

**COMMUNICATING NURSING RESEARCH
CONFERENCE PROCEEDINGS**

VOLUME 47

**TAKING IT GLOBAL: RESEARCH, PRACTICE,
AND EDUCATION IN NURSING**

2014



Western Institute of Nursing

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.

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COMMUNICATING NURSING RESEARCH

Volume 47

TAKING IT GLOBAL: RESEARCH, PRACTICE, AND EDUCATION IN NURSING

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3455 SW US VETERANS HOSPITAL ROAD
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FOREWORD

The regional society conferences are often the first place that new research and educational and practice projects are reported. The Western Institute of Nursing embraces a core value of mentorship in the development of graduate students and clinical researchers. It is a common occurrence to see experienced researchers coaching and making suggestions to poster presenters. Mentorship took further form in the focus of the current WIN President, Judith A. Berg, in the development of programming to support members in the submission of abstracts, moderating concurrent sessions, and turning doctoral projects into manuscripts.

WIN has a tri-partite mission. The organization has within its mission to address issues of research, practice and education in the Western region. Therefore, the podium and poster presentations at the annual conference will address research projects conducted by educational and clinical agencies; and projects aimed at improving undergraduate and graduate education and clinical practices.

As a result of WIN's value on mentorship and its mission, the annual conference has steadily grown. This year, a record 595 abstracts were submitted for peer review and another 175 were submitted from WIN member agencies for the Research & Information Exchange, also a new record. In keeping with our theme, readers will find research and other projects conducted across the globe with people in places, such as East Africa, Russian and Asia. Readers will find evidence of work completed or in progress across the spectrum of family life, both normal processes and the vulnerable, including birth, infants, pediatrics, adolescents, men's and women's health, geriatric health, and end-of-life. One might expect a focus on rural health within our region, and there are papers focusing on health equity in rural populations, among other rural health issues. Educational research and projects focus on issues, such as undergraduate public education, doctoral education, and strategies to increase student diversity, student retention and cultural safety, and current work on inter-professional education. Papers were presented on research measures and methods.

Papers also reflect our contemporary society, including the emerging practice of care coordination; the use of technology in health care; mental health issues across the lifespan, including the effect of the environment; chronic conditions, illnesses, and related management, including symptom management in cancer and other conditions; and prevention of illness. Papers were presented on caring for active duty military personnel and veterans.

In its 47th year, WIN is the oldest communicating nursing research conference in the United States. We are proud to continue the legacy and contributions to nursing knowledge. We do so in an encouraging and supportive environment for our current and future researchers, educators, and clinicians.

Paula McNeil, MS, RN
Executive Director
February 2014

PREFACE

The 47th Annual Communicating Nursing Research Conference, “Taking It Global: Research, Practice, and Education in Nursing,” was held April 9-12, 2014 at The Westin Seattle hotel in Seattle, Washington. Following is a description of the contents of these proceedings.

The keynote address was delivered by **David Shoultz**, PhD, Director of Grantee and Partner Engagement, Bill and Melinda Gates Foundation, Seattle, WA. Three State of the Science presentations were made by: **R. Kevin Mallinson**, PhD, RN, AACRN, FAAN, Associate Professor, School of Nursing, College of Health and Human Services, George Mason University, Fairfax, VA; **Adeline M. Nyamathi**, PhD, ANP, FAAN, Distinguished Professor, Associate Dean for International Research and Scholarly Activities, Audrienne H. Moseley Endowed Chair in Community Health Research, School of Nursing, University of California, Los Angeles, Los Angeles, CA; and **Joachim G. Voss**, PhD, RN, ACRN, FAAN, Associate Professor, School of Nursing, University of Washington, Seattle, WA.

Two award papers were presented:

- **Distinguished Research Lectureship Award: Deborah Koniak-Griffin**, EdD, RNC, FAAN, Professor and Audrienne H. Moseley Endowed Chair in Women’s Health Research, School of Nursing, University of California, Los Angeles, Los Angeles, CA.
- **Carol A. Lindeman Award for a New Researcher: Carolyn Montoya**, PhD, CPNP, Assistant Professor, College of Nursing, University of New Mexico, Albuquerque, NM.

The **Western Academy of Nurses** panel focused on research innovations in global health nursing. Speakers included: **Joie Whitney**, PhD, CWCN, FAAN, Professor, Biobehavioral Nursing and Health Systems, Associate Dean for Research, Harborview Medical Center Endowed Professor in Critical Care Nursing, University of Washington, Seattle, WA; **Mary Anne Mercer**, RN, DrPH, Senior Lecturer, Department of Global Health, University of Washington, Senior Technical Advisor, Timor-Leste, Health Alliance International, Seattle, WA; **Pam Kohler**, RN, MPH, PhD, Assistant Professor, Department of Psychosocial and Community Health Nursing, Department of Global Health, University of Washington, Seattle, WA; and **Julia Robinson**, MPH, MSW, Deputy Director of Cote d’Ivoire Programs, Health Alliance International, Seattle, WA.

The Proceedings include the abstracts of symposium, podium, and poster presentations. Two hundred and forty papers were presented in podium sessions on a wide variety of topics, including completed research, theoretical papers, and projects. One hundred and twenty-three papers were presented in twenty-four symposia, and one hundred and seven papers were organized in twenty-four other concurrent sessions. Four hundred and fifty-four posters were exhibited in four poster sessions, and represented research, completed or in progress, and projects. A total of one hundred and seventy-five 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 during the 2014 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.

The conference was planned and organized by the WIN Program Committee, and we extend our gratitude to the Program Committee members: Donna Velasquez, AZ, Chair; Judith Berg, AZ/CA; Lauren Clark, UT; Tina DeLapp, AK; Marie Driever, OR/WA; Teresa Goodell, OR; Margo Halm, OR; Anne Marie Kotzer, CO; Kathryn Lee, CA; Martha Lentz, WA; Lori Loan, MD; Marie Lobo, NM; Barbara Mandleco, UT; Jennifer Mensik, AZ; Roberta Rehm, CA; Jan Schoultz, HI; and Charlene Winters, MT.

We extend special appreciation to:

- Amy Tomlinson, Graphic Designer,
- Elizabeth Woods, MA, MSLS, who created the name and subject indexes for the proceedings; and
- Charlotte Woodward, Graphic Designer.

We extend our gratitude to the WIN Executive Director, Paula McNeil, and her staff, Bo Perry, Conference Manager, and Kate Higgins, Administrative Coordinator, for their work in bringing the Committee's plans to reality. Finally, we thank all of the nurse researchers from across the West and from other parts of the country and world who submitted papers, and all who participated in the 2014 conference.

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

Donna Velasquez, PhD, RN, FNP-BC,
FAANP, Chair
WIN Program Committee

State of the Science Paper

**BRIDGING THE GAP:
STRENGTHENING NURSING PRACTICE
IN LOW-RESOURCE COUNTRIES**

*R. Kevin Mallinson, PhD, RN, AACRN, FAAN
Associate Professor
School of Nursing, College of Health and Human Services
George Mason University
Fairfax, VA*

BRIDGING THE GAP: STRENGTHENING NURSING PRACTICE IN LOW-RESOURCE COUNTRIES

*R. Kevin Mallinson, PhD, RN, AACRN, FAAN
Associate Professor
School of Nursing, College of Health and Human Services
George Mason University
Fairfax, VA*

Introduction

For many of us in the United States, it is an exciting time to be a nurse! We have access to the best of technology, all the information one could want through the worldwide web, clean and relatively safe workplaces, and innumerable, cheap options for continuing education programs. We have ample opportunities to improve our practice and maximize the outcomes for our patients or enrich the education of our students. And our reputation as ‘nurses’ remains excellent... the public continues to rate nurses as the most honest and ethical of professionals in national surveys (Gallup, 2013).

Today, though, I would like us to consider how we could use these resources to our best advantage to assist our colleagues halfway around the world. I would ask that we take this opportunity to consider countries in which nurses are not so blessed with resources. Let’s consider nations in which nurses are not regarded warmly; in fact, nurses may be feared by the general public. Some of my experience in Africa has been as the Principal Investigator for a 3.5-year nursing capacity building program in the countries of Lesotho, South Africa, and the Kingdom of Swaziland. The Nurses SOAR! [Strengthening Our AIDS Response] program was funded by the President’s Emergency Plan for AIDS Relief (PEPFAR) to address the needs of the nursing profession in the region. More recently, I had a wonderful opportunity to live in Swaziland for a year as a U.S. Fulbright Scholar. For today’s discussion, I will be describing aspects of nursing practice in Sub Saharan Africa, in general, and the Kingdom of Swaziland, in particular.

There are gaps in nursing practice. There is a widening gap between our highly resourced health environment in the U.S. and the conditions that nurses experience in low-resourced countries. Such gaps adversely affect patient outcomes. I will be outlining several challenges and constraints that shape nursing practice in the Sub Saharan region of Africa. Then, we will consider what nursing leaders have identified as the essential competencies that nurses must have to address the diseases that most threaten their people: HIV, tuberculosis, and malaria. Finally, I would like to offer some recommendations for how we can provide our assistance to strengthen the capacity of nurses in Southern Africa to bridge some of the identified gaps. I am an optimist who believes that our African colleagues will meet the challenges they face and will contribute significantly to the health and wellbeing of their populations.

Challenges and Constraints on Nursing Practice in Sub Saharan Africa

It may be of no surprise to many of you to hear that the Sub Saharan region of the African continent shoulders nearly 25% of the world’s disease burden; yet, it has less

than 3% of the world's healthcare workforce (Liese & Dussalt, 2004). An estimated 69% of the deaths in Sub Saharan Africa can be attributed to infectious diseases – in fact, it is the only region in the world where infectious diseases account for more deaths than non-communicable, chronic conditions (de-Graft Aikins, Unwin, Agyemang, Allotey, Campbell, & Arhinful, 2010). Even more eye-opening is that, according to these authors, age-specific mortality rates for chronic diseases among men and women are currently higher in Sub Saharan Africa than most developed regions of the world!

A comprehensive discussion of the factors that contribute to the healthcare crises in Africa is beyond the scope of today's talk. So, permit me, first, to set an overall context for understanding the current state of nursing practice in Sub Saharan Africa. Throughout, I will present the Kingdom of Swaziland as an exemplar. After dozens of visits to Swaziland, and having spent a year living there as a Fulbright Scholar, I am familiar with the country. Though each country in Southern Africa has its own set of cultural and sociopolitical influences that affect nursing practice, they have much in common with each other.

The majority of the nurses are female. So, it won't surprise most to hear that nurses in Southern Africa are subservient to physicians; they frequently defer to the doctor's decision on tasks within the scope of nursing practice. Commonly, a professional nurse is referred to as 'Sister'. Women are praised for being passive. In the acute care setting, the likelihood that a Sister will speak up or question the plan of care – even when it may be crucial to the patient's health – is nil. Nurses rarely offer insights, assessment data, or concerns when the physician is rounding on the ward. Culturally, women are not expected to be assertive.

The reluctance to speak one's mind contributes to the inability – or unwillingness – to advocate for one's patients. The lack of effective communication between the nurse and the physician may lead to 'failure-to-rescue' situations that increase morbidity and mortality. The failure to express oneself may also lead to a perception that nurses don't have the knowledge or skills to contribute significantly to the patient's plan of care. At a formal meeting in Tanzania, a Ministry of Health representative was trying to demonstrate his support for the role of nurses in hospitals. He told us "*A Sister can be helpful directing patients to find the x-ray department. They are helpful by organizing the medical files for the doctor.*" He seemed not to appreciate nurses as 'professionals'. If I may paraphrase the American author, Suzanne Gordon (Buresh & Gordon, 2013), who often writes about nurses and nursing practice in the USA: *If nurses do not define their role in the healthcare setting, others will do it for them.* All too often, others misconstrue the nurse's silence for not knowing, not understanding, or not caring.

Nurses are underpaid. This isn't likely to change any time soon. To provide an incentive in the absence of higher salaries, hospitals may offer low-cost (or free) housing close to – if not actually on – the hospital premises. While the offer of housing is a welcome benefit, there is no guarantee that there will be privacy, electricity, or running water. Most often, there is no hot water, something we take for granted in the U.S. In Africa, the nurses may only have a roof over their heads. They must make fires each day to heat their water and cook their food. The latrine is usually a short walk from the flat. A refrigerator or freezer is a luxury unlikely to be included in the accommodations.

Even if the individual nurse earned a livable salary, it still would not be enough. In the

family, the nurse is the one most likely to be employed. That one salary, though, may be supporting more than a dozen family members. With unemployment rates nearing 50% in Swaziland, the family depends upon the nurse's salary to cover the utility bills, buy the food for the household, and pay the children's school fees. There are, of course, also expenses for transportation and uniforms.

Reality goes beyond the imagination. No matter how much I begin to believe that I am grasping the reality of the lives of nurses in this region of Africa, I am frequently taken aback by personal stories. At a conference in neighboring Lesotho, for example, I was speaking with two nurses who were posted to the hospital in Qacha's Nek, a rural town high in the mountains. The hospital is expected to maintain a rural clinic that is located much further into the mountains. Two nurses at a time are assigned to trek to this clinic for a 3-month rotation, after which they return to the hospital wards. I was curious about such duties and I asked the two nurses who had just 'come in' from their 3-month rotation "*What is the hardest part of being at that clinic for months at a time?*" Without so much as blinking, one responded in a dispassionate tone "*Getting raped. The government provides no security for those of us who are posted there.*" It was not what I was expecting to hear.

Nurses report being sexually harassed by physicians and administrators that wield their power and authority. If the nurse wishes to keep her station and income, she will give in to his needs. Even nurses who are nuns – *real* Sisters – and working at mission hospitals are not immune to such transgressions. Personal safety in their workplace is not to be expected.

Nurse Practice Acts are woefully out of date. Even if nurses wished to perform to the level of their education, they would need to be in alignment with their country's scope of practice. Unfortunately, some legislative bodies in Africa are even slower than ours in the States. In one country, the Nurse Practice Act had been revised to account for the expanded role of the nurse in delivering effective care to persons with HIV disease. After nearly 7 years on the legislative docket, it had yet to be passed. Recently, we were striving to update the pending regulations to add limited 'prescriptive rights' for the primary care nurses with advanced training who were prepared to initiate antiretroviral therapy in the absence of a physician. Though nurses wanted to provide these necessary services to their patients, they were reluctant to act outside their official scope of practice. Their Members of Parliament didn't appreciate the need for urgent action in the context of the expanding pandemic.

Nursing practice is inextricably tied to nursing education. In each of the 8 countries I have visited in Southern and Eastern Africa, there has been a lack of faculty who are adequately prepared to teach contemporary nursing. When I began my nursing capacity building program in the countries of Lesotho, South Africa, and Swaziland in 2006, there were no clinical mentors – no clinical preceptors – to meet the students when they arrived on the hospital wards. Students had no list of specific skills to learn, no procedures to practice. Over the month or two that they were assigned to a ward, they were free to come and go as they wished. Needless to say, when they graduated, only a handful possessed the requisite skills to fulfill the role of a nurse.

At least one of the contributing factors to the severe shortage of experienced nurses in Africa had been the intense recruitment by the United States, the United Kingdom, and Australia that occurred over the last decades. Many of the best educated nurses

in Southern Africa migrated out of the country in search of opportunities. The less educated or less mobile nurses were left at home to educate the next generation of nursing professionals. In addition to fewer colleagues and deplorable conditions in the health facilities, African nurses were about to be challenged by more than high rates of tuberculosis, malaria, and maternal/infant mortality...a new, insidious infection was emerging to become the worst pandemic of modern times. The HIV virus was spreading across the continent.

Building the capacity of educational programs for health professionals will strengthen the health systems in which they practice. Transforming the education of nurses and other health professionals must involve developing critical thinking approaches to problem-solving, bolstering professional ethics, and strengthening teamwork and communication skills (Frenk et al., 2010).

The HIV epidemic cannot be underestimated. Nurses in Sub Saharan Africa have been on the forefront of the HIV pandemic for decades. Please note that I purposely use the terms ‘pandemic’ and ‘epidemic’ differently. In our modern world, HIV disease can be termed a pandemic; it affects humans on a global scale. More to the point, when one is living in a particular community that is heavily impacted by HIV and AIDS, it is apparent that HIV is an ‘epidemic’ phenomenon. The Zulu nurse in Hlabisa, South Africa will be caring for a fellow Zulu. In this rural area, the dying patient may have dated the nurse’s sister 2 years ago. He may be the father of one of her children. For this nurse, it is not just a patient who is dying, he is a neighbor; he is another Zulu who will be lost; he may be a threat to her sense of safety. In an epidemic, the degrees of separation between the nurse and the patient are fewer. Exposure to the personal trauma is greater.

Whether it is the Zulu nurse in South Africa, the Lozi nurse in Zambia, or the Swazi nurse in Swaziland, the impact is the same: nurses become overwhelmed, demoralized, and traumatized by HIV and AIDS. The Kingdom of Swaziland has the highest rates of HIV and AIDS in the world. While it is estimated that 27% of the population is infected with HIV, the rates are much higher for younger persons. Nearly 50% of all Swazi males and females between 25-35 years old are currently infected. Can you imagine? No, anyone who hasn’t experienced the wrath of the epidemic probably has difficulty imagining its impact. The lived experience for nurses is characterized by having patients who are ill and dying; simultaneously, the nurse has family members who are sick and dying. The nurse lives in a neighborhood where friends, teachers, and store owners are sick and dying. Oh, and there is no respite in church; fellow congregants come to the nurse and ask *“Sister, please, come to my homestead and see my brother. He has no strength to walk.”*

Of all the health workers, it is nurses who witness the worst of the epidemic. Nurses often manage the VCT – Voluntary Counseling and Testing – sites where they are responsible for giving results to their fellow Swazis who are HIV positive. Nurses manage the ART (antiretroviral therapy) clinics, struggling to encourage medication adherence among a people who were not raised on the Western concept of taking medications. Initially, Swazis may consult an herbalist to address their fatigue, weight loss, or diarrhea. If they deteriorate further, they may seek the services of a sangoma (i.e. shaman or spiritual healer). Usually, after all traditional resources have been unsuccessful, will they resort to the services of a medical doctor. If admitted to the hospital with an opportunistic infection, the patient will be on a ward of 40-45 patients,

overseen by two nurses. Oh, lest I forget to mention, nurses also care for fellow nurses who have been admitted with AIDS, attend their funerals on their day off, and return to the wards tomorrow as the onslaught continues.

Back at the nurse's homestead, word has come that an uncle has died; he has 'passed on' to be with the ancestors. Somehow, the family will need to muster the funds necessary to travel to the funeral. They will need to pay for an animal to be ritually slaughtered, usually a goat or a cow. The nurse will need to miss work. They are disturbed by a rumor, fueled by stigma, that the uncle died of AIDS like his wife did 2 years ago. The HIV epidemic sends ripples through society by killing young adults who are most likely to be contributing to the economy, tending the crops in the fields, and raising children (Lule & Haacker, 2012). No adults are left to care for the uncle's young children and, as is Swazi tradition, the orphans will be absorbed into this homestead. The nurse feels even more pressure to work as her meager salary will now be stretched to support 5 adults and 13 children. As a national holiday approaches, the nurse wonders how so little money will buy the cornmeal and vegetables needed to feed everyone on the homestead. Meat may not be on the menu.

There is a lack of equipment and resources for quality care. Even the best nurse is constrained by the lack of resources in the clinical setting. The patient in the first bed is choking on his bloody emesis, but there is no suction apparatus on these wards to clear his airway. The female patient with active tuberculosis struggles for her breath, but there is no oximeter to measure the degree of hypoxia...there may not even be enough supplemental oxygen left to help her anyway. There are no more N95 respiratory masks to protect the nurse from acquiring Tb in this ward. Meanwhile, the patient in another bed is screaming out loud; the headache pain from his cryptococcal meningitis is unbearable, but the nurse can offer nothing more than Panadol (acetaminophen) to treat it. In this context, nurses find it difficult to feel that they have contributed to quality patient outcomes. The physical, emotional, and spiritual toll on nurses is devastating.

General health outcomes are poor. It would be enough to blame the HIV epidemic for many of the health system woes in the Kingdom of Swaziland. Truth be told, the Swazis have suffered very poor health outcomes for a long time. In 2010, the infant mortality rate was 79/1,000 and the under-five-year-old mortality was 104/1,000 (Ministry of Health, 2012). The maternal mortality rate of 589/100,000 lives births is four times the average for a low-moderate income country. Further, the annual number of reported cases of tuberculosis increased 400% between 2007 and 2010 (Ministry of Health, 2012).

Nurses are overwhelmed. Over the years of providing 'loss and grief' interventions for nurses in Southern Africa, I have learned that nurses are aware of how much their lives have been diminished by HIV disease. Nurses report difficulty sleeping. They struggle with recurrent anxiety attacks. They fear that the next phone call will bring bad news about a loved one who is ill or dying. Many nurses complain of having lost compassion for their patients or their families. A study of health workers in Zambia found that 62% reported feeling 'emotionally exhausted' (Dieleman et al, 2007). They feel drained of energy, unable to find a shred of hope that conditions will improve. Several nurses have told me that they no longer cry; they are unable to muster the emotion. Similarly, they are unable to laugh; the psychic numbness is only one more symptom of their traumatization. They suffer from low self-worth and survivor guilt. Illness and death from HIV/AIDS is omnipresent.

Nurses are dying. An immediate priority for the nursing capacity building program I had in Africa was addressing the needs of nurses living with HIV. Nurses – and other health care workers – may not access HIV testing or treatment due to HIV stigma, self-shame, and the fear of losing the respect of their colleagues (Dieleman et al, 2007; de Vries, Galvin, Mhlanga, Cindzi, & Dlamini, 2011). Each time a nurse dies, the healthcare workforce is diminished; replacing a nurse with years of education and experience is not easy. Each time a nurse dies, it send ripples of grief and demoralization through the healthcare community.

Cultures are threatened. The Swazis have a traditional tribal culture in which a central value has been to care for one another, to consider the needs of the community before their own. However, in the midst of the HIV epidemic, their sense of ‘communality’ with fellow Swazis is eroding. In the daily struggle to survive, they focus on the needs of their own families and are losing the ability to reach out to help their fellow tribesmen. This leads to spiritual distress. How would the ancestors judge such selfish actions? Who will be left to pass down traditional beliefs to the children? What will happen to the Swazi culture?

Summary of the context. In low-resourced areas in Southern Africa, the context in which nursing practice is to be considered is characterized by widespread poverty, inadequate healthcare infrastructures, and disproportionate levels of morbidity and mortality. During the reauthorization of the U.S. President’s Emergency Plan for AIDS Relief [PEPFAR], the Office of the Global AIDS Coordinator asserted that 140,000 new health care workers would need to be trained and retained in Southern Africa to adequately address the HIV pandemic (Health Gap, 2012). The combined impact of the HIV epidemic, the spread of tuberculosis, and the endemic nature of malaria only highlights the crucial need for an adequately prepared healthcare workforce. There are significant gaps in nursing practice in the Southern African region. Still, as an eternal optimist, I would like to offer some ways forward as we aim to contribute to a better future for nursing on the African continent.

Bridging the Gaps in Nursing Practice

As the Principal Investigator of a nursing capacity building program in the countries of Lesotho, South Africa, and Swaziland, I supported the identification of essential nursing competencies needed to address HIV/AIDS in the region. Nurse representatives from six countries in Southern Africa contributed to the *Essential Core Competencies* document (Relf et al., 2011). The document was designed so that nurse clinicians, educators, and policy-makers could have a framework for guiding capacity building efforts across the region. It was clear to all that assuring these competencies in the nursing workforce would address all health conditions, not only HIV disease. After I hit the highlights from each of the four main categories of identified core competencies, I will offer my recommendations for a way forward for those of us who wish to engage in collaborative efforts with our African colleagues to improve nursing practice in Southern Africa.

