faculty members need to explore the technologies, and have expert support before being able to successfully facilitate simulations. Cultural Values: Nursing education has historically based students' clinical experiences at traditional sites. It is difficult to change long standing values surrounding what constitutes the best clinical experience for students. Economic: Simulation is both personnel and material resource intensive. Discussions around sustaining and expanding a program are necessary in order to be successful. Environmental: Fewer clinical placements and more schools competing for clinical sites reduce opportunities for local clinical experiences.

Description of Best Practice: With support from administration and faculty a development tool/guide was introduced that allowed faculty to develop their expertise in simulation at their own desired pace and level. Criteria were developed for level #1, #2, or #3 experts in simulation. Additional workload units were awarded to those faculty who chose to become dedicated simulation experts. A mentored faculty stipend program was developed and remains ongoing.

Outcomes: The CCT's Three Modes of Action helped define the outcomes achieved.
1. Preserve: Faculty satisfaction with teaching and student learning was preserved.
2. Accommodate: Early adopting faculty were supported and rewarded for learning simulation methodologies. Late adopters have role models from which to learn and are support with a validated structured program. 3. Restructure: Boise State University is purposely moving toward more active learning opportunities for students. The SON has embedded simulation in didactic and clinical courses. A future goal is to break off one traditional clinical credit and devote it to simulation and active learning strategies. We are pursuing multiple faculty certifications and accreditation of our simulation center with the intent of generating revenue.

Conclusions: Expertise in simulation is becoming a valued subculture in our faculty experience. Simulation is a powerful educational tool that is becoming a necessity in today's healthcare climate. The use of Leininger's Culture Care Theory can serve as a foundation to guide change and thoughtfully incorporate simulation into healthcare education.

Home ◀ ▶ go to PG.

THE NEXT STEPS IN THE SUBCULTURE OF SIMULATION WITHIN NURSING HIGHER EDUCATION

Behavioral Health Emergency: Creating Clinicals and a New Educational Subculture

Shoni Davis, RN, DNSc
Associate Professor
School of Nursing
Boise State University
Boise, ID

Purpose: This presentation demonstrates the application of Leininger's Culture Care Theory (CCT) to guide a rapid change in behavioral health teaching methodology caused by unexpected state budget cuts in behavioral health, resulting in increasing number of nursing programs competing for fewer clinical sites. Clinical experiences were transformed from the use of traditional clinical placements to the exclusive use of standardized patients (SPs) in one semester.

Rationale/Background: CCT's Sunrise Enabler provides a framework for changes made in our delivery of behavioral health nursing education. Worldview- Idaho ranks 47th nationally for behavioral health spending. Environmental- Little behavioral health treatment exists in the state after recent budget cuts; in fact, behavioral health is now most easily accessed by incarcerated individuals. Educational- There was a sudden decrease in already scarce behavioral health clinical sites within the state, for an increasing number of competing nursing programs with student clinical needs.

Description of Best Practice: Nursing faculty initiated an innovative interprofessional partnership with the university psychology department. Psychology students volunteered for training as standardized patients (SPs) to meet certain nursing clinical experience requirements. In addition, these students received service learning credits for their SP participation. Faculty rapidly developed and tested all the scenarios needed for the semester, guaranteeing standardized student experiences.

Outcomes Achieved: The CCT's Three Modes of Action help define the outcomes achieved in this program. 1. Preservation- Formative nursing skills were preserved through authentic standardized behavioral health simulations, in lieu of traditional clinical experiences. Students developed confidence in managing sensitive patient issues and prepared to meet nursing standards of practice. 2. Accommodation- Faculty developed a pool of trained mental health SPs at no cost to the school. Psychology and nursing faculty agreed to award service learning credits for this experience. 3. Restructuring- The SP program is highly valued by both nursing and psychology students and continues to grow. Faculty value the ability to see standardized student encounters with a client in a safe environment. The scenarios afford students the opportunity to see that behavioral health intervention opportunities can occur in all clinical environments.

Conclusions: The CCT can provide a foundation to guide changes in cultural norms that benefit students, faculty and enhance interprofessional collaboration. SP enhanced clinical experiences have allowed us to create our own standardized clinical opportunities with our own philosophical approaches built into our simulations.

Home ◀ ▶ go to PG.

THE NEXT STEPS IN THE SUBCULTURE OF SIMULATION WITHIN NURSING HIGHER EDUCATION

The Culture of Simulation Supports Maternity Nursing Education

Kelley Connor, RN, MSN, CNE
Assistant Professor
School of Nursing
Boise State University
Boise, ID

Purpose: This presentation will illustrate the use of the Leininger's Culture Care Theory (CCT) using simulation to transform a maternity nursing course in which standardized clinical situations were guaranteed through clinical simulation. Increasingly clinical education sites are unreliable due to changes in patient census and the scarce on site opportunities for specific student experiences. Clinical simulation provides supportive avenues of maternity education, including "birth experiences on demand."

Background: CCT's Sunrise Enabler and the cultural and social dimensions offer a framework for maternity education. Education- Maternity nursing is a core component of pre-license nursing education. Embracing innovative educational methods, i.e., the use of simulation and standardized patients provides increased depth and consistency of experiences. Environment- Limited clinical sites and variable patient censuses make simulation a logical alternative to traditional clinical placements. Legal- Labor and delivery is the highest litigation area in the hospital, limiting students' opportunity for experiential learning. Clinical simulation provides an authentic alternative experience. Technology- Today's nursing students are highly technologically savvy and prefer to learn using electronic formats in addition to traditional paper text formats.

Description of Best Practices: Over the course of five years we have progressed from a curriculum focus of integrating maternity content throughout the program and no clinical experience to a stand-alone maternal child course with a dedicated clinical component. Maternal-child course objectives reflect experiential learning. Active learning strategies include the use of simulations with both manikins and standardized patients, which augment traditional clinical experiences. Downloadable mobile applications were developed by the faculty to use in the classroom, simulation center, and study sessions to further engage students in course content and documentation. Standardized patients were recruited and trained for simulation scenarios to provide an increased level of realism.

Outcomes Achieved: The CCT's Three Modes of Action included: 1. Preserve- Clinical sites were maintained for some experiences. 2. Accommodation- All students participated in standardized maternity scenarios. Learning was enriched through realistic simulation scenarios, utilizing standardized patients, and by developing and using mobile documentation applications specific to maternal charting. 3. Restructuring- Students are now able to experience a traditional clinical environment, but are also guaranteed a standardized, hands-on, and risk-free environment.

Conclusions: Significant challenges were overcome to optimize the learning environment in a specialty maternity nursing course. CCT provided a framework whereby course objectives could be maintained and learning could be restructured and improved by simulation.

Home ◀ ▶ go to PG.

THE NEXT STEPS IN THE SUBCULTURE OF SIMULATION WITHIN NURSING HIGHER EDUCATION

Enhancing the Subculture of Clinical Simulation with a Standardized Patient Program

Rosemary Macy, PhD, RN, CNE
Associate Professor
School of Nursing
Boise State University
Boise, ID

Purpose: This presentation will use Leininger's Culture Care Theory (CCT) to describe the development and evolution of a funded standardized patient (SP) program within a stand- alone school of nursing.

Background: CCT's Sunrise Enabler and the cultural and social dimension provide a framework for the development and implementation of this program. Environment- The university and city are geographically isolated, with a limited number of clinical placement sites. Behavioral and community health sites are scarce, and there are decreasing acute inpatient clinical sites available. Social- Manikins are not appropriate for teaching specialties such as community health or behavioral health nursing. Educational- Health assessment faculty wanted to incorporate SPs in their course activities. Students' surveys indicated they preferred working with real patients rather than manikins. Philosophical- Nursing is a caring profession, and personal interaction with patients is valued within our curriculum.

Description of Best Practices: Two faculty members received a $5000 internal startup grant to pilot a standardized patient program in a health assessment course. Lead faculty actions included: (1) completion of a literature search, (2) national conference participation to network with experienced SPs' faculty, and (3) membership in the Association of Standardized Patient Educators. SPs were initially used in health assessment but demand quickly spread to the behavioral health, community health, and maternal child courses based on student and faculty positive feedback.

Outcomes Achieved: The CCT's Three Modes of Action included: 1. Preserve- The faculty's desire for the preservation of human interactions has been maintained. 2. Accommodate- An enhanced business plan was developed, allowing us to evolve from using ad hoc faculty as SPs, to the hiring and training of college students as SPs in multiple courses throughout the curriculum. 3. Restructure- A formalized SP hiring and orientation process has been developed. The budget evolved from a funded pilot project to a permanent line item funded by student professional fees, providing stability and ongoing funds for the program.

Conclusions: SPs are now a major focus in our nursing program. Faculty and students highly value the SP program, leading to the creation of many scenarios by faculty, or revisions of scenarios, to utilize SPs. Permanent funding is now budgeted to support this program.

Funding: Boise State University School of Nursing Internal Faculty Grant.

PATIENT ACTIVATION: THEORY, PRACTICE, RESEARCH & POLICY

OVERVIEW: PATIENT ACTIVATION: THEORY, PRACTICE, RESEARCH & POLICY

Mindy Tinkle, Robin Meize-Grochowski, Beth Rodgers,
Beth Tigges, Sally Cohen

PATIENT ACTIVATION: THEORETICAL PERSPECTIVES

Mindy Tinkle

MEASURING PATIENT ACTIVATION

Beth Tigges

PATIENT ACTIVATION AND SELF-MANAGEMENT IN ADULTS WITH OBSTRUCTIVE SLEEP APNEA

Beth Rodgers

PATIENT ACTIVATION IN COMMUNITY DWELLING OLDER ADULTS

Robin Meize-Grochowski

PATIENT ACTIVATION, HEALTH POLICY ANALYSIS AND NURSING RESEARCH

Sally S. Cohen

PATIENT ACTIVATION:
THEORY, PRACTICE, RESEARCH & POLICY

Overview: Patient Activation: Theory, Practice, Research & Policy

Mindy Tinkle, PhD, RN, WHNP-BC
Associate Professor & Chair, Research and PhD Studies
College of Nursing
University of New Mexico, Albuquerque, NM

Robin Meize-Grochowski, PhD, RN
Professor & PhD Director
College of Nursing
University of New Mexico
Albuquerque, NM

Beth Rodgers, PhD, RN, FAAN
Professor
College of Nursing
University of New Mexico
Albuquerque, NM

Beth Tigges, PhD, RN, PNP, BC
Associate Professor
College of Nursing
University of New Mexico
Albuquerque, NM

Sally Cohen, PhD, RN, FAAN
Associate Professor & Director RWJF
Nursing and Health Policy Collaborative
College of Nursing
University of New Mexico
Albuquerque, NM

The purpose of this symposium is to examine the utility and implications of the concept of patient and consumer activation in terms of theory, practice, research and health policy. The health care environment is rapidly shifting to an increased emphasis on patient and consumer responsibilities for full participation in their own health. Patient activation is a concept referring to the individual's knowledge, skills and confidence for management of her/his own health and health care. Nursing has long been aligned with similar values and approaches, particularly in relation to the body of work in self-management. This symposium will bring together five papers to discuss conceptual issues related to patient activation, consider how it is measured, how it might be applied in chronic conditions and in different populations, and viewed through the policy lens.

Patient Activation: Theoretical Perspectives: This introductory paper will explore the theoretical underpinnings of patient activation, consider the contextual factors that impact activation and present a model explicating this concept. (Mindy Tinkle)
Measuring Patient Activation: A major challenge in advancing research and clinical application of patient activation is the issue of measurement. This paper will discuss the characteristics of several instruments that have been developed to measure patient activation, clinicians' attitudes and beliefs about patient activation, and parents' activation related to their child's health. (Beth Tigges)
Patient Activation and Self Management in Adults with Sleep Apnea: The third paper will focus on the application of patient activation in promoting self management among adults with obstructive sleep apnea. (Beth Rodgers)
Patient Activation in Community Dwelling Older Adults: The fourth paper will focus on the application of patient activation as it relates to community dwelling older adults. (Robin Meize-Grochowski)
Patient Activation, Health Policy Analysis, and Nursing Research: The final paper will examine patient activation in terms of health policy implications and explore relevant nursing research questions. (Sally Cohen)

Home ◀ ▶ go to PG.

PATIENT ACTIVATION:
THEORY, PRACTICE, RESEARCH & POLICY

Patient Activation: Theoretical Perspectives

Mindy Tinkle, PhD, RN, WHNP-BC
Associate Professor and Chair, Research & PhD Studies
College of Nursing
University of New Mexico
Albuquerque, NM

Purpose: The purpose of this presentation is to present the theoretical underpinnings of the concept of patient activation as it relates to self-management and health outcomes.

Definition of Concept: A focus on the patient's role in managing his or her own health care is increasingly being promoted as an important strategy for improving the quality of care in the United States. The notion that patients should be more active and involved managers of their health and health care is a foundational principle in the widely adopted Chronic Care Model (Bodenheimer et al, 2002) and in many current health care reform efforts, such as the newly established Patient-Centered Outcomes Research Institute (http://www.pcori.org). The concept of patient activation, largely developed by Hibbard and colleagues (2004) refers to the knowledge, skills and confidence an individual has about making effective decisions to manage his or her health. Activation is developmental in nature and involves four stages: (1) believing the patient role is important; (2) having the knowledge and confidence to take action; (3) taking action to maintain and improve one's health; and (4) staying the course even under stress (Hibbard, et al, 2004).

A body of research over the past ten years demonstrates that patient activation predicts many health behaviors, health outcomes, and health care utilization (Hibbard et al, 2004; Hibbard et al, 2005; Mosen, et al, 2007; Becker and Roblin, 2008; Fowles, et al, 2009; Remmers, et al, 2009; Harvey, et al, 2012). More activated individuals are more likely to engage in health promoting behaviors such as regular physical activity, to practice self-management behaviors for chronic conditions such as adherence to diabetic testing, to have improved health outcomes such as good glycemic control, and to obtain preventive care.

Utility for Nursing: Nursing has long been focused on many aspects of patient activation, such as health locus of control (Wallston, Stein, & Smith, 1994); self-efficacy in self-management (Lorig et al, 1996); and readiness to change health behaviors (DiClemente et al, 1991; Prochaska, Redding, & Evers, 1997). However, conceptual confusion about "activation" remains. What does patient activation really mean? How is it different from other theoretical approaches to self-management and shared decision making in health? What is the full range of behaviors that individuals should perform if they are to optimally benefit from their health care (ie., the highly activated)? While the health care environment may be shifting in terms of increasing emphasis on active participation, are patients and health care consumers equipped to assume these self-management behaviors and self-care skills? What is the utility of the concept of patient activation for nursing? How would we tailor our interventions to the individual's level of activation or apply at the aggregate level to evaluate interventions and health care delivery systems? These and other questions will be examined in this presentation.

Conclusions: This paper explores the conceptual dimensions of patient activation. Attention will be given to how this developmental concept involves a learned behavior, reflects an individual's self-concept as self-manager, and emphasizes the role of emotional balance. Contextual factors that may impact patient activation such as age, gender, ethnicity, and health status will be examined and a model explicating this concept will be presented.

Home ◀ ▶ go to PG.

PATIENT ACTIVATION:
THEORY, PRACTICE, RESEARCH & POLICY

Measuring Patient Activation

Beth Tigges, PhD, RN, PNP, BC
Associate Professor
College of Nursing
University of New Mexico
Albuquerque, NM

Purpose: The purpose of this paper is to summarize and critique the psychometric properties of three instruments that researchers may use to measure patient activation: the Patient Activation Measure (PAM) (Hibbard et al., 2004), the Patient Activation Measure-13 (PAM-13) (Hibbard et al., 2005), the Parent Patient Activation Measure (Parent-PAM) (Pennarola et al., 2012), and the Clinician Support for Patient Activation Measure (CS-PAM) (Hibbard et al., 2009).

Description of Concept: Patient activation is the individual's knowledge, skill and confidence for management of health and chronic illness.

Approach Used: The original PAM was developed by Hibbard and colleagues (2004) in a four-phase process beginning with conceptualization (literature review, expert consensus, focus groups with people with chronic illnesses) and ending with a telephone survey of 1,515 randomly selected adults, aged 45 years and older. The PAM is a 22-item, interval level, unidimensional, Guttman-like measure with items corresponding to four stages of patient activation: Believes active role important; confidence and knowledge to take action; taking action, and staying the course under stress. Rasch person reliability in both those with and without chronic illness was .85 (real) and .88 (model). Cronbach's alpha was .91. The PAM has demonstrated construct validity, including both concurrent and discriminant validity. The PAM-13 was developed using iterative Rasch analysis to reduce the instrument to a 13-item measure with similar psychometric properties. Both the PAM and PAM-13 have been validated repeatedly with both healthy individuals and those having a variety of chronic illnesses. The PAM has been modified for use with clinicians as the CS-PAM using both Classical Test Theory and Rasch analysis to develop the 14-item measure with a person reliability of .80 and a Cronbach's alpha of .86. The CS-PAM can discriminate between clinicians based on their beliefs and attitudes about the importance of patient self-management. Finally, the PAM has been modified to measure parental activation on behalf of their child. The 13-item Parent-PAM has a Cronbach's alpha reliability of .85.

Conclusions and Links to Nursing Research: The PAM-related instruments provide reliable and valid tools for researchers to use when studying interventions to improve patient activation related to both health- and chronic-illness behaviors. Much of the early work with the PAM-related instruments used cross-sectional, correlational designs and raised some questions about whether patient activation was a unique construct or a measure of health-promoting behavior in general. More recent work has focused on interventions to improve patient activation and its effect on health outcomes. The PAM-13 has demonstrated predictive validity and sensitivity to change.

Home ◀ ▶ go to PG.

Patient Activation and Self-Management in Adults with Obstructive Sleep Apnea

Beth Rodgers, PhD, RN, FAAN
Professor
College of Nursing
University of New Mexico
Albuquerque, NM

Self-management has been presented as an important goal for individuals living with a chronic illness. Self-management theory has evolved to provide a basis for creating contexts and interventions effective in ensuring adequate patient involvement in management of chronic conditions and in promoting desirable outcomes (Lorig & Holman, 2003; Grey, Knafl, & McCorkle, 2006; Ryan & Sawin, 2009). Numerous studies have been conducted to identify effective means to enhance and promote self-management and to document the outcomes of greater involvement in individual care. In practice as in research, however, individuals may have very different goals for self-management and, in some health care situations, may be given limited opportunity for involvement in their own care. The effects of goal incongruence and limited engagement point to the importance of considering patient activation in the context of self-management in chronic illness. In this presentation, the results of a recent Grounded Theory study of 82 adults living with Obstructive Sleep Apnea (OSA) are described with regard to self-management theory. The reports of these participants, who had varied histories with OSA, revealed numerous aspects of the experience that were consistent with self-management theory. A substantial component of the experience, however, was not accounted for by self-management theory and points to the need for consideration of patient activation within the context of this condition. For these participants, actual engagement in management of the OSA was nearly universal in its absence; yet, these participants expressed a strong desire to have a high degree of engagement in their diagnosis and ongoing care and follow-up. The challenge of wanting to be involved in care while facing a lack of opportunities to do so was reported frequently as a profoundly negative part of the OSA experience and also a major barrier to adhering to the prescribed treatment regimen. The results of this study show the importance of considering patient activation within the context of self-management to ensure appropriate levels of engagement and to enhance self-management capability for people living with this chronic condition, a situation that likely is relevant in other chronic conditions as well. The experiences of these participants exemplify the potential for expanding self-management theory through attention to patient activation and provide strong evidence that congruence in desired level of engagement and opportunities for self-management can have a significant impact on treatment adherence and outcomes for people living with chronic illness (Greene & Hibbard, 2012).

Funding: The study of the experiences of people living with OSA was supported by Award Number P20NR010674 from the National Institute of Nursing Research. Additional support was provided by the College of Nursing and the Graduate School at the University of Wisconsin-Milwaukee.

Home ◀ ▶ go to PG.

PATIENT ACTIVATION: THEORY, PRACTICE, RESEARCH & POLICY

Patient Activation in Community Dwelling Older Adults

Robin Meize-Grochowski, PhD, RN
Professor & UNM Regents' Lecturer
College of Nursing
University of New Mexico
Albuquerque, NM

Purpose: Changes in the health care environment will likely place increased emphasis on patient-centered care, which emphasizes the central role of patients in healthcare processes (Wolff et al., 2009). It has been reported that a lag exists between expectations and performance of behavior related to self-care. This lag is especially noteworthy in older adults (Williams & Heller, 2009; Gruman et al., 2010; Tarn et al., 2012). This paper presents an overview of patient activation literature and findings in relation to older adults in order to help nurses identify strategies that are most effective in enhancing health care participation in this age group.

Description/Background: As our population ages, nurses and other health care providers need to become familiar with best practices for enhancing patient participation in care to maintain health or manage a chronic condition. Patient activation, based on patient education, self-care, communication, and related literature, is a concept that has been examined in relation to engagement in health related activities (Gruman et al., 2010; Hibbard & Mahoney, 2010). Placed within the Chronic Care Model, patient activation may be viewed as a way to transform patients' involvement in their care from reactive and sporadic to proactive and planned (Coleman et al., 2009). The Chronic Care Model is synergistic in that providers and patients both play key roles in its implementation. On the patient side, being able to self-manage symptoms and problems, engage in activities that maintain functioning and reduce health declines, and participate in clinical decision-making are key components of patient activation (Frosch et al., 2010). For providers the charge is not only the medical management of a chronic condition, but also the facilitation of patients' participation in their own care.

Heller et al. (2009) found that informed health care decision making and motivation, components of patient activation, influence patients' participation in their care. Older adults may be particularly vulnerable in terms of these requisite patient activation components. In a survey of Medicare beneficiaries, only 30% of older people report feeling that they possess the level of motivation and skills to fully engage in shared and collaborative decision-making regarding their health care (Williams & Heller, 2007). With knowledge of a patient's level of activation, health care providers are better informed when determining appropriate strategies to increase information-seeking behaviors in patients (Butler et al., 2012).

Conclusions & Implications: Patient activation in older adults cannot be just about the individual. More often than not community dwelling older adults rely on family, friends, or professional caregivers to help them achieve and maintain their optimal health status. How can nurses best activate older adults for self-management of their health? What role do support persons play in this self-management? How do we design studies to determine the most appropriate intervention for older adults at different levels of activation? These and other questions will be addressed in this presentation.

PATIENT ACTIVATION:
THEORY, PRACTICE, RESEARCH & POLICY

Patient Activation, Health Policy Analysis and Nursing Research

Sally S. Cohen, PhD, RN, FAAN
Associate Professor and Director, RWJF Nursing and Health Policy Collaborative
College of Nursing, University of New Mexico
Albuquerque, NM

Purpose: The purpose of this paper is to identify nursing research questions emanating from a policy analysis of patient activation.

Description of Concept: Patient activation addresses individuals' perceptions of their ability to manage their health and health care. It includes patients' "knowledge, skill and confidence for managing their own health and health care" (Hibbard & Mahoney, 2010). Research on patient activation measures (PAMs) focuses on interactions among patients and practitioners at the individual level of care (Greene & Hibbard, 2011; Harvey, Fowles, Xi & Terry, 2012; Hibbard, Mahoney, Stockard & Tusler, 2005). Compared to this individual or behavioral level of analysis, research on patient activation and health policies at the macro or systemic level of care are less well known and include concepts such as consumerism, the self care movement (DeFriese, Woomert, Guild, Steckler & Konrad, 1989), payment mechanisms for patient activation, the impact of different types of practice environments on patient activation (Becker & Roblin, 2008), and federal, state or local policies that might advance or impede patient activation. The Patient Protection and Affordable Care Act (P.L. 111-148) contains several provisions that build on concepts of patient activation, such as establishment of state offices of consumer advocacy, creation of and funding for medical homes, and launching of the Patient Centered Outcomes Research Institute (PCORI).

Approach Used: Bardach's (2011) eight-fold path of policy analysis is used to translate patient activation at the individual level to the policy arena or government level. Bardach's policy analysis method starts with defining the policy problem, which sets the stage for subsequent steps of assembling evidence, identifying alternatives, selecting criteria, projecting outcomes, confronting tradeoffs, deciding, and telling the story. Based on this analysis, one can identify important nursing research questions that link practice, research, education, and health policy.

Conclusions and Links to Nursing Research: Despite the PPACA and other government initiatives that could enhance patient activation, gaps persist in the identification of best practices for translating evidence on patient activation to the policy arena. Nurse researchers can fill these gaps by studying the perspectives of various types of policy stakeholders, such as lawmakers, representatives from advocacy groups, and providers, regarding public policies needed to ensure that patients are engaged in their own care. Nurses can also research the impact of different models of care on patient activation across different populations, especially racial and ethnic minorities. How might we sustain patient activation as the patient moves across different types of delivery settings? And, how might we best frame and define patient activation for policymakers such that it resonates with the policy problems that they deal with daily? Finally, nurses can explore the correlation between patient activation and nurse retention in hospital and other settings.

Home ◀ ▶ go to PG.