Nursing Practice – Essential Core Competencies for the Nurse in HIV Care

Prevention, Treatment, and Care. The first category of core competencies would assure that professional nurses are prepared with the requisite knowledge and a fundamental set of skills to deliver evidence-based prevention information to individuals and communities. As the pertinent prevention literature is predominantly

published in English, nurses need more support in understanding the terminology. A large household survey of HIV prevalence in Swaziland (Bicego et al., 2013) found that more than a third (38%) of the HIV-positive adults were unaware of their serostatus. It is crucial that nurses develop the critical thinking skills to utilize such research findings to inform their prevention outreach interventions. In addition, nurses need to learn how to transfer the findings of research conducted in other countries to the local context. A recent study of adherence to antiretroviral medications in rural Swaziland (Root & Whiteside, 2013) had strikingly similar findings to a similar study that I conducted years ago in Washington, DC (Mallinson, Rahabiun, & Coleman, 2007).

Similarly, treatment protocols, symptom algorithms, and medication pamphlets are often written in English. Nurses will need to be able to translate pertinent aspects of the HIV lifecycle into the local language to build the health literacy of the population. It is not uncommon for Swazi patients to be unaware of their diagnosis, treatment plan, or common side effects of their medications. Nurses need to be able to encourage medication adherence even if their patients think it illogical to 'take medication when one doesn't feel ill.' This is of crucial importance to reducing the transmission of HIV from a mother to her infant through the effective implementation of PMTCT protocols.

Tribal beliefs may influence how patients and nurses view HIV 'knowledge', especially if it conflicts with the prevailing traditional customs and expectations. Nurses need to be able to help patients dispel myths and misconceptions about HIV transmission and treatment. Nurses may be uncomfortable talking to their tribesmen about crucial issues such as male circumcision, abuse of alcohol, or having multiple sex partners. Promoting HIV prevention efforts can be difficult in cultures that frown upon talking about sexual relations, deny that homosexuality exists, or strongly stigmatize any person infected with the HIV virus.

Psychosocial, Spiritual, and Ethical Issues. In much of the Sub Saharan region, there are few social workers, psychologists, or psychiatrists. There are very few opportunities for patients to receive counseling to help them understand their conditions, let alone learn how to cope with them. Nurses will have to develop skills in maximizing the time they have during patient encounters to assess psychological states and provide whatever support they can within the constraints of the circumstances. Currently, clinical nurses have limited familiarity with concepts such as 'self-efficacy' or 'spiritual distress' and how these may help in the selection of interventions to improve patient outcomes. After completing the first-ever patient satisfaction survey at a large, faith-based mission hospital in Swaziland, the staff were surprised to see that the item '*Spiritual support was given to me*' received the lowest score of the 20 survey statements. Not only is there a lack of spiritual support, it is not uncommon for nurses to publicly chastise patients for behaviors that led to their HIV infection by quoting verses from the Bible. Patients have resisted seeking care for fear of the being verbally abused by the nurses on duty (Mallinson & Dlamini, in preparation). As nurses prepare to address the gaps in nursing practice, they will need to assess for the adverse impact of their personal attitudes and prejudices on patient care.

Often, the patient has no expectation of privacy or confidentiality in the healthcare setting. On a ward, for example, there may be no privacy screens at all; patients who are a metre away hear and see all that happens with the patient in the neighboring bed. Nurses have earned an unfortunate reputation for breaking patient confidentiality. They may gossip about patients or leave medical records in public venues for anyone

to peruse. The lack of patient confidentiality is one of the major barriers to having health care workers tested for HIV infection or, subsequently, accessing antiretroviral treatment (de Vries et al., 2011).

Psychomotor Skills. There are serious gaps in the delivery of direct care by nurses in low-resourced countries. As mentioned earlier, a challenge to learning how to properly perform procedures or adopting acceptable infection control habits is the lack of clinical mentorship in the basic educational program. This may improve with the introduction of clinical experts who serve as preceptors for students. However, many countries do not yet have a system for nurses' Continuous Professional Development (CPD), the African equivalent to our Continuing Education Unit (CEU) requirements. Therefore, once a nurse has graduated from a basic program, there is no assurance that he or she will engage in clinical updates or be familiar with emerging concepts, innovative therapies, or new technologies.

Professional Expectations of Nurses. The fourth general category of essential core competencies identified by the consensus group was less tangible, but equally important to bridging the gaps that exist in the delivery of effective nursing care. The representatives were concerned with strengthening the nursing profession through adherence to established standards and ethics. They asserted that nurses needed to clarify their beliefs and values, acknowledge the facility's mission and standards, and endeavor to adopt patient-centered behaviors that are informed by the principles of autonomy, respect for human rights, and beneficence. There was an expressed concern that a rush to 'train' the 140,000 new health workers in Africa – as asserted by PEPFAR goals – might overlook the importance of socializing young nurses to demonstrate a basic appreciation for human dignity.

Frequently, health facilities often have no formal system for performance appraisals; nurses are not provided structured feedback on their workplace behaviors or adherence to facility standards. It is rare for a nurse to be reprimanded or penalized for unethical behavior. While living in Swaziland last year, I engaged in a discussion with local nurses concerning the ethics of taking 'tithes' [sic] from patients on the ward in exchange for providing better care or extra pain medication. Nurses questioned if there was anything unethical about providing better care to select patients if they were willing to pay such bribes to the nurse. This is but one example of the serious gaps that exist in the professional practice of nursing that undermine the public's trust and confidence.

Recommendations for Bridging the Gaps in Nursing Practice

Admittedly, I may have painted a relatively dark picture of the state of nursing practice in Southern Africa. Amidst all of the mind-numbing statistics, gloomy forecasts, and surreal examples of unethical behavior by nurses, there is hope. As I stated, I am an optimist. To balance the landscape a bit, I have to acknowledge that there are also extraordinary nurses in each of these countries who provide inspiration through their creativity, commitment to excellence, and motivation to improve nursing practice. When I lived in Swaziland, the Minister of Health was a nurse; he worked diligently to raise the standard of care in health facilities, establish systems for gathering and evaluating health data, and provide funding innovative models to deliver health services in a rural country with few resources.

Recommendation #1: Have a philosophy. Before embarking on a quest to improve

nursing practice in another area of the world, be clear about your mission, vision, and guiding principles. Develop a philosophy that clarifies why you are engaging in this journey, shapes the activities in which you might invest, and most importantly, how you wish to collaborate with your global nursing colleagues in-country. For example, when I designed the Nurses SOAR! program, a guiding tenet is that the team was not going to Africa to 'save' them. We employed a participatory action framework in which we were committed to full and respect engagement with our African colleagues to meet the needs that they identified as their priorities. The African nurses identified the program priorities.

Recommendation #2: Acknowledge what currently exists. There is often an unspoken desire to make nursing practice in Africa look just like ours in the United States. Resist the temptation to remake their healthcare system. If you acknowledge what currently exists in their setting, you can identify avenues for strengthening nursing practice. Your African colleagues know their own country's history, policies, and politics. They have likely developed a set of strategies that help them to accomplish goals without disrupting all that is familiar. It is always wise to align your capacity building activities with the Ministry of Health's leading priorities; help them to achieve their objectives while assuring that your projects are sustainable. We should respect differing approaches to solving problems.

Also be cognizant that others have been working to improve the healthcare environment and, by extension, nursing practice as well. For example, International Council of Nurses (ICN) partners with numerous organizations in a Global Health Workforce Alliance that aims to promote *Positive Practice Environments* for health care professionals (International Council of Nurses, 2008). Becoming familiar with the key initiatives of the global partners and donors will save you time and effort; you can align your activities with objectives that have been achieved by consensus and widely accepted as appropriate for the context.

Recommendation #3: Focus on capacity building, not training. Too often, opportunities to work in other countries are designed as 'training' programs for local health workers. In many cases, this entails assuring that the African nurses can follow algorithms, institute protocols, or demonstrate psychomotor skills that advance objectives established by [often] physicians. All too often, I have seen training of personnel (e.g. teaching a nurse how to input research data into a computer software program) mislabeled as 'capacity building'; if the nurse doesn't understand how or why the data were collected or how the analysis is to inform practice, then it has not built capacity. While it may be useful at times to train nurses, I encourage you to take every opportunity to build their individual capacity to make assessments, design innovative solutions, and evaluate their outcomes.

Capacity building involves an honest engagement of all parties in the relevant processes. It means to help nurses to envision, critically analyze, and empower themselves to action. To build capacity may mean engaging in disagreements and providing opportunities for the nurse to make a defensible argument for their course of action. Nurses in Swaziland created an innovative model of care, establishing a *Wellness Centre for Health Care Workers* to address the increasing morbidity and mortality in the profession. It has been replicated in several other countries. We may bolster their self-efficacy. We may facilitate activities to redesign patient flow through clinics or develop a budget or formulate a strategic plan.

Building capacity is, surely, time-consuming. You may not have measurable outcomes as quickly as you would wish. The progress made, though, may be more sustainable. The skills that the nurses develop may prepare them to face future challenges that were not even imagined at the time of your program. To use a common phrase, teaching one *how to fish*.

Recommendation #4: Never forget you are working with human beings. So obvious and, yet, too frequently overlooked. I have described numerous examples of the stressors and daily struggles faced by nurses in Southern Africa. The nurses you engage in your capacity building projects have real lives of their own. Be aware that their emotions may be heightened by discussions of persons receiving positive results at an HIV testing center or of patients dying from AIDS-related infections. As individuals, AIDS may be hitting too close to home. As professionals, they may be under pressure to ‘perform’ and meet your expectations. They may have too many priorities sitting on their desk while you are in town for the next two weeks conducting your project that will meet your objectives.

I suggest that you set aside time for getting to know one another. Share personal stories, ask about their lives, and actively listen. Acknowledge the reality of their lives without being patronizing. Whenever I am discussing the care of persons with HIV in Swaziland, for example, I remain cognizant that – statistically – it is likely that some of the nurses in the room are living with HIV disease. Therefore, I never speak of nurses living with HIV infection as if they were ‘those nurses’ in the abstract; rather, I may say ‘*Those of us who are living with HIV have to consider...and those of us who are not infected have to ...*’ My intent is to communicate that I will not be judgmental if I learn that one of the nurses in the room is HIV infected. More times than I can count, nurses have quietly revealed their HIV serostatus to me and asked for resources and advice.

Capacity building can take many forms. There are so many ways in which you and your colleagues can contribute to bridging the gap in nursing practice. Each activity has its benefits; each has its own limitations.

1. *Educate your students.* Yes, I believe that providing our nursing students with a global perspective through specialty courses, cultural immersion programs, or global exchanges is an important element of any global nursing program. You may choose to offer a Certificate or minor in global nursing. Remember to sensitize and educate administrators and Deans to the benefits and challenges of global nursing.
2. *Educate foreign students.* Encourage your School to support African nurses through the application and scholarship processes so that they may earn their Master’s or Doctoral degree. Assure that the curricula can be adapted to their learning needs. Nurse leaders need a vibrant educational experience. Once educated, these nurses are likely to be the most effective change agents in their country.
3. *Support the exchange of nursing faculty or content experts.* Use collaborative agreements, the Fulbright program, the Peace Corps, Visiting Scholars, or similar initiatives, as appropriate. Specialty organizations can be encouraged to provide funding support. For example, the Association of Nurses in AIDS Care, in collaboration with the International Association of Forensic Nurses and USAID, sponsored two SANE (Sexual Assault Nurse Experts) nurses from Denver to travel to the Kingdom of Swaziland to initiate an 8-week program to address the issue of childhood rape. They worked with hospital staff, community advocates, and law enforcement personnel to design more effective assessments and interventions.

4. *Provide technical assistance.* Our colleagues may have some outstanding ideas for improving the practice of nursing in their country, but may need help with writing funding proposals, conducting literature searches, or designing research projects.
5. *Design research to improve practice.* Testing interventions to improve practice can provide evidence for new initiatives while building the capacity of your colleagues to conduct their own research and evaluation projects. Collaboration may provide more opportunities for coauthoring manuscripts as well.
6. *Use technology whenever appropriate.* Our colleagues at the Massachusetts General Hospital produce an online series, a webinar, for nurses around the world to hear experts discuss topics relevant to nursing education, practice, and research. Using the Internet to establish ‘communities of learning’ may be very effective for some applications. However, be aware that online resources are not particularly useful for many locations due to a lack of computers, poor connectivity, exorbitant costs for downloads, or an inability to save or print materials.

In summary, there are significant gaps in nursing practice in Southern Africa. Bridging the gaps will take creativity, collaboration, and persistence. Global nursing work also requires an investment of effort, time, and funding. The last decade of my life has been focused on nursing capacity building in Africa. I really cannot imagine *not* continuing this work and I encourage many more nurses to bring their knowledge, expertise, and creativity to bear so that nursing practice can improve the lives of human beings in low-resourced countries. If I may close with a quote that has always inspired me. The words of Isabel Hampton Robb, a nursing leader from a century ago, are simple and, yet, profound:

“Nurses are trusted with the most precious thing on earth: the life, health, and happiness of other human beings.” (1902) Isabel Hampton Robb

I trust that we can bridge the gaps and reduce the inequities in health outcomes in Africa. Thank you.

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**GOING GLOBAL:
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Los Angeles, CA*

Introduction

Evidence-based research conducted by nurses in developing countries is limited. Despite the fact that over a decade ago, the United Nations adopted eight millennium development goals (MDGs) (United Nations, 2013), at present, health disparities continue to abound. Over the last decade, nurse-led research conducted in developing countries has been primarily descriptive in nature, and designed to explore health-related issues, particularly in the area of communicable and infectious diseases, maternal and child health, and gender-based violence. This paper will highlight such nurse-led research conducted over the last decade; present challenges experienced by nurses in furthering global health nursing research, and suggest recommendations to enhance a committed front to meet global health needs.

Malaria

While progress has been made with malaria, it remains a significant concern globally. Nearly 219 million people are affected by malaria (World Health Organization (WHO), 2013). In the last decade, the majority of nurse-led research focused on malaria have been conducted in Zanzibar (Baltzell et al., 2013), Myanmar (Kyawt-Kyawt-Swe, 2004) and Nigeria (Marchie & Akerele, 2012). With semi-structured key informant interviews conducted with health care workers in Zanzibar (N=12), investigators found that a greater level of fever management was needed (Baltzell et al., 2013), while a mixed methods study in Myanmar revealed that knowledge about transmission and treatment for malaria was relatively low among the community (Kyawt-Kyawt-Swe, 2004). While awareness that malaria is a fatal disease was common, further knowledge about current practices are also needed (Kyawt-Kyawt-Swe, 2004).

A descriptive study in Nigeria surveyed pregnant women attending prenatal clinics in government and mission hospitals (N=775) to investigate trends of malaria (Marchie & Akerele, 2012). About half of the women reported having had malaria in the first trimester while less than one third (29.3%) reported not experiencing the disease. Women successful in preventing malaria reportedly used ordinary mosquito nets (29.2%), insecticide treated nets (25.1%), insecticide (24%), and mosquito coils (11.7%) (Marchie & Akerele, 2012). These studies point to the need to further expand knowledge of culturally-tailored health education and prevention programs which involve pregnant women and community members (Marchie & Akerele, 2012).

Tuberculosis (TB)

Nearly 8.7 million people are affected by TB globally (World Health Organization, 2012) and in many developing countries, TB is endemic. Nurse-led, descriptive studies have been focused on improving knowledge and attitudes about TB in Turkey (Akin

et al., 2011; Yükseltürk & Dinç, 2013), Taiwan (Chang, Hung, Chou, & Ling, 2007), Brazil (de Sá de Oliveira, Gomes, Nogueira, Villa, & Collet, 2012; Hino, Bertolozzi, Takahashi, & Egry, 2012; Lafaiete, da Motta, & Villa, 2011; Paz & Sá, 2009), and Africa (Motosomane & Peu, 2008; Sukumani, Lebese, Khoza, & Risenga, 2012). In a convenience sample focused on understanding knowledge and attitudes among Turkish nursing and midwifery students (N=615), data revealed that TB knowledge was poor, and those who had been trained had higher knowledge levels and more positive attitudes than those not trained (Akin et al., 2011). Authors recommend that nursing schools develop curricula focused on TB and its manifestations (Akin et al., 2011).

In a descriptive cross-sectional Turkish study focused on nurse's knowledge regarding TB treatment (N=208), higher education level, longer clinical experience at TB clinics, receiving in-service education and undergoing diagnostic tests for TB increased levels of knowledge of TB. However, knowledge deficiency about the effectiveness of TB medication and its side-effects were still apparent. Moreover, in a descriptive study conducted in Taiwan, lack of knowledge and poor perceptions about TB affected intention to receive a chest x-ray exam among nursing students (N=865) (Chang et al., 2007).

Among Brazilian community residents, qualitative findings revealed that TB is still a stigmatized disease and many participants felt the need to be alienated from others. Such perceptions led to concealment of their infection from friends and co-workers (Hino et al., 2012). When assessing levels of community satisfaction by TB control program users in Brazil (N=88), researchers found high levels of satisfaction in the areas of availability of medication, availability of healthcare professionals, and trust in the health team (Lafaiete et al., 2011). Yet, qualitative study also revealed that those affected by TB were shaken by the diagnosis, and that challenges faced by patients may not always be understood by professionals (Paz & Sá, 2009).

In a South African qualitative study, nurses perceived that among TB patients being discharged from hospitals, family involvement was critical as it related to nutrition training, administration of directly observed therapy (DOTS), and reduction of multidrug resistance (Motosomane & Peu, 2008). When experiences of family members caring for TB patients were explored more in depth, it was discovered that family members experience challenges and stresses related to financial constraints, providing food for the patient, attending to the patient's hygiene needs, assisting with the administration of medication; and dealing with physical and psychological exhaustion (Sukumani et al., 2012). Authors put forth several recommendations, including that (1) families should undergo training prior to discharge; (2) temporary grants should curb financial constraints; (3) incentives should be given to continue caring tasks; and (4) having more DOTS supporters be trained to help with progress (Sukumani et al., 2012).

HIV/AIDS

Globally, 34 million people are living with HIV (World Health Organization & Joint United Nations Programme on HIV AIDS UNICEF, 2011). Several challenges continue to persist in developing countries; thus the investigation of nursing intervention designed to improve delivery of care for those in rural areas is critical. Research studies in Malawi (Lindgren et al., 2011), Hunan, China (Wang et al., 2010), Nigeria (Holstad et al., 2012), and India (Nyamathi, Ekstrand, Salem, et al., 2013; Nyamathi, Ekstrand, Zolt-Gilburne, et al., 2013; Nyamathi, Hanson, et al., 2012; Nyamathi, Heravian, et al., 2013; Nyamathi, Salem, Ernst, et al., 2012; Nyamathi, Salem, Meyer, et al., 2012; Nyamathi, Sinha, et al., 2013; Nyamathi, Sinha, et al., 2011; Nyamathi et al., 2010) have been conducted by nurses.

In rural areas around the world, an increase in screening for HIV has been

accomplished with the use of mobile clinics (Lindgren et al., 2011), and in Nigeria, a motivational interviewing intervention was found to be effective to improve antiretroviral (ART) adherence (Holstad et al., 2012). In an intervention-control study in China, researchers have assessed whether nurse-delivered home visits and telephone calls can increase medication adherence among HIV positive active or past heroin users (Wang et al., 2010). For the intervention group, nurse home visits included focused sessions on HIV/AIDS and adherence education, assessment of removal of barriers to adherence, formulation of personalized medication plans, and soliciting family members' support in participants' medication behavior. In addition, motivation enhancement and stress and drug abuse management were conducted (Wang et al., 2010). The control group received routine care. Findings revealed that intervention participants were significantly more likely to report adherence in the previous week than those in the control group. Further, significant improvement in the physical, psychological, social and environmental domains was observed in the intervention program compared to the control program (Wang et al., 2010). The multicomponent intervention of nurse home visits, telephone, family involvement and individualized plans proved to be invaluable to improving ART adherence (Wang et al., 2010).

Equally important, persons living with HIV/AIDS in rural locales are often challenged by lack of access to ART medications due to lack of finances, transportation, and stigma associated with seeking such medication. A substantive body of work focuses on India, which is at the epicenter of HIV/AIDS pandemic. Based on perceptions of rural women living with AIDS (WLA) in India about their challenges experienced (Nyamathi et al., 2011), and an understanding of correlates of depression (Nyamathi, A. Heravian, et al., 2011), stigma (Nyamathi, Ekstrand, Zolt-Gilburne, et al., 2013) and adherence to ART (Nyamathi, Salem, Ernst, et al., 2012), a culturally sensitive intervention was designed with community support.

Building upon this work, a randomized clinical trial was conducted incorporating a unique health care delivery model engaging both rural village women (Asha; Accredited Social Worker Activist) and nurses to provide HIV/AIDS knowledge, care and support, connection to health care providers, as well as nutritional supplements and life skills for the rural WLA. The educational component was delivered over six group sessions and Asha visited the women in their homes to provide the care and support and assistance in returning the district hospitals to receive their ART medication. Significant improvement in outcomes was revealed when compared to a control group receiving less education, fewer nutritional supplements and no Asha support. These outcomes included significant improvement in ART adherence from 46% to 99%, decreased depressive symptomology and internalized stigma, and increased body mass index, muscle mass, fat mass, and CD4⁺ counts (Nyamathi, Ekstrand, Salem, et al., 2013; Nyamathi, Hanson, et al., 2012; Nyamathi, Salem, Meyer, et al., 2012; Nyamathi, Sinha, et al., 2013).

Women, Children and Reproductive Health

While limited progress has been made in maternal mortality (The World Bank, 2013), several descriptive, exploratory and quasi-experimental intervention studies have been conducted by nurses in Ethiopia (Beekle & McCabe, 2006; Teferra, Alemu, & Woldeyohannes, 2012), Turkey (Karatay, Kublay, & Emiroglu, 2010), Malawi (Malata, Hauck, Monterosso, & McCaul, 2007), Bangladesh (Sibley et al., 2007), Ghana (Fullerton, Fort, & Johal, 2003), Iran (Hosseini, Naji, Mashhadizadeh, & Rezaei, 2010), Nigeria (Dipo, Wakili, & Asekun-Olarinmoye, 2011), Thailand (Thato, Jenkins, & Dusitsin, 2008), India (Noronha, Bhaduri, Bhat, & Kamath, 2013) and Pakistan (Hirani, Karmaliani, McFarlane, Asad, & Madhani, 2010).

In an Ethiopian-based descriptive study, investigators found that knowledge and practice of modern contraception methods was poor and influenced by male dominance and opposition to contraception (Beekle & McCabe, 2006). In the same country, Teferra et al. (2012) conducted a cross-sectional study to assess the factors affecting institutional delivery service utilization among mothers who gave birth in the last 12 months; it was found that a majority (88%) of mothers were found to deliver at home. Authors recommend 1) increasing knowledge and awareness about hospital delivery services; 2) training of attendants and health extension workers; and 3) educating, communicating and empowering mothers to take a more active role in ensuring a safe delivery and greater awareness of complications with home deliveries (Teferra et al., 2012).

A mixed methods study among Malawian women focused on developing a three phased childbirth education program and evaluated the program using a quasi-experimental design (Malata et al., 2007). Findings revealed that there was an increase in maternal knowledge about antenatal, labor, birth and postnatal topics (Malata et al., 2007). In Iran, investigators designed a quasi-experimental pre-and-post-test study focused on evaluating men's participation in group training to improve family planning. Data revealed that mean knowledge of participants and of their spouses improved along with participation by men (Hosseini et al., 2010). In a Nigerian-based descriptive study on nutrition, mother-child dyads were divided into an experimental and control group (Dipo et al., 2011). Mothers in the experimental group received nutrition counseling and a health education package aimed at enhancing their ability to recognize malnutrition and use local food stuffs in preparing balanced weaning diets (Dido et al., 2011). Findings revealed that the weight of the children in the experimental group increased significantly compared to the control children (12.00 vs 9.83; $p < 0.001$); further, the mean mid-thigh circumference improved significantly (26.3 vs. 21.8 $p < .001$) (Dido et al., 2011). Importantly, two thirds of the children in experimental group were growing at a rate as fast or faster than the international standard median (Dido et al., 2011). The results of this study suggest that enhancement of the recovery of malnourished children can be accomplished through mothers using a counseling and participatory approach (Dipo et al., 2011).

In a quasi-experimental study aimed at improving sexually transmitted infection (STI) knowledge among high school students in Thailand, a culturally-sensitive sex education program was developed which included six one hour modules focused on setting and achieving personal goals related to STIs, HIV/AIDS and pregnancy (Thato et al., 2008). At three and six month follow-up, participants in the intervention group reported a greater decrease in sexual activity, and improvement in STI, HIV/AIDS and pregnancy knowledge when compared to the control group (Thato et al., 2008).

In southern India, a quasi-experimental pretest-posttest study was conducted to address anemia during pregnancy (Noronha et al., 2013). The intervention was composed of a health information package (HIP) which consisted of education on anemia in pregnancy and its prevention, iron and folic acid supplementation and deworming if required to prevent anemia. The control group subjects were given iron supplementation but no additional advice apart from what was told to them by other health personnel (Noronha et al., 2013). Data revealed that HIP was more effective in improving the nutrition knowledge, food selection ability and increasing hemoglobin levels as compared with the control group (Noronha et al., 2013).

Hirani et al. (2010) evaluated the effectiveness of an eight-week community-derived intervention among women (N=24) in Pakistan. Economic skill building (ESB) was delivered by community health workers (CHW) and introduced one group of participants to effective communication, balancing personal and work life, time management, conflict resolution, dealing with abuse and harassment, self-efficacy,

parenting, and personal hygiene (Hirani et al., 2010). The second group received group counseling and topics which included stress and anger management, effective communication, active listening and supportive problem-solving (Hirani et al., 2010). The control group did not receive the aforementioned intervention components. At the end of the eight-week intervention, women who received the ESB intervention reported significantly higher self-efficacy scores and 22% gain in employment as compared with the other groups (Hirani et al., 2010).

Gender-Based Violence in Post Conflict Settings

Nurse-led research studies have similarly focused on refugees and gender-based violence in Sudan (Pavlish & Ho, 2009a), Rwanda (Pavlish, 2005; Pavlish & Ho, 2009b), and Democratic Republic of Congo (Glass, Ramazani, Tosha, Mpanano, & Cinyabuguma, 2012). Ethnographic studies in south Sudan have defined human rights as the right to good governance, self-determination and participation in society's development, security and equality (Pavlish & Ho, 2009a). In Rwanda, a qualitative study among Congolese refugees found that human rights encompassed a rightful claim to human worth for all, and access to basic necessities (e.g. food, water, shelter, firewood, clothing, education, healthcare, income generation, and security). In this study, an ecological framework was applied which is believed may offer guidance for healthcare professionals, program implementation and evaluation (Pavlish & Ho, 2009b).

In a study focused on women's health in Rwanda, focus groups were conducted with refugees (N=100) and women who described concern over STIs, a struggle to survive, overburden of daily work, ambivalence of reproductive decisions, and lack of freedom to express themselves (Pavlish, 2005). In a qualitative study conducted in the Democratic Republic of Congo among survivors of sexual and gender-based violence, major themes discovered were the health consequences of sexual violence and women's worth as survivors of sexual violence. In an effort to respond to these findings, a microfinance project, Pigs for Peace (PFP), was developed with a collaborative team in South Kivu province.

Challenges Developing Research Studies Abroad

Development and creation of research studies in developing countries necessitates a shared vision in nursing. Building research is challenging as these countries may often have limited communication, transportation difficulties, varying field conditions, political instability, and lack of equipment. Another integral component which may influence and affect facilitation of research is identifying gatekeepers and establishing relationships with organizations. Limited funding streams may likewise limit research abroad as only 10% of global research funding is received by developing nations (Rosenkoetter & Nardi, 2007).

Developing a Road Map for the Next Decade

In each of our respective universities, fostering awareness of global health challenges, developing global health expertise in prominent need areas (e.g. women's health, communicable and chronic diseases), and seeking small grant programs for faculty and students are essential to develop and expand research activities. Several strategies to engage students and faculty in global health are outlined below.

I. Development of Global Health Training Venues for Students.

- *Pre-and-Postdoctoral Training Programs.* Develop pre-doctoral and postdoctoral T32 National Institute of Nursing Research (NINR) training programs focused on building international research, promoting knowledge

about strategies for entry into developing countries, and understanding culturally-sensitive methodologies.

- *Integrating global health curriculum into traditional nursing courses.* Integration and development of education materials for both the local and global level in courses.
- *International Nursing School Partnerships.* Development of memorandum of understanding (MOU) with universities to encourage student dialogue and partnership.
- *Development of Local Service Learning Projects.* Utilize multicultural communities as areas of learning, encouraging multidisciplinary academicians to address complex issues from multiple perspectives. Faculty should adopt a “local is global” paradigm in an effort to encourage advocacy, involvement and exposure to various ethnicities and cultures, via student engagement in service learning projects.
- *Global Health Research Rotations.* Engage students in global research with faculty.
- *Faculty Exchange Program.* Faculty members with specific nursing expertise can collaborate with host country researchers and collaboratively conduct research.

II. Using Technology to Bridge the Local and Global Landscape. Incoming students utilize social networks, blogs and online news to generate and disseminate information. In an effort to bridge international time zones, it is imperative to use e-blogs and conferencing systems to create a dialogue between nursing schools around the world and discuss issues regarding social justice and human rights.

- *Developing Integrated Hosting Website.* Develop a platform to showcase global work, student scholarship and highlight student/faculty work abroad. Telecommunications is also essential in building capacity and linking with organization distribution lists (e.g. Global Alliance for Nursing and Midwifery).

Creation of resources which provides PowerPoint slides and educational materials can help to disseminate knowledge on a global scale.

- *Global Health Nursing Certification Program.* Development of a global health nursing certification program can feature courses focused on communicable and infectious diseases, non-communicable diseases and a global internship service-based internship program.

Conclusions

The next decade of nursing research necessitates building upon current efforts as it relates to communicable and infectious diseases and issues impacting mothers and children. Developing a cadre of global health researchers is essential to build upon the descriptive and exploratory work of existing scientists. Establishing this foundational base begins with developing global health research excellence centers, pre and post-doctoral training programs, engaging and fostering student and faculty exchange programs, encouraging involvement in research rotations, capacity building, and using technology to bridge the international divide. Creating the future of global health nursing research requires dedication to the aforementioned key recommendations which aim to encourage, illuminate and set the stage for sustained efforts by institutions of higher learning in order to improve health outcomes around the world.

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State of the Science Paper

**INNOVATIONS IN NURSING EDUCATION
IN RESOURCE-CONSTRAINED SETTINGS**

*Joachim G. Voss, PhD, RN, ACRN, FAAN
Associate Professor
School of Nursing
University of Washington
Seattle, WA*

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*Joachim G. Voss, PhD, RN, ACRN, FAAN
Associate Professor
School of Nursing
University of Washington
Seattle, WA*

“Innovation distinguishes between a leader and a follower.”
Steve Jobs

“We cannot solve problems by using the same kind of thinking
we used when we created them.”
Albert Einstein

Introduction

The global healthcare demands of the 21st century are changing rapidly and the hierarchical structures of hospitals and clinics of today do not address the needs of communities, families, and individuals (Farmer, 2013). In many developing countries in Asia and Africa, nurses have become the leaders, community organizers, and the main profession to deliver primary healthcare in rural and community settings (McCarthy, Voss, Salmon, Gross, Kelly, & Riley, 2013). In Africa, this process happened predominantly by what we know as task shifting and later as task sharing. Task shifting can be defined as delegating a task that was originally within the scope of a physician to a nurse, such as the diagnosis and treatment of HIV (Ngozi & Holzemer, 2013). The HIV epidemic has challenged Africa’s health delivery system to the brink of collapse, and the few physicians available to deal with the epidemic recognized early on that a sustainable response to diagnose and treat the millions of people living with HIV would only be possible through task shifting. Large-scale funders such as the President’s Emergency Plan for AIDS Relief (PEPFAR) and United States Agency for International Development (USAID) brought in billions of dollars to aid high prevalence countries. In return they expected a rapid roll-out of prevention, diagnosis and treatment facilities and the ability to extend their reach beyond the cities into the rural areas (McCarthy, Voss, Verani, Vidot, Salmon, & Riley, 2013). However, the lack of healthcare professionals under the old structures did not allow them to fulfill this expectation. Only after countries agreed to have healthcare professionals shift and share tasks, did the roll-out of antiretroviral treatments become feasible, the monitoring of HIV patients tangible, and the prevention and counseling targets achievable. Recognizing that these professional boundaries have been stifling the healthcare system of many developing countries, nurses and nursing organizations have begun to share the table with key stakeholders and decision makers to develop innovation in leadership, practice and education. Schools of Nursing and the other health sciences have developed approaches to foster interprofessionalism, provide mutual understanding and trust, lower gender biases, and allow the different professions to learn from each other. This approach has raised the importance of healthcare delivery in the community, stressed the need for healthcare practitioners to return to rural areas to improve health and wellbeing, and provided an opportunity for partnership and leadership from community members.

This manuscript is not an exhaustive review of all of the educational innovations that

exist or that can be found in Africa or Asia. In my opinion, the following programs stand out as some of the most innovative examples of educating our next generation of nurses and interprofessional healthcare providers. They are included because they have global applicability and scalability, have an interprofessional focus (Schmitt, Gilbert, Brandt, & Weinstein, 2013), involve and focus on the community needs and resources, and exemplify the need for continuous learning between providers and community members. With the increasing success rates of treating infectious diseases and lowering mortality and morbidity in Africa and Asia, the number of individuals living with chronic diseases, and older adults, continues to rise globally. Both factors require more nursing care and a larger nursing workforce to which we have not found adequate ways to respond. The nursing workforce is a commodity around the world. None of the developing – and most developed – countries have sufficient numbers of nurses to meet the increasing demand of these older and chronically ill people. New models of nursing education will be needed to respond to this dramatic increase in demand for prevention, community learning, and shared leadership models.

The following three examples will demonstrate what the author considers innovation in global nursing education.

1. Interprofessional education at Makerere University
2. Nurses of the community, by the community, and for the community at Khon Kaen University
3. FNU Bora Global Health Leadership Training

Interprofessional Education at Makerere University

In order to address some of the key challenges in Uganda, the Ugandan Ministry of Health and healthcare decision makers worked on solutions to implement a healthcare system that provides community-based primary health and extend services to the entire population (Mbalinda et al., 2011). A major obstacle that hinders access to primary healthcare services is the unequal distribution of the population and the healthcare workforce. In Uganda, approximately 88% of the population lives in rural regions; while, the healthcare workforce predominantly trains and delivers healthcare in urban settings (UNFPA, 2008). Nurses and midwives are unequally distributed with 40% serving the much smaller urban population of Uganda (SAMSS, 2009). In order to change this problem, Ugandan healthcare education institutions adopted several strategies to encourage a more equitable distribution of human healthcare resources nationally. One of these strategies is aimed at better meeting the needs of Ugandans in rural settings.

In 2003, Makerere University developed and implemented a community-based education and service (COBES) training for medical, nursing, dentistry, pharmacology, and radiology students. The Health Sciences College developed a teaching and learning model to improve the health of Ugandans through innovative teaching and provision of service (Pariyo, Serwadda, Sewankambo, Groves, Bollinger, & Peters, 2011). The COBES model has several objectives. It focuses on providing hands-on exposure to public health and primary healthcare needs of rural communities very early in the training, while fostering interdisciplinary and self-directed learning. These activities allow small groups of students, under the leadership of a tutor, to live in a rural village and engage with the community members in a culturally appropriate way and to help them understand the importance of developing community partnerships to implement sustainable healthcare initiatives.

From the Ugandan national public health perspective, research findings show that these activities foster interprofessional understanding and may also encourage students to pursue a career in rural health services (Chan et al., 2011; Kaye, Mwanika, Sewankambo, 2010; Kiguli, et al., 2011). In 2010, out of the 45 participating COBES sites, 11 sites throughout Uganda were selected for qualitative interviews. These interviews focused on evaluating the perspectives of community engagement, the effectiveness of the student communication, the value of the health interventions, and the sustainability of the student designed community programs. In addition, the community was asked about the challenges of having the COBES program in their community. In general, the communities rated the COBES approaches highly. The tools and approaches to elicit feedback from community leaders and members was rated as very effective. The interventions, especially those that did not require additional resources such as water and sewage management, disclosure of HIV status, hand washing, nutritious ways to use food and boiling drinking water, were rated effective and were sustained long after the students left. Malaria nets were rated as very effective but not every family had 4000 Schilling (\$1.58) to buy a net, therefore the implementation was not seen as effective.

Generally, the communities appreciated the students coming to their villages and working with them and for many it was the first time they had been visited by a group of healthcare professionals. A challenge that came up was community fatigue from hosting the students throughout the year and providing them with time and resources. Many informants mentioned the need to incorporate incentives for the communities to be learning laboratories for the school. The communities mentioned that they expect “something tangible” for the openness to interact with the students. Another major challenge was the inability to speak and understand the local language. Uganda has more than 40 spoken languages and in many communities none of the students spoke the local language and interpreters were needed. However, even with these challenges the benefits of Makerere’s COBES model far outweigh the limitations.

Nurses of the community, by the community, and for the community at Khon Kaen University

Thailand’s public inpatient and outpatient healthcare is mainly delivered in hospitals. Private practice from healthcare practitioners is reserved for cash paying customers. As in many parts of the developing world, most healthcare professionals migrate after their training to the larger cities and leave the rural areas. This makes recruitment and retention of nurses into the smaller community hospitals very difficult. Efforts to address these issues had not been very successful before the Dean of the School of Nursing (SON) at Khon Kaen University, Khannita Nuntaboot, developed a system to produce “nurses of the community, by the community and for the community” (NOC) (Nuntaboot, 2006). In 2002, Dr. Nuntaboot and faculty members from the School of Nursing began collaborating with 12 local administrative organizations and 10 community hospitals in the Northeast of Thailand to train and develop NOC. In 2006, when the first group of 30 NOC students graduated from Khon Kaen University and returned home for work, four other SONs joined into the model to produce a new cadre of nurses. Since 2007, 18 more SONs have implemented a similar process, allowing Thailand to graduate over 500 additional nurses each year. These NOC are men and women that are identified and selected from the local communities to receive monetary support from their own local administrative organizations toward earning a Bachelors Degree in Nursing at the collaborating SON. They participate in learning activities jointly designed by the collaborating community hospital and the SON. After graduation, they return to work for their local administrative organizations with a focus

on community healthcare development. Collaboration between the local administrative organizations, the community hospital and the collaborating SON is essential to enhance the development and implementation of the NOC. Furthermore, the mutually shared responsibility between faculty, local administrators and hospital staff guarantees a clear definition of roles and functions, and ensures the sustainability of the project.

The overarching framework to guide their education was also developed by Dr. Nuntaboot (SERA, 2010). It is called the “interactive learning through action process in area-based community health care management” (see Figure 1). Her participatory teaching and learning process incorporates four essential components: 1) interactive learning through actions, 2) learning activities and access to learning, 3) strategies used to gather and share community data, and 4) methods to build interprofessional teams. In order to achieve these components, various learning environments are required, such as hospitals and clinics, workplaces, schools, and community healthcare agencies. Stakeholders are community health nurses and other health personnel, community allies, people in the community with experience in illness and care, nurse educators, and nursing students. Each stakeholder is responsible for his or her own role in the active learning process and focuses on developing outcomes relevant to the community. Being able to conceptualize the relevant issues in the community is an important part of the interactive process through sharing of experiences, reflection, guided initiatives, and the development of work models. Subsequent reviews of the work allow for all parties to identify the lessons learned. Students can be placed in urban or rural settings, where the context of healthcare delivery is different from the regular hospital environment and where they have to work with a variety of community allies. Students are divided in small groups and each group focuses, during their learning experience, on four aspects of the “interactive learning through action process”.

- 1) Identification of strategies that were implemented in the process
- 2) Gathering of community data and relevant information
- 3) Assessment of situations in health and illness care
- 4) Sharing experiences with experts in the community health setting

Outcomes of this process are divided into concrete and conceptual. Examples of concrete outcomes include:

- Gathering results and experiences from area-based community healthcare projects
- Collecting community data on the health status of a group or community
- Documenting reports from community members receiving health services
- Development and implementation of practical healthcare policies and plans
- Designing community health projects
- Developing practical models to hire nurses into local administrative organizations [LAO]
- Working with models of community teaching and learning
- Developing interactive learning strategies through action for community health-care management
- Developing and implementing tools and learning networks to study community healthcare improvements

The conceptual outcomes include less measurable results and are more focused on capacity building and attitude changes. Examples of conceptual outcomes include:

- Identifying positive attitude changes towards the interactive learning through action approach in the community

- Discovering the concepts that underlie the solutions to community health problems
- Being knowledgeable in community health issues
- Becoming increasingly interdisciplinary
- Building capacity for LAO to better manage the projects
- Developing interprofessional cultural competence

Afya Bora Global Health Leadership Training

The Afya Bora (“Good Health” in Swahili) Consortium was conceptualized in 2008, when faculty from medicine, nursing and public health from four U.S. universities (University of Washington, University of California San Francisco, Johns Hopkins University, and University of Pennsylvania) came together with their African twinning partners (University of Nairobi Kenya, Muhimbili University Tanzania, Makerere University Uganda, University of Botswana) and discussed ideas around how to solve the scarcity of global health leaders in Africa (Farquhar, Neelson, & the Consortium Working Group, 2011) . Multiple factors including the lack of national planning, the lack of training resources, and international nongovernmental organizations (NGO) siphoning of local healthcare practitioners for leadership positions, have contributed to the inability to train their own leaders on a national basis. The high demand to implement HIV and other infectious disease-related programs has not allowed the leadership of the ministries of health, local CDC offices, the national universities and major healthcare systems in Uganda, Kenya, Tanzania and Botswana to prepare physicians, nurses and public health practitioners to be ready for the large scale implementation and management tasks of national health projects.

Afya Bora aimed exactly to fill that gap from a variety of approaches. The approaches are:

1. Strengthen South to South collaborations
2. Use interprofessional approaches to reduce gender and professional biases
3. Strengthen faculty development as mentors
4. Use local attachment sites as practice sites for leadership
5. Use in-person and on-line training modules to train fellows
6. Focus 3/4 on African and ¼ on U.S. fellows
7. Use local and US trainers
8. Train nurses, physicians and public health professionals together to reduce gender and professional barriers
9. Use a monitoring and evaluation framework to allow for constant feedback for fellows, trainers and mentors

The program was started with a pilot project and is now in its 5-year implementation phase. The full fellowship is focused on four components:

1. Strong Mentoring Support. A strong mentoring support is essential to the success of the program and constitutes a critical step towards a self-sustaining South-South training consortium. Each mentee will have a team of mentors throughout the fellowship and the mentors are chosen from the eight consortium institutions and the participating non-academic organizations.
2. Core Curriculum with two didactic three week-long blocks. During each block, each week a separate module will be taught either on-line or in person. Training topics include leadership skills, communication and media skills, monitoring and evaluation, effective writing and grant proposals, program and project management,

implementation science and health systems research, health informatics, human resources and budget management, global health policy and governance.

3. Attachment Site Rotation in a three step process. The fellows identify sites and projects in conjunction with their primary mentor, a process they initiate by email. Then the site representatives are sent the applications for review and the representatives identify the best suited fellows for the projects currently available. The first rotation for the African fellows has to be in the home country while the second rotation can be in a different country. The U.S. fellows stay within one country. Sites include the Ministries of Health, NGOs, universities and academic hospitals, PEPFAR sites and CDC regional field stations.
4. Monitoring and Evaluation. A formal monitoring and evaluation plan allow for constant readjustment to parts of the program including the modules and the attachment sites. All trainees will be consistently evaluated for their achievements and competencies in terms of leadership, management skills, health systems management, health service delivery, program evaluation, communications, bioinformatics, and research. As part of the continuation of their career, the fellows have an opportunity to apply for up to five grants to implement the most promising projects for 1 year in their respective attachment sites.

Between January 2011 and June 2013, 42 fellows from five countries participated in the fellowship. This included 22 fellows in the pilot year (January - July 2011) and 20 fellows in the first year of the full program (June 2012 - July 2013). In November 2013, an electronic survey was sent to all alumni regarding any changes to their work since completion of the program. Of the 42 previous fellows, 25 (60%) completed the surveys. Fifteen (60%) reported that the fellowship made a difference in their current positions to which they returned. The most common changes in their current positions involved increased responsibilities, more autonomy, and promotions with greater leadership roles. The majority (73%) was convinced that these changes were due to the skills and experiences gained in Afya Bora. All 25 alumni reported that the participation in the Afya Bora program had impacted their actions or performance at work, and they named a wide range of skills utilized, including leadership, research, communication, and mentoring. Twenty (80%) alumni had spearheaded improvements in their workplaces. One of the most significant findings was that almost all (96%) alumni remained in communication with fellows, mentors and people they met during the fellowship. The respondents published four manuscripts, currently eight manuscripts are in preparation, three fellows presented at international conferences, and eighteen alumni (72%) were still involved in Afya Bora-related activities.

Discussion

This discussion shows that the healthcare systems in Africa and Asia are undergoing rapid changes and that these changes have triggered educational approaches that focus on filling the needs of communities, families and individuals. The interprofessional education program COBES at Makerere University in Uganda, and the “Nurses of the community, by the community, and for the community” approach at Khon Kaen University in Thailand, demonstrate many similarities. Training health professionals to return to and work with their communities after receiving a nursing, medical or other healthcare degree is a critical issue around the world. Allowing students to listen to the community members provides opportunities for mutual respect, joined solutions, and acceptance by the community members for safe and effective interventions.

The task shifting triggered by the HIV epidemic has forever changed some of the

old hierarchical structures between nurses and physicians; many were put in place by colonial powers and never challenged thereafter. I have shown a prime example for leadership training and interprofessionalism in Africa. Joining forces between developing countries is happening more and more. The experiences in one African country provide many valuable lessons that must be shared between neighboring countries. This avoids unnecessary repetition of similar efforts and lowers the number of unsuccessful attempts to deal with scarce healthcare resources. Fostering mutual respect, trust, and acceptance, despite many cultural differences, is a major step toward a successful interprofessional future for healthcare in Africa and Asia. The Afya Bora Global Health Leadership Training exemplifies this new future and the changes that are needed to impact global health leadership and global health education.

These three examples also demonstrate that healthcare leaders in the developing world have applied the knowledge and training they received in the U.S., Europe and Australia and developed programs and tools utilizing local solutions. African and Asian front runners have demonstrated that with innovative leadership and interprofessional communication approaches they can solve their own problems. Their successes prove that instead of constantly searching for “the next best thing” (Dearing, 209), it is best to identify the greatest needs in local communities and make those needs the priority for learning activities. Individualism was replaced by team approaches and interprofessionalism, individual competitiveness was exchanged for culturally sensitive and community-based effectiveness, and the future of nursing and healthcare education is looking bright and promising. While globally applicable, each example demonstrates the need for local thinking, local familiarity with the issues, and place-bound approaches. None of the three examples claimed to have found universal principals but rather tools and approaches to work in a village, a region, or a country.

From a global perspective, two major trends in nursing education exist that are conflicting with each other. The one trend attempts to arrive at a unified form of nursing education to a point where nurses can be traded like a commodity, because they have the knowledge, skills, and practice to function in any acute care settings without major difficulties regardless of where they work. If they practice evidence-based nursing, are critical thinkers, and fulfill their expectations to deliver safe and effective care to the highest degree of their education, they are fine and highly desirable. They are indeed so desirable that hospitals will pay large recruitment incentives to bring them from one hospital to the next, regardless of the impact that the loss of this professional makes to the first institution. The goal of the Association of Southeast Asian Nations (ASEAN), with its ten member countries, is to harmonize the market between its members. Their motto is “One vision, one identity, one community”. As a consequence, the training requirements of 10 initial professions, including nursing, will be harmonized increasing the possibility for nurses to freely move from one country to the next.