PEDIATRICS IN VARIOUS SETTINGS

PARENT PERSPECTIVES ON APPOINTMENT NONATTENDANCE IN AMBULATORY SPECIALTY CLINICS

Jacqueline Touch, Jill P. Berg

ACCULTURATION AND ASIAN AMERICAN IMMIGRANT YOUTH MENTAL HEALTH DISPARITY

JaHun Kim

INFLUENCE OF THE WORK ENVIRONMENT ON PICU PATIENT OUTCOMES AND NURSES' INTENT TO LEAVE

Nancy T. Blake, Eileen Fry-Bowers

A PILOT TO DECREASE 72-HOUR RETURN VISITS IN ONE PEDIATRIC EMERGENCY DEPARTMENT

Anna-Michaela Black, Joanne Olsen

EVALUATION OF WEROCK: AN AFTERSCHOOL PHYSICAL ACTIVITY PROGRAM FOR STUDENTS

Elaine Rutkowski

SLEEP DISTURBANCE, PAIN, AND FATIGUE IN CHILDREN WITH JUVENILE IDIOPATHIC ARTHRITIS

Weichao Yuwen, Teresa M. Ward, Carol A. Landis,
Sarah Ringold, Carol A. Wallace

STANDARDIZED SCREENING FOR EARLY IDENTIFICATION OF MENTAL HEALTH ISSUES

Janice Baietto, Karen Skerrett, Mary Jo Clark, Kathleen Sweeney

Home ◀ ▶ go to PG.

AVAILABILITY OF HEALTHY SNACKS IN STORES NEAR URBAN & RURAL ELEMENTARY/MIDDLE SCHOOLS

Nancy E. Findholt, Betty T. Izumi

BEST PRACTICE FOR SCHOOL NURSES TEACHING HUMAN SEXUALITY EDUCATION

Denise A. Hay-Roe, Audrey Russell-Kibble

VITAMIN D DEFICIENCY AND PEDIATRIC RESPIRATORY INFECTIONS

Allie Larkin, Jane Lassetter

SCHOOL-AGE CHILDREN'S PERCEPTIONS OF STRESS IN THE HOSPITAL: A DRAW AND TELL STORY

Susan M. Wechter

REGISTERED NURSES RATE HIGHEST IN IMMUNIZATION PRACTICE KNOWLEDGE!

Pamela Strohfus

ORAL HEALTH IN CHILDREN WITH DEVELOPMENTAL DISABILITIES: AN INTEGRATIVE REVIEW

Ching-Feng Chang

METERED DOSE INHALERS VERSUS NEBULIZERS FOR THE MANAGEMENT OF ASTHMA IN CHILDREN

Lei-Lani White, Diana Jacobson

THE ESTABLISHMENT OF A NURSE-RUN VACCINE CLINIC: A COMMUNITY-ACADEMIC PARTNERSHIP

Michelle Dang, Melissa Binger, Elizabeth Miller

EVALUATION OF A CULTURALLY APPROPRIATE EDUCATION INTERVENTION FOR CHILD HEALTH DISPARITIES

Amanda Thompson, Kimberly LaBronte

HEALTH BEHAVIORS IN CHILDHOOD CANCER SURVIVORS AT RISK FOR DECREASED BONE DENSITY

Jane Kass-Wolff, Sarah Schmiege

INCREASING VACCINE SCIENCE KNOWLEDGE TO DECREASE VACCINE SAFETY CONCERNS

Karen E. Caines

THE ASSOCIATION BETWEEN SLEEP AND BODY WEIGHT CHANGES FROM BIRTH TO 3 YEARS

Shih-Chi Chung, Shih-Ming Chu, Yu-Shu Huang

FEASIBILITY OF A MOTIVATION-BASED INTERVENTION TO ENHANCE SLEEP IN YOUTH

Martha J. Lentz, Teresa M. Ward, Mayumi Willgerodt, Gail M. Kieckhefer

EXAMINING THE EFFECTIVENESS OF THE CLASSROOM PORTION OF THE 5-2-1-0 PROGRAM

Rana Halabi Najjar, Angie Docherty, Lanoi Akita,
Nichole Bergstrom, Elizabeth Larson, Amy Seitzinger

Home

go to PG.

Parent Perspectives on Appointment Nonattendance in Ambulatory Specialty Clinics

Jacqueline Touch, MSN, RN
High Risk Infant Coordinator
Early Developmental Assessment Center
CHOC Children's
Orange, CA

Jill P. Berg, PhD, RN
Associate Professor
Program in Nursing Science
University of California, Irvine
Irvine, CA

Appointment nonattendance is a worldwide phenomenon that has been studied in a variety of settings. There are social and financial costs associated with appointment nonattendance, and high nonattendance rates are not always fully ameliorated with strategies such as overbooking. Increased nonattendance rates may result in lost productivity, patient and provider dissatisfaction, and difficulty recruiting staff and physicians. In addition, needed patient care may be delayed. Little is known about parental perspectives related to appointment nonattendance for children under age 5 in specialty care clinics. The purpose of this study is to examine parental perspectives regarding appointment nonattendance in pediatric specialty care clinics in order to better understand the facilitators and barriers to successful appointment attendance. A convenience sample of 25 parents of children attending CHOC Children's specialty care clinic appointments will be interviewed regarding their perspectives related to appointment attendance. Results of this qualitative descriptive study with themes identified using content analysis will be presented. Interviews conducted in the parent's native language (English or Spanish) as well as demographic information will be obtained including age of child, clinic appointment history, ethnicity, primary language, payor source, and zip code. Preliminary quantitative information on appointment attendance in the specialty clinics over a one-month period revealed an average nonattendance rate of 11.4%, with rates as high as 50% in some clinics. It is anticipated that the information obtained will be beneficial in evaluating ways to increase attendance and remove barriers interfering with follow-up care.

Funding: This project is funded by a grant from the Walden and Jean Young Shaw Foundation.

Home

◀ ▶ go to PG.

PEDIATRICS IN VARIOUS SETTINGS

Acculturation and Asian American Immigrant Youth Mental Health Disparity

JaHun Kim, PhD
Clinical Assistant Professor
Psychosocial and Community Health
School of Nursing
University of Washington
Seattle, WA

Purpose/Aims: The overarching purpose of this systematic review is to understand acculturation related factors, which potentially impact on Asian American (AA) youth mental health disparities, such as depression and substance use, guided by acculturative stress theory and minority youth development theory. The goals are to indentify protective and risk factors of AA youth mental health including individual, family, and community level and to understand how these factors are inter-correlated and process to produce mental health problems.

Conceptual Model: The conceptual underpinnings for this review derive from the acculturative stress theory and an integrative model of minority youth development. The two models propose that acculturation implies stressors in individual, family, and community level, by exposure to new cultural values, language barriers, and discrimination that many result in youth depression and substance use. This approach highlights how multiple levels of acculturation related protective and risk factors play role to produce healthy adaptation and to contribute to depression and substance use.

Methods: Literature search has been conducted using Medline, PsychINFO, and CINAHL, and the gray literature (1990-June 2012). Searching keywords includes: “AA adolescent depression” or “AA adolescent substance use” combined with acculturation. Inclusion criteria were (1) youth aged 11 to 18 years, (2) including AA adolescents as a main participants, (3) measured emotional outcomes and/or tobacco and alcohol use, (4) included concept of acculturation related factors, such as acculturation level, acculturation gap, and acculturation stress, and (5) articles written in English.

Results: Total 84 articles were identified from the initial search. After reviewing abstracts, 30 articles were considered for the full-text review. Factors related to AA adolescent depression and substance use include: acculturation level, acculturation gap, family dissonance, and parent-adolescent relationship. Acculturation level remains unclear whether or not it is linked to increased risk for depression, but is linked to substance use. Acculturation gap is reported as a significant risk factor for adolescent depression. Particularly, acculturation is associated with family dissonance, which also predict parent-adolescent conflict. High family dissonance and parent-adolescent conflict are linked to high level of depression and substance use. Parental warmth and parent-adolescent connectedness play key role of protection against depression and substance use, even if risk factors exist. However, rarely do studies examine school related acculturation factors that are conceptualized in the model. In order to fully understand AA youth adaptation in the new country and their mental health problems, it is necessary to include school related factors as well as family and individual factors.

Implication: This review serves groundwork for a new research project. By focusing on acculturative risk and protective factors of AA adolescent mental health, this review increase the understanding of mental health disparities observed in this populations. Such knowledge greatly improves understanding of complexities of related factors amenable to intervention.

Home ◀ ▶ go to PG.

PEDIATRICS IN VARIOUS SETTINGS

Influence of the Work Environment on PICU Patient Outcomes and Nurses' Intent to Leave

Nancy T. Blake, PhD, RN, CCRN, NEA-BC
Nursing Director, Patient Care Services
Children's Hospital Los Angeles
Los Angeles, CA

Eileen Fry-Bowers, PhD, JD, RN
Associate Professor, School of Nursing
Loma Linda University
Loma Linda, CA

Purpose/Research Questions/Aims: The purpose of this research study was to determine the relationship between healthy work environments, patient outcomes and nurse turnover in the PICU, specifically around effective communication, true collaboration and authentic leadership and patient mortality, patient length of stay, central line infections, ventilator associated pneumonia and nurse turnover in the pediatric intensive care unit. This type of study has never been done in the pediatric intensive care unit (PICU) environment.

Rationale/Background Information/Conceptual Framework: Medical errors cost the United States over $50 billion annually. Researchers have found that there is a relationship between the nurses' work environments and medical errors. Three of the variables that impact the work environments are communication, collaboration and leadership. The Joint Commission stated that communication failures are the leading cause of harm to patients in hospitals today. With an estimated shortage of 400,000 nurses identified in the year 2020, nurse leaders need to be creative and do what they can to improve the work environment. Using Donabedian's model of Structure, Process and Outcomes as the conceptual framework, the researcher will determine the relationship between the nurses' work environment and patient outcomes and nurse outcomes.

Methods: The study design was descriptive cross-sectional. Nurses from ten PICUs completed the Practice Environment Scale of the Nursing Work Index (PES-NWI), which is a 31 items instrument used the measure the practice environment, nurse outcomes and patient outcomes. Participants also completed the Communication section of the ICU Nurse-Physician Questionnaire and a demographic questionnaire. In addition to the nurses completing the questionnaires, data was obtained from the hospitals regarding nurse turnover, central line infections, ventilator associated pneumonia, risk adjusted length of stay and risk adjusted mortality. A minimum of 415 nurses from ten PICUs completed the survey. Statistical analysis was done using SPSS 17.0. Pearson R was used to examine the relationships of healthy work environments and the outcome measures. A correlation matrix was done to show a relationship between variables. Statistical tests run included multiple regression, t-tests (two-tailed) and one way analysis of variance (ANOVA). The significance level was set at .05 for this study.

Results: There was an inverse relationship ($p<.05$) between central line infections, risk adjusted length of stay and risk adjusted outcomes and communication. There was an inverse relationship ($p<.05$) between central line infections, risk adjusted length of stay and risk adjusted outcomes and collaboration. There was no association between communication, collaboration and leadership and ventilator associated pneumonia. There was a significant relationship ($p<.05$) between leadership and nurses intent to leave their jobs.

Conclusions and Implications: PICU patients are a vulnerable population. Nurse leaders need to use research-based interventions to improve the work environments. A better understanding of the relationship between communication, collaboration and the extent that nurse leadership contributes to a healthy work environment and quality patient outcomes will add to the research demonstrating the importance of nurses and excellent nursing care on patient outcomes.

Home ◀ ▶ go to PG.

A Pilot to Decrease 72-Hour Return Visits in One Pediatric Emergency Department

Anna-Michaela Black, BSN, RN
Staff Nurse IV Emergency Department
Pediatric Emergency Department
Stanford Hospital and Clinics
Stanford, CA

Joanne Olsen, PhD, RN, CPHQ, CPSO
Director, Transdisciplinary Research
Stanford Hospital and Clinics
Stanford, CA

Aim: The aim of this evidence-based practice (EBP) project was to explore if standardizing discharge instruction delivery (SDID) through *cueing* on critical elements of the discharge instructions would prevent return pediatric visits to the emergency department within 72 hours of discharge. The active ingredient of the intervention was provider training in SDID and the use of yellow highlighter during the discharge instructions to call parent/patient attention to the critical elements of the discharge teaching and parent/patient repeat back of key discharge instructions.

Background: Pediatric patients and their parents may be in a state of anxiety when receiving discharge instructions which results in interference in listening and cognitively storing follow-up care information for recall. Patients and parents may receive inconsistent information and information delivery related to their discharge follow-up care and treatment. There is a lack of a uniform approach in providing discharge instructions. The stress of the environment, diagnosis and the lack of consistent approach in discharge teaching may leave the patients and their families with difficulty managing and adhering to the discharge treatment plan. In the academic medical center of this EBP project site, there was no method in place to consistently deliver and assess parent and/or patient comprehension of discharge instructions.

Methods: A review of the literature was conducted on delivery of discharge instructions to emergency department parents and patients. A standardized method of discharge instruction delivery for nurses was developed using visual and auditory cueing techniques. A 2-hour in-service was provided to 4 pediatric staff nurses to explore learning styles and to learn the SDID methodology. In addition, 10-min one-on-one training sessions were provided to 5 Call Back Nurses (CBRN) who would be post-discharge data collectors. Pre-intervention readmission rates were collected. Post intervention at discharge nurses self-reported the following data: perception of patient length of stay, time spent teaching during visit, length of discharge process, use of interpreter services, parent and nurse satisfaction with discharge process, and parents' recall of discharge diagnosis and 3 signs and symptoms for emergent return. CBRNs made 48-96 hour post discharge phone calls asking the same questions regarding the discharge diagnosis and emergent follow-up care. Data collection was over a 5-week period.

Results: 1145 pediatric patients 21-years and younger were eligible for study inclusion. Of these, 108 were discharged using the new guidelines and 55 (51%) of these received follow-up phone calls. From nurses' self-report data, the new SDID extended the ED teaching on average 5 minutes. The majority of parents contacted recalled 3 emergent signs and symptoms and discharge diagnosis. The average 72-hour return rate for the SDID group was 41% lower than usual care. There was an increase in use of interpreter services.

Conclusion: During the 5 week study period, the 72-hour return rates for parents and patients that received SDID had a reduction in return rates. Research is needed to tease out the active ingredients of the intervention: what works and under what conditions.

Key Words: Pediatric discharge instructions, patient education, queuing, follow-up phone calls, standardized approach.

Evaluation of WeROCK: An Afterschool Physical Activity Program for Students

Elaine Rutkowski, PhD, RN, CNS
Assistant Professor
School of Nursing
California State University, Fullerton
Fullerton, CA

Purpose/Aims: The *purpose* of this project is to initiate and evaluate a community-based after-school program for middle school students. The planned intervention is a structured, non-competitive, physical activity program (WeROCK) that meets the minimum CDC levels and duration recommended for adolescent daily physical activity (CDC, 2010). This program provides an option for adolescents who may not meet private athletic club team performance levels or do not have the financial resources to join such teams. In addition, this region is substantially underserved as a result of the current school district policies for middle schools in that they do not provide students with after school activities or sports teams. The overall aim is to provide healthcare professionals with longitudinal data that will help to evaluate the health benefits of an after-school physical activity intervention.

Rationale: Research indicates today's lifestyle choices have produced a reduction in physical activity especially during the adolescent years. It is highly unlikely that today's modern conveniences, technological advancements, or use of electronic "hobbies" will give way to "old fashioned" lifestyles. As a result, families are finding it necessary to make conscious efforts to balance sedentary activities with planned or scheduled effective levels of physical activity. The American Academy of Pediatrics (AAP) recommends enjoyable activities that involve family members and friends, to participate in skill development, tactic and strategy activities, and complex sports including track and field, football, basketball, ice hockey (Council on Sports Medicine , AAP, 2006), however evidence is lacking regarding the most effective means to achieve daily physical activity in adolescents and has been identified as a gap in the literature.

Methods: This longitudinal study will use a quasi-experimental design with mixed methods to evaluate variables of self-efficacy; obesity risk knowledge; quality of life; screen time/type; academic attendance/performance; family lifestyle impact; injuries due to program activities.

Results: Data will be collected by self-report, school attendance records, physician office visits and focus groups at pre-determined intervals over eighteen months. Data analysis will include: descriptive statistics, including means, ranges and standard deviations will be calculated for all items of the survey measures. Bivariate (chi-square, t-tests) and regression analyses will be used to examine relations between variables. Generalized Linear Modeling procedures will be used to examine change over time. The qualitative data including focus groups and individual interviews will be used to systematically identify categories and themes.

Implications: Evaluate the effectiveness of a program based on organized activities that may contribute to mediating the national health crises of childhood obesity and to contribute to the healthcare literature across all disciplines regarding after-school physical activities for children that include varied distances of long distance running. The results of the project will potentially shape future evidence-based recommendations for sustainable programs to promote healthy lifestyles for middle school students.

Home

◀ ▶ go to PG.

Sleep Disturbance, Pain, and Fatigue in Children with Juvenile Idiopathic Arthritis

Weichao Yuwen, BSN, RN
Predoctoral Student
University of Washington
Seattle, WA

Teresa M. Ward, RN, PhD
Assistant Professor
Family & Child Nursing
University of Washington
Seattle, WA

Carol A. Landis, DNSc, RN, FAAN
Professor
Biobehavioral Nursing & Health Systems
University of Washington
Seattle, WA

Sarah Ringold, MD
Assistant Professor
Division of Rheumatology
Seattle Children's Hospital
Seattle, WA

Carol A. Wallace, MD
Professor
Chair, Rheumatology
Seattle Children's Hospital
Seattle, WA

Purpose and Background: In our previous study, we found sleep disordered breathing in children with juvenile idiopathic arthritis (JIA). The purpose of the study was to describe and compare sleep patterns by parent-report and actigraphy, and its relation to symptoms of pain and fatigue in children aged 6-11 years with active and inactive JIA.
Methods: Seventy children 6-to-11 years of age (mean 8.5 ±1.9 years) with JIA (64 girls) participated. Each child wore an actigraph and completed a daily symptom diary for one week. Parents completed the Children's Sleep Habits Questionnaire (CSHQ). Children rated fatigue intensity on the Child Fatigue Scale in the evening. Children rated number of joint count and pain intensity in the morning and evening. Actigraphy measures included: 1) total sleep time (TST), 2) sleep start; 3) sleep end; 4) amount of wake after sleep onset (WASO); and 5) sleep efficiency (SE).
Results: Parent-report and actigraphy sleep did not differ between children with active and inactive JIA. Forty-nine children (74.2%) had a significant clinical cut-off score >41 on CSHQ, indicative of sleep disturbance. Children with sleep disturbance had significantly higher morning pain ($p=0.025$). Fatigue frequency was associated with TST ($p<0.05$), WASO ($p<0.05$), and wake time ($p<0.05$). Fatigue intensity was associated with WASO ($p<0.05$) and morning number of joint count ($p<0.05$).
Conclusions and Implications: In the sample of children with JIA, sleep patterns by parent-report and actigraphy did not differ by disease condition. Fatigue and pain may be important predictors of sleep. This study highlights the importance of evaluating sleep patterns in relation to symptoms of fatigue and pain among children with JIA.

Funding: Supported by NINR, R01 NR012734, RO1 NR008136, P30 NR04001.

Home ◀ ▶ go to PG.

PEDIATRICS IN VARIOUS SETTINGS

Standardized Screening for Early Identification of Mental Health Issues

Janice Baietto, MSN, CPNP
Pediatric Nurse Practitioner
MidCity Community Clinic
San Diego, CA

Karen Skerrett, PhD
Professor
University of San Diego
San Diego, CA

Mary Jo Clark, PHD
Professor
University of San Diego
San Diego, CA

Kathleen Sweeney, DNP
Professor
University of San Diego
San Diego, CA

Purpose/Aims: Improve early identification and treatment of mental health problems in children by implementing a standardized screening program. Increase the number of children screened at well-child exams, increase the number of referrals and appointments for further evaluation among children with abnormal screening results.

Rationale/Background: Mental health issues are a significant problem in the United States and worldwide. Nearly half of Americans meet the criteria for one or more mental health disorders in a given year (Kessler & Wang, 2008). The cost of diagnosing and treating mental health issues is staggering, estimated to be over $315 billion (Insel, 2008). Twenty percent of children and adolescents have a mental health problem (Ginsberg & Foster, 2009). In 2008 and 2009, suicide had become the third leading cause of death among 10- to 14-year-old children (Kochanek, Kirmeyer, Martin, Strobino & Guyer, 2009). The majority of lifetime mental illness originates in childhood, as early as four years. Early intervention can prevent the worsening of mental health problems, thereby improving long-term outcomes (Simonian, 2006). Many children are not diagnosed, and the opportunity for early intervention and treatment is missed. The Early Periodic Screening Diagnosis and Treatment program requires that all children being served by Medicaid receive a mental health screening at their annual well-child exam. The American Academy of Pediatrics has also recommended annual screening for all children (Ginsberg & Foster, 2009). The use of a formal, validated screening tool triples the potential for accurate recognition of psychosocial problems in children (Simonian & Tarnowski, 2001). The current practice is an urban pediatric primary care clinic with a recently developed integrated mental health program. The population is low-socioeconomic and multicultural, primarily Hispanic. A medical records review indicated 70% of children had not been screened for mental health issues during their well exams. A screening program was implemented using the Pediatric Symptom Checklist-17, a widely used tool designed for primary care pediatric practice.

Outcomes Achieved/Documented: Preliminary results indicate that the screening rate increased to 85% in the first month of implementation. In 16% of the children significant scores for psychosocial concerns were obtained. Of those identified 16% were already under care. Of those children not receiving care, 85% received referrals for further evaluation. Among those children referred 72% made a mental health follow-up appointment within the primary care clinic and 91% kept their appointment. When completing the PSC-17, many parents revealed both current and past mental health problems of which the provider was unaware.

Conclusions: A standardized screening program is an effective method to identify and promote treatment of mental health problems in children. The integrated mental health system allowed many children to receive immediate follow-up and offered a convenient, nonthreatening opportunity for further care.

Home ◀ ▶ go to PG.

Availability of Healthy Snacks in Stores near Urban & Rural Elementary/Middle Schools

Nancy E. Findholt, PhD, RN
Associate Professor
Oregon Health & Science University
School of Nursing

Betty T. Izumi, PhD, MPH, RD
Assistant Professor
Portland State University
School of Community Health

Purpose: To compare availability of healthy snack foods and beverages in food stores located within walking distance of low-income urban, higher-income urban, and rural elementary and middle schools.

Background: In light of the childhood obesity epidemic, there is growing interest in neighborhood food environments near schools. Studies have shown that children frequently shop at food stores near their schools, often visiting these stores more than once per day to purchase snack foods and beverages. However, little is known about the type of snacks and beverages available in these stores, and no studies to our knowledge have investigated whether availability of healthy snack and beverage products varies by neighborhood socio-economic status or rural-urban location. Understanding the availability of healthy snack foods and beverages in stores near schools is a first step toward developing interventions to promote better snack choices.

Methods: Audits of food stores were conducted from August to October 2012. Stores were selected based on their proximity to elementary and middle schools (grades K-8) in three categories: low-income urban, higher-income urban, and rural. The urban schools included those in the Portland (Oregon) School District. Low-income and higher-income schools were characterized by $\geq$ 50% and < 50% of students eligible to receive free or reduced fee meals, respectively. The rural schools were located in two counties in northeast Oregon. The schools were mapped using GIS and a 0.5 mile buffer (radius) was added around each school. Any grocery store, supermarket, "corner store", or food mart with gas station that fell within the buffer was selected for the sample and was verified by "ground truthing". In total, 85 stores were assessed. Availability of healthy snack foods and beverages was measured using the *SNACZ* Food Store Checklist, which has demonstrated good inter-rater reliability. The checklist includes 7 beverages and 16 snack products that meet the Institute of Medicine standards for competitive foods in schools, as well as 26 fruits and vegetables. Availability of the products in both single portion and multi-portion sizes was assessed. Logistic regression was used to evaluate the relationship between percentage of each single portion product available and location effect (low-income urban, higher-income urban, and rural), and each multi-portion product available and location effect. In addition, a comparison analysis of the composite score (sum of all healthy items available) by location was conducted using the ANOVA/Kruskal-Wallis test.

Results: This poster will present the results from the statistical analyses.

Implications: Stores located near schools are an important source of snacks for children. Understanding the availability of healthy snack products in these stores and how availability varies by socio-economic and geographic location can inform policies to improve this food environment and reduce disparities.

Funding: This research was funded by the Betty Gray Rural Health Development Fund at Oregon Health & Science University School of Nursing.

Best Practice for School Nurses Teaching Human Sexuality Education

Denise A. Hay-Roe
BS Nursing Honors Student
The University of Arizona
College of Nursing
Tucson, AZ

Audrey Russell-Kibble, DNP, FNP-C
Clinical Assistant Professor
Director of Clinical Practice Innovations
The University of Arizona
College of Nursing
Tucson, AZ

Purpose: The purpose of this poster is to present a best practice model for school nurses teaching human sexuality to high school students in Arizona, as a means for decreasing the number of unintended pregnancies.