The second trend is the need for less hospital-based and much more community-based educational approaches focusing on health and wellbeing rather than illness. Educating communities, families, and individuals about their role in healthcare in relation to health and wellbeing will allow them to actively participate in decision making. Taking a community focus will also provide its members the opportunity to learn how best to manage their health and wellbeing. This departure from the illness focus to a health focus requires well-trained healthcare practitioners that are critical thinkers, with a knowledge of evidence-based practice, and that are allowed to perform to the fullest degree of their education. This new type of practitioner will have learned when to listen, when to act, and when to lead.

So what do we think will be the result of future global nursing education?

1. Nurses that are the leaders and managers of the healthcare team
2. Nurses that are entrepreneurs and innovators in their communities
3. Nurses that are agents for environmental stewardship and well-being
4. Nurses that promote global equity and empowerment

Or

1. Nurses that can pass a unified licensing test
2. Nurses that know how to perform in simulation laboratories
3. Nurses that are technologically skilled
4. Nurses that function well in hospitals

Globally, nurses are recruited to leave their communities and move to cities, work in private hospitals, care for patients with elective surgeries, and handle first-world problems. Global recruiters have long recognized that Bachelor degree prepared nurses desire to find better work and life circumstances and can be motivated to move with higher incomes and safer work environments. For many, this may be the first opportunity to support their families and extended families. This type of brain drain and out-migration has left many countries with almost no healthcare personnel and weak healthcare infrastructures. Over the last decade much of the developing world has begun to search for more sustainable solutions and develop new ways of thinking and addressing their own problems. This is when real solutions get applied to real problems. We as faculty members from the U.S., Europe and Australia can share our experiences, can learn from their local solutions to problems, bring our tools and expertise in methods to the table, and most of all acknowledge how much more can be achieved with less or equal resources. In my perspective, innovation in nursing education is driven by visionaries that recognize the most pressing issues of our time and are able to conceptualize and develop local solutions that are achievable.

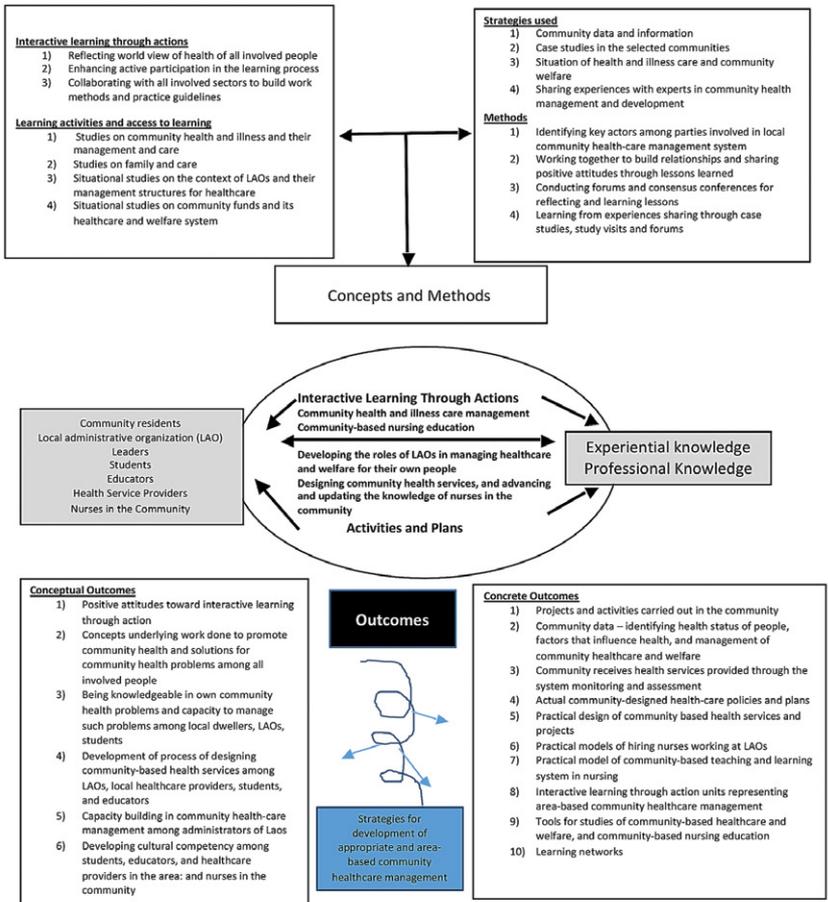


Figure 1: Adopted from “An interactive learning through action process in area-based community healthcare management” (Nuntaboot, 2006).

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Distinguished Research Lectureship Award Paper

**MAINTAINING FOCUS AS THE PENDULUM
SWINGS: A PROGRAM OF RESEARCH
WITH TEEN PARENTS**

*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*

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*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*

I am deeply honored to be the recipient of the 2014 Distinguished Research Lecture-ship. When Judy Berg informed me that I had been selected as this year's lecturer I was totally surprised and appreciative to so many. I particularly want to thank my nominators, Courtney Lyder and Adeline Nyamathi, and the WIN Board of Governors for this honor. I also want to thank my colleagues at UCLA who have supported me throughout my career and provided important feedback on my work, as well as the wonderful students, some of whom have become my research collaborators and colleagues. In particular, I would like to thank Dr. Janna Lesser, who played a critically important role in the development and testing of the HIV prevention interventions for young parents and in our work related to parental protectiveness.

Today I'm going to talk to you about my journey as a nurse researcher from its roots in clinical practice to my current activities as a "model developer" of three evidence-based programs. Needless to say, these intervention programs were developed and validated by an interdisciplinary team. I had the privilege to be the recipient of a series of R01 awards from the National Institute of Nursing Research (NINR) to support our collaborative work. My story begins in 1970 in Philadelphia, where I was employed as a public health nurse. The underserved community I worked in was multi-ethnic, with the largest population being African American. Historically, this was the era before Roe vs. Wade, which many of you are either too young to remember or weren't born yet. It also was the time when the availability of birth control pills was restricted. The Supreme Court legalized the use of birth control pills for all women, regardless of marital status, in 1972. In 1973 abortion was declared a right-to-privacy issue, and policies designed to restrict access to abortion were considered a violation to the right of women to health care. As a reflection of the times, I had a case load of pregnant and parenting youth, some having their third or fourth baby at the age of 17 or 18. From these young mothers, I learned about the consequences of early childbearing, not just the negative impact, but also about the resilience and strengths of adolescents. I directly observed the effects of poverty and lack of basic resources on personal and family risk and family life. My experiences in public health nursing caring for young families led to my enrollment in a master's degree program at the University of Pennsylvania, with a specialization in maternal-child health nursing. I subsequently began teaching and recognized that my career in academia necessitated doctoral education. After earning my doctorate from Teachers College, Columbia University, I secured a tenure-track position at UCLA in 1981. Within this research-intensive university and a culturally diverse city, I began my transition into the role of nurse scientist, focusing my studies predominantly on pregnant and parenting adolescents from diverse ethnic and racial backgrounds. Although I have conducted studies with other vulnerable populations and have led efforts to promote community-based participatory research as Director of the Center for Vulnerable Populations Research, I will not address these activities today.

I would like to first explain why I'm using the pendulum metaphor in relation to my program of research. I titled my presentation "Maintaining Focus as the Pendulum Swings: A Program of Research with Teen Parents," because use of this metaphor conveys the importance of staying on track in the presence of steady movement. If you are going to be successful as a nurse scientist over time, you need to maintain a clear focus and deal with changing systems around you in order to advance knowledge in your field. A pendulum moves freely yet always swings to and from its resting position, maintaining equilibrium. Similarly, ideas evolve and new research questions are generated by nurse scientists. These changes or transformations in thinking (in-sourcing) lead to outsourcing (securing funding for our study and investigating the problem or innovation). Although pendulums always move, they may be subject to friction and air drag that affect the amplitude of their swings. Swings in a program of research do not necessarily imply a change in direction or focus. Historical events and changing sociodemographic and health trends, as well as political forces, may influence our studies. Let me provide a few illustrations from my program of research that relate to: 1) teen pregnancy and birth rates; 2) the changing demographic profile of the U.S. over the past 2 decades; and 3) the increasing prevalence of sexually-transmitted infections (STIs) among teens and the rise of HIV in the '80s and '90s. The teen pregnancy and birth rate has fluctuated from a high in the early 1990s to the lowest in seven decades by 2011. The decline is attributed to use of contraception by teens of both genders as well as delay in initiation of sex. More teens are likely to contracept on their first sexual experience than before (Martinez, Copen, & Abma, 2011). During the early '90s, when we conducted a NINR-supported study entitled "An Early Intervention Program for Adolescent Mothers" (EIP), the teen birth rate was significantly higher, and there was great interest in the *development* of interventions to improve the health and life course of teen mothers and their children and to prevent unplanned teen pregnancies (initial and repeat). Today there is more attention directed toward identifying successful programs and *replicating* evidence-based models (EBM) to prevent unplanned pregnancies and care for pregnant and parenting adolescents and other vulnerable populations. Federal agencies are disseminating descriptions of EBM such as our EIP and providing grant and contract opportunities for replication and adaptation. This change has led to an extension of our work into the field of dissemination and translation. I will expand upon this point later in my paper.

The changing demographic profile of the nation has influenced the diversity of participants in our samples and the design of our interventions to ensure cultural appropriateness. Results of the 2010 Census show profound shifts in the racial and ethnic profile of America over the past 2 decades, with Latinos accounting for the major population gain now. Almost one in six Americans is of Latino background (U.S. Census Bureau, 2011). In 2011 the highest teen birth rate was among Latinos, 49.6 per 1000 females aged 15-19 in comparison to 47.3 for non-Hispanic blacks, 36.1 for American Indians/Alaskan Natives and 21.7 for whites (Centers for Disease Control and Prevention [CDC], 2013a). Notably teen pregnancy rates have declined substantially among all of these groups; however, ethnic/racial and socioeconomic disparities persist. These disparities are a reflection of social issues (e.g., income inequality, unemployment, low academic attainment, lack of health insurance) that disproportionately affect many minority youth and influence their vulnerability for early pregnancy and parenthood. Achieving health equity and eliminating disparities of all groups is an overarching goal of Healthy People 2020 (2012).

Another important influence on our program of research has been the increasing rates of STIs among U.S. adolescents. The CDC estimates that there are approximately 20

million new STIs each year—half of them among young people ages 15 to 24 (CDC 2013b). Many cases of STIs go undiagnosed or are not reported to the CDC. The rates of chlamydia and gonorrhea among 15- to 19-year-old youth have steadily climbed from the mid '90s until 2011, while ethnic/racial disparities persist. African American teens have the highest rates of chlamydia and gonorrhea and the second highest rate of HIV among all U.S. females (CDC 2012a), and the prevalence among Latino teens is climbing. Having an STI increases risk for acquiring HIV upon exposure. Individuals infected with STIs are at least two to five times more likely than uninfected individuals to acquire HIV infection if they are exposed to the virus through sexual contact and are also more likely to transmit HIV infection to their partner (CDC, 2010). In 2010 an estimated 25.7 percent of all new HIV infections were among youth. Of these newly diagnosed cases of HIV among 13- to 19- year-olds today, 67 percent are among Black/ African Americans and 17 percent among Latinos (CDC, n.d.). For 56 percent of adolescent and young adult females living with HIV, the transmission category is heterosexual contact (CDC, n.d.). Unfortunately, testing among this age group is low, and the majority of youth with HIV are unaware of their infections. Considering these factors, as well as the rapidly increasing size of the Latino population and their high teen pregnancy rates, our team launched a series of studies beginning in the late '80s to examine high-risk sexual behaviors and to develop and evaluate HIV prevention strategies.

Our studies conducted in Southern California involve youth who belonged to populations disproportionately affected by HIV/AIDS. Many lacked socioeconomic and other environmental resources, intensifying their vulnerability to early parenting as well as to HIV. The life course of these young women and men often included childhood histories of abuse and other risk factors shown to have a negative effect on their well-being in later life and often associated with adverse outcomes such as school failure, substance use, risky sexual behaviors, gang activity or affiliation, and incarceration (Koniak-Griffin & Brecht, 1997; Lesser & Koniak-Griffin, 2013). In a community survey we found that a substantial number of pregnant adolescents and young mothers engaged in unprotected sex and had multiple sex partners, despite being fairly knowledgeable about the most common causes of HIV transmission (Koniak-Griffin & Brecht, 1997). Less than one-third of the participants (N=151) reported using a condom during their last sexual episode, and 23 percent had four or more sexual partners; these rates were considerably higher than findings of national samples of similarly aged females (Cates, 1991). Nonetheless, we also have discovered that many adolescents make critical changes in some of their high risk behaviors as a consequence of becoming pregnant and a parent. Through a series of qualitative studies led by my research colleague Dr. Janna Lesser, we identified and described many of these positive life changes such as decreasing or stopping alcohol and drug use; returning to and finishing high school, or planning to return to school and go to college or obtain vocational training; and separating oneself from gang activity (Lesser, Koniak-Griffin, & Anderson, 1999). Protective factors included establishment of maternal identity and simultaneous development of a strong sense of maternal protectiveness, viewing mothering as a valued role and fathers' desire to support and protect (Lesser, Koniak-Griffin, Huang, Takayanagi, & Cumberland, 2009). Awareness of these changes and protective factors led us to believe that pregnancy and parenthood offered a "window of opportunity" to build upon the strengths and protective tendencies among young parents to support positive behavior change, to motivate change from previous risky behaviors to more protective health behaviors and to intervene to prevent potential health risks to their children.

Our first clinical trial, the Early Intervention Program for Adolescent Mothers (EIP)

involved collaboration between our research team at the UCLA School of Nursing and the public health nurses of the San Bernardino County Department of Public Health which was facilitated by the late Anne Ivey, RN, MS, then Chief of the Division of Community Health Services. Our team, including Drs. Nancy Anderson, Inese Verzemnieks, Janna Lesser, Mary-Lynn Brecht, and Sue Kim, conducted extensive formative work on components of the intervention (Koniak-Griffin & Verzemnieks, 1991; Koniak-Griffin, Verzemnieks, & Cahill, 1992) prior to funding by NINR (R01 NR20325 and NR02325-S1) and the Office of Women's Health (NR02325-S2). Major goals of the EIP were to improve maternal and infant health, decrease/eliminate high-risk behaviors, promote healthy sexuality and effective family planning, and enhance life skills (e.g., communication and social skills, education, employment, life planning). The intervention, based upon theories of adolescent development and maternal role attainment, was designed to help the young mother achieve program objectives as a result of improved social competence. The public health nursing model included nurse case management, preparation-for-motherhood classes ($N=4$), home visitation (17 visits) beginning in mid-pregnancy and extending through the first year postbirth, and referral for supplementary services as needed. The intervention had several unique features. Parenting skills development was facilitated through use of Nursing Child Assessment Satellite Training (NCAST) materials (e.g., Keys to Caregiving, Parent-Child Interaction Scales; see www.NCAST.org), demonstration of newborn behaviors with an adapted form of the Neonatal Behavioral Assessment Scale (Brazelton, 1984), videotape instruction and feedback, decision-making/problem-solving activities and bi-directional (nurse-teen) written planning. The control group received traditional public health nursing care available at the county health department (two prenatal visits and one postpartum visit). Participants ranged in age from 14 to 19 years (mean=16.79 years); they were socioeconomically disadvantaged, first-time mothers, predominantly from ethnic/racial minority groups (63% Latina, 12% African American), and English- or Spanish-speaking. Findings of our study showed improved infant health outcomes evidenced by higher immunization rates in the first year of life; decreased total days of hospitalizations (EIP=143, control=211) for illnesses and injuries; fewer hospitalization episodes, sustained through 2 years postbirth; increased number of mothers never using the emergency room for their child; and 15% fewer repeat pregnancies in the EIP group (Koniak-Griffin, et al., 2000, 2002; Koniak-Griffin, Verzemnieks, et al., 2003). A significant group difference also was found in pattern of marijuana use over time (Koniak-Griffin, Verzemnieks, et al., 2003). Preterm birth and low-birth-weight rates for mothers in both groups were lower than national norms for this age group. Outcomes of this study demonstrate the benefits of home visitation by public health nurses and meet the criteria established by the U.S. Department of Health and Human Services (DHHS) for an "evidence-based early childhood home visiting service delivery model." These criteria include high- or moderate-quality impact study for the model, favorable impacts in at least two outcome domains within one sample, and sustainability of outcome(s) longer than one year after program enrollment (DHHS, 2011).

While conducting the EIP, we received another grant from the NINR for a clinical trial to evaluate an HIV Prevention Program for Adolescent Mothers (NINR R01-NR04375). The study, known in the community as "Project CHARM" (Children's Health and Responsible Mothering), was conducted in four school districts of Los Angeles County with pregnant minors' or young parents' programs. The sample included 572 pregnant and parenting adolescents of predominantly Latina (77%) and African American (18%) background. Most were single (72%) and reported being in a steady relationship (72%). Participants were randomly assigned by school site to the theory-based HIV prevention

intervention entitled “*Be Proud! Be Responsible! Be Protective*” or a comparable length control condition (a health promotion program). The nurse-facilitated intervention was adapted from a HIV prevention curriculum developed by Jemmott and associates (Jemmott, Jemmott, & McCaffree, 1996) and tailored for pregnant and parenting adolescents by building upon maternal protectiveness as a motivator to make healthy sexual decisions and reduce risky sexual behaviors. The four 2-hour sessions were designed to be interactive, using culturally and developmentally relevant videos, skill-building activities, and role-playing to reinforce learning and encourage active participation. In addition, a young mother living with HIV shared her story and described how having the AIDS virus affected her life as a mother and the lives of her family members. At baseline many young women reported histories of early onset of sexual activity, multiple lifetime sexual partners, alcohol and drug use, and childhood sexual or physical abuse. Only 18% stated a condom was used at last intercourse (Koniak-Griffin, Lesser, Uman, et al., 2003). The treatment group demonstrated statistically significant improvements in AIDS knowledge and intentions to use condoms, and reported fewer sex partners at the 6-month follow-up as compared to the control group. A significant decline in the proportion of adolescents engaging in unprotected sex from baseline to 6 months ($\chi^2=19.08, p<.001$) and 12 months ($\chi^2=4.48, p<.05$) was observed in the treatment group but not in the control group. Condom use during the last sexual episode was reported by 48% of young women in the treatment group at 12-month follow-up compared to 16% at baseline. Findings related to the effects of the intervention on theoretical variables provided some support for selected concepts from social cognitive theory and the theory of reasoned action. *Be Proud! Be Responsible! Be Protective!* has been identified by the Office of Adolescent Health, Assistant Secretary for Health (United States Department of Health and Human Services [DHHS]), as an evidence-based model that reduces the risk for sexually transmitted infections (see http://www.hhs.gov/ash/oah/oah-initiatives/teen_pregnancy/db/tp-searchable.html).

Nonetheless, our experiences with this HIV prevention program enhanced our understanding about the unique challenges and complexities of promoting safer sexual practices among adolescent mothers involved in steady relationships. Through qualitative evaluations of the class sessions conducted by Dr. Lesser, we learned how young mothers’ efforts to decrease risky sexual behavior were often overshadowed by immediate concerns (e.g., obtaining food and baby supplies, safety). Further, relationship issues of gender, power, trust, and the desire to maintain a harmonious relationship with the steady partner (generally baby’s father) influenced sexual decision-making (Lesser, et al., 2003). Young mothers expressed the need for their male partners to be involved in HIV-prevention programs with them. At that time, we were unaware of any couple-focused HIV prevention programs for adolescent parents and had limited experience working with young fathers. Greater knowledge was needed about the male perspective on being a father, and how it might relate to risk-taking and risk reduction behaviors. Fortunately, we secured funding from the University-wide AIDS Research Program of the University of California (Grant #PC99-LA-2011) to support a partnership with a community-based organization (the Bienvenidos Family Services National Latino Fatherhood and Family Institute) that had expertise and extensive experience providing parenting services to young fathers. The grant enabled us to conduct a two-phase, community-based participatory research (CBPR) project. In the first phase focus group and individual interviews were conducted with young Latino fathers, 15-25 years old. We learned about their life experiences which often included childhoods entrenched in poverty, social oppression, community and family violence and discrimination (Lesser, et al., 2001). During adolescence some young men became involved with gangs in their

search for self-identity and comradeship. The experience of becoming a father or taking on the paternal role involved a process of leaving the gang, gaining empathy for others and modifying perspective on male-female relationships (Lesser, et al., 2001). Their stories about taking on the role of father were similar in some ways to those shared by young mothers, suggesting that feelings of paternal protectiveness were associated with behavior change. These findings indicated to us that a strength-based approach, building on parental protectiveness, was appropriate in designing a couple-focused HIV prevention program for young parents. Development of the intervention was greatly influenced by the narratives of young fathers and our community partners, particularly the clinical experiences and writings of Jerry Tello, who worked directly with Dr. Lesser on the content. We recognized that the curriculum could not only address disease prevention; it needed elements of Tello's programs, including recognition of the spirit-breaking cycle of internalized oppression reflected in self-injurious behaviors such as indiscriminate and unprotected sexual activity, relationship violence and substance use (Lesser & Koniak-Griffin, 2013). Other elements of the curriculum include identity development, male-female relationships, and cultural values (respect, dignity, trust, and love) (Lesser et al., 2005). In the second phase of our project we tested the culturally-rooted and strength-based couple –focused curriculum, *Respeto/Proteger/Respecting and Protecting Our Relationships*. The intervention was designed specifically for Latino parents, incorporating Tello's character development framework (Tello & Carillo, 1998) and applying constructs from the theory of gender and power (Amaro, 1995). Parental protectiveness was considered an important strength that can support resiliency and motivate behavioral change (Lesser, et al., 2005). The 12-hour curriculum was presented in 6 sessions by pairs of male/female co-facilitators who applied a variety of strategies such as storytelling, reflection, and writing activities. Combined and gender-separated discussion groups and other activities were specifically designed to integrate traditional or cultural teachings to enhance the positive aspects of relational norms and motivate sexual risk reduction. HIV–prevention strategies applied in our earlier intervention also were used, such as examining vulnerability to HIV infection and attitudes and beliefs about HIV and “safer” sex; skill-building for sexual negotiation and condom use; and a presentation by a young mother who was HIV-positive. Forty-nine couples (98 individuals) were included in the pilot test of the intervention; of these 75% were childrearing and 25% were expecting a child. Findings showed that the probability of unprotected sex was reduced and intention to use condoms was increased significantly from baseline to the 6-month follow-up in the treatment group as compared to the one-session, HIV- information-only comparison group ($p < .001$) (Koniak-Griffin et al., 2008). Both the couple-focused and brief comparison programs were beneficial in terms of increasing male and female participants' knowledge of HIV/AIDS. The intervention was well accepted by the inner-city adolescents and was realistic for implementation in a community setting.

The pilot study provided the initial evidence to support the beneficial effects of a couple-focused HIV prevention program for Latino adolescent mothers and their male partners. Subsequently, we were able to obtain a R01 grant from NINR to further test the *Respeto/Proteger* intervention. The research team included a co-PI, Dr. Janna Lesser; and two co-investigators, Drs. Mary-Lynn Brecht and William G. Cumberland. Our community-based clinical trial involved 168 couples (336 individuals). The study differed from the pilot work in a few aspects: only childrearing couples were included, participants were randomly assigned by couple within recruitment sites, and the length of follow-up extended to 12 months. The intervention remained inherently the same as the one in our pilot study. Participants were primarily Latino, with about a 2-year age

difference between mothers (mean=18.5, $SD=1.7$) and their male partners (mean=20.4, $SD=2.2$). Most couples had been together for nearly 3 years. At baseline we found that many participants were unaware of their partner's HIV testing status; relationship quality was higher when females accurately perceived their partners' self-reported HIV-related risk behaviors (Koniak-Griffin et al., 2009). A significant overall effect of the intervention on reducing unprotected sex episodes in both males ($p<.01$) and females ($p<.0001$) and increasing intent to use condoms was found at the 6-month follow-up. Unprotected sex episodes in the experimental group decreased 26.9% over this time period. Through dyadic analyses of couple data, we also discovered a moderating role of male parental protectiveness (i.e., the father-child emotional attachment that positively influences parental behavior) in improving the effectiveness of the intervention for his female partner, the young mother (Lesser, et al., 2009). Our follow-up findings at 12-months supported the need for a maintenance program to improve sustainability of effects over time (Koniak-Griffin, Lesser, Takayanagi, & Cumberland, 2011). Based upon an independent comprehensive review of our findings, this curriculum was identified by the Office of Adolescent Health, Assistant Secretary for Health, DHHS as an evidence-based model that reduces risk for sexually transmitted infections (Mathematica Policy Research: Child Trends, n.d.)

So where are we today with our EBMs in the world of translational science? The story of what happened with our interventions is based largely upon activities of the federal government that did not directly involve our team of researchers. We learned about the scientific reviews after they were completed. The independent reviews were conducted by representatives from agencies such as the Office of Adolescent Health, DHHS; the CDC; the Administration for Children and Families; and policy research organizations that were contracted by the federal government (e.g., Mathematica Policy Research and its partner Child Trends). The reviews identify, assess, and rate the rigor of program impact studies and describe the strength of evidence supporting different interventions models. A variety of evaluation criteria are applied, including study design, attrition, baseline equivalence of groups, data collection methods, impact of program (on primary and secondary outcomes) and sustainability of outcomes. Findings are used to identify program models meeting the criteria for the HHS List of Evidence-Based Teen Pregnancy Prevention Programs (Office of Adolescent Health, 2012).

We have published the curriculum *Be Proud! Be Responsible! Be Protective!* (Koniak-Griffin, Jemmott, & Jemmott, 2011) and professionals from about 10 states have been trained by our team in its implementation. The Office of Adolescent Health identifies this intervention program, as well as *Respeto/Proteger*, among the 31 EBMs to prevent teen pregnancies or births, reduce STIs, or reduce rates of associated sexual risk behaviors. These EBMs are listed on their government website which provides both programmatic information and supporting research evidence. Links also are available on "Choosing an Evidence-Based Program and Curriculum" (see www.hhs.gov/ash/oah/oah-initiatives/teen_pregnancy/training/curriculum.html). A 10-step model to promote science-based approaches to teen pregnancy prevention is presented that addresses planning (e.g., needs and resources, finding existing programs and best practices, modifying programs to fit needs), delivering programs, and evaluating and improving (see www.cdc.gov/TeenPregnancy/PDF/LittlePSBA-GTO.pdf). A Teen Pregnancy Prevention: Replication of Evidence-based Programs Funding Opportunity was made available in 2010. A school system in North Carolina, in partnership with the County Health Department, was awarded a grant to replicate our curriculum in high schools, alternative schools, and the County Health Department. The Office of Adolescent Health

is systematically collecting feasibility and outcome data on all of the EBMs to enhance understanding about how to effectively replicate and implement evidence-based program models and how to achieve impacts that were found in the original evaluations. It is anticipated that the next announcement for Teen Pregnancy Prevention proposals will occur in late 2014 or early 2015. In 2012 I had the honor of participating in an expert panel workgroup with the Office of Adolescent Health to create a set of policy, program, and research options to help inform the field of “What Works for Pregnant and Parenting Teens” (DHHS, n.d.)

Work with our other EBM--the EIP--has been more challenging. In some ways neither my education or the culture of academia prepared me for what would happen when the EIP was identified as an EBM within the Maternal, Infant, and Early Childhood Home Visitation (MIECHV) Program funded by the Affordable Care Act. MIECHV is an evidence-based policy initiative that provides competitive grant award opportunities to states and Tribal Organizations to establish evidence-based home visiting program models for at-risk pregnant women and children from birth to 5 years. There are now 14 approved models, including two public health nursing programs, the Nurse Family Partnership developed by Dr. David Olds and his nursing colleagues, and the EIP. Currently, only six of these EBMs are being replicated in multiple states. These models were being implemented by agencies on a broad scale when the MIECHV program was initiated. The EIP is unfortunately not positioned to launch collaborative work with grantees in the MIECHV program. In the 1990s we did not foresee the health care changes or the growing federal support for Home Visiting, much of it orchestrated by the programs that had existing national implementation and strong infrastructures. After completion of the EIP, our partnering public health department could not sustain the program because it lacked the required funding. Reflecting back, I would encourage nurse scientists with effective interventions to replicate their studies and/or work with others on replication and disseminate beyond the high impact research literature, so state governments, service providers, and politicians are aware of effective programs. We have learned that translation work in early childhood home visitation requires a business plan to build general and specific capacity for implementation (support system) and an operating infrastructure for translation partnership with state and community agencies on training, delivery and evaluation of EBMs. Based upon our experiences, I would strongly recommend that nurse scientists who have developed efficacious interventions that may significantly impact the health of our nation, make sure stakeholders are aware of their programs, and work to secure funding for continued translation work. We need to advocate for expanding opportunities for replication trials and support for infrastructure development of EBM so translation from research to practice is facilitated. These activities are particularly important because EBMs may be identified, without awareness of the original research team, based upon independent and comprehensive review of a study's scientific rigor. Selection criteria may not consider ongoing implementation or the feasibility of launching translational work under federal initiatives.

A variety of translation issues need to be considered with EBMs, including contextual factors related to implementation, the applicability of the program, and need for tailoring across age, ethnic/racial groups and geographic areas and the appropriateness of the evaluation measures across populations. The scalability potential of research is another important consideration, particularly how much control is needed to produce optimum outcomes. Procedures need to be developed to ensure essential elements of evidence-based programs can be implemented reliably in a variety of practice settings

(Olds, Sadler, & Kitzman, 2007). Many of these issues may be addressed through dissemination research which examines the feasibility, comparative effectiveness and cost of interventions with widespread application and the methods to make target audiences aware of, receive, accept, and use interventions (Mitchell, Fisher, Hastings, Silverman, & Wallen, 2010).

In conclusion, I've traveled an exciting and very rewarding journey from public health nurse to academic nurse educator and researcher to model developer for federal government initiatives. I have maintained focus on promoting the health of pregnant adolescents, new parents and their children while the pendulum has kept swinging, influenced by various social and political forces. I remain committed to supporting the next generation of nurses and young scholars who will be involved in translational science and advancing nursing care to improve the health of our nation. I thank you for allowing me the opportunity to share my story.

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The Carol A. Lindeman Award for a New Researcher Paper

**CHILDREN'S SELF-PERCEPTIONS OF WEIGHT
IN A RURAL HISPANIC COMMUNITY**

*Carolyn Montoya, PhD, CPNP
Assistant Professor
College of Nursing
University of New Mexico
Albuquerque, NM*

CHILDREN'S SELF-PERCEPTIONS OF WEIGHT IN A RURAL HISPANIC COMMUNITY

*Carolyn Montoya, PhD, CPNP
Assistant Professor
College of Nursing
University of New Mexico
Albuquerque, NM*

PURPOSE: Given that the prevalence rate for overweight and obesity among Hispanic children is 39.1% compared with 27.9% for non-Hispanic White children,¹ it is essential to understand the perceptions related to body weight among Hispanic children as the first step toward planning effective prevention and treatment strategies. The purpose of this study was to determine whether there are differences among children between the ages of 8 and 11 years based on age, gender, actual body mass index (BMI) category, and ethnicity for (1) the accuracy of children's selection of BMI category versus their clinically measured BMI, and (2) their perception of ideal BMI category.

BACKGROUND: Although several studies have documented Hispanic parents' misperceptions regarding their children's weight,²⁻⁹ studies examining preadolescent Hispanic children's self-perception of weight are limited. Figueroa et al.⁵ used a figural scale to assess body image perception in Hispanic children between the ages of 8 and 11 years (123 parent/child dyads) and found that the children did not accurately identify their own body size. Snethen and Broome¹⁰ and Snethen et al.¹¹ used a phenomenological approach and focus groups, respectively, to identify themes among children regarding their weight perceptions. Although both studies were small ($N = 17$ and $N = 12$, respectively), they did include Hispanic children. The children included in the phenomenological study¹⁰ all had a BMI $\geq 95\%$ (parent-reported heights and weights); yet, 30% identified themselves as being of normal weight, and 12% identified themselves as being underweight. Children who participated in the focus group study¹¹ were not targeted based on their weight status, and height and weights were not obtained.

Three studies were identified that utilized data from national studies, included a large percentage of Hispanics, and examined perceptions related to weight. Martin et al.¹² utilized data from Wave II of the U.S. National Longitudinal Study of Adolescent Health to examine weight perceptions among adolescents. Although Black teens were less likely than white teens to accurately see themselves as overweight or obese, no significant differences were found between White and Hispanic teens. Haff¹³ used data from the 2001 Youth Risk Behavior Surveillance Survey to examine racial/ethnic differences in weight perceptions among 6,089 females in Grades 9 through 12. Hispanic girls were noted as more likely to describe themselves as "very underweight" compared with White girls, who were more likely to describe themselves as slightly underweight. Mikolajczyk et al.¹⁴ also examined body satisfaction in US teens between the ages of 11 and 17 using data from the 2001 U.S. Health Behavior in School-Aged Children survey. Hispanic and non-Hispanic Whites had similar perceptions of body appearance across gender and age spectrums. The authors concluded that perceived appearance most likely occurs before the age of 10 and remains fairly consistent throughout adolescence. Although Hispanics were included in these large studies based on national data, the primary focus was on the adolescent population.

CONCEPTUAL FRAMEWORK: The Health Belief Model (HBM)¹⁵ was utilized as the framework for understanding children's perceptions of weight in this study. The HBM examines the likelihood that an individual will take action based on the perceived benefits of the preventive action minus the perceived barriers to the action. For the purposes of this study, weight self-perception is considered to be one of the factors related to perceived susceptibility for overweight or obesity that may have an impact on children participating in a healthy lifestyle program.

METHODS:

Sample and Setting: This study was approved by the University of New Mexico Health Sciences Center Human Research Protections Office. It was conducted in a nonmetropolitan rural community in southern New Mexico. The population of New Mexico is about 2 million people, with 46% identifying themselves as Hispanic and 40% identifying themselves as non-Hispanic White.¹⁶ The majority of the population in the county where the study was conducted identified themselves as Hispanic (58%). A convenience sample of children between the ages of 8 and 11 years from 7 elementary schools were included in the study.

The children needed to speak, read, and understand English (self-identified), and parents had to read and understand either English or Spanish. Children with the following conditions were excluded from the study: a medical condition affecting weight or the ability to eat independently; treatment with long-term steroids, chemotherapy, or immune suppressants; and treatment for obesity. At the time of the study, 1,014 children were enrolled in Grades 3 through 5 in this school district. A total of 436 children participated in this study; however, 5 participants were eliminated because they did not meet the age criteria, and 7 were noted to have missing data and were therefore eliminated, leaving a final sample of 424. The response rate from the available population was 42%. All participants received a \$10 gift card to a national retail chain located in the community. Parents received a results letter containing an explanation of their child's measurements and the primary investigator's contact information in case of any questions.

Measures: A study information packet was distributed in each of the appropriate grade levels in the 7 schools: a parent consent form, a child assent form, and a parent information form to be returned to the teacher. All forms were provided in both English and Spanish. Parents indicated the ethnicity of their child from the following 7 categories: American Indian or Alaska Native, Asian, Black or African American, Hispanic or Latino, Native Hawaiian or other Pacific Islander, White, and other. The form did not include an option for indicating a primary ethnicity versus a secondary ethnicity, nor was there a category for multiracial; however, 24 parents indicated a secondary ethnicity for their child. Due to the low numbers of participants in the categories of Black or African American ($n = 5$, 1.2%), American Indian or Alaska Native ($n = 10$, 2.4%), and other ($n = 9$, 2.1%), a recoded variable was created for ethnicity. This variable included the categories of Hispanic, White, and other/multiracial, with children whose parents indicated a secondary ethnicity included in the category of other/multiracial.

The child's gender and date of birth were also collected on the parent information form. Age was calculated using years and months. Height in feet and inches and weight in pounds were obtained at each school using the same portable stadiometer (model 217; Seca, Birmingham, UK) and portable digital scale (model 869; Seca). The Children's

BMI Tool for Schools was utilized to calculate BMI and specific BMI percentiles for age and gender.¹⁷ Children were assigned 1 of the following 4 weight categories based on the Centers for Disease Control and Prevention (CDC) BMI percentile designations: underweight, < 5th percentile; healthy weight, 5th percentile to < 85th percentile; overweight, 85th percentile to < 95th percentile; and obese, \geq 95th percentile.¹⁸

The Children's Body Image Scale (CBIS), developed by Truby and Paxton, was utilized for this study.¹⁹ The tool consists of 7 figures for boys and 7 figures for girls, with each figure representing a gender-specific BMI range for children between the ages of 7 and 12 years. Construct validity of the CBIS tool was established by studying the strength of correlations between perceived/ideal discrepancy and 4 items: 2 questions related to body size satisfaction and 2 scales related to body esteem and dieting behavior.¹⁹ Reliability was established in a second study, with significant correlations ($P < .001$) between test-retest intervals (3- week period) with Pearson's r values ranging from .67 to .87.²⁰ Truby and Paxton also compared the CBIS with the CDC 2000 growth charts, the United Kingdom 90 BMI charts, and the International Obesity Taskforce BMI cut-offs.²⁰ Based on a synthesis of these values and the gender-specific BMI ranges established by Truby and Paxton,¹⁹ 1 of the 4 CDC weight categories was assigned to each figure. For the girls, figure 1 was considered underweight; figures 2 to 5 were healthy weight; figure 6 was overweight; and figure 7 was obese. For the boys, figure 1 was overweight, figures 2 to 4 were healthy weight; figure 5 was overweight; and figures 6 and 7 were obese. The children were shown the gender-specific figures in sequential order. They were asked to select a figure that "looks most like you" (actual perception) on one page and then to select a figure that "looks like what you would like to look like" (ideal perception) on a second page.

RESULTS: The average age of the children was 9.3 years, and the average weight was 86 pounds ($SD = 27$) for girls and 82 pounds ($SD = 25$) for boys. The average height for both boys and girls was 54 inches ($SD = 3.0$). More than half of the participants (55.0%, $n = 235$) had an actual BMI percentile in the healthy weight category. The combined BMI categories of overweight and obesity constituted 42.0% of the sample ($n = 177$), and 3.0% ($n = 12$) of the participants were in the underweight category.

Our first aim was to determine whether there were differences based on age, gender, actual BMI category, grade level (3rd, 4th, 5th), and ethnicity in the accuracy of children's selection of BMI category using figures from the CBIS scale versus the children's clinically measured BMI. Children were classified as "accurate perceivers" if their selected CBIS scale figure reflected the same BMI category as their clinically measured BMI.

Table 1 displays the results of the chi-square tests conducted to determine the association between the independent variables of race/ethnicity and BMI category and accuracy of self-perception of weight status. Actual BMI (clinically measured) was the only independent variable that was significantly associated with accurate perception, $\chi^2(3) = 201.4, p < .001$, and the effect size was large²¹ ($V = 0.69$). In both the overweight and obese categories, only 9.0% of the children were accurate perceivers. In contrast, 79.0% ($n = 186$) of the children in the healthy weight category and 25.0% of the children in the underweight category were accurate perceivers. Grade, age, gender, (not displayed in the table) and race/ethnicity were not significant predictors of accuracy of self-perception of weight status.

Table 1: Race/Ethnicity and Actual BMI by Accuracy of Perception and Expressed Preference for Underweight

Characteristic	Total Sample n (%)	Accurate Perceivers n (%)	Effect Size and Significance V (p value) $\chi^2(df)$	Underweight Preference n (%)	Effect Size and Significance V ^a (p value) $\chi^2(df)^b$
Race/Ethnicity			0.10 (0.15) $\chi^2(2) = 3.8$		0.04 (0.67) $\chi^2(2) = 0.8$
Hispanic	299 (70)	152 (50.8)		92 (30.8)	
White	80 (19)	37 (46.3)		28 (35.0)	
Other	45 (11)	16 (35.6)		16 (35.6)	
Actual BMI			0.69 (<.001) $\chi^2(3) = 201.4$		0.14 (0.03) $\chi^2(3) = 8.8$
Underweight	12 (2.8)	3 (25.0)		2 (16.7)	
Healthy weight	235 (54.4)	186 (79.1)		87 (37.0)	
Overweight	80 (18.9)	7 (8.8)		26 (32.5)	
Obese	97 (22.9)	9 (9.3)		21 (21.6)	

^aV, Cramér's V; ^bdf, degrees of freedom.

The second aim was to determine the association of gender, age, grade level, ethnicity, and actual BMI category with perceptions of ideal BMI category using the CBIS. Because none of the boys selected the overweight or obese CBIS figures as ideal, and the overweight and obese figures were only selected by 1 girl each, the four possible ideal BMI categories were collapsed into two categories for this analysis. One category consisted of the participants who selected underweight as their ideal, and the other consisted of the participants who selected either healthy weight, overweight, or obese as their ideal category.

Table 1 also displays chi-square tests conducted to determine whether there was any association between race/ethnicity and BMI category and the selection of the underweight figure as ideal. Actual BMI category (clinically measured), $\chi^2(3) = 8.8, p = .03, V = 0.14$, and grade level, $\chi^2(2) = 6.7, p = .04, V = 0.13$ (not displayed in the table), both had a significant association with selection of an underweight ideal, albeit with a small effect size.²¹ However, age, gender, (not displayed in the table) and race/ethnicity were not significant predictors of the selection of the underweight figure as ideal.

DISCUSSION: This study did not find age, gender, or ethnicity to have significant associations with children's perceptions of their current body weight. These findings differ from other studies,^{5,10,11,22-24} of prepubertal children where age, gender, or ethnicity were shown to have a significant effect on children's perceptions of their body weight. Hispanic children did not participate in three of the studies²²⁻²⁴ while the study by Figueroa et al.⁵ does not include the actual number of Hispanic children. Two studies had samples of less than twenty.^{10,11}

Studies involving accuracy of prepubertal children's weight perception have had mixed results. Some studies^{23,25,26} indicate that perceptions in this age group of children are fairly accurate in terms of their body weight; however these studies did not include Hispanic children. Pauline et al.²⁷ found overweight children in India to have 4 times the odds of perceiving themselves as thinner than their actual weights as opposed to children who were normal weight. Maximova et al.²⁸ found that overweight and obese Canadian children and teens significantly misperceived their weight. In terms of preference for thinness among prepubertal children, findings tend to be consistent, starting with the study by Collins, who noted a preference for thinness among female children across all age levels, races (Black and White), weight categories, and school/

community settings.²³ Thompson et al.²⁴ noted that Black girls wanted to be thinner than their current size; however, body dissatisfaction was more prevalent with girls and Whites than with boys and Blacks. Skemp-Arlt and Mikat concluded that prepubertal children show a desire to be thinner than their actual body type.²⁵ Several international studies also found that children, most often girls, had either a high degree of body dissatisfaction or a preference for thinness.^{19,26,29,30} Although the current study did not find that gender, age, or ethnicity had an effect on underweight preference, both actual BMI category (clinically measured) and grade level were found to be significant. However, both of these effect sizes were small. Whereas it might be expected that children in the overweight or obese categories would express a preference for weighing less, it is disturbing that children in the healthy and underweight categories also express a preference for being underweight. Even though ethnicity was not found to be significant in terms of underweight preference, it is worrisome that approximately one-third of each racial/ethnic group expressed a preference to be underweight.

LIMITATIONS: There are several limitations to this study. Although this study is one of the only known studies of weight self-perception to include such a large sample of Hispanic children ($n = 299$; 70% of the sample), no measures were included to assess acculturation of the Hispanic children in this community. This study only included the measure of figural drawings for self and ideal weight perception whereas the majority of studies discussed include more than 1 measure of self-perception for weight (ie, survey questions, weight-related survey instruments). The CBIS figures, based on pictures of White children, have been tested almost exclusively in White populations; however, no differences in selection of either self or ideal figures was found between Hispanic, White, or other/multiracial children in this study. The figures in this study were presented exactly as developed by Truby and Paxton (sequential order, with facial features).¹⁹ In their review of figural drawing scales, Gardner and Brown argued for using figures with a plain silhouette because figures containing facial features or clothing may distract the participants from focusing on the size and shape of the drawing.³¹

CONCLUSION AND IMPLICATIONS: Hispanic children, from 8-11 years, in age are no better or worse than white children in terms of accurately perceiving their weight status. Gender, age and grade level do not significantly impact the ability of children in this age group to accurately perceive their weight status. Targeting children who are either overweight or obese to participate in specific weight programs may not be the most effective strategy, considering that these children do not view themselves as being overweight or obese (only 9% of the overweight and obese children were accurate perceivers). It is worrisome that approximately one-third of the children in this study expressed a preference for being underweight. These findings suggest that instead of focusing solely on weight programs, the emphasis needs to be on healthy lifestyles and choices. Future research should determine whether these results can be replicated using more than one measure of self-perception in a larger population of Hispanic children and the finding that so many children desire to be underweight needs further study.

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Abstract of the Western Academy of Nurses Panel

RESEARCH INNOVATIONS IN GLOBAL HEALTH NURSING

Moderator:

Joie Whitney, PhD, CWCN, FAAN

Professor

Biobehavioral Nursing and Health Systems

Associate Dean for Research

Harborview Medical Center Endowed Professor in Critical Care Nursing

University of Washington

Seattle, WA

Panelists:

Sarah Gimbel, PhD, MPH, RN

Assistant Professor

Family Child Nursing, School of Nursing

Clinical Assistant Professor

Department of Global Health

University of Washington

Seattle, WA

Mary Anne Mercer, RN, DrPH

Senior Lecturer

Department of Global Health

University of Washington

Senior Technical Advisor

Timor-Leste, Health Alliance International

Seattle, WA

Pam Kohler, RN, MPH, PhD

Assistant Professor

Department of Psychosocial

and Community Health Nursing

Department of Global Health

University of Washington

Seattle, WA

Julia Robinson, MPH, MSW

Deputy Director of Cote d'Ivoire Programs

Health Alliance International

Seattle, WA

RESEARCH INNOVATIONS IN GLOBAL HEALTH NURSING

Sarah Gimbel, PhD, MPH, RN
Assistant Professor
Family Child Nursing, School of Nursing
Clinical Assistant Professor
Department of Global Health
University of Washington
Seattle, WA

Mary Anne Mercer, RN, DrPH
Senior Lecturer
Department of Global Health
University of Washington
Senior Technical Advisor
Timor-Leste, Health Alliance International
Seattle, WA

Pam Kohler, RN, MPH, PhD
Assistant Professor
Department of Psychosocial
and Community Health Nursing
Department of Global Health
University of Washington
Seattle, WA

Julia Robinson, MPH, MSW
Deputy Director of Cote d'Ivoire
Programs Health Alliance International
Seattle, WA

Nurses comprise the vast majority of care providers globally. Particularly in resource limited settings nurses form the bulk of the healthcare workforce. In poor countries and communities, where needs are greatest and physicians scarce, nurses assume an even greater role in the health care setting, often taking on the role of sole provider to villages or slums. Although nurses provide 90% of healthcare globally, we remain largely absent at the decision making tables in national capitals and at international meetings. In key gatherings where global medical and public health decisions are made nurses are rarely engaged in defining the research and programmatic agenda despite the fact that the research conducted and the decisions made intimately affect our work. Nurses need to be at the forefront of defining relevant and critical research questions as well as developing appropriate and accessible tools and innovations to improve health service delivery and population level health.

However, this is changing as more and more nursing researchers are designing and leading innovative global health research. Three research innovations led by and designed to support nurses will be discussed in this panel. Mary Anne Mercer will discuss the Liga Inan project, Timor Leste's first mHealth project which is changing the way mothers and midwives communicate in the small Southeast Asian nation. Then Pam Kohler will discuss the results of her research in South Africa using "patient actors" to measure clinical skills in nurses and other health professionals. Finally Julia Robinson, will introduce a new clinical decision-making tool for nurse midwife managers providing prevention of mother-to-child transmission services. The pMTCT Cascade Analysis Tool (PCAT) is simple excel-based tool which allows nurse midwife managers to visually assess health facility-level drop off and potential optimization of services for pregnant HIV+ women. Come and be inspired by research innovations in global health nursing and discuss how to expand our roles as nurses in defining the global health agenda.