Background: Human sexuality education in Arizona is currently addressed at the discretion of individual school districts. When schools elect to teach human sexuality education, in the state of Arizona, it is mandated by the Arizona Department of Education that it be age appropriate, and include information about human immunodeficiency virus (HIV) and sexually transmitted infections (STIs). The human sexuality education may be either 1) abstinence-only-until-marriage or 2) comprehensive. Despite evidence that abstinence-based education is not effective in preventing teen pregnancy or delaying the first act of sexual intercourse by teens, most Arizona schools only teach abstinence-based programs that are frequently medically inaccurate. Few classroom teachers are at liberty to deliver comprehensive human sexuality education. School nurses have expertise in this area, and yet there is no requirement that they be involved in the development or delivery of human sexuality education.

Brief Description of Approach to Best Practice: Review of the literature of CINAHL and Medline was conducted using the keywords teen pregnancy, sex education, human sexuality education and school nurses. An interview of a nurse with expertise in pregnancy prevention among teens, review of the sex education curriculum used by a local school district and participant observation with a high school nurse were documented as field notes.

Outcomes: The project culminated in a proposal for a best practice model for delivering comprehensive human sexuality education coordinated by school nurses. School nurses are key resources for students, parents and teachers in this area. The key components of the model are 1) the school nurse is at the center of teaching and providing information about human sexuality and growth and development 2) parents are encouraged to discuss sexuality with their children at home and may look to the school nurse for support 3) the nurse ensures that the information is medically sound, accurate, evidence based 4) the curriculum is comprehensive and not limited to abstinence based initiatives.

Conclusions: The proposed best practice model for school nurses teaching human sexuality education would improve the quality of the education, promote cooperation between schools and parents, and ensure that students receive sound, unbiased information in this highly important area of their lives.

Home ◀ ▶ go to PG.

Vitamin D Deficiency and Pediatric Respiratory Infections

Allie Larkin, RN, FNP-S
Master's Candidate
College of Nursing
Brigham Young University
Provo, UT

Jane Lassetter, PhD, RN
Associate Professor
College of Nursing
Brigham Young University
Provo, UT

Purposes/Aims: The purpose of this literature review is to examine the literature regarding vitamin D deficiency (VDD) and acute lower respiratory infection (ALRI) in children less than 5 years of age and make recommendations regarding the use of vitamin D to prevent ALRI.

Rationale/Conceptual Basis/Background: In the U.S., hospitalizations for respiratory syncytial virus (RSV) infections, a common cause of bronchiolitis, cost $500 million per year and a co-infection with pneumonia doubles the cost of hospitalization (Pelletier, Mansbach, & Camargo, 2006). Current treatment is mostly supportive. A vaccine to prevent RSV, Synagis, is only available to high-risk infants. Beyond this vaccine, prevention of ALRI is limited to hand washing and avoiding exposure. Recently, however, VDD in children has been associated with ALRI, including pneumonia and bronchiolitis.

Methods: The electronic databases MEDLINE, CINAHL, and the Cochrane Library were searched using the search terms vitamin D, 25-hydroxyvitamin D, child, maternal, infant, respiratory, infection, and pneumonia. Only English articles evaluating the relationship between vitamin D and ALRI in children age 0 to 5 years old were included. Studies were excluded if they included children over 5 years old or adults or focused on asthma. By electronic search, 53 articles were identified. Based on the criteria, 41 articles were eliminated and 12 articles remained. Reviewing the references of these 12 articles yielded 4 additional qualifying articles. In total, 16 articles were identified and included in the review. Internal validity of the articles was independently reviewed and scored using the U.S. Preventive Services Task Force grading criteria. The two reviewers discussed any differences and came to consensus.

Results: Two studies found an association between ALRI and rickets, which is caused by deficiencies of vitamin D and calcium. Other studies conflicted on whether serum vitamin D concentrations were associated with ALRI and the association between vitamin D levels and severity of ALRI. However, two studies found VDD weakens the immune systems of children with ALRI and providing vitamin D supplementation during ALRI was associated with fewer repeat ALRI episodes compared to children who did not have vitamin D supplementation.

Discussion: Comparing the results of these articles was difficult because they varied in unit of measurement for vitamin D levels and their definition of VDD. A majority of the studies found an association between low vitamin D levels and ALRI in children under 5 years old. More high-quality RCTs investigating vitamin D supplementation for children under 5 years are needed.

Implications: Evidence suggests VDD may put young children at risk for ALRI. Maintaining or improving a child's level of vitamin D through increased dietary intake, increased vitamin D fortification, and/or vitamin D supplementation may be protective against ALRI. Vitamin D supplementation is a low-cost, low-risk intervention providers should consider for infants and young children, especially those at high-risk for ALRI.

Reference:

Pelletier, A. J., Mansbach, J. M., & Camargo, C. A. (2006). Direct medical costs of bronchiolitis hospitalizations in the United States. *Pediatrics, 118*(6), 2418-2423.

Home ◀ ▶ go to PG.

School-Age Children’s Perceptions of Stress in the Hospital: A Draw and Tell Story

Susan M. Wechter, PhDc, RN, PPCNP-BC
Doctoral Candidate
University of New Mexico
Albuquerque, NM

Purpose: The purpose of this study is to explore the perceptions of stress for the acutely ill, hospitalized school-age child, age 7-9 years, through a child-centered draw and tell technique.

Background/Conceptual Basis: Over 3 million children are hospitalized every year and 42% of these children are 6 years of age and older (National Association of Children’s Hospitals and Related Institutions, 2012). Hospitalization of children has become reserved for increasingly complex care where acute hospital stays in specialized children’s hospitals, account for more than 40% of all inpatient stays and produce $10 billion of annual hospital costs for children (NACHRI). Since the 1960’s, it has been well-known that hospitalization can be an extremely traumatic and stressful experience for children (King & Ziegler, 1981; Thompson, 1986; Vernon, Foley, Simpowicz, & Schulman, 1965; Visintainer & Wolfer, 1975). The experience of hospitalization elicits feelings of fear, uncertainty, insecurity, pain and discomfort that can affect a child’s healing, behavior and health outcomes (Hopia, Tomlinson, Paavilainen, Paivi, 2004). Although the psychosocial impact of hospitalization on school-aged children is evident, it has not been remedied, and not fully explored from a child’s perspective. The problem has received little research effort in the past five years. Given the current complex technological nature of hospital environments, and the unresolved stressful, psychosocial impact that hospitalization has on children, it is critical to resume the study of children in a hospital setting. Kolcaba’s (2003) modified theory of comfort is the conceptual base utilized to frame this study.

Methods: Data is collected through a child-centered ‘draw and tell’ technique (Driessnack, 2006) to elicit the child’s views of their hospitalization experience. An interpreted child drawing is recognized as a powerful communication tool that promotes rapport building, emotional expression and empowerment of the child research participant (Driessnack, 2011; Ehrlen, 2009; Ring 2006; Wright, 2007). Interpretive description framework is applied (Thorne, 2008) to explore the child’s subjective experience of stress in the hospital. Exploring the meaning of stress for the acutely ill child will uncover themes and patterns of meaning interpreted from a child’s viewpoint.

Results: The results of this study will be interpreted themes regarding acutely ill children’s perceptions of stress during hospitalization. An interpretive description of stress through a child’s voice will systematically harvest shared and patterned experiential knowledge to be utilized in sensitizing and informing health care providers of the meaning of stress for the hospitalized child.

Implications: Discovering the meaning of stress for the acutely-ill hospitalized child will launch a research trajectory addressing the remedies of the psychosocial trauma for this population. Targeted strategies for comforting interventions that alleviate this perceived stress for the child can lead to improved healing, decreased length of hospital stay, and empowerment of families for improved child health.

Home ◀ ▶ go to PG.

Registered Nurses Rate Highest in Immunization Practice Knowledge!

Pamela Strohfus, MA, DNP, RN, CNE
Coordinator of Doctor of Nursing Program, Assistant Professor
School of Nursing, Boise State University
Boise, Idaho
pamstrohfus@boisestate.edu

Purposes/Aims: The purpose of the immunization program was to provide evidence-based immunization education to health care personnel in 30 medical offices in order to raise immunization rates.

Rationale/Conceptual Basis/Background: In 3 of the last 4 years, Idaho has been 50th in the nation in immunization coverage (Centers for Disease Control and Prevention [CDC], 2011). Only 57% of 19 month to 35 month old children are protected from preventable illness. Numerous factors contribute to low coverage rates including a lack of knowledge of vaccine protocols and inefficient immunization practices. Kotter's (1996) model of transformational change was used to address educational deficiencies and standardize medical office (MO) procedures/protocols in order to reduce errors and more fully immunize children.

Methods: Education was provided to 178 health care personnel in 30 medical offices on vaccine administration and storage, use of standardized protocols and Immunization Registry Information System (IRIS) appointment system. Physicians, nurse practitioners (NPs), registered nurses (RNs), licensed practical nurses (LPNs), medical assistants (MAs) and office managers/pharmacists/pharmacy technicians (Other) participated. Immunization practice knowledge and medical office immunization rates were measured pre and post intervention and compared for change over time.

Results: The findings revealed RNs rated the highest in immunization practice knowledge averaging 86% pre and post testing. Immunization rates increased over 200% in the combined medical offices and knowledge level of health care personnel with minimal formal education and in family practice medical offices increased over 25 %.

Implications: The results of the comprehensive immunization education program demonstrates the need to provide education and training to medical offices with low office immunization rates and ultimately, protect local communities from preventable diseases through immunization.

This program validated two important points, one, providing evidence based education in vaccine storage and administration to medical office personnel increases knowledge, and two, RNs were the most qualified to manage, supervise, and administer vaccines in medical offices.

Funding: Regence Foundation and Jeker Trust Fund.

References:

Centers for Disease Control and Prevention (CDC). (2012). Department of Health and Human Services. Retrieved September 10, 2012 from: www.cdc.gov.

Colorado Health Institute (2005). Colorado childhood immunization rates: Policy and practice. Retrieved from http://www.coloradohealthinstitute.org/resourcePublications/ppublications.aspx?order=1.

Gardner, P., Pickering, L. K., Orenstein, W. A., Gershon, A. A., & Nichol, K. L. (2002). Guidelines for quality standards for immunization. *Clinical Infectious Diseases*, *35*, 503-511.

Kotter, J.P. (1996). *Leading Change*. Harvard Business School Press.

Mell, L.K., Ogren, D.S., Davis, R.L., Mullooly, F.P., Black, S.B., Shinefield, H.R., et al.
(2005). Compliance with national immunization guidelines for children younger than 2 years, *Pediatrics*, *115*(2), 461-467.

Mistien, J., Kargoglu, U., Zaffran, M. (2012) Thermostability of Vaccines. *Immunization, Vaccines, and Biologicals*. WHO/GPV/98.07. 1-73.

Pigott, N., Novelli, V., Pooboni, S., Firmin R., & Goldman A. (2002). The importance of herd immunity against infection. The Lancet (British edition), 360(9333), 645.

Taylor, J. A., Rietberg, K., Greenfield, L., Bibus, D., Yasuda, E. K., Marcuse, & Duchin, J. S. (2008). Effectiveness of a physician peer educator in improving the quality of immunization services for young children in primary care practices. *Vaccine,* , 42-56.

Home ◀ ▶ go to PG.

PEDIATRICS IN VARIOUS SETTINGS

Oral Health in Children with Developmental Disabilities: An Integrative Review

Ching-Feng Chang, RN, MSN
Doctoral Student
School of Nursing
University of Washington
Seattle, WA

Aims: Despite "Healthy People 2020" has made dental caries in early childhood a new topic; Children with special health care needs are at greater risk for poorer oral health than children in the general population. To date no study has analyzed oral health related concepts in children with developmental disabilities. The aims of this integrative review were: to identify concepts of oral health relevant for children with developmental disabilities, to identify factors related to oral health, and to identify scientific and practice-based research gaps. Methods: U.S. and international publications in PubMed, PsycINFO and CINAHL from 1990 to 2012 were searched. Combinations of the following search terms were used to identify relevant articles: dental caries, early childhood caries, infant/children/preschool, oral health, concepts, and factors. Based on selection criteria of research articles, including children with disabilities, children aged under six, oral health, factors, peer-review articles, and so on, eligible articles were selected for further synthesis.

Results: Through U.S. and international research reveal oral health belief, oral health related behaviors, oral health related quality of life, and social determinants as important concepts of oral health for children with developmental disabilities in general. The child (e.g., age, gender, birth order, race/ethnicity, type of disability, oral hygiene status), parent (e.g., age, indigenous status), family (e.g., income) and environmental (e.g., insurance, type of residency, fluoridated water) factors were found related to oral health outcomes. Further, limited research was found and no study presents with its conceptual model. Some studies aimed to measure the prevalence of the infectious disease, and others focused on the occurrence of oral injuries, dental admission or unmet dental care needs. Most studies applied oral examination to assess oral health status, and others used the caregiver self-report surveys. The lack of appropriate indicators for assessing oral health was also found. Previous research was limited by small samples and biases related to ascertainment and reporting. Existing studies report for various populations with disabilities, but it is difficult to generalize findings. Most Researchers concern caregivers' knowledge, attitude and behaviors of oral hygiene, dietary, and access to dental care.

Conclusion: Oral heath is a major overall health issue in children with developmental disabilities. Policy-level priorities for research are needed to understand and promote children's oral health and oral health related quality of life. Additional qualitative research is needed to understand concepts relevant to oral health. Clinical applications should focus on eliminating risk factors and prevention education targeting caregivers.

PEDIATRICS IN VARIOUS SETTINGS

Metered Dose Inhalers versus Nebulizers for the Management of Asthma in Children

Lei-Lani White, MSN, RN, CPNP-PC
Doctor of Nursing Practice Student
Arizona State University
Phoenix, AZ

Diana Jacobson, PhD, RN, PNP-BC, PMHS
Assistant Professor
Arizona State University
Phoenix, AZ

Purposes/Aims: The purpose of this Doctor of Nursing Practice project is to improve the management of asthma in 4 to 17 year old children by educating health care providers practicing at an urgent care center about the evidence-based use of metered dose inhalers (MDIs) with spacers for the administration of short acting beta agonist (SABA) medications during asthma exacerbations. This project will demonstrate competency in implementation of an evidence based project (EBP) to help improve asthma management and improve health outcomes.

Rationale/Background: Asthma is the most common chronic childhood illness. In 2009, approximately 7.1 million children were diagnosed with asthma. The total estimated cost of asthma to society, including medical expenses is $50.1 billion per year. Incorporation of management strategies based on clinical guidelines for the treatment of asthma remains below the targets set by the Healthy People 2010 initiative. One strategy to improve health outcomes for children with asthma is to increase knowledge among health care providers, parents/caregivers, and children. Education for patients, families, and health care providers improves health outcomes and is known to improve patients' adherence to therapy by overcoming deficits in knowledge and improves problem solving techniques. The goal of asthma education is to help reduce the impact of asthma on related morbidity, functional ability, and quality of life.

Brief Description of Methods/Best Practices Used: Randomized controlled trials and systematic reviews demonstrate that metered dose inhalers (MDIs) with spacers are better or just as effective as nebulizers for the administration of SABA medications in improving symptoms during asthma exacerbation. Research also suggests that many children are not using their MDI's and spacers properly. The use of MDI's with spacers is recommended for use in acute exacerbations because it does not increase the heart rate as much as the nebulizer and it decreases the length of stay in the emergency room and urgent care setting. They are also preferred by parents because this technique for medication delivery is faster, portable, and easier to use than with nebulizers. The Promoting Action on Research Implementation in Health Services (PARIHS) framework will help guide the evidence based project.

Outcomes: After an educational seminar is delivered outcome measures for the health care providers will be evaluated through chart reviews to assess a change in practice. Questionnaires will evaluate health care provider knowledge and intent to change practice. Outcome measures for the patients and parents will be conducted through telephone surveys. The surveys will assess asthma control, adherence to treatment, and the effectiveness of the health care providers' asthma plan.

Conclusions: Increasing awareness of best evidence for the management of asthma is important to improve asthma health outcomes in children. It is important to focus on and develop alternative asthma management strategies that are cost effective to decrease economic burden. Improving asthma management by health care providers increase patient and parent/legal guardian knowledge, adherence to treatment plan, and improve quality of life. Asthma education allows the patient to control their symptoms and prevents asthma exacerbations.

PEDIATRICS IN VARIOUS SETTINGS

The Establishment of a Nurse-Run Vaccine Clinic: A Community-Academic Partnership

Michelle Dang, PhD, RN, APHN-BC
Assistant Professor, School of Nursing
California State University, Sacramento
Sacramento, CA

Melissa Binger, MPH
Manager
Wind Youth Services
Sacramento, CA

Elizabeth Miller, MD, MPH
Chief, Division of Adolescent Medicine
Children's Hospital of Pittsburgh
University of Pittsburgh Medical Center, PA

Immunization policies and access to vaccines have significantly contributed to a reduction in childhood morbidity and mortality from communicable diseases. The development of vaccines has been hailed as one of the top ten accomplishments in public health. Despite these achievements, children who live in poverty are less likely to complete the recommended immunizations, and, therefore, are more vulnerable to contracting preventable diseases. Disparities in immunization rates also exist among children of color who tend to have inadequate immunization coverage. In addition, recent closures of many public-funded clinics that provide free or low-cost vaccines as a result of the economic downturn compound the issue of vaccine access for uninsured or under-insured families.

The purpose of this project was to address disparities related to immunization rates among children of low socio-economic status by creating a nurse-run vaccine clinic through a community-academic partnership. A community partnership was created between a school of nursing, a community-based center, and a public health agency to determine the feasibility of a nurse-run free or very low-cost vaccine clinic. Through a partnership with the federal-funded Vaccine for Children's Program (VFC) and the California Immunization Registry (CAIR), the team established a free vaccine clinic at a drop-in community center for homeless and marginalized youth. The center was chosen because of its location in a low-resourced neighborhood and its established relationship with the school of nursing and ability to provide space for the clinic.

The project resulted in a sustainable nurse-run vaccine clinic that was housed in an accessible community center. The vaccine clinic was co-managed by a nursing faculty and a manager at the community agency. Students in the school's RN to BSN program ran the clinic as part of their community health experience. The projected permitted nursing students to provide a critical service to an underserved community while learning about population-based health. The clinic also allowed the students to gain access to underserved families whom they were able to refer to other community resources, assist with insurance applications, provide health education, and connect to a medical home. Since January 2011, the students have provided over 1,300 individual vaccines to children and adolescents. Parents who accessed the clinic reported that they were able to enroll their children in school sooner as a result of the clinic's accessibility and their ability to fulfill the necessary immunization requirements for school enrollment. The clinic also became an important resource for local schools as a result of a new law in California requiring Tdap boosters for adolescents. Outcomes of this project indicate that academic centers and community agencies can successfully collaborate and mutually benefit from such a partnership.

Home ◀ ▶ go to PG.

Evaluation of a Culturally Appropriate Education Intervention for Child Health Disparities

Amanda Thompson, RN, BSN
DNP Student
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ

Kimberly LaBronte, PhD, RN, NNP-BC
Specialty Tracks Coordinator
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ

Purpose: The purpose of this project is to implement and evaluate the effectiveness of a culturally appropriate intervention to increase access to health care for children in low and middle income countries (LMICs) utilizing an education program to train community health workers (CHWs).

Background: In LMICs, as Kenya, there is less than one professional healthcare provider per 10,000 people. To address this disparity, CHWs are non-professional members of a community that have been trained to provide basic healthcare services which can improve access to care and reduce childhood health disparities. Without access to adequate healthcare, children will continue to die at insurmountable rates in LMICs. Increasing access to healthcare through CHW programs has shown promising improvements in health disparities of children in LMICs. Sustainability of the effort requires transferring knowledge to community members that are left to care for the vulnerable children. Components of a sustainable CHW training program include evidence-based specific measurable learning objectives and evaluation criteria. Medical Mercy trains CHWs to deliver basic healthcare to LMIC children through a volunteer medical team (registered nurses, physicians, and lay people) from the USA during short-term missions.

Methods: A pre and post study design utilizing Johns Hopkins Nursing Evidence Based Practice (JHNEBP) framework will be used to obtain comparison data regarding educational outcomes of Kenyan CHWs delivering culturally appropriate and basic health care interventions to the children who live in rural Kenya. The CHW participants are age 18 through 55 years, can read and understand English, and have been chosen by Medical Mercy to participate in the CHW training. The CHWs attend one full day and five 30 minute didactic healthcare training sessions and five full days of hands on training during a live clinic precepted by a professional American health worker. Didactic knowledge tests will be given to the Kenyan CHWS by the project leader to collect pre, post, and six-month post intervention data. The CHWs clinical skills will be measured on the first and last day of clinic utilizing an observation tool. In addition, self-efficacy of the CHWs will be measured pre and post training.

Outcomes Achieved: Self-efficacy, knowledge retention of the CHWs via didactic and clinical assessments are the primary outcome measures. Secondary outcomes include qualitative evidence of improved child health as depicted by anecdotal information obtained from MM employees and the MM website, reduced costs to MM associated with reduced emergency room visits and specialist referrals for the sponsored children.

Conclusions: There is strong evidence to support increasing access to care for children in LMICs by implementing quality CHW training programs. Advanced Practice Nurses can adopt this program to train CHWs to improve child health outcomes through culturally appropriate basic health interventions in underserved populations in the United States or in LMICs.

Home ◀ ▶ go to PG.

Health Behaviors in Childhood Cancer Survivors at Risk for Decreased Bone Density

Jane Kass-Wolff, PhD, RN, FNP-BC
Assistant Professor
Division of Women, Children and Families
College of Nursing
University of Colorado
Anschutz Medical Campus
Aurora, CO

Sarah Schmiege, PhD
Assistant Professor
Department of Biostatistics and Informatics
University of Colorado
Anschutz Medical Campus
Aurora, CO

Aims: The purpose of this study was to assess current levels of modifiable health behaviors (calcium intake, vitamin D intake and physical activity levels) in relation to BMD of the hip and spine in CCS of acute lymphocytic leukemia who were 18 to 30 years of age compared to age- and sex- matched healthy controls.

Rationale: After-effects of cancer treatment in childhood cancer survivors (CCS) can significantly impact health with aging. Decreased bone density, osteoporosis and obesity are identified after-effects. Young adult survivors of childhood cancer have been shown to have reduced bone mass density (BMD) at an age when peak bone mass should have been attained. Modifiable health behaviors, such as calcium intake, vitamin D, and physical activity have been shown to deter the loss of bone with aging in healthy populations, although there is a lack of research looking at these variables in CCS.

Methods: Intake of calcium and vitamin D were determined using the Willett Food Frequency Questionnaire, physical activity using the Modifiable Physical Activity Scale and bone density with DEXA scans of hip and spine. A cross-sectional survey design with descriptive statistics, ANOVA, and correlation analyses were used.

Results: Participants were n=28 CCS and n=20 matched healthy controls. Mean age was 22.02 (SD = 2.4), 54.2% were female, and the majority Caucasian (78.7%). Average BMI was 25.90 (SD = 7.17), average milligrams of calcium consumed per day was 946 (SD = 642), average Vitamin D per day was 279 IU (SD = 260), and average minutes of physical activity per day was 47.71 (SD = 31.92). BMI was significantly higher in CCS than among the controls ($F(1,44) = 4.18$, $p < .05$). There was a significant interaction between survivor status and gender on physical activity ($F(1,44) = 5.84$, $p < .05$), where activity was highest among control males ($M = 70.10$) and lowest among CCS males ($M = 38.66$) but did not differ between female controls and CCS ($M = 38.91$ and 51.51, respectively). Calcium intake, Vitamin D, and bone density did not differ between CCS and controls. Calcium intake, Vitamin D, and physical activity were related to one another but not to bone density, although BMI was correlated with spine ($r = .52$, $p < .05$) and hip ($r = .43$, $p < .05$) bone density among healthy controls but not among CCS ($rs = .05$ and $.28$).

Implications: Recommendations to increase calcium and vitamin D intake in late adolescence and young adults were clinically supported. Providers need to be more sensitive to potential after-effects of CCS and bone health. Further implications will be discussed.

Home

◀ ▶ go to PG.

Increasing Vaccine Science Knowledge to Decrease Vaccine Safety Concerns

Karen E. Caines, PhD, ARNP
Assistant Professor
College of Nursing
Washington State University
Spokane, WA

Aims: The specific aims for this study are to establish the Teaching Immunization for Medical Education (TIME) curriculum as a method for increasing vaccine science knowledge in BSN nurses and to determine the fidelity and feasibility of BSN nurse-led conversations for decreasing vaccine safety concerns.

Background: Current outbreaks of vaccine-preventable diseases are explained more by an increase in vaccine delays and refusals than by a lack of access and/or cost. Ongoing research has established that vaccine delays and refusals are associated with parents' vaccine safety concerns. Readily accessible misinformation is competing with scientific evidence that is provided primarily by clinicians. To counter misinformation, nurses need to be facile in discussing the safety profile of vaccines and the risks of vaccine-preventable diseases, and to be able to place this information in the context of a specific child.

Methods: An observational research design is being used to test two tandem interventions with two samples. For the first intervention, a sample of BSN nursing students is being recruited from a senior cohort to test the extent to which the TIME curriculum increases vaccine knowledge in nurses. Pre-and post-tests are being administered to these participants to measure changes in vaccine science knowledge and immunization beliefs. For the second intervention, a sample of first-semester junior nursing students is being recruited as parent proxy participants. Participants in the nurse sample will lead conversations about vaccine safety concerns in response to scripted questions posed by the participants in the parent proxy sample. Pre-and post-tests are being administered to parent proxy participants to measure changes in vaccine safety concerns and intent to vaccinate. Paired t-test will be conducted to test the hypothesis for each aim by analyzing intragroup differences in pre and post knowledge and concerns in the samples.

Results: We expect that nurse participants will demonstrate an increase in vaccine science knowledge, and parent proxy participants will demonstrate a decrease in vaccine safety concerns. Our expected outcomes of this study are establishing the TIME curriculum as a valid tool for methodically increasing vaccine science knowledge in BSN nurses and demonstrating that nurse-led communication can effectively address vaccine safety concerns.

Implications: Current immunization curriculum for BSN nurses centers on knowing the current immunization schedule, the contraindications to receiving immunizations, the side effects, and how to report adverse events. The body of research on vaccine safety concerns argues that immunization curriculum should include the risks-benefits of vaccinating, not vaccinating, and delaying vaccinating. Best practices of immunization should shift to include critical appraisal of the science and risk-benefit communication. BSN nurses are on the frontline of immunizing and are positioned to be principal immunization resources along with primary care providers. Nurses can and should engage in ongoing vaccine conversations with parents and work with those who are considering delaying or refusing immunizations to help them make science-informed decisions. Clinician education across practice levels is the linchpin in translating vaccine science into on-time immunizations and the reduction of vaccine-preventable diseases.

Funding: This study is funded by the WSU Spokane Seed Grant Program.

Home ◀ ▶ go to PG.

The Association between Sleep and Body Weight Changes from Birth to 3 Years

Shih-Chi Chung, PhD
Assistant Professor
College of Medicine, School of Nursing
Chang Gung University
Taoyuan, Taiwan

Shih-Ming Chu, MD
Assistant Professor
Department of Newborn Medicine
Chang Gung Memorial Hospital
Taoyuan, Taiwan

Yu-Shu Huang, MD
Associate Professor
Department of Child Psychology
Chang Gung Memorial Hospital
Taoyuan, Taiwan

Background: Sleep is vital important for early childhood development. A growing body of work has found that sleep problems in Taiwan are common for children aged 0-6 years. Short sleep duration in infancy has been identified to be associated with childhood obesity in Western literatures. However, limited longitudinal evidence exists regarding the association between sleep status and body weight changes in early childhood for Taiwanese children.

Aim: To investigate the longitudinal association between sleep status and body weight changes in healthy children from birth to 3 years of age.

Methods: A convenience sampling technique is used to recruit interested primparous (singleton delivery) mother-newborn pair at a medical center located in North Taiwan. The newborns are eligible for a 3-year follow-up (from 08/2010-07/2013) if the following criteria are met: 1) ≥ 37 weeks gestation, 2) birth weight ≥ 2500 gm, 3) discharge from newborn nursery (baby-room) or neonatal intensive care unit (NICU) without significant neonatal mobility, and 4) nursery or NICU stay less the 7 days. Eligible newborns are scheduled for collecting sleep, environmental light exposure, food intake, and anthropometric data every half-year from the 1st week after birth to 36-month of age. Sleep assessment is performed in the home environment by mother-reported infant sleep diary, the Brief Infant Sleep Questionnaire, and an actiwatch to monitor movement of the child.

Results: Currently, 102 infants are recruited at their 1st week after birth. Among the 102 subjects, 46 subjects are followed for 12 month and 11 of them are followed for 24 month. The results of preliminary data analysis show that 1) sleep efficiency, total time in bed, total sleep time and nocturnal sleep hours increase with age; 2) duration of nigh awaking decrease with age; 4) body weight is negatively correlated with total sleep time, total time in bed, diurnal sleep time and night awaking hours; 5) body weight is positively correlated with sleep efficiency and nocturnal sleep hours. This study is still in-progress and more subjects will be completed follow-ups for the next year.

Implication: Study results are anticipated to understand the contemporaneous changes in sleep with changes in body weight, and to provide an informative reference regarding to the effect of sleep on body weight changes for children aged 0-3 years.

Funding: This study is funded by the National Science Council of Taiwan (NSC 99-2314-B-182-032).

Feasibility of a Motivation-Based Intervention to Enhance Sleep in Youth

Martha J. Lentz, PhD, RN
Professor Emeriti, BNHS

Teresa M. Ward, PhD, RN
Assistant Professor, FCN

Mayumi Willgerodt
Associate Professor, FCN

Gail M. Kieckhefer
Professor, FCN

University of Washington
Seattle, WA

Background: Insufficient sleep is increasingly associated with negative health outcomes such as obesity, diabetes and cardiovascular disease. In our prior work we found a high prevalence of late sleep onset, variable bedtimes, reduced sleep duration and daytime napping as measured by actigraphy in a community sample of 9-11 year old youth.
Aims: Examine the feasibility and acceptability of our recruitment strategies and research protocols of a nursing motivation-based intervention (MBI) consistent with principles of motivational interviewing. The MBI aimed to improve nighttime sleep duration and decrease bedtime variability children with and without asthma.
Methods: Nine community based child-parent dyads participated in a MBI intervention that included goal setting by child with parent assistance for a self-identified target behavior related to sleep hygiene. Child-parent dyads were assessed over a 2-month period with weekly visits for 3 consecutive weeks and a follow-up monitoring period 5 weeks later. Children completed daily sleep and symptom diaries, and wore a wrist actigraph to measure sleep for one week following the first through third visits and again during the final follow up week. Children also completed neurocognitive testing at visit two and three. Parents completed the Eyberg Child Behavior Inventory (ECBI) at all visits.
Results: Nine children (mean age 9.2 ±1.4 years) with (n=4) and without (n=5) asthma (4 female) participated in the study. Six of the nine child-parent dyads completed all research protocols and actively participated in the motivation-based intervention (MBI). Two children with attention deficit hyperactivity disorder (ADHD) had greater than 10% missing data from their daily diary, actigraphy, or neurocognitive testing and displayed inattention during the 15 minute MBI sessions despite the active participation of their parent. One young 8 year-old child also had difficulty participating in the MBI, although the parent eagerly participated. The fully participating six children and their parents identified target behaviors for change that could improve the child's sleep by increasing duration or reducing bedtime variability. Target behaviors included going to bed earlier, no rough-housing right before bed because the child got too excited, and no co-sleeping with a younger sibling. Children and parents who participated in the MBI which included visual presentation of the child's sleep actigraphy voiced their commitment to change at visit two and continued to discuss progress toward change at visit three. The six dyads that actively participated in MBI displayed decreased variability in bedtime and approximately 30 minute increase in sleep duration. On the ECBI parents reported decreased problem behavior frequency and intensity by the final visit indicating the MBI did not increase child-parent problems and may have contributed to the lowered scores.
Implications: Findings suggest that typically developing children 9-11 years old with and without asthma are able to participate in a MBI intervention to enhance nighttime sleep.

Funding: University of Washington School of Nursing Intramural and Joanne Montgomery Funding.

Home ◀ ▶ go to PG.

PEDIATRICS IN VARIOUS SETTINGS

Examining the Effectiveness of the Classroom Portion of the 5-2-1-0 Program

Rana Halabi Najjar, PhD, RN, CPNP, Assistant Professor
Angie Docherty, NursD, MPH, PHN, RN, Assistant Professor
Lanoi Akita, Student Nurse
Nichole Bergstrom, Student Nurse
Elizabeth Larson, Student Nurse
Amy Seitzinger, Student Nurse

School of Nursing, Oregon Health & Science University, Monmouth, OR

Aims: To determine whether healthy behavior change occurs with the implementation of the classroom portion of 5-2-1-0 program by examining health characteristics, such as blood pressure (BP) and body mass index (BMI), food intake (fruit and vegetable consumption and ingestion of sweetened beverages), amount of physical activity, recreational screen time, and eating patterns in an intervention group versus a matched control group.

Background: Obesity accounts for 5-15% of preventable deaths, and is now emerging as the fastest growing health threat in the United States. Unfortunately, obesity in childhood usually leads to obesity in adulthood, and in children it has been known to trigger depression and low self-esteem. Implementing change at the local community level by increasing awareness, and motivating children to improve their health habits, is very crucial to reducing obesity rates.

5-2-1-0 stands for: 5 or more fruits and vegetables, 2 hours or less of recreational screen time, 1 hour or more of physical activity, 0 sugary drinks or sodas. Oregon Health & Science University School of Nursing in Monmouth is launching the 5-2-1-0 program in collaboration with the Sheridan School district in the fall of 2012. The intervention (classroom portion of the 5-2-1-0) lasts for 30 days and teaches children how to incorporate healthy habits in their lives.

Methods: A quasi-experimental design will be utilized for this study, and participants will be recruited from the 6th and 7th grade from two different schools. Faulconer-Chapman School in Sheridan, Oregon will be the interventional group and Gervais Middle School in Gervais, Oregon will be the control group. These two schools were chosen because they have similar characteristics and are sufficiently distant from each other to minimize cross-exposure. The eligible number of participants for this study is 343. Demographic data will be collected in addition to baseline measurements including BP, BMI, food intake, physical activity, screen time, and eating patterns before beginning 5-2-1-0. Data will be recollected again 5 weeks, 8 months, and 1 year after the initiation of the intervention in order to measure both short and long term effects.

Data analysis will include a difference-in-means test to assess whether there are significant differences in BP, BMI, food intake, physical activity, screen time, and eating patterns, which could influence differences in the trajectory of health changes between the two groups. In addition, a multivariate regression will be employed: differences in BMI/BP would serve as the dependent variable, a program exposure dummy would serve as the primary independent variable of interest, and background characteristics which diverge between the two groups would be included as controls.

Results: The projected completion date for data collection and analysis is November of 2013. The findings will be used to determine whether 5-2-1-0 was effective and if improvements can be made to the program before it is rolled out in other counties in Oregon.

Implications: This study has the potential of improving the health of children by giving them the tools they need to make healthy lifestyle choices.

Home ◀ ▶ go to PG.

QUALITY IMPROVEMENT

DISSEMINATION AND IMPLEMENTATION RESEARCH: WHAT HAS NIH FUNDED?

Geoff Shuster, Robin Meize-Grochowski, Emily Haozous,
Richard Kimball, Mindy Tinkle

COMMUNICATION VULNERABILITIES: AN INTERPROFESSIONAL QUALITY IMPROVEMENT PROJECT

Karen LeDuc, Lisa Martin, Joyanne McShea

NEGOTIATING WITH CULTURAL SENSITIVITY TO REDUCE MEDICAL ERRORS: AN ETHNOGRAPHIC STUDY

Luanne Linnard-Palmer, Olivia Catolico, Jayati Ghosh

QUALITY IMPROVEMENT

Dissemination and Implementation Research: What Has NIH Funded?

Geoff Shuster, DNSc, RN
Associate Professor
College of Nursing
University of New Mexico
Albuquerque, NM

Robin Meize-Grochowski, PhD, RN
Professor & UNM Regents' Lecturer
College of Nursing
University of New Mexico
Albuquerque, NM

Emily Haozous, PhD, RN
Assistant Professor
College of Nursing
University of New Mexico
Albuquerque, NM

Richard Kimball, PhD, RN
Assistant Professor
College of Nursing
University of New Mexico
Albuquerque, NM

Mindy Tinkle, PhD, RN, WHNP-BC
Associate Professor &
Chair, Research and PhD Studies
College of Nursing
University of New Mexico
Albuquerque, NM

Purpose: The purpose of this poster presentation is to examine the NIH-funded portfolio of dissemination and implementation research beginning in 2005 when a trans-NIH committee first issued the set of multi-institute program announcements to stimulate research in this area to 2012. These program announcements have been continuously reissued over this 8 year period and include the research project grant (R01) and small grant (R03 and R21) mechanisms.

Background: We know that clinical research findings or clinical guidelines that have promise to improve health move very slowly from the research setting into clinical practice and many of these interventions never reach those who could benefit. Dissemination and implementation (D & I) research is a growing area of science focused on translating knowledge into practice. Dissemination refers to the targeted spread of knowledge and interventions to clinical practice, while implementation is focused on the strategies that promote the uptake of evidenced-based interventions in routine clinical care. D & I nurse researchers and practitioners are important players in advancing the goals of this science to improve patient and systems outcomes. Funding for D & I research at the federal level is relatively small, particularly in relation to the dollars spent on discovery research. This poster will present a summary of the NIH-funded D & I research funded from 2005-2012.

Methods: The NIH Research Portfolio Online Reporting Tool (RePORT) was searched for all funded research projects from the relevant multi-institute program announcements from 2005 to 2012. A total of 76 funded projects were identified. The project team is currently reviewing and analyzing these abstracts. Each abstract has been reviewed by 2 project members in terms of the variables of interest, such as project topic, dissemination/ implementation strategy, funding Institute/Center, funding amount, discipline of PI, study design, conceptual framework, study setting and population.

Outcomes and Conclusions: Results of this review will be presented. These results will be framed in the context of understanding the state of the science represented in this portfolio and suggesting opportunities for nurse scientists in D & I research.

Communication Vulnerabilities: An Interprofessional Quality Improvement Project

Karen LeDuc, DNP, APN-BC, CNS, CPN, CNE
Associate Professor
Regis University
Loretto Heights School of Nursing
Denver, CO

Lisa Martin, MA, CCC-SLP
Augmentative Communication
Program Specialist
Children's Hospital Colorado
Aurora, CO

Joyanne McShea, MA, CCC-SLP
Speech Language Pathologist
Audiology, Speech, and Learning Dept.
Children's Hospital Colorado
Aurora, CO

Background: Communication is one of the most valuable tools patients and families have to navigate their medical care. Communication breakdowns have dire consequences that include misdiagnosis, medication errors, and unnecessary extension in length of stay. Augmentative and alternative communication techniques can significantly alleviate communication barriers and should be a major component of the communication resources available across healthcare settings.

Purpose: The purpose of the project was to:

- Assess nurses' knowledge, skills, and attitudes (KSA) about communication (pretest) and provide an educational intervention on augmentative techniques (posttest).
- Describe families' perceptions of patient-provider communication.

Methods: The project utilized a purposive sample of families and nursing staff surveyed via the REDCap platform to assess the efficacy of a communication resource, the *On the Spot Communication Tool Kit.* Descriptive and comparison analyses were conducted.

Results/Outcomes: Two samples of families (n =40) identified as communicatively vulnerable were surveyed regarding communication tools (picture board, dry erase board, talking photo album, magnification) and strategies (teach back method, background noise minimized, optimal lighting, key points of the interaction highlighted) utilized during their hospitalization. The mean number of strategies used did not significantly change from pretest to posttest, but the mean number of tools used, significantly increased from .22 at pretest to .85 at posttest. The overall total mean comprised of both strategies and tools used significantly increased from .50 at pretest to .69 at posttest. Communication effectiveness and satisfaction also increased from pretest to posttest but was not statistically significant.

The nurse survey (n = 53) consisted of ten open ended questions about communication resources. Three mean scores were compared from pretest to posttest: strategies/tools utilized (pretest 10.52, posttest 9.69); rate significance (5.00 pretest, 4.88 posttest); and training scores (3.94 pretest, 4.38 posttest) indicating positive outcomes with the training program developed by speech pathologists.

Implications: Interprofessional collaboration resulted in enhanced approaches to address communication vulnerabilities specific to pediatric populations. Outcomes included the expansion of nurses' competencies and KSA with the adapted arsenal of communication resources resulting in families' increased satisfaction with provider communication.

Funding: Grant support for REDCap Platform: NIH/NCRR Colorado CTSI Grant NumberUL1 RR025780.

Negotiating with Cultural Sensitivity to Reduce Medical Errors: An Ethnographic Study

Luanne Linnard-Palmer, RN, EdD, CPN
Professor of Nursing
Dominican University of California
San Rafael, CA

Olivia Catolico, RN
Professor of Nursing
Dominican University of California
San Rafael, CA

Jayati Ghosh
Professor of Business
Dominican University of California
San Rafael, CA

By 2042, racial and ethnic minorities will account for 50% of America's population (Mather & Pollard, 2009). About 10% of the countries counties have crossed the 50% mark or reached the "tipping point", thus having a "majority-minority" status (Mather & Pollard, 2009). The demographic change continues to have a considerable impact on the healthcare sector, which is currently characterized by culturally diverse patients as well as healthcare practitioners (Hearnden, 2008). It is now critical to have an understanding of the cultural background and elements of communication to avoid medical and medication errors and attain successful treatment negotiations. Culture and religion influence communication and treatment decision making, and without sensitive communication, a "storm of moral conflict" can occur (Linnard-Palmer, 2006). Communication continues to be cited as the major contributor medical and medication errors. One in four patients report experiencing a medical error and research demonstrates close to 100,000 deaths per year due to errors. The aim of this research is to integrate a conceptual model on culturally competent communication from business and nursing in a complimentary manner. Concepts included power distance, consensus building, individualism vs. collectivism, low context (high content) cultures, high context (low content), masculine cultures, and harmony.

An interdisciplinary research project was completed that investigated best practices on how professional nurses implement culturally sensitive communication to reduce errors. Ethnographic methodology was selected because the focus was on cultural exchanges between diverse populations. This presentation will cover the results of an investigation that involved professional nurses practicing in large teaching hospital in the San Francisco Bay Area. Participants were recruited via specialty professional nursing organizations and purposive sampling was used to capture the experiences of those who work with diverse populations. In-depth interviews were conducted (n=31), transcribed and thematic analysis of the transcriptions were performed until data saturation was complete. Experiences with treatment negotiations, patient education, adherence to complex medical treatments, building of trust and care scenarios were explored to discover best practices and important area of needed improvement through nursing education. The purpose of this proposal is to share the study results to offer a means to improve communication between diverse populations and improve clinical outcomes through reduced errors. Exemplary themes will be presented.

Home ◀ ▶ go to PG.

Abstracts of Poster Presentations

RETHINKING METHODOLOGY

A REVIEW OF THE USE OF COST-EFFECTIVENESS ANALYSIS IN U.S. NURSING RESEARCH

Wendy A. Cook, Mark Bensink, Megan L. Morrison,
Linda H. Eaton, Ardith Z. Doorenbos

COST-EFFECTIVENESS ANALYSIS IN A RANDOMIZED CONTROLLED TRIAL ON SYMPTOM MANAGEMENT

Megan Laila Morrison, Mark Bensink, Linda H. Eaton,
Wendy A. Cook, Ardith Z. Doorenbos

PSYCHOMETRIC ANALYSIS OF QUALITY OF NURSING CARE INDEX (QNCI)©

Shigeko (Seiko) Izumi, Celestina Barbosa-Leiker

INSTRUMENT DEVELOPMENT FOR NEAT: NURSE'S ENVIRONMENTAL AWARENESS TOOL

Elizabeth C. Schenk, Celestina Barbosa-Leiker, Cindy Corbett,
Patricia Butterfield, Julie Postma

INTEGRATING DATA ANALYSIS FROM FOCUS GROUP/INDIVIDUAL/COUPLE INTERVIEWS

Deborah Messecar

COUNTY HEALTH RANKINGS DATABASE: A VALUABLE TOOL IN POPULATION HEALTH RESEARCH

Jeri L. Bigbee, Susan Perez, Lissette Jacobo

ASSESSMENT OF RESEARCH NEEDS OF HOLISTIC NURSES

Sue Robertson, Colleen Delaney, Rothlyn Zahourek,
Ruth McCaffrey, Debra James

Home go to PG.

VISUALLY SPEAKING: USING AN ETHNOGRAPHIC PHOTO ELICITATION INTERVIEW TO GIVE A “VOICE” TO ADULT MALES WHO SELF-MUTILATE IN A CORRECTIONAL SETTING

Yolanda M. Morales

THE INTEGRATION OF RESEARCH AND THEATRE THROUGH MIXED METHOD DESIGN

Jacqueline Eaton

USING EFFECT SIZES TO DETERMINE IMPACT OF PUBLIC HEALTH NURSING INTERVENTIONS

Karen E. Johnson, Barbara J. McMorris, Karen A. Monsen

VALIDATION OF THE JEFFERSON SCALE OF PHYSICIAN EMPATHY: HEALTH PROVIDER VERSION

Nicholas Gorman, Cindy Greenberg, Penny Weismuller,
Nancy Ahern, Rebecca Otten

RETHINKING METHODOLOGY

A Review of the Use of Cost-Effectiveness Analysis in U.S. Nursing Research

Wendy A. Cook, MSN, RN, CCNS, CCRN, Doctoral Student[1], wacook@uw.edu
Mark Bensink, PhD, Staff Scientist[2]
Megan L. Morrison, MSN, ARNP, FNP-BC, Doctoral Student[1]
Linda H. Eaton, MN, RN, AOCN, Doctoral Student[1]
Ardith Z. Doorenbos, PhD, RN, FAAN, Associate Professor[1]

[1]*Biobehavioral Nursing and Health Systems, University of Washington, Seattle, WA*
[2]*Research and Economic Assessment in Cancer and Health Care Group, Fred Hutchinson Cancer Research Institute, Seattle, WA*

Purposes: To review the use of cost-effectiveness analysis (CEA) in U.S. nursing research published from 1997-2011 and to determine the extent to which these studies followed recommendations of the 1996 U.S. Preventative Services Taskforce (USPSTF) panel on cost-effectiveness in health and medicine.

Background: Healthcare resources must be used judiciously while still achieving desired outcomes. Research that evaluates both the clinical outcomes and cost-effectiveness of interventions provides nurses with important information to support decisions that make use of the limited resources available as efficiently and effectively as possible.

Methods: We used the Cochrane Central Register of Controlled Trials (CENTRAL), Medline, Embase, and CINAHL databases to search the title, abstract and key words of healthcare literature published between 1997 and 2011 for the terms “nurs*” and “cost-effectiveness”, “cost-utility”, “cost-benefit”, “cost-consequences” or “economic evaluation”, “economic analysis”, or “economic model”. The titles of initial search results were independently reviewed by five evaluators to identify studies that were nursing related, U.S. research that included a comparative analysis of both the costs and consequences of two or more alternatives (interventions, treatment options, modes of care delivery, etc.). The abstracts of selected studies were independently reviewed again using two inclusion: 1) relevant to nurses, 2) comparative analysis of cost and consequences of two or more alternatives, and two exclusion criteria: 1) non U.S. studies, 2) studies that do not use the recommended measure of effectiveness for CEA – quality-adjusted life-years (QALYs). Data from the final set of studies was abstracted using a tool based on USPSTF recommendations.

Results: Initial database searches resulted in 9,834 titles. This was refined to 1,181 titles by limiting to those containing “nurs*” in the journal name, article title, abstract, or key words and the word “cost” or “economic” in the title. Review of these titles resulted in 611 abstracts. Twenty-eight papers were selected for full-text review. Twelve studies were subsequently removed because they were either non U.S. or did not use QALYs. Of the sixteen studies reviewed, two studies (12.5%) included a nurse as an author. Nursing care interventions were the primary topic of evaluation in 10 studies (62.5%). Nine studies (56%) reported using the recommended societal perspective. Most studies used constant dollars (n=12, 75%) but only 38% (n=6) discounted future costs and outcomes and only five studies (31%) reported uncertainty associated with estimates using confidence or uncertainty intervals.

Implications: Since the 1996 USPSTF recommendations, few nurse researchers have published CEA data. Other healthcare disciplines have been performing CEA, on nursing care interventions and issues relevant to nursing. Nurses need to understand CEA concepts and the importance of methodological rigor in the design, undertaking and reporting of CEAs. Nurse researchers need to collaborate with health services researchers and economists with skills and experience in CEA to incorporate this methodology as part of their evaluations. CEA is a greatly under-utilized yet valuable source of information that supports evidence-based decision-making. With the introduction of accountable care models of reimbursement, CEA will be an increasingly important addition to nursing research.

Funding: This research is supported by funding from the National Institute of Nursing Research (R01NR012450).

RETHINKING METHODOLOGY

Cost-Effectiveness Analysis in a Randomized Controlled Trial on Symptom Management

Megan Laila Morrison, MSN, ARNP, FNP-BC, Doctoral Student[1]
Mark Bensink, PhD, MSc, Med, Staff Scientist[2]
Linda H. Eaton, MN, RN, AOCN, Doctoral Student[1]
Wendy A. Cook, MSN, RN, CCNS, CCRN, Doctoral Student[1]
Ardith Z. Doorenbos, PhD, RN, FAAN, Associate Professor[1]

[1]*Biobehavioral Nursing and Health Systems, University of Washington, Seattle, WA*
[2]*Research and Economic Assessment in Cancer and Health Care Group, Fred Hutchinson Cancer Research Institute, Seattle, WA*

Purpose: This work introduces the essential components of cost-effectiveness analysis (CEA) to nurses and nurse researchers. This is achieved by systematically presenting a CEA protocol being used in a recently funded, nurse-led, randomized controlled trial designed to evaluate the effectiveness of a telehealth-enhanced pain and symptom management intervention among rural patients.