Abstracts of Symposium Presentations

**ADDRESSING HEALTH EQUITY
IN VULNERABLE RURAL POPULATIONS**

Moderator:

Charlene A. Winters, PhD, APRN, ACNS-BC

Professor

College of Nursing

Montana State University

Bozeman, MT

**OVERVIEW: ADDRESSING HEALTH EQUITY
IN VULNERABLE RURAL POPULATIONS**

Charlene A. Winters

INJURY VULNERABILITY IN RURAL OLDER ADULTS

Linda S. Edelman, Rumei Yang

**EXPLORING SOCIAL NETWORKS FOR OLDER ADULTS
IN RURAL COMMUNITIES**

Jennifer Averill

**ALZHEIMER'S DISEASE AND RESIDENTIAL CARE:
RURAL/URBAN DIFFERENCES**

Daniel D. Cline, Elizabeth Juarez-Colunga

**HEALTH DISPARITIES ASSOCIATED WITH SUDDEN
CARDIAC DEATH IN RURAL SETTINGS**

Dorothy Mayer

**USING PHOTOVOICE TO STRENGTHEN COMMUNITY
CAPACITY IN A RURAL COMMUNITY**

Julie Postma, Mary Jo Ybarra Vega

ADDRESSING HEALTH EQUITY IN VULNERABLE RURAL POPULATIONS

Overview: Addressing Health Equity in Vulnerable Rural Populations

Charlene A. Winters, PhD, APRN, ACNS-BC
Professor
College of Nursing
Montana State University
Bozeman, MT

Purpose: In this symposium, health equity will be explicated in five distinct rural populations: community-dwelling elders in Utah at risk for falls; multicultural elders living and managing chronic illness in New Mexico; a national sample of elders with Alzheimer’s disease living in residential care facilities; Montanans experiencing the sudden death of a family member; and farm worker families living in an agricultural community in Washington.

Background: Equity means fairness or justice in the way people are treated¹ and by definition reflects the judgement and ideology of each individual and group.² In the United States (U.S.), the Centers for Disease Control and Prevention espouse that equity in health is achieved when every person, regardless of social and financial advantage or disadvantage, has equal opportunity to be as healthy as he or she can be. Health inequities are reflected in differences in length of life; quality of life; rates of disease, disability, and death; illness severity; and access to care.³ Equal opportunity to be healthy requires resources, programs, and policies from multiple stakeholders that address determinants of health at the individual, community, and system level in an attempt to equalize health outcomes across diverse and often vulnerable populations. Of particular interest to the presenters, is the influence of place, shared identity, and sense of community on health.⁴

Methods: This symposium will feature a brief overview of what it means to be “rural” followed by the presentation of five studies involving rural populations; four were conducted in the western region and the fifth included a national sample. The first presenter will report on the fear, incidence and risk of injury experienced by older adults living in a rural county. The second will describe the importance of social support networks for multicultural older rural adults managing chronic illness. The third presenter will examine rural / urban health inequities in the U.S. residential care population with known Alzheimer’s disease or dementia. In the fourth presentation, the disparities experienced by rural and remote residents before, during, and after the sudden cardiac death of a family member will be described. The final presentation will focus on the role of promotores and community capacity-building to promote children’s environmental health in an agricultural community.

Results: Each study involving rural dwellers provides insight into health equity and health disparities experienced by residents of our rural communities.

Implications: Understanding health inequities experienced by rural dwellers will help health care professionals, researchers, educators, and other stakeholders identify resources, and develop processes, policies, and systems to move toward equalizing health outcomes of rural populations.

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ADDRESSING HEALTH EQUITY IN VULNERABLE RURAL POPULATIONS

Injury Vulnerability in Rural Older Adults

*Linda S. Edelman, PhD, RN
Assistant Professor
College of Nursing
University of Utah
Salt Lake City, UT*

*Rumei Yang, MS, RN
Doctoral Student
College of Nursing
University of Utah
Salt Lake City, UT*

Purpose: To evaluate the fear, incidence and risk of injuries of rural older adults receiving home-delivered meals in a rural county.

Background: Older adults are at increased risk of injury. Rural older adults experience inequities in health, health care and living environments, all of which can impact injury risk and outcomes. Injury risks may be exacerbated in rural older adults vulnerable to social and geographic isolation as well as inequities in access to health care, injury prevention programs and home safety modifications.

Methods: A survey was designed to explore injury perceptions of older adults participating in a rural county's home-delivered meals program. Survey data included demographics (gender, age, and living situation), fear of injury, injuries experienced within the past 6 months, injury risks (vision, hearing, difficulty walking, memory loss, home safety modifications, etc.) and perceived social support as measured by the Lubben Social Network Scale (LSNS-6). Non-parametric descriptive statistical analyses were performed; significance was set at $p < 0.05$.

Results: Of the 139 surveys delivered to home delivered meals recipients, 43.9% (n=61) were returned. The majority of respondents lived in single family homes and nearly half lived alone. One third of respondents experienced an injury in the past 6 months; women were significantly more likely to report an injury than men (44% vs. 20%, $p < 0.05$). The majority of injuries (65%) were from falling and, of those who fell, 64% fell more than once. Fear of injury was reported by 36% of respondents. Ninety-four percent of individuals with fear of injury reported that this fear was due to falling, even though only 26% had actually fallen in the last 6 months. Overall, 44% of respondents were at risk for social isolation including 47% of those who experienced injuries and 56% of those with fear of injuries. Over 50% of respondents reported the following injury risks: poor vision (90%), hearing loss (68%), difficulty walking indoors (55%) or outdoors (76%) or with climbing descending stairs (80%), and difficulty remembering things (67%). However, the majority of residents did report the following safety modifications in their homes: bathroom grab bars (88%), stair hand rails (85%), night lights (86%), pill organizers (84%), smoke alarms (93%), lowered water heater temperatures (57%), and carbon monoxide detectors (62%).

Implications: Even though the majority of rural older adults in this study had modified their homes to decrease injury risks, over 1/3 reported fearing or experiencing injuries, particularly falls. This fear of injury may contribute to the social isolation reported by almost half of respondents. Community based participatory research and program development targeting fear of falling and fall prevention, and encouraging social engagement, is needed to decrease the injury risk of vulnerable rural older adults.

Funding: Supported by the John A. Hartford Foundation and Atlantic Philanthropies Claire M. Fagin Fellowship.

ADDRESSING HEALTH EQUITY IN VULNERABLE RURAL POPULATIONS

Exploring Social Networks for Older Adults in Rural Communities

*Jennifer Averill, PhD, RN
Associate Professor
College of Nursing
University of New Mexico
Albuquerque, NM*

Purpose: To describe rural older adults' social support networks as a means for providing human contact, problem-solving capacity, and options for community-dwellers managing chronic illness related symptoms, loneliness, scarce reserves, and frailty in daily life.

Background: Multicultural older adults in rural settings often experience higher levels of illness, depression, injury and geographic/social isolation than do counterparts in more populous areas. They suffer inadequate access to primary and specialty care, transportation challenges, limited fiscal and social resources, and diminishing family support as younger relatives move away for employment. A recent study of older adults in rural southwestern New Mexico found that these disparities, along with poor long-term access to prescriptions, scarce assisted living options, fragmented services, food insecurity, and barriers related to culture, economics and language created serious inequities in the delivery of safe, consistent care and symptom management in late life. Formal and informal social support networks were found to be essential elements of their daily lives, in part to address the deficiencies and inequities.

Methods: Theoretical foundations for the study included critical social theory, complexity theory and community-based participatory research (CBPR). The approach blended the expertise of rural residents regarding their own communities with critical ethnography, community dialogues between local partners and the researcher, and ongoing critical analysis of relevant contextual factors (e.g., history, culture, international border issues, geographic isolation, and economics). Data were generated using ethnographic fieldwork, interviews, field notes and reflective journaling, photography, and archival data review. Sequential coding, thematic derivation, matrix analysis, and qualitative analysis of social networks were used to analyze the data. Consistent with CBPR, community advisors followed all phases of the study, contributing shared oversight and input.

Results: The sample consisted of 64 participants across three rural counties -12 men, 52 women; 19 Hispanics, 45 non-Hispanic Whites; 40 were at least 65 years old; 25 younger adults were caregivers, providers, or community/health planners. Major themes include inadequate access to long-term prescriptions, transportation gaps for people living alone or unable to drive, inadequate primary and specialty care in the communities, poor coordination of formalized health and social services, scarce assisted living options, socioeconomic barriers, and social isolation. Of special interest were the social networks that kept the older adults engaged and active.

Implications: Effective efforts to improve the health care of rural older adults, as well as rural practice and research, will occur at the community level. Stakeholders will necessarily include residents, community partners representing public and private sector interests, researchers, providers, and possibly local politicians or legislators. The research team will likely include mixed methods experts, health economists, and social network specialists. At a time of diminishing economic reserves, uncertainties of new health care legislation, increasing numbers of older adults living with chronic illness, and a trend towards more local solutions to health/social service needs, a deeper understanding of informal social networks and their role in quality of life for this population is overdue.

Funding: This study was supported by NIH/NINR, 1 R15NR08217-01A2.

ADDRESSING HEALTH EQUITY IN VULNERABLE RURAL POPULATIONS

Alzheimer's Disease and Residential Care: Rural/Urban Differences

*Daniel D. Cline, PhD, RN
Assistant Professor
College of Nursing
University of Colorado
Denver, CO*

*Elizabeth Juarez-Colunga, PhD
Assistant Professor
Colorado School of Public Health
University of Colorado
Denver, CO*

Purpose: To (1) describe the U.S. residential care facility population with known Alzheimer's disease or dementia; (2) examine rural/urban health inequities among population characteristics (demographics, chronic disease, activity of daily living limitations, functional ability, behaviors); and (3) identify rural/urban inequities in acute-care utilization using 12-month emergency department visits and 12-month inpatient hospital admissions.

Background: There are clear health inequities in quality of care measures between rural and urban settings. However, few studies have examined rural/urban differences among residential care facility residents with known Alzheimer's disease or dementia. Alzheimer's disease is the fifth leading cause of death for older adults age 65 year old and older, and up to one-third of adults 85 years old and older has the disease. Cost of care is close to \$203 billion, and people with Alzheimer's disease have more than three times as many hospital stays per year as other older adults.

Methods: Persons with known Alzheimer's disease or dementia were selected from the 2010 National Survey of Residential Care Facilities for this study. We used descriptive and weighted bivariate (chi-square) analyses to describe the population, examine potential rural/urban differences, and evaluate 12-month emergency department visits and 12-month hospital inpatient admissions. Geographic differences were based on non-metropolitan statistical areas (non-MSA [rural]) and metropolitan statistical areas (MSA [urban]).

Results: Among the total population of people living in U.S. residential care facilities, 44.4% have Alzheimer's disease or dementia. In urban settings 47.4% have Alzheimer's disease or dementia and in rural settings its 33.8%. Compared to urban residents, rural residents have less education, are less diverse in race and ethnicity, experience more arthritis and pulmonary disease, and have more activity of daily living impairments. Further, rural residents are also less likely to experience an inpatient hospital admission over a 12-month period than their urban counterparts and may experience fewer emergency department visits.

Implications: Significant rural/urban differences exist among residents with known Alzheimer's disease or dementia living in U.S. residential care facilities, especially in regards to acute care services. Differences in hospital admissions may indicate rural residents are not receiving necessary and appropriate acute care services. Rural communities have limited healthcare resources, especially geriatricians and geriatric nurse practitioners, may contribute to poor quality of care. Our findings are limited by the use of non-MSA versus MSA to describe rural and urban; future studies should use more precise measures of geographic variation. Additionally, more precise and robust measures of quality, as well as known predictors of emergency visits and hospital admissions would enhance our understanding of rural/urban differences among residents of residential care facilities with Alzheimer's disease or dementia.

ADDRESSING HEALTH EQUITY IN VULNERABLE RURAL POPULATIONS

Health Disparities Associated with Sudden Cardiac Death in Rural Settings

*Dorothy Mayer, PhD, RN
Assistant Professor
College of Nursing
Montana State University
Bozeman, MT*

Purpose: The purpose of this presentation is to describe disparities experienced by residents living in rural and remote parts of Montana before, during and after the sudden cardiac death of a family member.

Background: Approximately 325,000 Americans experience sudden cardiac death (SCD) annually and these deaths leave a lasting impact on suddenly bereaved friends and family members. Cardiovascular disease is the number one cause of death in Montana with SCD responsible for an unknown number of these deaths. Montana is a geographically large, yet sparsely populated state, and 48 of 56 Montana counties are considered frontier, e.g. sparsely populated with great distances in miles and travel time to services and without a city of 10,000 people or more. In addition, 52 Montana counties are designated as medically underserved areas or populations (MUA/P) and health professional shortage areas (HPSA). Large distances between supportive family and friends, shortages of providers, and scarce health care services predispose individuals and family systems to health inequities before, during and after the death of a family member.

Methods: A secondary analysis was conducted of interview data from a study of family bereavement experiences. Verbatim transcripts were examined using narrative analysis, as described by Riessman, for examples of health disparities as reported by individuals and family members living in rural settings following the SCD of a family member.

Results: Seven families, consisting of 17 individuals, participated in the original family bereavement study. Seven participants lived in rural areas of Montana at the time of the death (2 men; 5 women). Analysis of transcripts associated with these 7 participants identified health disparities due to rurality in four different families. Distance was identified as the greatest inequity experienced by rural residents after SCD. Surviving family members often experienced long response times, up to 45 minutes in some cases, for emergency medical services (EMS), 30 minutes for assistance from a neighbor, and several days for friends and family members to arrive; all of which were distressing and challenging for rural residents. Challenges continued over the ensuing weeks and months after the death, including limited or no access to bereavement support and health care services as far as 92 miles away. Approaches rural residents used to overcome these many challenges included a physician who stayed on the phone until EMS arrived; an outpouring of support from friends, neighbors, and family members who traveled long distances to be together and helped with day-to-day activities, and in some instances friends and family who put their own activities on hold to support those whose lives were disrupted by a sudden death.

Implications: Healthcare providers must understand the many challenges that rural residents encounter after sudden death and appreciate that these challenges continue in the months and years that follow a death. These challenges, and creative solutions to overcome some of these challenges, as described by rural residents themselves will raise awareness of health disparities associated with sudden death situations in rural areas.

Funding: There was no funding for the secondary analysis. The family bereavement experiences study was funded by Oregon Health & Science University Dean's Award for Doctoral Dissertation, Helen Jacobsen Lee Endowment, and Saint Patrick Hospital Foundation.

ADDRESSING HEALTH EQUITY IN VULNERABLE RURAL POPULATIONS

Using Photovoice to Strengthen Community Capacity in a Rural Community

*Julie Postma, PhD, BSN, RN
Assistant Professor
College of Nursing
Washington State University
Spokane, WA*

*Mary Jo Ybarra Vega, MS
Migrant Health Coordinator
Quincy Community Health Center
Quincy, WA*

Purposes: The purpose of the study was to promote children's environmental health in an agricultural community. The specific aim of this phase of the study was to strengthen community capacity in promoting healthy housing.

Background: Household living conditions are socially determined and influence health. Farm worker families living in agricultural communities face gross inequities in safe, healthy, and affordable housing which can lead to environmentally-induced diseases. Strengthening community capacity is an important strategy to reduce environmentally-induced diseases and health inequities. In this study, community-based participatory research (CBPR) was used to increase community capacity by partnering with a clinic-based, health promoter program to conduct a photovoice study.

Methods: Photovoice is a participatory methodology through which people identify, represent, and enhance their community by taking photographs that record their everyday realities. In the fall of 2009, six participating health promoters (promotores) prioritized housing as an important health issue to address. During the spring of 2010, three photovoice sessions were held. The promotores recruited seven families living in an agricultural community 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. In the sessions, promotores discussed the photographs, what they represented, and how they could be used to promote 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 of housing needs in this community. A community impact tracking tool was used for 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 study 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 study 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 local housing survey to document housing needs in the community.

Implications: Photovoice enabled promotores to build community capacity in supporting healthy housing in an agricultural community, a foundational step to improving health equity in a disenfranchised population.

Funding: Washington State University Spokane Faculty Seed Grant.

Abstracts of Symposium Presentations

AT-RISK AND VULNERABLE ADOLESCENTS AND YOUNG ADULTS

Moderator:

*Scott B. Harpin, PhD, MPH, PHCNS-BC
Assistant Professor
University of Colorado College of Nursing
Aurora, CO*

OVERVIEW: AT-RISK AND VULNERABLE ADOLESCENTS AND YOUNG ADULTS

Scott B. Harpin

A TRIBAL COMMUNITY PARTNERSHIP: ADDRESSING TEEN HEALTH

Carrie E. Holliday, Janet Katz

IMPACT OF TELEMEDICINE ON RURAL FORENSIC SEXUAL ABUSE EXAMINATION QUALITY

*Sheridan Miyamoto, Madan Dharmar, Nikki H. Yang, Kristen Rogers,
James P. Marcin, Cathy Boyle, Kristen Macleod, Thomas Nesbitt*

METHODOLOGICAL STRATEGIES IN CONDUCTING RESEARCH WITH FOSTER YOUTH

Angela L. Hudson

CORRELATES OF SUICIDALITY AND MENTAL HEALTH AMONG RUNAWAY/HOMELESS YOUTH

Jesse Francomano, Scott Harpin, Heather Anderson, Christine Gilroy

AT-RISK AND VULNERABLE ADOLESCENTS AND YOUNG ADULTS

Overview: At-Risk and Vulnerable Adolescents and Young Adults

Scott B. Harpin, PhD, MPH, PHCNS-BC
Assistant Professor

University of Colorado College of Nursing
Aurora, CO

Purpose/Aims of Symposium: Hubert Humphrey’s famous quote is often adapted to plea: “The moral test of a society is how we treat those in the dawn of life, the children; the sunset of life, the elderly; and those in the shadows of life; the sick, the needy and the handicapped.” While adolescent health is often lost as but a sliver of human development among our communities, those youth who have faced remarkable adversity are indeed those very “needy” that Humphrey championed three generations ago.

The aim of our symposium is to present a spectrum of adolescent and young adult studies from WIN junior researchers that addresses the unique health needs of vulnerable or at-risk youth and young adults. All will present stories of partnership-building and collaborations to gain entrée to these special populations, often adding a layer of complexity to sampling.

Overview of Presentations: Dr. Carrie Holliday will first present her study of working with the Plateau Indian Community of eastern Washington to address youth substance use, mental health issues, and suicidality. Beyond consent and IRB issues typical of adolescent research, Dr. Holliday experienced additional layers of scrutiny from local communities weary of historical research injustice. Next, doctoral candidate Sheridan Miyamoto will share her experiences working with cutting-edge telemedicine technologies, to move diagnosis and care of sexually-abused children into rural California and beyond. The implications of her clinical trial are great—expertise and evidentiary exams can be completed in a timely way, confidentially, regardless of where examining nurse resides. Our next presenter, Dr. Angela Hudson will describe the unique challenges of working with former foster care children living in urban Los Angeles, the relationship building and unique consent issues of research with these vulnerable young adults. Even with typical safeguards to preserve sampling in longitudinal studies, she faced incredible rates of attrition due to the extreme life mobility this population faces. Finally, recent undergraduate student, and budding research star, Jesse Francomano, will describe mental health reports of Denver runaway, homeless, and street youth. He will also report on the unique data collection methods employed by an interdisciplinary team of students and faculty, and of partnerships built across a youth-serving agency with multiple service delivery arms.

Implications: We hope this symposium shines a light on the unique needs of adolescent health and nursing research involving these often-overlooked populations. We describe the special circumstances we’ve faced working with these youth, and the caregivers serving as the matrix of support in their lives. Our descriptive and exploratory findings provide a basis of evidence for future studies in our programs of research.

AT-RISK AND VULNERABLE ADOLESCENTS AND YOUNG ADULTS

A Tribal Community Partnership: Addressing Teen Health

Carrie E. Holliday, PhD, ARNP
Assistant Professor
College of Nursing
Washington State University
Spokane, WA

Janet Katz, PhD, RN
Associate Professor
College of Nursing
Washington State University
Spokane, WA

Purposes/Aims: The aim of this presentation is to 1) Describe the community assessment findings from a community based participatory research (CBPR) partnership between an academic institution and a Northwest Tribal Community 2) Discuss the implications for future collaboration based on temporal and contextual tribal community concerns for adolescent health.

Background: Research is needed to eliminate health disparities for vulnerable populations. CBPR is an orientation to research that focuses on developing relationships with community members to develop sustainable health improvement programs. CPBR is an approach to assure culturally relevant and community specific research projects. There is a great deal of literature on using CBPR with various vulnerable populations. In the past decade, CPBR has been demanded by American Indian and Alaskan Native people (AI/AN) to address historical and ethical issues related to tribal sovereignty. CBPR is an appropriate approach, however, challenges should be thoroughly examined prior to undertaking such a project.

Methods: CBPR was used as an approach to determine the most pertinent and pressing health needs for youth as identified by tribal community members (Katz, Martinez & Paul, 2008). During 2008, focus groups were conducted over a two-month time period. There were a total of 95 participants divided into 13 groups. Interviews were reviewed by tribal community members and faculty researchers for reoccurring themes. Over the next 5 years, relationships with tribal community members continued to be fostered as funding was obtained to continue the collaboration.

Outcomes: During the first phase of the research, two main themes emerged as top community concerns for tribal youth. The concerns were substance abuse and mental health problems related to trauma, grief and loss. Results of the project illustrate how time and tribal dynamics impact a university/tribal partnership.

Conclusion/Implications: The results from the focus group were used to obtain funding with the long-term goal of addressing the concerns outlined by the community. Currently, the NIMHD funded CBPR project will continue over the next 3-11 years. It is imperative that nurse researchers understand the commitment and relationship building that needs to occur when using CBPR so that AI/AN community members feel their voices are heard and their health needs addressed.

Funding: Partially Funded by National Institute for Minority Health and Health Disparities, Substance Use and Mental Health Collaborative for Rural American Indian Adolescents. Grant # IR24MD007948-01.
Reference:

Katz, J., Martinez, T. & Paul, R. (2011). Community based participatory research and American Indians/Alaska Native nurse practitioners: A partnership for promoting adolescent health. *Journal of American Academy of Nurse Practitioners*, 23, 298-304.

AT-RISK AND VULNERABLE ADOLESCENTS AND YOUNG ADULTS

Impact of Telemedicine on Rural Forensic Sexual Abuse Examination Quality

Sheridan Miyamoto, MSN, RN, PhD Candidate¹

Madan Dharmar, MBBS, PhD^{2,3,4}

Nikki H. Yang, DVM, MPVM²

Kristen Rogers, PhD⁷

James P. Marcin, MD, MPH^{2,3,4}

Cathy Boyle, MSN, PNP, RN⁵

Kristen Macleod, MD^{2,6}

Thomas Nesbitt, MD, MPH^{3,4}

¹*Betty Irene Moore School of Nursing, UC Davis, Sacramento, CA*

²*Department of Pediatrics, UC Davis, Sacramento, CA*

³*Department of Family Practice and Community Medicine, UC Davis, Sacramento, CA*

⁴*Center for Health and Technology, UC Davis, Sacramento, CA*

⁵*Mark Twain Medical Center, Calaveras County SART Team*

⁶*Washoe County CARES Program*

⁷*California Department of Public Health, Maternal, Child & Adolescent Health Division*

Objective: To assess the quality and diagnostic accuracy of pediatric sexual abuse forensic examinations conducted at rural hospitals with access to telemedicine compared with examinations conducted at similar hospitals without telemedicine support.

Patients and Methods: We reviewed the medical records of children less than 18 years of age referred for sexual abuse forensic examinations at five rural hospitals with access to telemedicine consultations and three control hospitals with existing sexual abuse programs without telemedicine. Forensic examination quality and accuracy were independently evaluated by expert review of state mandated forensic reporting forms, photo/video documentation, and medical records using two structured implicit review instruments.