Background: From the bedside to the boardroom, nurses are facing ever increasing pressure to reduce costs and simultaneously improve health outcomes and patient satisfaction. Nurse scientists must incorporate these demands and face the challenge of producing evidence that their interventions provide value. In the National Institute of Nursing Research's 2011 Strategic Plan there is a commitment to high-value health care that is conscious of the long-term sustainability of the United States health care system. Cost-effectiveness analysis (CEA) is a tool that can be used to provide quantitative evidence of value through comparative analysis of both costs and consequences of two or more alternatives.

Method: As the underlying rationale for CEA is the provision of evidence for decision making, the first step was to develop and define a research question based on the evidence-based Patient, Intervention, Comparator, and Outcome (PICO) structure. Importantly for economic evaluation, this question included specification of the economic decision making context and perspective being used. The second step was to define the resources used in the trial and how to measure and value these resources. Based on published recommendations for CEA, this included four specific resource areas: (1) the resources required to provide the interventions, (2) the resources consumed by patient care, (3) resources used by patients to receive care, and (4) resources provided by family caregivers. The third step involved deciding how to obtain data on the recommended measure of effectiveness, the quality-adjusted life-year or QALY. The final, step was to pre-specify precisely how this data will be analyzed including: incremental analysis of the difference in arithmetic mean costs (Δ_c) and QALY effectiveness (Δ_e), the calculation of a cost-effectiveness ration (ICER) [along with an indication of the uncertainty around these estimates, and the discounting of future costs and effects.

Conclusion: Incorporating CEA into nursing research studies is feasible. The burden of the additional data collection and analysis required is off-set by the gains in quantitative evidence of the given intervention's costs, impact, and value using humanistic and economic outcomes. At a time when US healthcare is moving toward transparent and accountable care, the information provided by CEA will be an important additional component of the evidence produced by nursing research and essential for the implementation and sustainability of nursing interventions.

Funding: National Institute of Nursing Research grant # R01NR012450.

Psychometric Analysis of Quality of Nursing Care Index (QNCI)©

Shigeko (Seiko) Izumi, PhD, RN
Assistant Professor
School of Nursing
Oregon Health & Science University
Portland, OR

Celestina Barbosa-Leiker, PhD
Assistant Professor
College of Nursing
Washington State University
Spokane, WA

Purpose: The purpose of this presentation is to report findings from psychometric analysis of a newly developed instrument that was designed to measure quality of nursing care from the perspective of hospitalized patients with advanced illness.

Background: Despite increasing interest and need to improve quality of nursing care in hospital settings, valid instruments that directly measure patients' perspectives of the quality of nursing care are scarce. The Quality of Nursing Care Index© (QNCI©) was recently developed to meet this need. This paper reports the findings from the psychometric assessments of its attributes.

Methods: The QNCI© consists of 32 items that query patients regarding how often their nurses demonstrated the quality nursing care behaviors described in the item statements during their hospitalization. Survey instructions asked them to select one response on the 5-point Likert scale [1. not at all; 2. rarely; 3. sometimes; 4. often; or 5. always]. The QNCI© were mailed to 3200 patients who were discharged from a medical center between September 1, 2011 and August 30, 2012. Inclusion criteria for the mail survey were patients who were≥21 years old and stayed in adult oncology, nephrology or medical-surgical units in the medical center ≥2 days. IRB approvals were obtained from the researchers' institution and the participating medical center.

Results: 653 surveys were returned, and response rate was 20.4%. Currently, data entry, verification and cleaning are in progress. Results from following analysis will be presented at the conference. The entire data will be split in to two datasets (approximately n=300 for each), and each set will be used to test for internal consistency, and exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) to test for construct validity of the instrument. The result of the EFA will be compared with the conceptual framework of quality nursing care guiding this instrument development (Izumi, et al., 2010), and each factor and item will be examined for its fit with the conceptual perspective. Items not contributing to extracted factors in the EFA and items with low reliability will be excluded in the CFA. In CFA, number of latent factors and pattern of factor loadings will be specified based on theory and past research, then the specified model will be evaluated based on goodness-of-fit indices. Results from CFA will provide information to determine if the QNCI© has theoretically fit dimensionality to support its construct validity.

Implications: There is a great need for an instrument accurately and meaningfully measure quality of nursing care. The findings from this study will provide a psychometrically reliable and conceptually valid instrument to measure quality of nursing care. Such an instrument will not only complement conventional quality indices but offer direction for nurses as to how to improve quality of their care.

Funding: This study was supported by Washington State University Spokane Seed Grant.

Reference: Izumi, S., Baggs, J. G., & Knafl, K. A. (2010). Quality nursing care for hospitalized patients with advanced illness: Concept development. *Research in Nursing & Health, 33*, 299-315. doi: 10.1002/nur.20391.

Instrument Development for NEAT: Nurse's Environmental Awareness Tool

Elizabeth C. Schenk, RN, MHI, PhD in Nursing Student
Celestina Barbosa-Leiker, PhD, Assistant Professor
Cindy Corbett, PhD, RN, Professor and Interim Associate Dean for Research
Patricia Butterfield, PhD, RN, FAAN, Dean and Professor
Julie Postma, PhD, RN, Assistant Professor
College of Nursing, Washington State University, Spokane, WA

Purpose/Aims: No psychometrically analyzed instrument that measures nurse awareness of the environmental impacts of nursing practice is available in the literature. The NEAT: Nurse's Environmental Awareness Tool is being developed. The study has three phases; Item Development Phase, Pilot Phase, and Study Phase. For this presentation, the completed Item Development Phase will be described.

Conceptual Basis/Background: There is an increasing awareness that health care delivery may pose long-term health risks to the public through environmental impacts stemming from excessive energy use, the creation of large volumes of waste, and the generation and use of toxic chemicals. Nursing is a major stakeholder in the health delivery system; thus it is critical to understand nurses' awareness of and engagement with the environmental impact of their practice.

A pool of items (160) was developed using two conceptual frameworks. The Integrated Change Model links awareness to behavior change (deVries et al., 2003). The EWTE Wheel describes four domains of environmental impacts to be addressed; energy, waste, toxic chemicals and engagement (Schenk, 2011). Based on these directives, a pool of items linking awareness to behavior in the four domains described was developed.

Methods: Seven content experts from across the nation were interviewed. Each had an interest in environmental health, and several were experienced psychometricians. Interviews were conducted by phone; comments were utilized to adapt item pool. Notes were kept and findings were reported anonymously.

Findings: Based on content expert feedback, several significant content changes from the original item pool were made. In addition, an innovative two-part question format was developed to address challenges uncovered in the interview process. Resulting from this phase of development, is a draft NEAT of 48 two-part items and 18 demographic items.

The items are organized in three subscales; nurse professional ecological behaviors, personal ecological behaviors, and nurse awareness. Each includes a two part question. For the behavior scales, the first part asks about how frequently a nurse carries out a particular behavior (such as recycling), and the second asks the nurse to rank how easy or difficult it is to perform that behavior. For the nurse awareness scale, the first part asks about awareness of a particular evidence supported environmental impact of nursing practice (such as plasticizers used in healthcare equipment are hormone disruptors) and the second part asks the nurse to rank how related it is to health impacts.

Summary: The NEAT: Nurses Environmental Awareness Tool will be the first psychometrically analyzed instrument to measure nurses' awareness of the environmental impacts of nursing practice, with opportunities to study links between awareness and behaviors. The first phase of instrument development, the Item Development Phase, is described here. Reported is a description of interviews with content experts, findings from those interviews and resultant changes in the item pool, leading to preparation of the Draft NEAT, to be used in factor analysis for development of the instrument.

References:

deVries, H., Mudde, A., Leijs, I., Charlton, A., Vartiainen, E., Buijs, G., . . . Kremers, S. (2003). The European smoking prevention framework approach (EFSA): an example of integral prevention. *Health Education Research, 18*(5), 611-626.

Schenk. (2011). *The EWTE Wheel.* Paper presented at the International Conference of Community Health Nursing Research, Edmonton, Alberta, Canada.

RETHINKING METHODOLOGY

Integrating Data Analysis from Focus Group/Individual/Couple Interviews

Deborah Messecar, PHD, MPH, GCNS-BC, RN
Associate Professor
School of Nursing
Oregon Health & Science University
Portland, OR

Purpose Aims: To demonstrate methods used to integrate data analysis of content contained in several interview types: Focus groups; Individual interviews and couple interviews.

Background: The original purpose of the qualitative study that will be used to illustrate the NVIVO techniques for this presentation was to describe veterans and families perceptions of their experience with family reintegration and the challenges reintegration presents among Guard members deployed since the start of the Afghanistan and Iraq conflicts.

Methods: Data from focus group, couple, and individual interviews were used to address the aims of the study. All interviews were conducted face-to-face and lasted on average 90 minutes per session. Data have been collected from a total of 45 participants, 26 Guard members, and 19 family members. NVIVO 8 was used to analyze the interview data. Charmaz' (2006) approach to coding data was used to organize and categorize the findings.

Results: Preliminary findings suggest that there are several skills that members develop while deployed, that then interfere with their ability to resume family life when they return home. These skills included: seeking safety, getting things done in a hurry, expecting unilateral decision making, ensuring predictability in the environment, and stuffing emotions in order to get the job done. The objectives in this presentation are to describe the challenges the researcher faced in trying to analyze data from different interview types to describe how families face reintegration. Several strategies using NVIVO will be presented for organizing and analyzing data.

Implications: Analyzing data collected from different interview strategies requires careful planning and organizing in order to maintain study rigor. The organizing features in NVIVO software can facilitate this process.

Funding: This research is sponsored by the Triservice Nursing Research Program, Uniformed Services University of the Health Sciences; however, the information or content and conclusions do not necessarily represent the official position or policy of, nor should any official endorsement be inferred by, the Triservice Nursing Research Program, The Uniformed Services University of the Health Sciences, the Department of Defense, or the U.S. Government.

Home

go to PG.

County Health Rankings Database: A Valuable Tool in Population Health Research

Jeri L. Bigbee, PhD, RN, FNP-BC, FAAN
Adjunct Professor
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA
jeri.bigbee@ucdmc.ucdavis.edu

Susan Perez, MPH, PhD(c)
Graduate Research Assistant
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Lissette Jacobo
Undergraduate Research Assistant
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Purposes/Aims: The purpose of this presentation is to demonstrate the applicability of the County Health Rankings database to population health research using the example of a national study evaluating the relationship between nurse-to-population ratios and county health outcomes that is currently in progress.

Background: The County Health Rankings database is a highly accessible and useful data source for research, community assessment and planning, and policy development, including data from over 3,000 counties in all 50 states. The County Health Rankings provides current county-level data, including both health outcome information (morbidity, mortality), along with data related to factors that influence health outcomes (including health behaviors, clinical care, social/economics, and the physical environment).

Methods: The 2012 County Health Rankings database is currently being used to provide outcome measures in a large national study, Nurses and the Population's Health. This study, a cross-sectional secondary analysis, examines the relationship between nurse-to-population ratio and county health outcomes using counties as the unit of analysis. Health outcomes and factors data from the 2012 County Health Rankings database are being used in a multivariate analysis.

Results: Preliminary results suggest that nurse-to-population ratios are significantly related to both county health outcomes and factors.

Implications: The County Health Rankings database has proved to be a highly useful resource for nursing research at the population level, however to date, few nurse researchers have utilized the database. Greater use of this rich data source will enhance nursing science and increase the contribution of nursing to population-based research. The County Health Rankings are also a highly valuable tool for community-based assessment, planning, and intervention at the local level.

Funding: The National Council of State Boards of Nursing Center for Regulatory Excellence.

Home ◀ ▶ go to PG.

Assessment of Research Needs of Holistic Nurses

Sue Robertson, PhD, RN, CNE
Assistant Professor
School of Nursing
California State University Fullerton
Fullerton, CA

Colleen Delaney, PhD, RN, AHN-BC
Associate Professor
School of Nursing
University of Connecticut
Storrs, CT

Rothlyn Zahourek, PhD, PMHCNS-BC
Adjunct Faculty
School of Nursing
University of Massachusetts
Amherst, MA

Ruth McCaffrey, PhD, RN
Sharon Raddock Distinguished Professor
School of Nursing
Florida Atlantic University
Boca Raton, FL

Debra James, BSN, RN
Meritus Medical Center
Hagerstown, MD

Purpose/Aims: The primary aim of this study was to identify the research needs of members of a national specialty nursing organization.

Rationale/Conceptual Basis/Background: A goal is to promote holistic research and evidence based holistic practice. An earlier study found members lacked knowledge of holistic evidence for practice and research knowledge (methods, process) specific to holistic research. The Holistic Nursing Research Framework guided the study. It acknowledges the need for multiple research perspectives to understand complex and evolving nursing practice situations.

Methods: Approval from an Eastern U. S. university IRB and the organization's executive committee was obtained. The study was a cross-sectional descriptive design using a 35-item survey developed by the Research Committee. The tool consisted of four sections; two sections used a likert scale to identify 1) research interests and 2) level of interest in specific research-related activities. Section 3 had eight open-ended questions regarding research presentations at the annual conference and online research resources. Section 4 had demographic questions. The survey was sent to all members of a national organization via e-mail; 596 members completed the survey. Descriptive data were analyzed using SPSS 17.0, ANOVA was used to identify differences in responses based on educational level, and thematic analysis was used to analyze Section 3 data.

Results: Respondents were predominately female (96.7%), 55-64 years of age (44.7%) and prepared at the BS or MS level (67.5%), and were from a wide variety of work settings. The majority (98.0%) were in interested in presentations for using/understanding research in practice, holistic evidence-based interventions, and complementary and alternative modalities. Thematic analysis indicated a need for more research-related presentations, research mentoring, and information in diverse formats.

Implications: Findings suggest members are interested in furthering their knowledge related to holistic research as evidence for practice and research skills. These findings provide a foundation for the organization to develop research resources to empower holistic nurses through knowledge and skills to create and use holistic evidence-based research. Further research is needed to see if enhanced research resources increases the number of holistic research studies.

Home ◀ ▶ go to PG.

Visually Speaking: Using an Ethnographic Photo Elicitation Interview to Give a “Voice” to Adult Males Who Self-Mutilate in a Correctional Setting

Yolanda M. Morales, PhD, PMHCNS, BC
University of New Mexico Hospitals Psychiatric Center

Purpose: The purpose of this study was to evaluate the use of an ethnographic photo elicitation technique among adult males in a correctional setting. This technique has the potential to provide a deeper understanding on the “meaning” and identify motivational themes that influence self-mutilation.

Rationale/Background: Self-mutilation (SM) has classically been associated with adolescents and females, however, behind the walls of many correctional institutions, adult males are engaging in self-mutilating behavior. SM among adult males can be brutally disfiguring, physically debilitating, emotionally exhausting, or result in death. In addition to serious health consequences, SM can impact the safety of the institution, and also have fiscal consequences. While a serious forensic issue, there is a paucity of research concerning the types and extent of SM, motivating factors, and the meaning this behavior possesses for these men.

Methods: An Ethnographic photo elicitation interview was used to construct the meaning of SM and explore motivational factors from an individual’s frame of reference. All 42 adult males in the study agreed to have two digital photos of their scars or wounds from SM digitally photographed images were used in the ethnographic interviews to elicit a verbal response to their wounds/scars, displayed on a computer screen during the interview.

Results: Most (47%) SM was reported to begin by age 16. The most predominant type of SM photographed, was *cutting***.** SM has various meanings in the prison culture. Being identified as a self-mutilator by other inmates or correctional staff can lead can have negative consequence. These negative views can make the self-mutilator vulnerable to possible exploitation or victimization. The major motivational theme identified among these men was **mood dysregulation**. This theme reflected alterations in mood emotions as a motivational factor to communicate feelings, needs, and provide a “voice”. SM was also identified as a form of addiction. The most common minor theme identified was disassociation.

Conclusion: The use of an ethnographic photo elicitation interview provided rich data on the topic of SM. This methodology provided insight into the meaning SM has for men in a correctional setting. It also illuminated motivational factors influencing this SM. While usually described as a female adolescent behavior, SM occurs in adult males as well, however generally, this behavior begins in their adolescents.

Home

◀ ▶ go to PG.

RETHINKING METHODOLOGY

The Integration of Research and Theatre through Mixed Method Design

Jacqueline Eaton, MS
PhD Student
Hartford Center of Geriatric Nursing Excellence
College of Nursing
University of Utah
Salt Lake City, UT
jacqueline.eaton@nurs.utah.edu

The dichotomy between science and art is long disputed, and has been augmented by the disciplinary divide created within educational institutions. This divide has depleted the innovative possibilities inherent within interdisciplinary collaboration and created an underdeveloped and undervalued chasm in attempts to integrate art and science. The past two decades have shown an increase in attempts to integrate research and theatre, particularly in the health sciences. However, the methods used to achieve this integration are limited and rare in the world of nursing. Just as art and science have struggled to come together, the mixture of quantitative and qualitative methods have also had a difficult and slow evolution. It is only recently that systematic methods of mixed method design have been introduced, and yet there is still much debate on the variety of mixed method approaches.

A systematic synthesis of the health sciences literature was conducted to analyze articles integrating research and theatre through the use of mixed method design in order to identify implications for the unification of art and science. Search parameters included peer reviewed articles published between 2005 and 2012 incorporating theatrical performance based on research that included data collection, analysis, and outcome-based results. Articles incorporating mixed method design were retained. A search of CINAHL provided 1,220 references; 86 were relevant to preliminary criteria. After reviewing abstracts, methods, and detailed reading of articles, 10 met final inclusion criteria. A matrix was created to organize findings based on purpose, mixed method design, use of art form, strengths, and weaknesses.

Results identified three approaches to the use of mixed method design: 1) data collection to create a script, 2) script creation based on previously collected data and evaluation, 3) evaluation of research based performance. While all ten articles utilized mixed method design, none self-identified as such. This has limited the ability of researchers to adequately report the process and findings of their studies, creating confusion and limiting the influence of research based theatre within the health sciences.

Health science research incorporating the arts is attempting to take a scientific approach to art, or an artistic approach to science, but a strong integration between the two is weakened by the lack of recognition as mixed method design. This parallels the difficulties seen in the overall disciplinary communities of science and art; where attempts have been limited to find systematic methods of working together. The use of mixed method design has the potential to bridge art and science and provide innovative approaches to health science research.

Funding: This research is funded by the Jonas Nurse Leaders Scholars Program.

Home ◀ ▶ go to PG.

Using Effect Sizes to Determine Impact of Public Health Nursing Interventions

Karen E. Johnson, PhD, RN
Assistant Professor
School of Nursing
University of Texas at Austin
Austin, TX

Barbara J. McMorris, PhD
Associate Professor
School of Nursing
University of Minnesota
Minneapolis, MN

Karen A. Monsen, PhD, RN
Assistant Professor
School of Nursing
University of Minnesota
Minneapolis, MN

Purpose/Aims: To differentiate statistically significant changes in client outcomes from practical, clinically significant changes among a sample of mothers enrolled in a public health nurse home visiting program.

Rationale/Conceptual Basis/Background: Researchers analyzing client outcomes using Omaha System data typically look at p-values to determine whether significant changes occurred between admission and discharge. However, the large number of cases available for analysis in electronic health records makes it difficult to distinguish statistically significant changes from clinically meaningful changes, suggesting the need for applying different methodologies to determine the impact of public health nursing interventions. Effect sizes quantify the magnitude of differences between two measurements and are widely recognized as a way to distinguish substantive differences from statistically significant differences.

Methods: Data from electronic health records of 1,016 young low-income parents were used to compare mean differences in admission and discharge scores with effect sizes (ES) for 13 client problems. Effect sizes were calculated as a function of the size of the t-test, the sample size, and the correlation between the two paired scores (i.e., admission and discharge scores for each concept within each problem) in order to distinguish practical significance from statistical significance.

Results: Mean scores and effect sizes were categorized into four groups, based on sample size (i.e., frequency of each problem/scale), and plotted on a scatter plot. Results suggests the average change in Omaha System scores needed between admission and discharge to achieve a large effect size is approximately 0.60, regardless of whether the p-value is highly significant or non-significant.

Implications: Findings from this study highlight how p-values can either exaggerate the magnitude of client change in Omaha System data or mask the impact of interventions. Researchers are encouraged to report effect sizes to help readers determine which differences are practical and meaningful; such disclosures will allow for increased recognition and application by practitioners.

Home ◀ ▶ go to PG.

RETHINKING METHODOLOGY

Validation of the Jefferson Scale of Physician Empathy: Health Provider Version

Nicholas Gorman, EdD, Assistant Professor
Cindy Greenberg, DNSc, RN, Director, School of Nursing
Penny Weismuller, DrPH, RN, Associate Professor
Nancy Ahern, PhD, RN, Associate Professor
Rebecca Otten, EdD, RN, Assistant Professor

School of Nursing
California State University, Fullerton
Fullerton, CA

Purpose/Aims: The purpose of the study was to examine the reliability and validity of the Jefferson Scale of Physician Empathy: Health Provider – Student Version (JSE-HPS) when used with nursing students. In examining the psychometric properties of the scale, the present study expands upon past research by establishing the scale's suitability for use with several new populations. Specifically, the demographically diverse student body of California State University, Fullerton and recent implementation of a Doctor of Nursing Practice program allows for the scale to be validated for use across a broader spectrum of student characteristics and program levels. **Rationale:** Nurses' empathy levels are central to the provision of health care, with medical practitioners' empathy reported to impact outcomes ranging from patient satisfaction to medical error rates. Despite the critical role of empathy for medical practitioners, research has shown that students' empathy levels decrease over the course of their education. These observations underscore the importance of monitoring nurses' empathy levels during the course of their education in order to track trends and guide curriculum design choices. However, at least three substantive gaps exist in the literature on measuring nurses' empathy levels. First, past research has often been restricted to a narrow demographic group, with Caucasian and female students being over-represented. Second, to date the literature on nursing empathy has been focused primarily on undergraduate nursing students, despite the increasing importance of masters and doctoral-level nurses in the field of healthcare. Third, nursing students' empathy levels have frequently been measured with scales designed for other healthcare practitioners such as physicians. There remains a need to critically evaluate the utility of these scales when working with demographically diverse nursing students at each level of the educational spectrum. **Methods:** This study is part of an on-going longitudinal study of nursing students enrolled at California State University, Fullerton. Responses were obtained from 134 students (71 undergraduate, 33 masters, and 30 doctoral) who replied to an online survey administered at the beginning of the Fall 2012 semester and again at a 3-week follow-up. In addition to the JSE-HPS, several demographic and psychosocial variables were collected in order to facilitate the validation of the scale. **Results:** Preliminary analyses of the scale's psychometric properties revealed adequate internal consistency as assessed by Cronbach's alpha ($\alpha = .79$), with single-item deletions making no substantive improvements to the scale. In addition 3-week test-retest reliability was found to be high ($r = .74$). The scale's construct validity was examined using a multi-trait matrix method to examine item-by-item correlations between the 20 questions in JSE-HPS and other questions from a series of related and unrelated constructs. **Implications:** Preliminary results suggest that JSE-HPS serves as a reliable and valid self-assessment of nurse empathy with demographically diverse nursing students from all academic levels. This provides an additional tool to nurse educators' repertoire of ways to track student empathy and guide curriculum.

Home ◀ ▶ go to PG.

Abstracts of Poster Presentations

TECHNOLOGY

TECHNOLOGY: NURSE EDUCATORS' EXPERIENCES AND PERCEPTIONS

Katie Anne Adamson

TELEHEALTH REMOTE PATIENT MONITORING INTERVENTION FOR PEOPLE WITH TYPE 2 DIABETES

Deborah Greenwood

USING TECHNOLOGY TO MEASURE THE PEDIATRIC INPATIENT CARE ENVIRONMENT

Lauri A. Linder

IMPLEMENTING AN EVIDENCE-BASED DECENTRALIZED APPOINTMENT SYSTEM

Angela Smith, Joseph Burkard

HOW HAS MOBILE PHONE TEXT MESSAGING BEEN STUDIED IN PREGNANCY-RELATED RESEARCH?

Paula Kobos

DETECTING COGNITIVE DECLINE USING SMART HOME TECHNOLOGY

Roschelle L. Fritz, Kyle Doty, Ngizambote Mavana,
Maureen Schmitter-Edgecombe, Diane Cook

WIRELESS TECHNOLOGY AND PHYSICAL ACTIVITY IN NURSING STUDENTS

Leah FitzGerald

TECHNOLOGY

Technology: Nurse Educators' Experiences and Perceptions

Katie Anne Adamson, PhD, RN
Assistant Professor
Nursing and Healthcare Leadership Programs
University of Washington Tacoma
Tacoma, WA

Purpose: The purpose of this study was to describe nurse educators' experiences and perceptions related to the use of technologies including high-technology, high-fidelity patient simulation (HHPS) and online teaching and learning (OTL) applications.

Background: The use of HHPS and OTL technologies is growing at a rapid pace within nursing education. A great deal of research has been done exploring the efficacy of such teaching and learning strategies and students' perceptions of and affinities for different technologies. However, little research has been done to explore educators' experiences and perceptions of using such technologies. In order to optimize the potential expansion of such technologies, it is important to understand these perspectives.

Methods: The investigator developed an online survey using Catalyst WebQ and deployed invitations to participate using the e-mail addresses of deans/ directors of accredited nursing programs listed in the National League for Nursing Accreditation Commission website. Recipients were encouraged to share the survey link with nurse-educator colleagues. The survey included 23 multiple choice and short answer questions about participants' experiences and perceptions related to the use of HHPS and OTL technologies in nursing education.

Results: Two-hundred thirty eight participants responded to the survey. Most respondents (71%) categorized the non-clinical nursing courses at their institutions as *Hybridized: Mostly face-to-face with some online components* with the most widely used OTL technology applications being: Course learning and management systems (91%), E-mail (91%), Hardware devices such as iPads and clickers (58%), Video creation and hosting tools (51%), Polling and survey tools (44%), and Audio tools (32%). When asked to rate their level of agreement with various statements about the use of HHPS and OTL technologies, more respondents indicated that they planned to increase their use of OTL (75%) than indicated plans for increasing their use of HHPS (63%). However, 68% indicated they had the resources they need to increase their use of HHPS while only 61% indicated they had the resources they needed to increase their use of OTL. Ninety-three percent of respondents agreed or strongly agreed that increasing the use of HHPS in nursing education would have overall positive outcomes, while only 79% said the same about the increased use of OTL. Similar numbers of respondents indicated that increasing the use of HHPS and OTL would be difficult (47% and 48% respectively) while more respondents indicated that respected colleagues supported the increased use of HHPS (83%) than OTL (69%). Additional questions revealed greater support for exclusively online education in the non-clinical portions of post-licensure nursing education than for pre-licensure nursing education.

Implications: This examination of educators' experiences and perceptions of HHPS and OTL provides valuable insights for navigating the future application of technology in nursing education. The disparities between intentions, support, and resources for increasing the use of HHPS and OTL warrant further investigation.

Home ◀ ▶ go to PG.

Telehealth Remote Patient Monitoring Intervention for People with Type 2 Diabetes

Deborah Greenwood, RN, MEd, CDE, BC-ADM
PhD Candidate
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Purposes/Aims: The purpose of this study is to evaluate the feasibility, utilization, and effectiveness of a telehealth remote patient monitoring (RPM) intervention that combines structured self-monitoring of blood glucose (SMBG) and nurse care coordination (NCC) to improve outcomes in persons with type 2 diabetes noninsulin-treated. AIM 1: Explore feasibility; patient engagement and intervention utilization; and satisfaction. AIM 2a: Compare self-management behaviors, self-efficacy, and diabetes knowledge from baseline to completion of the intervention. AIM 2b: Compare mean change in HbA1c from baseline to three months following the completion of the intervention.

Background: Self-monitoring of blood glucose (SMBG) informs healthcare providers about glycemic control and provides feedback to persons with diabetes to facilitate increased knowledge and self-efficacy, lifestyle and behavior changes. Controversy exists regarding the benefit of SMBG to improve hemoglobin A1c (HbA1c), a measure of overall blood glucose control, in persons with type 2 diabetes when they are not using insulin. Recent research that incorporates structured SMBG profiles has shown significant improvement in HbA1c. Paired testing—pairs of glucose results obtained before and after a meal, physical activity, or other events— is one SMBG structured testing profile that may improve outcomes. Nurse care coordination programs are effective in providing self-management support and improving outcomes for persons with type 2 diabetes. However, maintaining frequent contact to analyze and provide feedback on SMBG data is challenging. Telehealth RPM systems that incorporate a complete feedback loop— data collection and interpretation combined with feedback from nurses to the person with type 2 diabetes in order to modify treatment plans— are associated with improved outcomes.

Methods: This is a two-group, randomized, controlled trial with 1:1 randomization of individual participants to usual care (NCC program) or telehealth RPM with structured SMBG (and NCC). 150 participants from the diabetes disease management program will be enrolled.

Results: The goal of the analyses will be to determine if the intervention or control groups improve over time and if the intervention has greater improvement than the control group. Aim 1 will be analyzed using means and frequency distributions to describe intervention feasibility, utilization as well as group satisfaction with telehealth RPM intervention. For Aims 2a and 2b, separate analysis of variance will be used to compare differences between the groups over time on HbA1c, self-management, self-efficacy, and diabetes knowledge.

Implications: There is limited and inconsistent integration of feedback in diabetes management by both healthcare providers and persons with diabetes. Instructing both persons with diabetes and nurses to engage in a specific structured SMBG profile called paired testing combined with telehealth RPM should enable timely and efficient communication and feedback between nurses and persons with type 2 diabetes. This intervention may increase patient engagement in self-management and improve self-efficacy, clinical outcomes and patient satisfaction.

Funding: Dissertation grant funding by Lifescan Corporation # ISS1000231 and product support from Care Innovations.

Home ◀ ▶ go to PG.

TECHNOLOGY

Using Technology to Measure the Pediatric Inpatient Care Environment

Lauri A. Linder, PhD, APRN, CPON®
Assistant Professor
College of Nursing
University of Utah
Salt Lake City, UT

Purpose: The purpose of this presentation is to describe the use of devices to measure the inpatient care environment in research involving hospitalized children and adolescents with cancer.

Background: Frequent disruptions associated with care delivery, as well as the sound and light levels generated by these activities, may contribute to children's symptom burden. Non-intrusive technological devices offer options for capturing events occurring within the patient's room to gain real-time insights into potential sources of disruption that may adversely affect patients and to identify opportunities for intervention to minimize unnecessary disruptions.

Approach and Methods: Environmental data are measured over a 3-day and night period along with medical record reviews of medication administration, laboratory specimen collection, and other procedures occurring within the patient's room. Participants also provide a shift-by-shift report of frequently occurring cancer-related symptoms.

To provide real-time monitoring of the environment, data-collection devices are calibrated and placed on a bedside cart approximately 48 inches from the patient's bed. These devices collect real-time data on light intensity, sound levels, and ambient temperature. The Hobo U12 data logger collects light and temperature levels using internal sensors and stores this data in a time-stamped format in its internal memory. An external data channel on the U12 allows an external sound pressure level (SPL) meter to be connected, and its real-time SPL data to be stored as well. This data can then be downloaded and exported to SPSS for further analysis.

A motion-sensitive camera is placed in the patient's room in a location that allows real-time monitoring of entries and exits. Data from this camera are automatically sent to a minicomputer and stored for each event. The camera is preprogrammed to detect motion occurring at the patient's doorway. When movement is detected, a series of still images is created for the entry/exit event and stored on the computer. To ensure confidentiality, the camera is equipped with a programmatic 'privacy shield' that obscures the area of the head and face. With the privacy shield engaged, the role of individuals entering and exiting the room can be determined by their clothing and name badge color which is role-specific for hospital workers. Each image is stamped with the date and time, which indicates the time of each entry and exit and allow extrapolation of the duration of the individual's time in the child's room.

Outcomes Achieved: The placement of these devices in the patient's room does not interfere with patient care activities and does not restrict the child or adolescent's activity within the room. Data obtained from these devices are matched with clinically recorded data to gain additional insights into sources of disruptions and to guide the development of interventions for future studies.

Conclusions: The technological devices used in this study offer novel strategies to capture events occurring in the patient's room in a non-intrusive way to provide a real-time description of the inpatient care environment.

Funding: Alex's Lemonade Stand Foundation Independent Nurse Researcher Award.

Home ◀ ▶ go to PG.

Implementing an Evidence-Based Decentralized Appointment System

Angela Smith, BSN, RN
DNP Student
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA

Joseph Burkard, DNSc, CRNA
Associate Professor
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA

Background: Outsourced health care for military beneficiaries costs the government thousands of dollars each year. In the current political and socioeconomic environment, there is a number of funding constraints and competition for the same government dollars. Evidence shows that 45% of direct care (DC) military treatment facility (MTF) beneficiaries are not satisfied with the healthcare they receive compared to only 28% of purchased care (PC) beneficiaries. Areas of dissatisfaction include access to care, relationships with their doctors, nurses, and other allied health providers.

Purpose: This evidence-based project was designed to increase patient satisfaction in a family practice clinic in a southern California MTF from the current 45% to at least 80% by implementing a decentralized appointment system.

Methods: This evidence-based project employed a quasi-experimental time-series design. The decentralized system used two registered nurses for each team of the family practice clinic. They were responsible for making and changing appointments and doing patient triage in the clinic setting. Patient satisfaction data were obtained before and one, three, and six months after initiating the decentralized system. This project included patients 18 years or older who have access to the military health care system. A patient satisfaction questionnaire specific to family practice settings from web-survey was used to assess patient satisfaction on a scale of 1-4 with 1 indicating very dissatisfied and 4 very satisfied. The questionnaire addressed demographics, ease of access to care, wait time for an appointment, satisfaction with the provider and other staff facility, and other open ended questions such as what patients liked best/least and suggestions to improve the patient experience.

Results: Data collection will be complete after the six-month data point and analysis will be completed.

Implications for Practice: Implications are not yet known, but a positive result would indicate decentralized appointment system, increases overall patient satisfaction and should be maintained in the primary care setting.

How Has Mobile Phone Text Messaging Been Studied in Pregnancy-Related Research?

Paula Kobos, BS
MN Student
Advanced Practice Community Health Systems Nursing
University of Washington
Seattle, WA

Purpose/Aim: The purpose of this project is to describe results of a systematic literature review of pregnancy-related text messaging studies. The aim is to answer the question, "How has mobile phone text messaging been studied in pregnancy-related research?" To do this, 16 questions related to researchers, funding, purposes, theoretical frameworks, methods, participants, interventions, outcomes, cost, and timeliness of publication were investigated.

Background: Text messaging, also known as Short Message Service or SMS, involves transmitting messages of 160 characters or less to or from mobile phones. When used as a mobile health application, this innovation has potential to improve health communication to diverse audiences. Text messaging has been suggested as a way to enhance maternal health services and improve pregnancy outcomes, and a large-scale project, text4baby, is now undergoing evaluation. Some encouraging studies of text messaging health interventions have been published; however, the evidence for recommending pregnancy-specific text messaging interventions is inconclusive.

Methods: A systematic review of literature from 2002-2012 was conducted using PubMed, Cumulative Index to Nursing and Allied Health Literature, PsychInfo, Web of Science and Communication and Mass Media Complete databases. To identify peer reviewed English-language studies, these databases were searched using predetermined combinations of terms related to text messaging and pregnancy. Studies were included if they addressed acceptability, feasibility, or outcome of pregnancy-related health interventions. Data to answer research questions were extracted based on work of the Cochrane Collaboration (2011) and the Centers for Disease Control and Prevention (2011).

Results: Final results will be available at the conference. To date, 17 studies have been identified, most from outside North America. Pregnancy-related text messaging research has addressed contraceptive use, appointment reminders, smoking cessation, prenatal support, midwife continuing education, gestational diabetes monitoring and Down syndrome screening. Studies have also explored texting as a data collection tool in research and practice and maternal interest in health-related text messages. The poster will summarize results using descriptive statistics and simple narrative.

Implications: The report will provide easier access to practical information for community and public health nurses who are considering, planning, or evaluating pregnancy-related text messaging interventions. The report will also be a resource for those evaluating evidence before implementing a program. The results will help nurses identify specific, tested interventions for pregnant populations. The results may also help practitioners identify specific intervention components (e.g., message content, mobile phone characteristics, texting frequency) that may influence their projects. Nurse researchers may consider using, adapting, or evaluating the data extraction tool developed for this project.

References:
Higgins, J.P.T., Green, S. (Eds.). (2011). *Cochrane handbook for systematic reviews of interventions* [Version 5.1.0]. Retrieved from www.cochrane-handbook.org.
US Department of Health & Human Services, Centers for Disease Control and Prevention. (2011). *The health communicator's social media toolkit*. Retrieved from http://www.cdc.gov/socialmedia/tools/guidelines/pdf/socialmediatoolkit_bm.pdf.

Home ◀ ▶ go to PG.

Detecting Cognitive Decline Using Smart Home Technology

Roschelle L. Fritz, RN, MSN
PhD Student, College of Nursing
Washington State University
Spokane, WA

Kyle Doty, PhD Student
Electrical Engineering
Washington State University
Pullman, WA

Ngizambote Mavana, PhD Candidate
Computer Science
Washington State University
Pullman, WA

Maureen Schmitter-Edgecombe, PhD
Professor, Psychology
Washington State University
Pullman, WA

Diane Cook, PhD
Professor, Engineering
Washington State University
Pullman, WA

Purpose/Aim: The purpose of this pilot study is to examine the relationship between sensor measurements of gait, walking speed, and timed up and go (TUG) testing and physical and cognitive impairment in older adults.

Rationale/Conceptual Basis/Background: Physical and cognitive decline can be difficult to recognize in outpatient care settings. Recent literature on aging indicates there is a connection between walking speed and early stages of cognitive decline. Changes in ambulatory ability may be easier for health professionals to recognize, and screening for ambulatory ability may be more acceptable to older adults than screening for changes in cognition. If a relationship between physical and/or cognitive impairment and ambulatory ability is confirmed, it could lead to earlier screening and treatment for cognitive impairment and an opportunity to implement safety measures. The authors subscribe to the concept that aging in place is a positive goal.

Methods: A retrospective analysis of data collected on approximately 40 older adults with and without cognitive and physical impairment will be performed using data collected during participants' 3 hour experimental session in a Smart Home. Data on walking speed during TUG and other ambulatory ability performance measures will be mined from the extensive electronic data collected from: seat pressure sensors, actigraphs, iPhones held by an armband, and accelerometers placed on the participants' shoes, at the core, and on the dominant arm. Video recordings from a high resolution camera will be examined to extract participants' gait features. Machine learning and statistical techniques will be employed to identify correlations between ambulatory ability performance measures and participants' cognitive and physical health.
Results: Preliminary data will be available for poster presentation April 2013.

Implications: This research will add to the small but growing body of knowledge on the relationship between ambulatory ability and physical and cognitive health. Interventions to improve screening and the ability to identify decline early and accurately are critically needed to improve patient safety and outcomes.

Funding: This research is funded by the National Science Foundation's Integrative Graduate Education and Research Training (IGERT) Program. Grant Number DGE-0900781.

Home

◀ ▶ go to PG.

TECHNOLOGY

Wireless Technology and Physical Activity in Nursing Students

Leah FitzGerald, RN, FNP-C, PhD
Assistant Professor
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Purpose: The aim is to examine whether self-efficacy and stages of change predict time spent in moderate and vigorous physical activity (measured by wireless technology/mHealth) in young adult nursing graduate students.

Background: Prevention of disease, promotion of health, and maintenance of functional independence require such behaviors as regular physical activity (PA), sports participation, and active recreation. Self-efficacy and stages of change influence health behavior. Limited findings suggest that the majority of US nursing students (78%) are not meeting national PA guidelines for health benefits. It has been well documented that student nurses experience higher stress than other health professional students, making them particularly vulnerable to poor health. In addition, limited knowledge of facilitators and barriers to PA along with correlates of PA measured by mHealth exists among graduate nursing students, suggesting the need for further investigation.

Methods: Thirty (25 female and 5 male) nursing students aged 21 – 41 (mean 29.3 ±4.5 yrs), were part of a larger study using mHealth, to describe PA patterns 24-hrs of the day over a 28-day period and determine if the use of a mHealth increases PA in graduate students. Baseline assessment included anthropometric measurements, stages of change of exercise engagement, exercise self-efficacy and the Behavioral Risk Factor Surveillance Scale (BRFSS). PA was determined using mHealth for a maximum 14-day baseline period.

Results: Eighty percent of participants did not meet recommended national PA guidelines (mean 82.6 ± 82.1 min/wk). Mean body mass index (BMI) was 25 ± 4.1 with 40% being in the overweight to morbidly obese category. Stage of change: pre-contemplation: 3.3%; preparation 33.3%; action 6.7% and maintenance 56.7%. Neither stage of change or self-efficacy predicted PA. There was no significant age, BMI, gender or ethnic differences between those not meeting and the 20% meeting PA recommendations. BRFSS ratings of number of days of poor mental health within the past 30 days negatively correlated with minutes of moderate PA ($r = -0.85$, $p = 0.03$). Number of days of poor physical or mental health preventing usual activities within the past 30 days negatively correlated with moderate PA ($r =- 0.39$, $p = 0.05$).

Conclusion: Consistent with limited national findings, the majority of our nursing students did not meet national PA guidelines of 30 min or more of moderate-intensity PA 5 day/week or 20 min of vigorous-intensity PA on 3 days per week. Neither self-efficacy nor stage of change predicted time spent in PA. Lower ratings of BRFSS mental health scale were associated with lower levels of PA. Poor habits acquired and/or sustained during their nursing education may contribute to lifelong health risks. More research is warranted to better understand PA in this population with regard to academic demands and possible long-term health associated with emotional health and well-being.

VETERANS' HEALTH

IS COMBAT EXPOSURE PREDICTIVE OF HIGHER PREOPERATIVE STRESS IN MILITARY MEMBERS?

Eric J. Bopp, Dennis Spence, Joseph F. Burkard,
Margaret Ryan, Daniel Wright

JOINING FORCES: EDUCATING AND ENGAGING NURSING STUDENTS TO END VETERAN HOMELESSNESS

Blanche Landis

Home

◀ ▶ go to PG.

Is Combat Exposure Predictive of Higher Preoperative Stress in Military Members?

Eric J. Bopp, LCDR, NC, USN, CRNA[1]
Dennis Spence, CDR, NC, USN, CRNA[2]
Joseph F. Burkard, DNSc, CRNA[1]
Margaret Ryan, MD, MPH[3]
Daniel Wright, PhD[4]

[1]*Hahn School of Nursing, University of San Diego, San Diego, CA*
[2]*Clinical Investigation Department, Naval Medical Center San Diego, San Diego, CA*
[3]*Clinical Investigation Program, Naval Hospital Camp Pendleton, Camp Pendleton, CA*
[4]*Department of Mental Health, Naval Hospital Camp Pendleton, Camp Pendleton, CA*

Background: The preoperative experience is a unique phenomenon and may be perceived by patients as extremely stressful. Current research suggests patients exhibiting higher degrees of stress in the preoperative setting experience significantly more adverse perioperative phenomena, such as increased heart rate, anesthetic requirement, and postoperative anxiety and pain (Carr, Brockbank, Allen, & Strike, 2006; Demirtas et al., 2005; Hong, Jee, & Luthardt, 2005; McIntosh & Adams, 2011). Operations Enduring and Iraqi Freedom have exposed numerous U.S. military service members to stressful, traumatic, and threatening environments (McGhee et al., 2009; Nayback, 2009). As a result, many of these individuals have experienced significant psychological problems, such as anxiety, depression, posttraumatic stress disorder (PTSD), and risk for dysfunctional socialization (Phillips, Leardmann, Gumbs, & Smith, 2010). Anecdotally, military perianesthesia providers report combat veterans require a more "heavy-handed" anesthetic regimen perioperatively, and may be at increased risk for experiencing greater degrees of preoperative stress.

Aim/Purpose of the Project: Military members with a history of combat exposure may be more difficult to anesthetize, have greater perioperative fluctuations in hemodynamics, experience increased pain, and be at increased risk for postoperative morbidity. The purpose of this study is to determine the predictive relationships between the number of combat experiences and the preoperative psychological and physiological stress response in U.S. military personnel on the day of surgery independent of mental health disorders (i.e., anxiety, depression, and PTSD).

Design and Methods: A prospective, descriptive study enrolling active duty men and women presenting for elective surgery requiring anesthesia services will be conducted. One to 14 days prior to the day of surgery trait measures of anxiety, depression, and PTSD symptomatology will be assessed. In addition, subjects reporting a prior deployment where they have received imminent danger pay, hardship duty pay, or combat zone tax exclusion benefits will complete a U.S. Army-developed combat exposure scale. On the day of surgery, the preoperative psychological and physiological stress response will be measured using the Visual Analogue Scale for Stress, Multiple Affect Adjective Checklist-Revised, and salivary alpha-amylase.

Results: This proposed study is pending Institutional Review Board approval.

Conclusions and Implications: This will be the first investigation to determine predictive relationships between varying degrees of combat exposure and the preoperative psychological and physiological stress response in military personnel on the day of surgery. Scientifically demonstrating a heightened stress response in active duty military members throughout the preoperative period will finally corroborate anecdotal experiences described by numerous military perianesthesia professionals. Additionally, it will provide the evidence necessary to support future interventional studies designed to mitigate or diminish the pre- and/or perioperative stress response.

Funding: TriService Nursing Research Program: Grant Number HT9404-12-1-TS16.

Home ◀ ▶ go to PG.

Joining Forces: Educating and Engaging Nursing Students to End Veteran Homelessness

Blanche Landis, PhD, RN, PHN, CNE
VA Nursing Academy

Veterans make up eleven percent of the general population but may account for over twenty-five percent of those who are homeless. In 2009 the U.S. Department of Veterans Affairs and the White House announced the National VA Initiative to End Homelessness for Veterans by 2015. The six pillars of the initiative include: forming community partnerships; identifying income and employment benefits; identifying and utilizing housing services; raise awareness of the issue through outreach and education; prevention efforts; and identify, refer and treat Veterans who need medical/ psychiatric services. Nursing is an important component of the efforts to end Veteran homelessness.

The importance of collaboration and coordination was brought into greater focus through the Joining Forces campaign, a national initiative promoted by First Lady Michelle Obama and Dr. Jill Biden to identify and bring together multiple resources to help meet the unique needs of service members, veterans, and their families. The initiative has been led by major professional nursing organizations with over 500 nursing schools including San Diego State University School of Nursing. These schools have committed to educate future nurses about the unique clinical challenges of Veterans using best practices and to join with others to strengthen the community of nurses, institutions, and providers to improve the health of Veterans.

As part of the VA Nursing Academy (VANA), a partnership between the VA San Diego Healthcare System and San Diego State University School of Nursing, nursing students had the opportunity to learn about homeless coordination and referrals, psychiatric-mental health assessments and referrals, community outreach in the field, and Stand Down activities. San Diego State University School of Nursing students in the Psychiatric-Mental Health Nursing clinicals had the opportunity to learn more about Veteran homelessness by spending time with the VA Homeless Coordinator at the hospital as she met with homeless Veterans. Students observed and engaged in doing assessments and identifying resources not only for housing and leads for employment but other needs as well. Many homeless Veterans may also need psychiatric-mental health support and may be referred to the PEC (Psychiatric Emergency Clinic). Students worked with the PEC coordinator in assessing the needs of the Veteran and then coordinating appropriate referrals. Under the VANA Scholars program, students had the opportunity to work with an outreach nurse to identify, assess, and refer homeless Veterans in the field. All nursing students were encouraged to participate in the yearly San Diego Stand Down activities. A VANA faculty member coordinated efforts to engage students to participate in those multiday and multiservice events. All of the students came away from the above noted experiences with a much greater understanding of the significance and enormity of the problems of Veteran homelessness, and resources and efforts to eliminate it.

VIOLENCE AND ABUSE

CHILD SEXUAL ASSAULT CASES IN THE NORTHWEST: THE ROLE OF THE FORENSIC NURSE

Faye Carlson, Janet Reis, Terri Solberg, Kelley Davis

TESTING AN INTERVENTION FOR IPV BY ENGAGING COMMUNITY MEMBERS IN RESEARCH AND EDUCATION

Jan Shoultz, Lois Magnussen, Mary Frances Oneha

MOTHER-DAUGHTER RELATIONSHIPS & FEMALE AGGRESSION: A FEMINIST ANALYSIS OF ELDER ABUSE

Carolyn Ziminski, Linda R. Phillips

Home go to PG.

VIOLENCE AND ABUSE

Child Sexual Assault Cases in the Northwest: The Role of the Forensic Nurse

Faye Carlson, MS, RN, FNc
Assistant Professor
School of Nursing
Boise State University
Boise, ID

Janet Reis, PhD
Research Director
College of Health Sciences
Boise State University
Boise, ID

Terri Solberg, MEd, CRA
Grant Coordinator
College of Health Sciences
Boise State University
Boise, ID

Kelley Davis
Nursing Student
College of Health Sciences
Boise State University
Boise, ID

Purpose: Analyze regional case report data to determine if variables predictive of child sexual assault (CSA) can be identified for use by investigative and case management teams. The utility of the information for forensic nurses is of particular interest. Identifying the common threads that link children at risk for being mistreated may help guide nurses, advanced practice nurses and legal law enforcement agencies in protecting and investigating households that put children in harms way.

Background: Forensic nurses can be instrumental in moderating the trauma of CSA and assisting the child with the recovery process. According to the National Child Abuse and Neglect Data Systems (2010) 9.2% of US reported cases of child maltreatment were identified as CSA (63,527 cases). In Idaho 6.1 % of 6,984 (2011) cases of maltreatment reported, were identified as CSA. The setting for this study was a geographically diverse area in the Northwest that included urban, rural and frontier areas. The study contained over 700 CSA cases.