Results: Among the 183 patients included in the study, 101 (55.2%) children were evaluated at telemedicine hospitals and 82 (44.8%) were evaluated at control hospitals. Evaluation of forensic reporting forms and supporting photos/videos demonstrated that hospitals with telemedicine had significantly higher quality scores in several domains including the general exam, the genital exam, documentation of examination findings, the overall assessment, and the summed total quality score ($p < 0.05$ for each). Evaluation of the photos/videos and medical records documenting the completeness and accuracy of the examinations demonstrated that hospitals with telemedicine also had significantly higher scores in several domains including photo/video quality, completeness of the examination, and the summed total completeness and accuracy score ($p < 0.05$ for each).

Conclusions: Rural hospitals using telemedicine for pediatric sexual abuse forensic examination consultations provided significantly higher quality evaluations, more complete examinations, and more accurate diagnoses than similar hospitals conducting examinations without telemedicine support.

Funding: This work was supported, in part, by grants from Maternal and Child Health Bureau of Health Resources and Services Administration (HRSA R40MC08723), and the William Randolph Hearst Foundations.

AT-RISK AND VULNERABLE ADOLESCENTS AND YOUNG ADULTS

Methodological Strategies in Conducting Research with Foster Youth

*Angela L. Hudson, PhD, FNP
Assistant Professor
School of Nursing
University of California, Los Angeles
Los Angeles, CA*

Purpose/Aim: The goal of this presentation is to offer successful strategies in conducting research with former foster youth, ages 18 to 21.

Background: Young adults, who formerly were in foster care, are exposed to factors that link them to sexual risk taking, such as early sexual debut, childhood maltreatment, neglect, or poverty. Compared to their non-fostered counterparts, FFY are 3 times more likely to engage in unprotected sexual activity that puts them at risk for sexually transmitted infections (STIs), such as Gonorrhea, Chlamydia, and HIV, or unplanned pregnancy. We will present challenges and successful strategies in conducting our study with former foster youth.

Methods: We conducted a 2-group randomized trial, to examine the feasibility of an evidence-based sexual risk prevention program for former foster youth (FFY), ages 18 to 21. At baseline, a total of 30 FFY were enrolled: 15 in the intervention group and 15 in the control group. Data were collected baseline, 3 and 6 months post intervention. At 3 months, we had 83% attrition (n=25); remaining sample was 5. Many participants were not to follow up, although they had completed a locator guide. Another issue was inconsistency among some participants in keeping appointments for data collection. We presented the attrition issue to staff at County of Los Angeles Department of Children and Family Services. We installed a 3-member community advisory board who offered procedural changes in our methodology. We gave participants an iPad, to deliver content of the intervention, and they were allowed to keep the iPad. A registered nurse followed up with participants on a weekly basis with telephone calls and text messaging. She also obtained their perspectives on enhancing the intervention and follow up procedures. We gave participants our business card and requested them to notify us when they moved or changed telephone numbers. We also received participants' permission for their Facebook pages.

Results/Outcomes: At six months post-intervention, all 5 participants remained in the study. They continued to submit self-report and objective (urine samples for sexually transmitted infections and pregnancy) measures of sexual risk behaviors. They reported high satisfaction with nurse interactions and delivery of content using the iPad.

Implications: Frequent contact with FFY helps to establish rapport and providing incentives helps entice youth to continue participating in research. Establishing a community advisory board comprised of staff, who work with youth in foster care, was imperative as they brought expertise needed to change procedures to deter further attrition.

AT-RISK AND VULNERABLE ADOLESCENTS AND YOUNG ADULTS

Correlates of Suicidality and Mental Health among Runaway/Homeless Youth

Jesse Francomano, BA, BS
Registered Nurse/Research Assistant
College of Nursing
University of Colorado
Aurora, CO

Scott Harpin, PhD, MPH
Assistant Professor
College of Nursing
University of Colorado
Aurora, CO

Heather Anderson, PhD
Assistant Professor
School of Pharmacy
University of Colorado
Aurora, CO

Christine Gilroy, MD, MSPH
Associate Professor
School of Medicine
University of Colorado
Aurora, CO

Purpose/Aim: To examine mental health diagnoses and suicidality among a sample of runaway, homeless, and street youth in the Denver Metro area of Colorado.

Background/Rationale: Mental illness among runaway, homeless, and street youth is common, and can have a devastating impact on other areas of their lives. Social service workers and health care providers can benefit from a better understanding of common mental health diagnoses, and frequency of suicide ideation among this population in order to develop tailored interventions for screening and treatment of mental health issues.

Methods: 191 Denver metro area runaway/homeless youth living in shelters and visiting a drop-in center participated in an iPad-delivered survey in the summer of 2013. The questionnaire borrowed from standard youth health scales and covered ED use, access to other sources of medical care, mental health diagnoses, the PHQ-9 questionnaire, suicidal ideation & attempt, and extensive demographic information. PHQ-9 scores were calculated and categorized from minimal to severe depression. Mental health diagnoses were examined to find the most commonly reported diagnoses. Finally, we used bivariate logistic regression to examine associations between suicidal ideation in previous month and individual mental health diagnoses.

Results/Outcomes: PHQ-9 score: $\bar{x} = 7.35$ (sd= 7.22) for all youth. Youth reported depressive symptoms on a scale from minimal to severe were: minimal, 42.9%; mild, 19.9%; moderate, 13.6%; moderately severe, 10.0%; and severe, 13.6%. The most commonly reported mental health diagnoses were: anxiety (n= 59), bipolar disorder (n= 51), and major depressive disorder (n= 46). Youth also reported having post-traumatic stress disorder (n= 34), schizophrenia (n= 19), ADD/ADHD (n= 8), multiple-personality disorder (n= 4), and axis II diagnoses such as anti-social personality disorder and borderline personality disorder (n= 4).

21% of survey respondents reported having suicidal ideation within the last month; 43% reported ever having a suicide attempt. Odds of having suicidal ideation were statistically significant ($p < 0.01$) with: schizophrenia (OR= 9.0), bipolar disorder (OR= 3.5), and major depressive disorder (OR= 3.2).

Conclusions: Screening for depression and suicidal ideation should be done for each youth upon entering shelter services since over 1/5th of the youths reported feelings of suicidal ideation within the previous month, and well over half the youth report mild signs of depression based on the PHQ-9 questionnaire. Shelters and clinics serving this population should establish and continually maintain policy and procedure describing what to do in the event of a behavioral health crisis, particularly as they relate to schizophrenia, manic episodes, and depression.

Abstracts of Symposium Presentations

CARING FOR PEOPLE WITH HIV/AIDS

Moderator:

Carmen Portillo, RN, PhD, FAAN

Professor and Chair

Department of Community Health Systems, School of Nursing

University of California, San Francisco

San Francisco, CA

OVERVIEW: CARING FOR PEOPLE WITH HIV/AIDS

Carmen Portillo

HARM REDUCTION WITH METHAMPHETAMINE-USING MEN WHO HAVE SEX WITH MEN

Adam W. Carrico, Annesa Flentje, Valerie A. Gruber,

William J. Woods, Michael V. Discepola, Samantha E. Dilworth,

Torsten B. Neilands, Jennifer Jain, Michael D. Siever

NURSE-LED INTERVENTION TO IMPROVE MEDICATION ADHERENCE IN HIV/AIDS POPULATION

Roland Zepf, Peter Dennehy, Carol Dawson-Rose

SUBSTANCE USE SCREENING IN AN URBAN HIV PRIMARY CARE SETTING

Carol Dawson Rose, Roland Zepf, Paula Lum

SOCIAL CAPITAL AND HIV RELATED SYMPTOMS: A STRUCTURAL EQUATION MODEL (SEM)

SoSon Jong, Carmen Portillo

CARING FOR PEOPLE WITH HIV/AIDS

Overview: Caring for People with HIV/AIDS

*Carmen Portillo, RN, PhD, FAAN
Professor and Chair*

*Department of Community Health Systems, School of Nursing
University of California, San Francisco
San Francisco, CA*

Nursing has been caring for people with HIV/AIDS for more than thirty years and will continue to do so for years to come. The specific nature of the transmission of HIV/AIDS which is generally through sexual contact or injection drug use in the United States has resulted with ethnic/racial disparities, men who have sex with men (MSM), and people who use drugs/substance being more affected. In the 1990's HIV disease management was transformed into a chronic condition with improved health outcomes among individuals with HIV yet contingent on relatively stringent levels of adherence to combination antiretroviral therapy. Symptoms are a direct result from the disease process as much as from antiretroviral therapy which can often result in differing levels of adherence and viral suppression. However, understanding the kind and number of symptoms the person is experiencing in conjunction with how engaged the person is with the health care provider will likely improve adherence and overall health outcomes. At the same time, caring for people with HIV/AIDS involves knowing the type and kinds of questions to ask during an assessment process, considering evidenced-based interventions that have short and long-term outcomes.

In this symposium, we present a combination of evidenced-based research and project base practices on caring for people for HIV/AIDS. One objective of this symposium is to provide evidence on community-based interventions to methamphetamine-using MSM within a harm reduction context, and increasing adherence and access to care by using direct-observed therapy.

Much of our knowledge about HIV/AIDS symptoms has been obtained from community-based research since the 1990's which has focused on the kind and severity of symptoms. Conceptual models on symptom knowledge continue to evolve, and we now know that social capital defined as having access to care would likely increase patient and health care provider engagement. Therefore, studies focused on HIV/AIDS symptoms and related mediators are valuable. A second objective is to present these data.

Preparing the nursing workforce to care for people with HIV/AIDS in primary care settings will be more common than not under the Affordable Care Act and in the provision of health care services. Alcohol and illicit drug use are key drivers to risk behavior associated with HIV transmission. Yet very few nurse clinicians or other health care providers employ a systematic process to identify and treat substance use disorders. Because this approach results in better adherence to antiretroviral therapy, we will discuss how nurse researchers and clinicians can use this approach to study caring for people with HIV/AIDS.

Funding: This work is partially based on funding from the National Institutes of Health, Nursing Institute of Nursing Research (T32 NR07081) (PI: Portillo, C. & Vlahov, D).

CARING FOR PEOPLE WITH HIV/AIDS

Harm Reduction with Methamphetamine-Using Men Who Have Sex with Men

Adam W. Carrico, PhD, Assistant Professor, Community Health Systems, UCSF, CA
Annesa Flentje, PhD, Postdoctoral Fellow, Psychiatry, UCSF, CA
Valerie A. Gruber, PhD, Clinical Professor, Psychiatry, UCSF, CA
William J. Woods, PhD, Professor, Medicine, UCSF, CA
Michael V. Discepolo, MA, Director, Stonewall Project, San Francisco AIDS Foundation
Samantha E. Dilworth, MS, Statistician, Medicine, UCSF, CA
Torsten B. Neilands, PhD, Professor, Medicine, UCSF, CA
Jennifer Jain, MPH, Research Assistant, Community Health Systems, UCSF, CA
Michael D. Siever, PhD, Director, Behavioral Health Services, SF AIDS Foundation

Aims: The present study reports the outcomes of methamphetamine-using men who have sex with men (MSM) receiving outpatient, cognitive-behavioral substance abuse treatment that is being delivered from a harm reduction perspective in the community.

Rationale: Harm reduction approaches endeavor to assist individuals with avoiding the most detrimental consequences of risk taking behaviors, but limited research has documented the outcomes of harm reduction substance abuse treatment for HIV/AIDS prevention.

Methods: In total, 211 methamphetamine-using MSM enrolled in two studies of substance abuse treatment programs that were implementing an evidence-based, cognitive-behavioral intervention (i.e., the Matrix Model) from a harm reduction perspective. Study 1 ($N = 123$) examined changes in Addiction Severity Index (ASI) composite scores, self-reported substance use, and HIV care indicators over a 12-month follow-up. Study 2 ($N = 88$) assessed changes in substance use, sexual risk taking, and HIV care indicators over a 6-month follow-up. Inferential analyses examining unadjusted change over time for each dependent variable were performed with generalized estimating equations (GEE) in Stata using the binomial distribution and logit link for binary dependent variables (e.g., self-reported undetectable HIV viral load), the multinomial distribution and cumulative logit link for ordinal categorical dependent variables (i.e., ASI Alcohol and Medical composite scores), and the normal distribution and identity link for continuous dependent variables (e.g., number of days methamphetamine was used, number of anal sex partners).

Results: Participants in Study 1 reported significant reductions in the ASI Drug Use and Employment composite scores, indicating less impairment in these domains. However, there were no significant reductions in the frequency of self-reported methamphetamine or cocaine use. Among HIV-positive participants ($n = 75$), 47% initiated or consistently utilized anti-retroviral therapy (ART) and this was paralleled by significant increases in self-reported undetectable HIV viral load. Participants in Study 2 reported reductions in the frequency of methamphetamine use, frequency of erectile dysfunction medication use in combination with illicit substances, and sexual risk taking behavior while using methamphetamine. However, there were no significant reductions in the proportion of urine samples that were reactive for methamphetamine or cocaine (a biomarker for abstinence). Among HIV-positive participants ($n = 58$), 75% consistently utilized ART and no significant increases in undetectable HIV viral load were reported. Across studies, effect size estimates for statistically significant changes during treatment were in the small to medium range (Cohen's d range = 0.19 – 0.33).

Implications: This study is among the first to observe that patients may experience positive outcomes following harm reduction substance abuse treatment. Randomized controlled trials are needed to examine the differential effectiveness of harm reduction and abstinence-based approaches to substance abuse treatment.

Funding: Study 1 was funded in part by the DHHS/SAMHSA/Center for Substance Abuse Treatment (T116411 – Gleghorn, PI). Study 2 was funded by a Community Collaborative Research Award from the California HIV/AIDS Research Program (CR08-SFAF-422 – Siever, PI; CR08-SF-423 – Carrico, PI). SAMHSA and the California HIV/AIDS Research Program had no further role in study design; in the collection, analysis and interpretation of data; in the writing of the report; or in the decision to submit the paper for publication.

CARING FOR PEOPLE WITH HIV/AIDS

Nurse-Led Intervention to Improve Medication Adherence in HIV/AIDS Population

Roland Zepf, MS, RN, ACRN

PhD Student

School of Nursing

University of California, San Francisco

San Francisco, CA

Peter Dennehy, RN, ACRN

Health at Home

San Francisco, CA

Carol Dawson-Rose, PhD, RN, FAAN

Associate Professor

University of California, San Francisco

San Francisco, CA

Purpose/Aims: This presentation describes a nurse-developed intervention to address disparities in a vulnerable population of people living with HIV/AIDS and an evaluation of the impact of the nurse-led intervention. The goal of the intervention is to a) improve medication adherence, b) reduce patients' HIV-1 plasma viral load (VL), c) increase attendance at primary care visits; and d) reduce emergency department visits among a group of HIV-positive patients receiving nursing home care visits.

Rationale/Background: The introduction of antiretroviral therapy (ART) into HIV care has been associated with improved quality of life, delayed disease progression and decreased morbidity and mortality. Vulnerable patients such as illicit substance users, sex workers, and underrepresented minority groups demonstrate disparities in levels of adherence to ART and increased morbidity and mortality when compared to other groups of HIV-positive patients in care. To achieve the beneficial effects of ART, strict adherence to the prescribed treatment regimen is required. Non-adherence can lead to increased risk for virological failure and progression to AIDS. Despite the added cost associated with adherence programs, improved adherence overall results in cost savings for the entire health system.

Description of Best Practice: In November 2011, the San Francisco Department of Health, home care nursing division (Health at Home; HAH) developed and implemented a pilot program, Treatment Adherence Program (TAP), to improve ART adherence in vulnerable populations. HAH uses directly administered antiretroviral therapy (DAART) by home health nurses and home health aides to achieve medication adherence. Patients are seen in their home five days a week in order to ensure they are taking their medication, if the patient is not available they are contacted by telephone.

Outcome: During the first 16 months of the program, twenty-nine individuals have been enrolled in the TAP. Eighty-two percent of participants had an average ART adherence rate greater than 90% and 95% achieved a viral load decrease of 1 log₁₀, during their enrollment in the program, which ranged from 1 to 16 months. Seventy-five percent of the participants improved or maintained attendance of their primary care appointments. Emergency department usage and hospital admissions remained the same before and during TAP enrollment.

Conclusion: The HAH Treatment Adherence Program has made considerable advances in increasing the number of participants who maintained ART adherence and achieved virologic suppression. While an improvement in primary care appointment adherence rates was achieved for only 75% of participants, enrolled clients continued to utilize city resources in the form of urgent care, emergency department and hospital admissions at the same rate as before enrollment in the program.

CARING FOR PEOPLE WITH HIV/AIDS

Substance Use Screening in an Urban HIV Primary Care Setting

Carol Dawson Rose, PhD, RN, FAAN

Associate Professor

Community Health Systems

University of California, San Francisco

San Francisco, CA

Roland Zepf, MS, RN, ACRN

Doctoral Student

Community Health Systems

University of California, San Francisco

San Francisco, CA

Paula Lum, MD, MPH

Associate Clinical Professor

Positive Health Program

University of California, San Francisco

San Francisco, CA

Purposes/Aims: Substance use disorders (SUDs) among persons living with the human immunodeficiency virus (PLHIV) are associated with high HIV-transmission risk behavior and low antiretroviral therapy (ART) adherence. We will describe PLHIV clinic patients' acceptance of clinic-based substance use screening and levels of substance use.

Rationale/Background: In the general population as well as in PLHIV, the medical consequences of unrecognized and untreated alcohol and substance use are clinically significant and socially and economically profound. Few HIV primary care clinics, however, routinely assess patients for unhealthy substance use. Screening, Brief Intervention, and Referral to Treatment (SBIRT) is a public health approach to identifying and treating substance use disorders.

Description of Best Practice: We implemented and administered SBIRT in an HIV primary care setting. The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) was used as the screening test. Participants with Specific Substance Involvement Scores (SSI) on the ASSIST of 3 or less were defined as being at lower risk; mid-range scores between 4 and 26; and a score of 27 or higher for any drug was considered high risk. SSI scores were calculated to determine the severity of substance use for each participant. Those at low/middle risk were offered a brief intervention and those with high-risk scores were referred to the clinical social worker for further substance use treatment.

Outcome: 225 patients were recruited and 209 patients completed the ASSIST screening (median age 45.5 years; 68% male; 41% black). Levels of substance use were high in this clinic sample. Eighty percent reported use of one or more illicit substances in the past 3 months. Moderate-high risk SSI scores were common for tobacco (66%), cannabis (53.2%), cocaine (42%) and amphetamines, (41%) and lower for sedatives (23%) and opioids (23%).

Conclusion: More investigation is needed to determine how best to implement substance use screening and brief intervention in primary care HIV clinics. For example, as part of this initiative we had dedicated clinic-based social workers available for participants to see as part of our SBIRT protocol. Universal substance use screening and assessment could detect problematic use and predict HIV disease progression markers.

CARING FOR PEOPLE WITH HIV/AIDS

Social Capital and HIV Related Symptoms: A Structural Equation Model (SEM)

SoSon Jong, RN, MS

PhD Student

Family Health Care Nursing

University of California, San Francisco

San Francisco, CA

Carmen Portillo, RN, PhD, FAAN

Professor and Chair

Community Health Systems

University of California, San Francisco

San Francisco, CA

Purposes/Aims: The purpose of this research is to understand the relationship between level of social capital and HIV symptom experience among persons infected with HIV/AIDS. In particular, we hypothesized that engagement between health care provider (HCP) and patient may mediate the relationship.

Rationale/Conceptual Basis/Background: Social capital is as a resource embedded in a social structure, accessed and mobilized by members of the community. Social capital has positive impact on health by improving perception of safety and connections. Social capital also facilitates flow of information and participatory actions in the community. People with higher social capital are more likely to build trust relationship with a HCP and have more access to health care. While social capital has a positive impact on health outcome, social capital remains as a complex concept, and not well understood how it relates to HIV symptom experience and management. HIV/AIDS symptom experience and management have a significant impact on the quality of life and adherence to care and treatment for people with HIV/AIDS.

Methods: A multi-site, international, cross-sectional study was conducted between August 2009 and December 2010 with 2,182 persons with HIV/AIDS. Using structural equation modeling (SEM), the independent effect of social capital on HIV symptom was examined, as well as the mediating effect of engagement by HCP. HIV symptoms were measured as the number of symptoms experienced by the patients. Eight dimensions of social capital were measured using the social capital scale.

Results: The majority of the participants were male (70.3%). Participants' mean age was 45 years old and the mean years of having HIV was 12.9 years. Social capital had small but significant association with HIV symptom frequency. People with higher social capital reported fewer HIV related symptoms (standardized beta coefficient (β) = -0.14, $z=-6.45$, $p < 0.01$). Social capital explained about 7% of the variance in HIV symptoms experience (R-squared=0.074). HCP mediated the association between social capital and HIV related symptoms (indirect effect $\beta= -0.03$, $z=-6.06$, $p < 0.01$); and 79.3% of the total effect of social capital on HIV symptoms was due to the direct effect between social capital and HIV symptom frequency.

Implications: This study suggests that promoting access and utilization of social capital for people with HIV/AIDS is an important nursing consideration to improve engagement with HCP and potentially decrease HIV symptom experience. Further research is recommended to clarify and expand the model beyond; consider other covariates such as medication adherence, stigma or gender. Ultimately, our goal is enhance the relationship with HCP and persons infected with HIV/AIDS that will lead to better health outcomes.

Funding: The project described was supported in part by Award Number T32NR007081 from the National Institute of Nursing Research.

Abstracts of Symposium Presentations

CULTURALLY-SENSITIVE NURSE-LED RESEARCH WITH GLOBAL AND IMMIGRANT WOMEN

Moderator:

Benissa E. Salem, PhD, MSN, RN

Postdoctoral Fellow

School of Nursing

University of California, Los Angeles

Los Angeles, CA

OVERVIEW: CULTURALLY-SENSITIVE NURSE-LED RESEARCH WITH GLOBAL AND IMMIGRANT WOMEN

Benissa E. Salem, Adeline Nyamathi, Eunice Lee, Carol Rose DeLilly,

Fayette Nguyen Truax

UTILIZATION OF NURSING THEORY FOR GLOBAL AND COMMUNITY HEALTH RESEARCH

Carol Rose DeLilly

BASELINE DEPRESSION AND ANTIRETROVIRAL ADHERENCE AMONG INDIAN WOMEN WITH AIDS

Adeline Nyamathi, Benissa E. Salem, Catherine Carpenter, Sanjeev Sinha

ASHA-LIFE OUTCOMES ON QUALITY OF LIFE AMONG INDIAN WOMEN LIVING WITH AIDS

Benissa E. Salem, Adeline Nyamathi, Sanjeev Sinha

LATENT TB INFECTION AMONG VIETNAMESE IMMIGRANTS

Fayette Nguyen Truax

THE EFFECT OF A COUPLES INTERVENTION AMONG KOREAN-AMERICAN WOMEN

Eunice Lee

CULTURALLY-SENSITIVE NURSE-LED RESEARCH WITH GLOBAL AND IMMIGRANT WOMEN

Overview: Culturally-Sensitive Nurse-Led Research with Global and Immigrant Women

*Benissa E. Salem, PhD, MSN, RN
Postdoctoral Fellow
School of Nursing, UCLA*

*Adeline Nyamathi, ANP, PhD, FAAN
Distinguished Professor
School of Nursing, UCLA*

*Eunice Lee, PhD, GNP
Associate Professor
School of Nursing, UCLA*

*Carol Rose DeLilly, PhDc, MSN, RN
Doctoral Candidate
School of Nursing, UCLA*

*Fayette Nguyen Truax, RN, MS, CPNP, PhDc
Doctoral Candidate
School of Nursing, UCLA*

Purpose: To provide an overview of culturally sensitive nurse-led studies among three vulnerable populations—women living with HIV/AIDS (WLA) in India, Vietnamese Americans with latent Tuberculosis infection, and Korean American (KA) women in the United States.

Rationale: Nurse-led research and interventions have the capacity to improve antiretroviral therapy (ART) adherence, improve tuberculosis treatment, and breast cancer screening.