Methods: A data template was used to aid in the extraction of the data and was revised based on the information available in the CSA data. Tool revisions were made as data collection progressed. Quantitative analysis will include descriptive statistics and correlations to determine if relationships exist between age of child, disposition of child, composition of family, report sources, perpetrator characteristics, race, and offender age, relationship to victim, reporting agency, household characteristics and the type of abuse reported.

Results: Data pending: will be included on poster presentation.

Implications: Trends and patterns identified during data analysis demonstrate the scope and characteristics of CSA. Information garnered from this study will help identify the trends leading to CSA, and may help forensic nurses, nurses, and local legal agencies in identifying and possibly preventing children from being mistreated or sexual assaulted. The victims of CSA initially may not trust or feel protected from their environment. Therefore, it is important for nurses to be an advocate for CSA victims. The public views the nurse as an advocate to protect the patient from harm, and show a caring compassionate role. Nurses showing compassion, caring and understanding help the CSA victim in the healing process. The camaraderie between nurses and trained forensic nurses help strengthen the advocacy role of nurses in working with CSA victims.

Funding: The School of Nursing, Boise State University.

Home ◀ ▶ go to PG.

Testing an Intervention for IPV by Engaging Community Members in Research and Education

Jan Shoultz, DrPH, APRN
Professor
Department of Nursing
University of Hawaii

Lois Magnussen, EdD, APRN
Professor Emeritus
University of Hawaii

Mary Frances Oneha, PhD, APRN
Executive Director
Waimanalo Health Center

Purposes/Aims: The purpose of this community based participatory research (CBPR) intervention is to determine if community owned, community led "talkstory" groups lead to increased awareness of intimate partner violence (IPV), understanding of the impact of gender role expectations, and increased community leadership to prevent and address IPV.

Rationale/Conceptual Basis/Background: Violence between intimate partners results in significant health consequences that are both physical and psychological and impact individuals within households and across communities. In Hawaii murders from IPV are highest among Native Hawaiian and Pilipina women. Funding for IPV has focused on tertiary services from legal, health and social service professionals. Yet in previous studies women did not rely on traditional victim services or health care providers, but sought support and safety from their families, friends and other community members to prevent and intervene early when relationships were difficult. Critical Social Theory (CST) serves as the theoretical framework that guides this gender based intervention. The intent of this theory is to "challenge conventional assumptions and social arrangements and to move beyond the 'what is' to the 'what could be". The CBPR approach is consistent with CST as it combines research and community capacity-building strategies. Results of the pilot testing will be presented.

Methods: The quasi experimental intervention includes 5 talkstory sessions over 7 months. Pre and post testing during the pilot intervention was conducted to determine changes in the following measures: 1) Perceptions of the Acceptability of Violence; 2) Awareness, Knowledge, and Confidence regarding IPV; 3) Perception of the Capacity to Address IPV in the Community; and 4) Utilization/Outcomes. The entire intervention will include eight experimental groups (4 for Native Hawaiians and 4 for Pilipinos) and eight control groups matched for age, gender and ethnicity.

Results: Pilot findings include the following: The twenty participants tended to find violence unacceptable at the beginning and following the intervention. Their perception of their own awareness, knowledge and confidence to address IPV varied between individuals following the intervention. Participants consistently asked for additional training that would include both knowledge and specific skills to use as they conduct additional "talkstory" sessions in their community.

Implications: Knowledge and confidence among the participants led to identification of leaders who are engaged in further training to conduct the community intervention. Shared leadership for the research is an important element of the CBPR approach. Capacity building and empowerment developed via questioning taken-for-granteds, reflective participatory dialogue, consciousness-raising, and, ultimately, action to redress power imbalances. These changes, while empowering community participants in the research process, also place an obligation on the community partners to take action consistent with the participants' voices, and to critically reflect on traditional rules, practices, structures, and assumptions which have guided perceptions of IPV and resulting interventions in communities.

Funding: USDHHS, Office of Women's Health, 1CCEWH101006-01-00 & 1 CCEWH111025-01-00.

Mother-Daughter Relationships & Female Aggression: A Feminist Analysis of Elder Abuse

Carolyn Ziminski, RN, BSN
Doctoral Student
UCLA School of Nursing
Los Angeles, CA

Linda R. Phillips, PhD, RN
Professor
UCLA School of Nursing
Los Angeles, CA

Background: Older women are more likely to be victims of elder abuse and are more likely to suffer poor outcomes from abuse, as compared to older men. Adult daughters are in more frequent contact, spend more time with and are more likely to be caregivers to their older mother compared to sons, giving them more opportunities to commit elder abuse. Though it has been shown women use aggression differently than men, female aggression in elder abuse has not been examined. Furthermore, the relationship between adult daughters and their aging mothers in elder abuse and the meaning of the mother-daughter relationship within the context of elder abuse have not been researched.

Purpose: The purpose of this qualitative study is to generate theory to explain the process of aggression between abusive daughters and their aging mothers, describing the factors that influence the development of elder abuse.

Sample: Adult daughters age 18 years and older who have been reported to adult protective services for any act of alleged elder abuse in which the victim is their mother were eligible to participate.

Methods: Grounded theory methods, influenced by feminism, were used to achieve the study aims. After receiving IRB approval, during client visits adult protective services social workers gave out recruitment fliers to eligible daughters. Interested daughters contacted the PI to schedule meetings. A semi-structured interview guide consisting of open ended questions was used to elicit experiences of aggression, including the influence of power, social support and attachment. Data will be analyzed using constant comparative analysis.

Results: Data analysis will explore methods of female-aggression, trajectories of violence and the role of the mother-daughter relationship in elder abuse. Results will be presented.

Implications: To date, the research on elder abuse has been largely descriptive and focused on identifying individual risk factors for abuse. Feminist analysts argue that focusing on individual risk factors makes excuses for abusers and ignores that elder abuse is a social construction rooted in a power relationship. An analysis of mother-daughter relationships in elder abuse will aid nurses in identifying female-forms of aggression and potentially abusive relationships. It will also allow nurses to design interventions to enhance family relationships in late-life.

Funding: John A. Hartford BAGNC Scholarship, Sigma Theta Tau Gamma Tau at Large Chapter Dissertation Research Award.

Home ◀ ▶ go to PG.

RESEARCH & INFORMATION EXCHANGE

The Research & Information Exchange includes posters of research conducted by faculty and students, and nurses in clinical practice. These posters have been selected by, and submitted from, WIN member agencies.

ARIZONA STATE UNIVERSITY COLLEGE OF NURSING AND HEALTH INNOVATION

Phoenix, AZ

DEFINING KNOWING ACROSS DISCIPLINES

Judith Mueller

CONCEPT ANALYSIS: PATIENT CENTERED CARE IN MENTAL HEALTH

Zaharenia V. Tsikopoulos

WHAT PATIENTS WANT TO KNOW ABOUT THEIR PLAN OF CARE

Karen Jiggins Colorafi

THE CLASSROOM AS A COMPLEX ADAPTIVE SYSTEM

Nick Miehl

RESILIENCE AS A PERSONAL RESOURCE

Kate Watkins

A CONCEPT ANALYSIS OF SELF-KNOWLEDGE FOR PHYSICAL ACTIVITY IN OLDER ADULTS

Jennifer Barrows

AZUSA PACIFIC UNIVERSITY SCHOOL OF NURSING

Azusa, CA

STRENGTHENING OUR NURSING PRACTICE BY UNDERSTANDING OUR NURSING HISTORY

Marcia Harris-Luna

APPLICATION OF NEUMAN SYSTEMS MODEL TO CHRONIC OBSTRUCTIVE PULMONARY DISEASE EXACERBATION

Victoria Pham Randazzo, Marie Fongwa

EXPLORING RESILIENCE IN PSYCHIATRIC NURSES: APPLICATION OF ROY ADAPTATION MODEL

Carolyn Hanahano

Home

go to PG.

THE SPIRITUAL WELL-BEING OF ADULTS WHO HAD EXPERIENCED CHILDHOOD SEXUAL ABUSE BY CLERGY

Charlene Niemi

KENYAN WOMEN LIVING WITH HIV/AIDS: A MIXED METHOD STUDY

Rosemary Mwangi, Vivien Dee, Sheryl Tyson, Lina Badr

BANNER GOOD SAMARITAN MEDICAL CENTER

Phoenix, AZ

STOP STINGING LIKE A BEE: STEPS IN CHANGING A UNIT CULTURE

Debbie Kohm

NURSE PERCEPTION OF CENTRAL LINE NECESSITY

Ann Earhart

IMPLEMENTATION OF A THREAT ALERT FLAG TO DECREASE VULNERABILITY TO VIOLENCE

Elizabeth Swan, Susan Phillips, Ursula Sobas-Gonzalez,
Doris McVey, Debbie Kohm

INFUSING CONFIDENCE IN IV CANNULATION: AN EVIDENCE-BASED PRACTICE PROJECT

Ann Earhart, Kenneth Oja

BANNER THUNDERBIRD MEDICAL CENTER

Glendale, AZ

FALL RISK/PHARMACY EVIDENCE-BASED PROJECT

Robbin Taggart

A TEAM-BASED NURSING MODEL

Colleen Murphy, Jennifer Nerone

IMPLEMENTATION OF A WOUND CARE CART FOR CRITICAL CARE

Carmen Lombardo

Home ◀ ▶ go to PG.

SPIRITUAL CARE AND PAIN MANAGEMENT EVIDENCE-BASED PROJECT
Charissa Elliott, Susanna Van Zyl

CREATING A STROKE SUPPORT GROUP
Sarah Badalamenti

BOISE STATE UNIVERSITY SCHOOL OF NURSING
Boise, ID

AN EVIDENCE REVIEW OF THE EFFECTIVENESS OF IV ACETAMINOPHEN
Nicole Benskin, Marcia Watt, Kimiko Krutz, Marty Downey, Kristin Miller

ENHANCING ACCESS TO CULTURAL HEALTH ASSESSMENT: TOOLS FOR REFUGEES IN IDAHO
Samantha Fundingsland

CONTINUITY PLANNING:
COMMUNITY HEALTH IN ACTION
Bree Herndon, Gina Schmidt

CIVILITY AS A LEARANED AND ESSENTIAL SKILL IN NURSING EDUCATION
Danh Nguyen, Lynette Ages

RETURN OF BOWEL FUNCTION AND VIEWING COOKING SHOWS AFTER ABDOMINAL SURGERY
Trittica Nielson, Stacy Tucker, Erica Yager

SPIRITUAL PAIN OR EXISTENTIAL SUFFERING
Jennifer Peer

THE BENEFITS OF UNDERGRADUATE RESEARCH ASSISTANTSHIPS IN NURSING
Ryoko Pentecost

WHEN POLICY DRIVES PRACTICE: A POLICY ANALYSIS
Jennifer Jonely

PRESSURE ULCER PREVENTION IN THE ICU/CCU:
AN INTERGRATIVE REVIEW
Bree Herndon, Kathy Reavy

BRIGHAM YOUNG UNIVERSITY COLLEGE OF NURSING

Provo, UT

OVERCOMING ANEMIA: DECREASING ANEMIA RATES IN CHILDREN IN ECUADOR

Sondra Heaston, Sheri Palmer

UNDERSTANDING DIVERSITY IN CARING FOR OUR VETERAN POPULATION

Kent Blad, Ron Ulberg

CARING FOR VETERANS: DEVELOPING A COURSE FOR NURSING STUDENTS

Kent Blad, Ron Ulberg

UNDERSTANDING U.S. VETERANS: IMPLICATIONS IN NURSING

Kent Blad, Ron Ulberg

ENGAGING TEACHING ADDS TO STUDENT SUCCESS

Debra Edmunds

INDIA STUDY ABROAD EXPERIENCES IN A PEDIATRIC POPULATION

Karen Lundberg, Cheryl Corbett

HOW HCAHPS SCORES AND MEDICARE/MEDICAID REIMBURSEMENT AFFECT NURSING CARE

Janelle Macintosh

CHILDREN'S HOSPITAL COLORADO

Aurora, CO

ESTABLISHING QUALITY METRICS FOR A TELEPHONE TRIAGE PROGRAM

Kathleen Martinez

INTERRUPTIONS OF THE NNP IN A LEVEL III NICU

Susan L. Moran

LOMA LINDA UNIVERSITY SCHOOL OF NURSING

Loma Linda, CA

CHEMOTHERAPY-ASSOCIATED ANXIETY FROM THE PATIENT PERSPECTIVE

Amal Alaskar, Patricia Pothier

USING TEXTING TO ENHANCE COMPLIANCE AND DECREASE BMI IN HISPANIC CHILDREN

Kimberly Buck, Susan Lloyd

EFFECT OF HEALTH LITERACY ON SELF-CARE IN COMMUNITY-DWELLING JAMAICAN ELDERS

Heather Fletcher, Betty Winslow

IMPROVING PAIN MANAGEMENT BY IMPLEMENTING THE PAIN RESOURCE NURSE PROGRAM

Lisa L. Hendershott, Gina S. Brown

ENHANCING RN CONFIDENCE IN PAIN ASSESSMENT FOR NONVERBAL HOSPICE PATIENTS

Valerie J. Malinoski, Susan Lloyd, Isaac Vielma

SPIRITUAL CARE IN PEDIATRIC NURSING

Iris Mamier, Shaunna Siler

IMPLEMENTATION OF PAIN ORDER SETS ON A MEDICAL ONCOLOGY UNIT

Jennifer McMahon, Iris Mamier

NURSES' EXPERIENCES WITH SPIRITUALITY AND SPIRITUAL CARE AT THE WORKPLACE

Cherie Pefanco, Shaunna Siler, Iris Mamier

LIVING WITH AGING: THE EXPERIENCES OF THE OLDEST-OLD

Julie A. Pusztai, Betty Winslow

REDUCTION OF CATHETER ASSOCIATED URINARY TRACT INFECTIONS

Patricia Radovich, Karen Lawson, Ebone Allen

A THREE FACTOR GRIEF MODEL PREDICTING PERINATAL GRIEF IN INDIA

Lisa Roberts, Jerry Lee

Home ◀ ▶ go to PG.

THE EFFECT OF PRE-OP PATIENT EDUCATION ON POST-OP PAIN MANAGEMENT OUTCOMES

Katherine F. O'Donnell-Rose, Nancy A. Kofoed

LUCILE PACKARD CHILDREN'S HOSPITAL AT STANFORD

Palo Alto, CA

INTRODUCING YOGA BREATHING TECHNIQUES TO THE PEDIATRIC ONCOLOGY POPULATION TO HELP WITH SYMPTOM MANAGEMENT

Christa Setawan

PAIN MANAGEMENT IN NEWBORNS DURING PAINFUL PROCEDURES

Larisa Ibragimova

DAILY CHLORHEXIDINE GLUCONATE BATHS FOR PATIENTS IN PEDIATRIC INTENSIVE CARE: DO THEY DECREASE CENTRAL LINE ASSOCIATED BLOODSTREAM INFECTIONS?

Amber Bakke

DOES USING A STANDARDIZED HANDOFF PROCESS WITH PEDIATRIC PACU RNS WHEN TRANSFERRING CARE TO INPATIENT RNS REDUCE PATIENT ERRORS AND INCREASE PATIENT SAFETY IN COMPARISON WITH CURRENT PRACTICE?

Michelle Santilhano

MONTANA STATE UNIVERSITY COLLEGE OF NURSING

Bozeman, MT

MEASURING COMPLETED REFERRALS IN AN UNDERSERVED POPULATION

Emilie Kuster, Laura Larsson

INDUSTRY THOUGHTS ON RADON RESISTANT CONSTRUCTION PRACTICES IN MONTANA

Allison Nesseth, Laura Larsson

TRADITIONAL THOUGHTS ON LUNG HEALTH AMONG THE BLACKFEET INDIANS

Mariya Couch, Laura Larsson

Home

◀ ▶ go to PG.

METHYLMERCURY RISK AND EXPOSURE AMONG ANGLERS

Stephanie Angert, Sandra Kuntz

ENGAGING ELDERS FOR THE TRANSLATION OF RESEARCH OUTCOMES

Milissa Grandchamp, Sandra Kuntz

NEW MEXICO STATE UNIVERSITY SCHOOL OF NURSING

Las Cruces, NM

ENTRY LEVEL NURSE PROFESSIONAL AFFILIATION: A QUANTITATIVE STUDY

Sandra Sexton Welling

RESILIENCE OF ELDERLY WOMEN VICTIMS OF ABUSE OR VIOLENCE AT AN EARLIER AGE

Tenna Roxanne Schumacher

NORTHERN ARIZONA UNIVERSITY SCHOOL OF NURSING

Flagstaff, AZ

CAN EARPLUGS IMPROVE THE PATIENT'S PERSPECTIVE OF INCREASED SLEEP IN THE ICU?

Ryan Treat

OREGON HEALTH & SCIENCE UNIVERSITY SCHOOL OF NURSING

Portland, OR

CONCEPT ANALYSIS: PRE-DEATH GRIEF IN CAREGIVERS OF PERSONS WITH DEMENTIA

Allison Lindauer

CANCER SURVIVORSHIP IN RURAL & URBAN ADULTS: DESCRIPTIVE/MIXED METHODS STUDY

Julie McNulty, Lillian Nail

BARRIERS TO EFFECTIVE COMMUNICATION IN PRE-HOSPITAL EMERGENT CARDIAC PATIENTS

Jane Miller, Gary Laustsen

ETIOLOGY OF FATIGUE IN BREAST CANCER THERAPY: A ROLE FOR OREXIN

Lillian Nail, Daniel Marks

SALEM HEALTH

Salem, OR

NEW GRAD RESIDENCY: A PROGRAM EVALUATION

Steve Buck, David Schultz, Sarah Wolfe, Lisa Ketchum, Kelly Honyak, Amy Stokes

COPING ASSESSMENT METHOD IN LABORING MOMS

Greta Horn, Jensea Chauvin, Elizabeth Dean

EVIDENCE-BASED PRACTICE READINESS SURVEY

Margo Halm, Ann Always, Jensea Chauvin, Weslee Wells, Jeanne St. Pierre

CARDIAC SURGERY PLANNED REST PERIODS

Ann Alway, Heather Rideout

PRESSURE ULCER PREVENTION IN CRITICALLY ILL PATIENTS

Charlotte Lumby

SAN DIEGO STATE UNIVERSITY SCHOOL OF NURSING

San Diego, CA

NUTRITIONAL HEALTH STATUS OF HOMELESS VETERANS IN SAN DIEGO

Jenna Arguelles, Maricris Cruz, Christopher Garcia, Giyeon Han, Young-Shin Lee

AWARENESS AND TREATMENT RELATED TO BLOOD PRESSURE IN SAN DIEGO COMMUNITY

Katherine Nicole O. Padiernos, Jessica Salas, Shaina Bongato,
Charlene Dela Cruz, Young-Shin Lee

BONE HEALTH AND ACCULTURATION OF KOREAN-AMERICAN WOMEN

Hyeran Seo, Yeongri Kim, Young-Shin Lee

TEN YEAR FRACTURE RISK AND RELATED PREVENTIVE BEHAVIOR IN THE INDEPENDENT LIVING ELDERLY

Jennifer Acosta, Erin Aazmi, Rosalinda Ruezga, Danielle Koren, Young-Shin Lee

Home ◀ ▶ go to PG.

UNIVERSITY OF ALASKA, ANCHORAGE SCHOOL OF NURSING

Anchorage, AK

ADVANCED HEALTH CARE STUDENT PERCEPTIONS ABOUT INTERPROFESSIONAL EDUCATION

Heide Provencher

THE UNIVERSITY OF ARIZONA COLLEGE OF NURSING

Tucson, AZ

THE MEXICAN AND MEXICAN AMERICAN WOMEN'S HEART STUDY

John Bowles, Marylyn Morris McEwen

MINDFUL EATING: THE ADOLESCENT OBESITY SOLUTION

Patricia Daly, Judith Berg

"GOTTA HAVE IT…" A QUALITATIVE STUDY OF CRAVINGS IN PREGNANCY

Barbara Hackley

HEALING TOUCH FOR MENTAL HEALTH CONDITIONS: A CONCEPT ANALYSIS

Christina Harlow, Kate G. Sheppard

COMPATIBILITY OF DIALECTICAL BEHAVIOR THERAPY WITH NATIVE AMERICAN CULTURE

Kathy Kinsy, Pamela Ree, Marylyn McEwen

EMPOWERMENT INFORMATICS: A NURSING FRAMEWORK

Elizabeth Knight, Kimberly Shea

PATIENTS' PAIN EXPERIENCE AND OTHER SYMPTOMS RELATED TO PAINFUL PROCEDURES

Rubria Marines de Price, Kathleen Insel, Anne Rosenfeld

RADIOFREQUENCY (RF) TECHNOLOGY – AN ADJUNCT TO TRACK SURGICAL SPONGES

Rajni Parmara

MENTAL HEALTH TREATMENT PREFERENCES FOR PERSONS OF MEXICAN HERITAGE

Tanya Sorrell, Cathy Michaels

UNIVERSITY OF CALIFORNIA, DAVIS THE BETTY IRENE MOORE SCHOOL OF NURSING

Sacramento, CA

BMI AND PHYSICAL ACTIVITY TRENDS IN A RURAL, MEXICAN-HERITAGE COMMUNITY

Lisa Martinez, Adela de la Torre, Banafsheh Sadeghi, Sara Schaefer

TELEHEALTH REMOTE PATIENT MONITORING IN PERSON WITH TYPE 2 DIABETES

Deborah Greenwood

EFFECTS OF BODY TEMPERATURE ALTERNATIONS FOLLOWING TRAUMATIC BRAIN INJURY

Lori Kennedy Madden

FOOD INSECURITY, CHILD FEEDING PRACTICES & BMI IN A RURAL LATINO POPULATION

Christy Solorio

THE INFLUENCE OF INTERNET HEALTH INFORMATION ON HEALTH TREATMENT DECISIONS

Susan Perez

UNIVERSITY OF CALIFORNIA, LOS ANGELES SCHOOL OF NURSING

Los Angeles, CA

AFRICAN AMERICAN WOMEN AND BREAST CANCER: VOICES OF SURVIVORSHIP

Claudia M. Davis, Felicia Hodge, Hector Myers, Adeline Nyamathi,
Maray Ann Lewis, Lynn Brecht

PAIN, COPING AND SLEEP OF CHILDREN AND ADOLESCENTS WITH SICKLE CELL DISEASE

J. Kelly Graves, Eufemia Jacobs

HIV/AIDS AND OLDER AFRICAN WOMEN

Ariel Rankin

FOSTER CHILD ADVOCACY

Sharicca Miller

PREDICTORS OF HIGH LEVEL OF HOSTILITY AMONG HOMELESS MEN ON PAROLE
Fayette Nguyen Trauz, Adeline Nyamathi, Benissa Salem

PAIN IN CABG PATIENTS
Judy McKelvy

CHRONIC ILLNESS AMONG CHILDREN AND THEIR FAMILIES
Sharee Anzaldo

COMMUNICATION AND MESSAGE FRAMING EFFECTS ON PNEUMONIA READMISSION REDUCTION
Angela Halpin

SITUATIONAL LEARNING DISABILITY IN HEART FAILURE PATIENTS
Kristin Dixon

DIVERSITY RESEARCH AMONG DOCTORAL STUDENTS
Lindsay Williams

URANIUM IN THE FOOD CHAIN IN AN AMERICAN INDIAN COMMUNITY IN NEW MEXICO
Christine Samuel-Nakamura, Wendie Robbin, Felicia Hodge

UNIVERSITY OF COLORADO COLLEGE OF NURSING
Aurora, CO

JAPANESE CULTURAL INFLUENCE ON MEDICAL DECISION MAKING
Yuki Asakura

PREDICTING PATIENT SATISFACTION
September T. Nelson

THE HEALTH OF ARAB IMMIGRANTS LIVING IN COLORADO
Dana El-Hajj

INTERPRETIVE DESCRIPTION AND PHOTOGRAPHY: HOME AND HEALTH FOR THE OLDEST OLD
Marleen Thornton, Kathy Magilvy, Jacqueline Jones

Home go to PG.

ORGANIZATIONAL COMMITMENT, SATISFACTION, AND INTENT TO STAY IN HOME HEALTH

Armi S. Earlam

ASSESSING HEALTH SEEKING BEHAVIORS OF RURAL YOUTH WITH TYPE 1 DIABETES

Debra Bailey, Jacqueline Jones

PSYCHONEUROIMMUNOLOGICAL FRAMEWORK FOR THE STUDY OF POSTPARTUM DEPRESSION

Sharon L. Ruyak

CHRONIC PHYSICAL AND MENTAL HEALTH CONDITIONS AMONG HOMELESS ADOLESCENTS

Lenka Heller, Jesse Francomano, Scott B. Harpin

UNIVERSITY OF NEVADA, LAS VEGAS SCHOOL OF NURSING

Las Vegas, NV

VISUAL THINKING STRATEGIES FOR NURSING STUDENTS

Meg M. Moorman

PROCESS OF DEVELOPING A BEHAVIORAL TOOL FOR MEDICATION ADMINISTRATION

Andrea Criss

OPTIMIZING ELEMENTARY SCHOOL PLAYGROUNDS TO INCREASE MODERATE TO VIGOROUS PHYSICAL ACTIVITY IN CHILDREN

Ipuna Black

TESTING A REFLECTION INTERVENTION ON BSN STUDENTS LEVEL OF REFLECTION DURING ONLINE CPC

Jaime Hannans

UNIVERSITY OF NEW MEXICO COLLEGE OF NURSING

Albuquerque, NM

COMMUNITY-BASED PARTICIPATORY RESEARCH IN TOBACCO CONTROL

Kelly Buettner-Schmidt, Marie Lobo

Home ◀ ▶ go to PG.

PERSPECTIVES ON CERVICAL CANCER AND SCREENING AMONG THAI WOMEN IN GERMANY

Unchalee V. Ice, Cindy Mendelson

VISUALLY SPEAKING:
USING A ETHNOGRAPHIC PHOTO ELICITATION INTERVIEW

Yolanda M. Morales

THE IMPACT OF FEMALE URINARY INCONTINENCE ON THE MIDLIFE INTIMATE DYAD

Lori Saiki, Robin Meize-Grochowski

POLITICAL PARTICIPATION OF REGISTERED NURSES: DEVELOPMENT OF THE CONCEPT

Kelly Pendergast Nestor, Beth Rodgers

ARE BIRTH CENTERS ECONOMICALLY VIABLE?

Melanie Phipps-Morgan, Maurice Moffett

EXPLORING FAMILY-NURSE SOCIAL EXCHANGES IN NURSING HOMES UTILIZING GT

Lourdes Ticas, Cindy Mendelson

NATIVE AMERICAN PERSPECTIVES:
PERSONHOOD AND HEALTH

Regina Eddie, Cindy Mendelson

UNIVERSITY OF NORTHERN COLORADO SCHOOL OF NURSING

Greeley, CO

BARRIERS AND FACILITATORS TO EFFECTIVE MANAGEMENT OF GESTATIONAL DIABETES FOR HISPANIC WOMEN

Paula Clark, Melissa Henry, Karen Hessler

UNIVERSITY OF PORTLAND SCHOOL OF NURSING

Portland, OR

EVALUATION OF A SPECIAL HEALTH CARE NEEDS PROGRAM FOR CHILDREN

Sarah Moyes

Home ◀ ▶ go to PG.

EMPOWERMENT: ITS INFLUENCE ON HEALTH CARE FOR WOMEN IN SOUTHEAST ASIA

Sarah Olson, Whitney Raffle, Aimee Smith, Kaye Wilson-Anderson

---

UNIVERSITY OF SAN DIEGO
HAHN SCHOOL OF NURSING AND HEALTH SCIENCE

San Diego, CA

DEVELOPING A CLINICAL NURSE LEADER PRACTICE MODEL: AN INTERPRETIVE SYNTHESIS

Miriam Bender

USE OF VIDEO GAMES IN PATIENTS' SELF-MANAGEMENT OF PAIN: A FEASIBILITY STUDY

Janet Donnelly

PERCEPTIONS OF PRE-LICENSURE NURSING STUDENT SIMULATION EXPERIENCES

Karen Macauley

THE IMPACT OF ELECTRONIC HEALTH RECORDS ON THE QUALITY OUTCOME OF THE ADULT CRITICAL CARE UNIT

Ahmad Madie

TRANSITION TO ADULT CARE: A SELF-MANAGEMENT INTERVENTION FOR ADOLESCENTS WITH TYPE 1 DIABETES MELLITUS

Kathy K. Marsh

HOPE, UNCERTAINTY AND COPING AMONG PARENTS OF CHILDREN WITH CANCER

Christine Sloan

IMPROVING HERPES ZOSTER VACCINATION RATES IN A PRIVATE PRIMARY CARE SETTING

Jennifer L. Huck

EFFECTS OF ACCULTURATION ON MAMMOGRAPHY UTILIZATION AMONG KOREAN AMERICAN WOMEN

Jungeun Karen Kim

EXPLORING WOMEN'S EXPERIENCES AND PERCEPTIONS OF MATERNITY CARE DURING PREGNANCY

Elizabeth C. Light

Home ◀ ▶ go to PG.

REPORTING STRUCTURE OF THE CLINICAL NURSE SPECIALIST ON ORGANIZATIONAL OUTCOMES
Carmen Colombo, Deene Mollon, Verna Sitzer, Melinda Toole

POSTTRAUMATIC STRESS DISORDER AND INTENSIVE CARE: EARLY IDENTIFICATION AND SCREENING IN RECENTLY DISCHARGED PATIENTS
Heather Warlan

THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO SCHOOL OF NURSING
San Antonio, TX

RESEARCH/CAREER DEVELOPMENT USING A DIVERSITY SUPPLEMENT RESOURCE
Sergio Enrique Rivas

A MULTI-LEVEL RALATAIONAL VIEW OF PERSON-ENGAGED DEMENTIA CARE
Gretchel Ajon-Gealogo

ANALYZING PRACTICE ENGAGEMENT AMONG HOSPITAL NURSES IN SOUTH TEXAS
Isabel C. Martinez

MODERNIZATION OF NURSE-PROVIDER COMMUNICATION: A PILOT PROJECT
Angela D. Pal

EXPLORING STRATEGIES FOR IMPROVING HRQOL AMONG EARLY DEMENTIA INDIVIDUALS
Priscilla Alfradique de Souza

COMPARING OPIOIDS AND NON-OPIOIDS ACROSS CHRONIC PAIN PATIENTS
Tatyana Aultman

THE INFLUENCE OF ATTACHMENT ON HIGH-RISK SEXUAL BEHAVIORS & SELF-DISCLOSURE
Priscilla Concepcion Williams

PARENT’S PERCEPTION OF COMMUNICATION WITH THEIR CHILD’S HEALTHCARE PROVIDER
Jasmine R. Graw

UNIVERSITY OF UTAH COLLEGE OF NURSING

Salt Lake City, UT

PRESSURE ULCER STAGING CONSIDERATIONS IN A RESEARCH CONDUCTED AMONG ICU PATIENTS

Jenny Alderden

POSSIBLE SELVES THEORY AS AN APPROACH TO STRENGTHS BASED CARE

Jacqueline Eaton

THE PRAXIS OF COURAGE AS A FOUNDATION FOR CARE

Sara Hawkins

SYSTEMATIC REVIEW OF PERSONAL HEALTH RECORD RESEARCH LITERATURE

Christopher Macintosh

USING DISTANCE CODERS IN COMMUNICATION RESEARCH: HOW TO GET DONE

Julius Kehinde

SYMPTOM CLUSTER: A CONCEPT ANALYSIS

Meagam Whisenant

UNIVERSITY OF WASHINGTON SCHOOL OF NURSING

Seattle, WA

TOWARDS SALIENCE: INTEGRATIVE, CASE-BASED, EDUCATION FOR NEONATAL APNS

Elena Bosque

CARE FOR THE CAREGIVER: UNDERSTANDING THE BURDEN OF HOSPICE CAREGIVING

Ellen S. Meyer, George Demiris

TRAINING DEVELOPMENT FOR COMMUNITY AGENCIES PARTNERING WITH TRIBAL COMMUNITIES

Kristen Hosey, Carolyn J. Strickland

CONCEPTS RELATED TO THE AGING EXPERIENCE IN OLDER AFRICAN IMMIGRANT WOMEN

Sharon G. McRae, Barbara B. Cochrane, Ching-Feng Chang

Home ◀ ▶ go to PG.

EVOLUTION OF PHILOSOPHY COURSES IN THE UW PHD NURSING PROGRAM

Da Won Baik, Nai-Ching Chi, Mee Kyung Lee, Seung Eun Park,
Ellita T. Williams, Joachim G. Voss

HEALTH OF THE POPULATION: SLEEP AT THE "CENTER"

Margaret Heitkemper, Gail Kieckhefer, Carol Landis, Karen Thomas, Michael Vitiello

COMMUNITY HEALTH EDUCATION FOR SELF-GUIDED LEARNING IN THE DIGITAL ERA

Jenny Hsin-Chun Tsai, Doris M. Boutain, Noel J. Chrisman,
Carole Hooven, Barbara B. McGrath

INCORPORATING CULTURAL COMPETENCE IN AN ADVANCE NURSING PRACTICE CURRICULUM

Jenny Hsin-Chun Tsai, Basia Belza, Musetta Fu, Phyllis Christianson

OBJECTIVE KNOWING CAUSES PARADIGM SHIFT IN FAMILY CENTERED CARE

Linda Sharee Squires, Janet Pohl, Junjyoun Han

UNIVERSITY OF WYOMING FAY W. WHITNEY SCHOOL OF NURSING

Laramie, WY

DIET AND PHYSICAL ACTIVITY AMONG COLLEGE STUDENTS WITH TYPE 1 DIABETES

Tori Emerson, Terra Harvey, Madison Struble, Talisha Hobbs,
Christin Brillinger, John Moring, Jenifer Thomas

IMPROVING EARLY IDENTIFICATION OF LATENT TUBERCULOSIS IN AN OB POPULATION

Esther A. Gilman-Kehrer

VA SAN DIEGO HEALTHCARE SYSTEM

San Diego, CA

MANTRAM REPETITION PROGRAM SHOWS POSITIVE CHANGE IN VETERANS' HEALTH

Taylor Andrews, Kathleen Warren, Alexandra Badone, Danielle Beck, Jill Bormann

Home ◀ ▶ go to PG.

PORTABLE MINDFUL STRATEGIES FOR A HEALTHY WORKFORCE: MANTRAM REPETITION

Emily Trepasso-Grullon, Taylor Andrews, Geri Hollinger,
Sheryl Becker, Jill Bormann

IMPROVING VETERAN'S FOLLOW-UP CARE AFTER PSYCHIATRIC HOSPITALIZATION

N. Sims, M. Jacobson, K. Zabel, E. Flores, V. Graham, K. Carll,
C. Waters, D. Ruther, S. McDonald, K. Lyttle, D. Lehman, R. Anthenell

DIRECT OBSERVATION OF RN CARE PROCESSES IN TWO VA-AFFILIATED NURSING HOMES IMPROVING

M.E. Dellefiedl, C. Harrington, C. Der-Martirosian, J. Schnelle

MANTRAM REPETITION TO MANAGE PTSD IN VETERANS: A QUALITATIVE ANALYSIS

Jill Bormann, Samantha Hurst, Steven Thorp, Ann Kelly,
Patricia Bone, Lindsey von Kaenel, Ariel Lang

Home

◀ ▶ go to PG.

WIN HONORS

The Western Institute of Nursing proudly recognized outstanding Western nurses and friends with the following awards and honors in 2013.

DISTINGUISHED RESEARCH LECTURESHIP AWARD

The Distinguished Research Lectureship recognizes a senior researcher whose research efforts have made significant and sustained contributions to nursing. The 2013 award recipient was:

> ***Terry A. Badger, PhD, PMHCNS-BC, RN, FAAN***, Professor, College of Nursing, The University of Arizona, Tucson, AZ.

CAROL A. LINDEMAN AWARD FOR A NEW RESEARCHER

The New Researcher Award was established in 1976 by Carol A. Lindeman to support nursing researchers early in their careers. In 1987, the award was renamed to recognize Dr. Lindeman for her contributions and support of colleagues. In 2013, the award was given to:

> ***Gayle J. Kipnis, PhD, RNC-OB, AHN-BC***, Assistant Professor, School of Nursing, California State University, Chico, CA.

PATSY A. PERRY BIOLOGICAL NURSING RESEARCH AWARD

The Biological Nursing Research Award was started, and is supported, by Patsy A. Perry, RN, PhD, Professor (Retired), Arizona State University College of Nursing. The purpose of the award is to recognize outstanding biological research conducted by nurses. In 2013, the award was given to:

> ***Lauren Thorngate, PhD, RN, CCRN***, Postdoctoral Research Fellow, Biomedical Informatics and Medical Education, University of Washington, Seattle, WA.

JOHN A. HARTFORD FOUNDATION/WESTERN INSTITUTE OF NURSING REGIONAL GERIATRIC NURSING RESEARCH AWARD

The Western Institute of Nursing and the John A. Hartford Foundation make annual awards to a senior researcher and a new researcher to recognize outstanding nurse researchers and to foster and showcase geriatric nursing research. Recipients of the researcher awards in 2013 were:

> Senior Researcher:
> ***Janice D. Crist, PhD, RN, FNGNA, FAAN***, Associate Professor, College of Nursing, The University of Arizona, Tucson, AZ.
>
> New Researcher:
> ***Corey L. Nagel, PhD, MPH, RN***, Assistant Professor, School of Nursing, Oregon Health & Science University, Portland, OR.

Home ◀ ▶ go to PG.

JOHN A. HARTFORD FOUNDATION/WESTERN INSTITUTE OF NURSING REGIONAL GERIATRIC NURSING EDUCATION AWARD

In 2011, the John A. Hartford Center of Geriatric Nursing Excellence at Oregon Health & Science University established a "Regional Geriatric Nursing Education Award" at WIN, with the first award to be given in 2012. The OHSU Hartford Center is providing the funds for the award. In 2013, the award was given to:

> ***Glenise McKenzie, PhD, RN***, Associate Professor, Oregon Health & Science University, Ashland, OR.

ANNA M. SHANNON MENTORSHIP AWARD

The Anna M. Shannon Mentorship Award was established in the name of the former Dean and Professor of the College of Nursing, Montana State University – Bozeman who unselfishly supported and promoted the professional growth of other nurses in the West. The 2013 Award recipient was:

> ***Nancy Fugate Woods, PhD, RN, FAAN***, Professor, Biobehavioral Nursing, and Dean Emeritus, University of Washington School of Nursing, Seattle, WA.

JO ELEANOR ELLIOTT LEADERSHIP AWARD

In 1988, Jeanne Kearns, formerly Executive Director of WIN, established the Jo Eleanor Elliott Leadership Award. This award honors Jo Eleanor Elliott for outstanding leadership while serving as the Director of Nursing Programs at WICHE and the Executive Secretary of WCHEN from 1957-1980. The 2013 Award recipient was:

> ***Kathy Magilvy, PhD, RN, FAAN, FWAN***, Professor and Associate Dean, Academic Programs, University of Colorado College of Nursing, Aurora, CO.

ANN M. VODA AMERICAN INDIAN/ALASKAN NATIVE/FIRST NATION CONFERENCE AWARD

The Ann M. Voda American Indian/Alaskan Native/First Nation Conference Award was established in 2008 by Ann Voda to encourage American Indian/Alaskan Native/First Nation nursing students or nurse clinicians to participate with the WIN community of scholars. The 2013 award was made to:

> ***Lei-Lani White, MSN, RN, CPNP,*** Pediatric Nurse Practitioner, Doctor of Nursing Practice Student, College of Nursing and Health Innovation, Arizona State University, Phoenix, AZ.

WESTERN ACADEMY OF NURSES

The Western Academy of Nurses recognizes and honors nurses who have demonstrated excellence in nursing practice and who have advanced nursing in direct care, education, or research. Inducted into the Academy in 2013 were:

Home ◀ ▶ go to PG.

Patricia Graw Butterfield, PhD, MS, Dean and Professor, College of Nursing, Washington State University, Spokane, WA.

Janice D. Crist, RN, PhD, FNGNA, FAAN, Associate Professor, College of Nursing, The University of Arizona, Tucson, AZ.

Virginia Tilden, PhD, RN, FAAN, Dean and Professor Emerita, College of Nursing, University of Nebraska Medical Center; Omaha, NE; Professor Emerita, School of Nursing, Oregon Health & Science University, Portland, OR.

Joie Whitney, PhD, RN, CWCN, FAAN, Professor, Associate Dean for Research, School of Nursing, University of Washington, Nurse Scientist and Endowed Professor, Harborview Medical Center, Seattle, WA.

FRIENDS OF WIN AWARD

In 2010, the Western Institute of Nursing Board of Governors established the Friends of WIN Award. The award is given for stellar individuals or organizations that have made outstanding contributions to the Western Institute of Nursing (WIN). The intent of this award is to recognize these individuals or organizations and to thank them for their contributions. The 2013 was made to:

Russell Poulin, Deputy Director, WICHE Cooperative for Educational Technologies.

AMERICAN NURSES FOUNDATION/WESTERN INSTITUTE OF NURSING SCHOLAR AWARD

The American Nurses Foundation (ANF) and the Western Institute of Nursing (WIN) jointly sponsor a research grant to a WIN member selected through the ANF selection process. The 2013 scholar award went to:

Angelia Clark Trujillo, DNP, MS, RN, Assistant Professor, School of Nursing, University of Alaska, Anchorage, Anchorage, AK.

WIN ELECTED AND APPOINTED LEADERSHIP BOARD OF GOVERNORS

JUDITH A. BERG, PHD, RN, WHNP-BC, FAAN, FAANP
President
Clinical Professor
College of Nursing
The University of Arizona
Tucson, AZ

MARIE J. DRIEVER, RN, PHD
Past-President
Clinical Practice and Research Consultant
Seattle, WA

JULIE E. JOHNSON, PHD, RN, FAAN
Secretary-Treasurer
Professor
School of Nursing
Chaminade University
Honolulu, HI

LYNNE C. ANDRUS, RN, MSN, CEN
Governor Representative of Student Members
Doctoral Student
University of Colorado College of Nursing
Aurora, CO

JUDITH GEDNEY BAGGS, PHD, RN, FAAN
Governor-at-Large
Elizabeth N. Gray Distinguished Professor
School of Nursing
Oregon Health & Science University
Portland, OR

MARIE L. LOBO, PHD, RN, FAAN
Governor Representative of Nursing Research
Professor
College of Nursing
University of New Mexico
Albuquerque, NM

JENNIFER S. MENSIK, PHD, RN, NEA-BC, FACME
Governor Representative of Nursing Practice
Administrator, Nursing and Patient Care Services
St. Luke's Boise and Meridian Medical Centers
Boise, ID

CHARLENE A. WINTERS, PHD, APRN, ACNS-BC
Governor Representative of Nursing Education
Professor
College of Nursing
Montana State University
Missoula, MT

MEMBERSHIP COMMITTEE

ANITA C. REINHARDT, PHD, RN
Chair
Assistant Professor
School of Nursing
New Mexico State University
Las Cruces, NM

ANNE BOWEN, PHD
Professor
Fay W. Whitney School of Nursing
University of Wyoming
Laramie, WY

MARGARET CLAYTON, PHD, APRN
Assistant Professor, Co-Director, PhD Program
College of Nursing
University of Utah
Salt Lake City, UT

TINA DELAPP, RN, EDD
Professor Emeritus
School of Nursing
University of Alaska, Anchorage
Anchorage, AK

CAROLINE R. ELLERMANN, PHD, RN
Associate Professor
School of Nursing
Hawai'i Pacific University
Kane'ohe, HI

ANN O. HUBBERT, PHD, RN, CTN-A
Chair, Undergraduate Nursing Studies
Boise State University
School of Nursing
Boise, ID

Home ◀ ▶ go to PG.

MEMBERSHIP COMMITTEE cont'd

JENÉ HURLBUT, RN, MSN, PHD
Associate Professor
Roseman University of Health Sciences
College of Nursing
Henderson, NV

PEGGY G. KALOWES, RN, PHD, CNS, FAHA
Director, Nursing Research & Evidence-based Practice
Long Beach Memorial Hospital
Long Beach, CA

JEANNETTE A. O'BRIEN, PHD, RN
Assistant Professor
School of Nursing
Linfield College
Portland, OR

MAUREEN O'MALLEY, PHD, RN
Interim Associate Director & Associate Professor
School of Nursing
University of Alaska Anchorage
Anchorage, AZ

KATHIE RECORDS, PHD, RN
Associate Professor
College of Nursing and Healthcare Innovation
Arizona State University
Phoenix, AZ

KAROL K. RICHARDSON, APRN-BC, MPH, PHD
Associate Professor
School of Nursing and Dental Hygiene
University of Hawaii, Manoa
Honolulu, HI

TERESA J. SAKRAIDA, PHD, RN
Assistant Professor
University of Colorado Denver
College of Nursing,
Aurora, CO

JEAN SHREFFLER-GRANT, PHD, RN
Professor
Montana State University
College of Nursing-Missoula Campus
Missoula, MT

PAMELA SPRINGER, PHD, RN
Professor and Director, School of Nursing
Boise State University
School of Nursing
Boise, ID

MAYUMI A. WILLGERODT, PHD, MPH, RN
Associate Professor
School of Nursing
University of Washington
Seattle, WA

Board Liaison
MARIE J. DRIEVER, RN, PHD
President
Clinical Practice and Research Consultant
Seattle, WA

NOMINATING COMMITTEE

CLARANN WEINERT, SC, PHD, RN, FAAN
Position #3 and Chair
Professor
College of Nursing
Montana State University
Bozeman, MT

Position #1
ANNE ROSENFELD, PHD, RN, CNS, FAHA, FAAN
Associate Dean for Research
College of Nursing
The University of Arizona
Tucson, AZ

ALYCE A. SCHULTZ, RN, PHD, FAAN
Position #2
Consultant, EBP Concepts
Bozeman, MT

Home ◀ ▶ go to PG.

PROGRAM COMMITTEE

LAUREN CLARK, PHD, RN, FAAN
Chair
Professor; Division Chair, Health Systems & Community Based Care
College of Nursing
University of Utah
Salt Lake City, UT

JUDITH A. BERG, PHD, RNC, WHNP, FAAN, FAANP
Clinical Professor
College of Nursing
The University of Arizona
Tucson, AZ

DORIS M. BOUTAIN, PHD, RN
Associate Professor
Psychosocial and Community Health
University of Washington School of Nursing
Seattle, WA

TINA DELAPP, RN, EDD
Professor Emeritus
School of Nursing
University of Alaska, Anchorage
Anchorage, AK

MARIE J. DRIEVER, RN, PHD
WIN President
Clinical Research and Education Consultant
Seattle, WA

TERESA GOODELL, RN, CNS, PHD, CCRN, ACNS-BC, CWCN
Staff Nurse, Trauma ICU
Oregon Health Science University Healthcare
Portland, OR

MARGO HALM, RN, PHD, ACNS-BC
Director of Research, Professional Practice & Magnet
Salem Health
Salem, OR

ANNE MARIE KOTZER, PHD, RN, CPN, FAAN
Nurse Scientist
Innovation and Outcomes
Children's Hospital Colorado
Aurora, CO

MARTHA J. LENTZ, RN, PHD
Research Professor Emeriti
School of Nursing
University of Washington
Seattle, WA

LORI A. LOAN, PHD, RNC, FAAN
Chief, Center for Nursing Science and Clinical Inquiry
Army Nurse Corps
Madigan Healthcare System
Tacoma, WA

MARIE L. LOBO, PHD, RN, FAAN
Governor Representative of Nursing Research
Professor
College of Nursing
University of New Mexico
Albuquerque, NM

BARBARA L. MANDLECO, PHD, RN
Professor
College of Nursing
Brigham Young University
Provo, UT

JENNIFER S. MENSIK, PHD, RN, NEA-BC, FACME
Governor Representative of Nursing Practice
Administrator, Nursing and Patient Care Services
St. Luke's Boise and Meridian Medical Centers
Boise, ID

ROBERTA S. REHM, PHD, RN, FAAN
Associate Professor
University of California, San Francisco
School of Nursing
San Francisco, CA

JANICE SHOULTZ, DRPH, MSN, MPH, RN
Associate Professor
School of Nursing
University of Hawaii Manoa
Honolulu, HI

DONNA VELASQUEZ, PHD, RN, FNP-BC, FAANP
Clinical Associate Professor
College of Nursing & Health Innovation
Arizona State University
Phoenix, AZ

CHARLENE A. WINTERS, PHD, APRN, ACNS-BC
Governor Representative of Nursing Education
Associate Professor
College of Nursing
Montana State University
Missoula, MT

Home ◀ ▶ go to PG.

SILENT AUCTION COMMITTEE

TINA DELAPP, RN, EDD
Professor Emeritus
School of Nursing
University of Alaska, Anchorage
Anchorage, AK

CAROLINE R. ELLERMANN, PHD, RN
Associate Professor
School of Nursing
Hawai'i Pacific University
Kane'ohe, HI

KATHLEEN GILCHRIST, PHD, FNP, PHN, RN
Professor
California State University, Bakersfield
Department of Nursing
Bakersfield, CA

ALAN B. JAUREGUI, MSN, APN
Lecturer and Clinical Instructor
School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV

CHERIE RECTOR, PHD, RN, PHN
Professor
California State University, Bakersfield
Department of Nursing
Bakersfield, CA

TERI MOSER WOO, RN, PHD, CNL, CPNP, FAANP
Associate Dean for Graduate Nursing
Pacific Lutheran University
School of Nursing
Tacoma, WA

STAFF

EXECUTIVE DIRECTOR
Paula A. McNeil, RN, MS

ADMINISTRATIVE COORDINATOR
Lana Kamerer

CONFERENCE MANAGER
Bo Perry, MPA

SN-4S
3455 SW Veterans' Hospital Road
Portland, OR 97239-2941
Phone: 503-494-0869; FAX: 503-494-3691; Email: win@ohsu.edu; Website: www.winursing.org

Author Index

Subject Index

Home ◀ ▶ go to PG.