Methods: A retrospective, descriptive study examined the prevalence and predictors of latent tuberculosis non-completion (N=494) in California. A prospective, randomized pilot intervention was conducted which assessed the impact of an Asha-Life (AL) intervention, delivered by lay village women (Asha), trained in HIV care and collaborating with nurses and physicians, on improvement in ART adherence, CD4⁺ levels and physical health among rural WLA (N=68) in Andhra Pradesh, India, as compared to a Usual Care (UC) group. In two-group, repeated-measures, controlled cluster randomized design, 428 KA women and their spouses were enrolled through 50 KA religious organizations.

Results: Among those with latent tuberculosis, older male Vietnamese (≥ 65 y/o) immigrants were significantly less likely to accept or complete LTBI; one in five did not complete primarily because of medication side effects (24.2%). Among WLA in India, multivariate analysis demonstrated that among AL participants, improvement was found with quality of life and decreased depressive symptoms when compared to the usual care group ($p < .001$). Among KA women, mammography uptake was significantly higher in the KIM-CHI at 6 months (19.5% vs. 34.8%; $p = 0.0005$) and 15 months (40.7% vs. 55.1%; $p = 0.004$). The intervention group reported significant improvements in perceived support from their husbands, perceived susceptibility to breast cancer, knowledge about breast cancer, screening, and perceived self-efficacy compared to the control group.

Implications: Immigrant and rural women around the world are faced with substantial health disparities. Among those with latent tuberculosis, findings demonstrated the need for culturally-sensitive interventions designed to improve completion rates. Findings of our study reveal the AL intervention holds promise for improving ART adherence, CD4 levels, and physical, emotional health among rural WLA in India. Among Korean-Americans, the KIM-CHI program is effective in increasing mammography uptake in KA women; the DVD-based education was easy to implement and has high potential for community-wide dissemination.

Funding: NIH/NINR T32 NR007077 Vulnerable Populations/Health Disparities; NIMH R34MH082662; and the National Cancer Institute (R01CA127650).

CULTURALLY-SENSITIVE NURSE-LED RESEARCH WITH GLOBAL AND IMMIGRANT WOMEN

Utilization of Nursing Theory for Global and Community Health Research

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

Purposes/Aims: This presentation explores the Conceptual Model for Partnership and Sustainability in Global Health and the Public Health Critical Race praxis model as two culturally-sensitive approaches for global and local community health research. These models provide guidance for sustainable community involvement, host empowerment, and leadership in nursing practice.

Rationale/Background: Although nursing has a long history of global and local community health service, our profession lacks theoretical bases for nurses to frame culturally-sensitive and sustainable partnerships. Theory-guided global and community health nursing practice is essential to achieving positive outcomes by setting realistic expectations between the nurses and their clients. Similarities among global and community health outreach include the development of partnerships, resource management, engagement, cultural bridging, mutual goal setting, and capacity building. The nurse's personal awareness of self, race consciousness, privilege, power, ethnocentric values and biases related to working among diverse populations impacts the partnership process.

Conceptual/Approach: The Public Health Critical Race praxis model informs efforts to combine theory, experiential knowledge, science, and action to actively counter inequities. Together with the Conceptual Model for Partnership and Sustainability in Global Health, these models encourage community engagement and cultural bridging to prevent researchers from viewing minority populations from a deficit perspective. Expert global health nurses describe community engagement as a two-way process between nurses and host partners that includes dialogue, equal participation, and building upon the community's history, culture, assets, and needs. Cultural bridging demonstrates respect for cultural differences, such as having a willingness to learn a new language and learning to appreciate new ways of thinking and doing. Researchers are encouraged to explore how standard research approaches may negate a community's participation and even stigmatize a population. These models motivate nurses to diligently apply cultural sensitivity in ways that shape positive outcomes that promote insightfulness and racial equality while advancing nursing practice and knowledge.

Outcomes Achieved/Documented: By design, these models guide nurses working in global and community health settings. The ultimate goal of culturally-sensitive global and community health partnerships is to improve the capacity of the targeted community to provide comprehensive health programming to promote and sustain a healthy population.

Conclusions/Implications: Future work in the dissemination of these models will require nurse experts in global and community health outreach to implement these models. Therefore, future work to measure the usefulness of these models may require conversion of these concepts into nurse self-assessment tools that can measure project or program improvements. Despite the potential benefits, applying these models remains challenging because global and community partners do not often share in the allocation of power or decision making. Global and community health nurses must continually seek to assess what would be the most beneficial work possible to achieve for the population in question. These frameworks guide nurses in answering this and similar questions.

Funding: The UCLA School of Nursing T32 Health Disparities and Vulnerable Populations Research Training Program NIH/NINR T32 NR007077 & the UCLA Institutes of American Cultures.

CULTURALLY-SENSITIVE NURSE-LED RESEARCH WITH GLOBAL AND IMMIGRANT WOMEN

Baseline Depression and Antiretroviral Adherence among Indian Women with AIDS

Adeline Nyamathi, ANP, PhD, FAAN
Distinguished Professor
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Catherine Carpenter, PhD
Adjunct Professor
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Benissa E. Salem, PhD, RN, MSN
Postdoctoral Student
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Sanjeev Sinha, MD
Associate Professor
Department of Medicine
All India Institute of Medical Sciences
Delhi, India

Purpose: To assess the impact of baseline depression on antiretroviral (ARV) adherence after delivery of a nurse-designed program promoting an innovative care model with a nutritional program among rural women living with AIDS (WLA) in India. The interactive role of baseline depression with ARV adherence was assessed at six month follow-up as well as other program outcomes in terms of emotional, physical and immune health

Background: WLA in India report multiple factors that impact their adherence to ARV including depression, food insecurity and poor access to hospitals which provide their monthly lifeline treatment. While India's Rural Health Mission was designed to promote health of the rural populations, many services are lacking.

Method: A prospective randomized clinical trial was conducted to assess the outcomes of a theoretically-based nurse-designed program on ARV compliance and immune and nutritional health among 68 rural WLA living in rural Andhra Pradesh, India who were residing in one of two villages and randomized into the intervention (Asha-Life [AL]) vs usual care (UC) groups. In this comprehensive program, Asha (village women) were trained to provide support and care to WLA, under the direction of nurses, and to provide nutritional supplementation in conjunction with Asha support. Behavioral and biological assessments measured ART adherence, depression, immune status, and body composition.

Findings: The average age of WLA was 31.2 years (SD 5.2); overall depression prevalence was 54%. Baseline correlates of ARV adherence (mean level 46% across groups) included strong mental health, supportive networks and perception of benefit from ARV. In evaluating the role of depression at baseline in relationship to impact on ARV adherence at the end of the intervention, marked ARV adherence differences were observed according to intervention group and whether participants were depressed ($p=0.002$). AL WLA had an ARV adherence of 99% at six months that did not vary based on depression, while UC WLA had an ARV adherence of 53% if they were depressed at baseline and 76% adherence if they were not depressed. Results suggest depression plays a significant role in ARV adherence, particularly if social, medical, and nutritional support is lacking.

Implications: The AL care and support model combined with nutritional supplementation promoted significant improvement among rural WLA living in India. Ongoing research that focuses on strengthening nutritional strategies of the mother and child dyad is critical.

Funding: Support provided by NIMH - MH82662.

CULTURALLY-SENSITIVE NURSE-LED RESEARCH WITH GLOBAL AND IMMIGRANT WOMEN

Asha-Life Outcomes on Quality of Life among Indian Women Living with AIDS

Benissa E. Salem, PhD, RN, MSN

Postdoctoral Student

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

Sanjeev Sinha, MD

Associate Professor

Department of Medicine

All India Institute of Medical Sciences

Delhi, India

Purpose/Aims: HIV/AIDS remain a continuing challenge in India, particularly affecting the quality of life (QOL) of rural women in rural Andhra Pradesh (AP). The purpose of this study was to assess the impact of the Asha-Life (AL) program on Quality of Life (QOL) among rural women living with AIDS (N=68) randomized into the intervention versus an enhanced usual care (UC) program.

Background: Nearly one million women are living with HIV/AIDS (WLA), accounting for 40% of total infections in India. Persons living with AIDS in India are said to experience a significant decrease in quality of life (QOL), as well as stigma, depression and poor coping. The Comprehensive Health Seeking and Coping Paradigm (CHSCP; Nyamathi, 1989), which has been applied to varied vulnerable populations, was used to guide this study.

Methods: The prospective AL intervention was delivered over six months and included group sessions, nutritional supplements, life skills classes to the women living with AIDS to enhance adherence to ART. Inclusion criteria for the WLA were: (a) aged of 18-45; and (b) screened as receiving ART for a minimum of 3 months. Quality of life (QOL) and depressive symptomatology were assessed by structured instruments. Assessments were conducted at baseline and six months. Descriptive analyses, bivariate associations, and multiple regression analyses were used to test the relationship between the independent and dependent variables.

Results: Findings revealed the WLA were on average 31.2 years old (SD 5.2), primarily Hindu (66%) and married (52%). About one in five (22%) received at least 4 years of education and about half were diagnosed with HIV for 4 or more years. Multivariate analysis demonstrated that among AL participants, a statistically significant improvement was found between baseline and follow up for QOL, improved internalized stigma ($p<.001$), avoidance coping ($p<.001$) and depressive symptom scores ($p<.001$).

Conclusions: The overall findings of our study are significant, provide a basis for addressing the challenges which rural WLA face and support the AL intervention which focuses on QOL, stigma, and depressive symptoms among rural WLA in India.

Funding: NIMH R34MH082662.

CULTURALLY-SENSITIVE NURSE-LED RESEARCH WITH GLOBAL AND IMMIGRANT WOMEN

Latent TB Infection among Vietnamese Immigrants

Fayette Nguyen Truax, RN, MS, CPNP, PhDc
University of California, Los Angeles
School of Nursing
Los Angeles, CA

Purpose: Individuals with untreated or incomplete latent tuberculosis infection (LTBI) have a 10% chance of converting to active TB disease throughout their lives. This retrospective descriptive study investigated the prevalence and predictors of LTBI non-completion among Vietnamese immigrants in Orange County (OC), California to inform future interventions aimed at reducing active TB disease among this population.

Background: Asians in the U.S. have now exceeded all other ethnic groups with the highest TB incidence reported annually. In OC, the TB rate for foreign-born persons was 18.4 cases per 100,000 compared to the national Healthy People 2020 objective of 14.0 TB cases per 100,000 foreign-born population. Top three countries of foreign-born TB cases in OC were Vietnam (39.5%), Philippines (17.4%), and Mexico (16.9%). The national strategy for eliminating TB cases is to focus on improving LTBI adherence among the foreign-born population where most have high rates of TB. Limited data exist in the literature on LTBI among foreign-born Vietnamese.

Methods: This retrospective, descriptive study examined the prevalence and predictors of LTBI non-completion from LTBI data collected by OC TB clinics. A total of 494 charts were reviewed and met the following inclusion criteria: a) Vietnamese immigrant; b) 18 years of age or older; c) a positive TB skin test > 9 mm or positive IGRA blood test; d) categorized as Class B1, TB contacts, recent immigrant living < 2 years in the US; e) without any chronic disease; and f) having negative chest x-ray and sputum results. Descriptive statistics and chi-square analysis were used to report and identify predictors of LTBI non-completion.

Results: Descriptive statistics obtained from the 494 charts revealed 50.2% male and 49.8% female; over one third (37.4%) declined treatment primarily due to concerns with medication side effects and beliefs that they are not sick. Of the 286 patients who started treatment, one in five did not complete primarily because of medication side effects (24.2%) and relocation (14.5%). Using chi-square analysis, older male Vietnamese (>65 y/o) immigrants classified as non-class B were significantly less likely to accept or complete LTBI treatment as compared to younger female Vietnamese (45-64 y/o) immigrants classified as medium priority TB contacts.

Implications: Findings from the study will impact the TB community by assisting investigators and clinicians in developing culturally-sensitive interventions designed to improve LTBI treatment completion rates. Untreated or incomplete treatment of LTBI is the greatest contributor to the rise in active TB cases.

Funding: This work was supported by the National Institute of Health (NIH)/Nursing Research (NINR) T32 NR007077.

CULTURALLY-SENSITIVE NURSE-LED RESEARCH WITH GLOBAL AND IMMIGRANT WOMEN

The Effect of a Couples Intervention among Korean-American Women

*Eunice Lee, PhD, RN
Associate Professor
School of Nursing
University of California, Los Angeles
Los Angeles, CA*

Purpose/Aims: The purpose of this longitudinal study was to assess the efficacy of a culture-specific intervention for Korean American (KA) couples, Korean Immigrants & Mammography—Culture-Specific Health Intervention (KIM-CHI), designed to improve mammography uptake among KA women.

Background: Breast cancer is the most frequent cancer in KA women, and the incidence rate continues to increase. However, mammography screening rates remain significantly low in KA women. Using an educational culture-specific DVD directed at KA couples, this project sought to increase mammogram use among KA women by changing their beliefs, knowledge, self-efficacy, and perceived support from their husbands.

Methods: A two-group cluster randomized, longitudinal, controlled design was used. A total of 50 KA religious organizations were randomly assigned to either intervention or attention control groups. A total of 428 married KA women, 40 years of age or older, who had not had a mammogram in the preceding year and their husbands were recruited from the 50 KA religious organizations. The KIM-CHI program ($n = 211$ couples) was compared to an attention control group (217 couples) at baseline, and 6- and 15-months post-baseline on mammogram uptake.

Results: The KIM-CHI group showed statistically significant increases in mammography uptake over the attention control group at both 6-months (35% vs. 20%, $p = 0.0005$) and 15-months post-baseline (55% vs. 41%, $p = 0.004$). After controlling for socio-demographic factors, there were three significant predictors of mammography: being in the KIM-CHI group (AOR = 2.04, 95% CI [1.26, 3.31]), having a source of usual care (AOR = 3.53, 95% CI [1.93, 6.44]), and history of prior mammograms. In particular, women who reported having had a mammogram in the last 2 years had almost three times the odds of getting a mammogram within 15 months than those who had never had a mammogram in their lives (AOR = 2.71, 95% CI [1.41, 5.18]).

Implications: The culturally-targeted KIM-CHI program was effective in increasing mammogram uptake among non-adherent KA women. Nurses and health care providers should try to understand KA-specific health beliefs, consider including husbands or significant others in the intervention, and target education to be culturally-relevant for KA women to effectively improve their breast cancer screening utilization.

Funding: This work was supported by the NIH National Cancer Institute (R01CA127650).

Abstracts of Symposium Presentations

**CURRENT STUDIES BY THE ASIAN WOMEN'S
HEALTH RESEARCH NETWORK**

Moderator:

Eunjung Kim, ARNP, PhD

Department of Family and Child Nursing

University of Washington

Seattle, WA

**OVERVIEW: CURRENT STUDIES BY THE ASIAN WOMEN'S
HEALTH RESEARCH NETWORK**

Eunjung Kim

**HEALTH LITERACY AMONG MULTIETHNIC GROUPS
OF WOMEN IN TAIWAN: A TRIANGULATION APPROACH**

Hsiu-Min Tsai, Hsiu-Hung Wang

**FACTORS INFLUENCING QUALITY OF LIFE AMONG OLDER
WOMEN WITH TYPE 2 DIABETES IN SOUTH KOREA**

Sun Ju Chang

**ASIAN AMERICAN MIDLIFE WOMEN'S SLEEP RELATED
SYMPTOMS AND PHYSICAL ACTIVITY**

Yaelim Lee, Helen Teng, Ok Kyung Ham, Youjeong Kang, Eun-Ok Im

**SLEEP QUALITY OF KOREAN IMMIGRANT MOTHERS
OF YOUNG CHILDREN**

Eunjung Kim, Kevin Cain

CURRENT STUDIES BY THE ASIAN WOMEN'S HEALTH RESEARCH NETWORK

Overview: Current Studies by the Asian Women's Health Research Network

*Eunjung Kim, ARNP, PhD
Department of Family and Child Nursing
University of Washington
Seattle, WA*

Since 2007, the Asian Women's Health Research Network (ASIA-WH) has provided an international communication channel for researchers across four countries (the U.S., South Korea, Taiwan, and Japan) that are interested in health/well-being of Asian women including Asian elderly women. The purpose of this symposium is to showcase the current research studies conducted by the ASIA-WH members and to provide future direction for international collaborative research. This will include four studies in three countries. The first study examined the relationships between health literacy and health and health promotion behaviors among four-ethnic groups of women living in Taiwan. The second study examined factors related to the quality of life among older women with type 2 diabetes living in South Korea. The third study explored sleep related symptoms in Asian-American women in their midlife, identified the relationships between their physical activities and the symptoms, and determined ethnic-specific predictors of the symptoms. The last study examined the relationship between sleep quality and symptoms of depression among Korean immigrant mothers of young children. The presenters were chosen among current members of the ASIA-WH who have recently completed their studies on Asian women. We expect this symposium to showcase international collaborative efforts and to provide future direction for international collaboration.

CURRENT STUDIES BY THE ASIAN WOMEN'S HEALTH RESEARCH NETWORK

Health Literacy among Multiethnic Groups of Women in Taiwan: A Triangulation Approach

*Hsiu-Min Tsai, PhD, RN, FAAN
Professor, School of Nursing
Chang Gung University of Science
and Technology, Taiwan*

*Hsiu-Hung Wang, PhD, RN, FAAN
Professor, School of Nursing
Kaohsiung Medical University
Taiwan*

Background: Literatures have presented that health literacy is concern as a major factor related to health status, health perception and health behaviors. However, little has been reported about how specific physio-psycho-social-cultural contexts are associated with health literacy among multiethnic groups of women in Taiwan. It is very important to understand the health literacy and these contextual factors among these ethnic women who may be living with culturally different circumstances.

Purpose: The purpose of this study was to examine the influencing factors of health literacy and to explore physio-psycho-social-cultural contexts of health literacy in four-ethnic women including Hokkien, Aborigines, Chinese mainlanders, and Southeast Asian in Taiwan.

Method: This study is the part of a larger national study on health literacy of multi-ethnic women. The research method was a triangulation method with questionnaire survey and qualitative interviews. Four instruments were used in the quantitative survey including the Demographic Inventory, Short Form-36 Health Survey, Adults' Health-Promoting Behavior scale, and Taiwan Health Literacy questionnaire. These quantitative data were analyzed with descriptive statistics, Kruskal Wallis and Mann-Whitney U test, Pearson correlation and regression. A thematic analysis was applied to the qualitative data.

Results: A total of 439 women's participants were recruited with both convenience and snowball sampling. Mean age of the participants was 37.38. More participants were Hokkien, married, employed, had child(ren), graduated from junior or senior high school, lived with husband and children, watch less than 2 hours' TV per day, did not or almost not use the Internet, did not have any kind of chronic disease, and received health information from TV. Near 40% of the participants was low health literate. Of those low health literate women, most were aboriginals or Southeast Asian immigrants, had an educational level lower or equal to senior high school, employed, had lower family income and received health information from television or radio. Participants who were low literate did not score high on all domains of the Health Promoting Behavior scale, especially on responsibility and stress management subscales. Both quality of life and health promoting behaviors could explain 27% of the variance of health literacy female specific. Ten themes were identified from the narrative data obtained including four themes related to the meaning of health (good condition, evaluation of health, stressor detection and coping, experience of medical treatment), three themes related to health promotion (general expectation, exercise, environmental barriers) and three themes related to the health literacy (information access, barriers of understanding health literacy, health profession as consultants).

Implications: The information of this presentation can be used as a reference for health care providers and policy makers to develop an appropriate intervention and specialized policy of education program on health literacy among immigrant and aboriginal women. Then, contribution to the promotion of health literacy among immigrant and aboriginal will be made.

Funding: This study was conducted as part of a large study funded by the National Science of Health (NSC 101-2511-S-255 -007 & NSC 102-2511-S-255 -001).

CURRENT STUDIES BY THE ASIAN WOMEN'S HEALTH RESEARCH NETWORK

Factors Influencing Quality of Life among Older Women with Type 2 Diabetes in South Korea

Sun Ju Chang, RN, PhD
Assistant Professor
Department of Nursing Science
Chungbuk National University
South Korea

Purpose: The purpose of the study was to examine factors related to quality of life among older women with type 2 diabetes in South Korea.

Background: Diabetes is known as one of the most common chronic diseases and one of the major causes of death among older adults in South Korea. It significantly impacts older adults' health-related quality of life and wellness. In particular, health-related quality of life in older women with diabetes was lower than that of older men with diabetes in South Korea. For this reason, health professionals and researchers in South Korea have paid attention to health-related quality of life in older women with type 2 diabetes.

Methods: This study was a secondary analysis of a dataset from a study on structural equation modeling on health-related quality of life among older South Korean adults with type 2 diabetes. Data from 77 women who were 65 years and older were retrieved from the original dataset. Based on the current literature, six independent variables including barriers to self-management behaviors, family support, social support, self-efficacy for diabetes self-management behaviors, depression, and diabetes self-management behaviors were selected. Descriptive statistics and a multiple hierarchical regression analysis were used to analyze the data.

Results: Among 77 older women with type 2 diabetes, 87% were currently taking oral hypoglycemic agents to control their blood glucose level. The mean duration of diagnosed diabetes was 7.8 years, and older women had about two diabetes-related complications such as foot ulcer, neuropathy, and visual impairment. The results of a multiple hierarchical regression analysis showed that duration of diagnosed diabetes ($\beta=-.34, p<.01$), barriers to diabetes self-management behaviors ($\beta=-.41, p<.01$), and depression ($\beta=-.40, p<.01$) were significant factors of health-related quality of life among older women with type 2 diabetes. In the regression model, six variables explained 42% of the total variances in health-related quality of life.

Implications: Health professionals including nurses should consider factors influencing health-related quality of life in the planning and development of diabetes education for improving older women's diabetes self-management and quality of life.

CURRENT STUDIES BY THE ASIAN WOMEN'S HEALTH RESEARCH NETWORK

Asian American Midlife Women's Sleep Related Symptoms and Physical Activity

*Yaelim Lee, MSN, RN
Doctoral Student, School of Nursing
University of Pennsylvania
Philadelphia, PA*

*Helen Teng, MSN, CRNP
Doctoral Student, School of Nursing
University of Pennsylvania
Philadelphia, PA*

*Ok Kyung Ham, PhD, MCHES, RN
Associate Professor, Department of Nursing
INHA University
Incheon, Korea*

*Youjeong Kang, MPH, CCRN
Doctoral Candidate, School of Nursing
University of Pennsylvania
Philadelphia, PA*

*Eun-Ok Im, PhD, MPH, RN, CNS, FAAN
Professor & Marjorie O. Rendell
Endowed Chair, School of Nursing
University of Pennsylvania
Philadelphia, PA*

Purpose/Aims: To explore Asian American midlife women's sleep related symptoms, identify the relationships between the women's physical activities and the symptoms, and determine ethnic-specific predictors of the symptoms.

Background: Sleep related symptoms of midlife women are commonly associated with the women's menopausal transition. Among non-pharmacological treatments suggested for sleep problems, physical activities have been reported to improve the sleep quality in midlife women. However, these findings have been inconsistent in regards to the types and levels of physical activity, and the degrees of effectiveness on sleep. In addition, few studies have focused on Asian American midlife women.

Methods: This is a secondary analysis of the data from a cross-sectional study on midlife women's attitudes toward physical activity. Among 542 multi-ethnic midlife women, 123 non-Hispanic Asian American women were included for the analysis. The analysis utilized questions on socio-demographic characteristics, menopausal stages, and health conditions; the Midlife Women's Symptoms Index; and the Kaiser Physical Activity Survey. The data were analyzed using Pearson correlation and hierarchical multiple regression analyses.

Results: Over 90% of the Asian American women reported of having at least one sleep related symptom. The most frequent symptoms were being forgetful (47.2%), decrease sexual interest (42.3%), and being easily upset (39.8%). Significant positive correlations were observed between sleep related symptoms and occupational activities ($r = .244, p < .01$) and between household and caregiving activities ($r = .243, p < .01$), whereas a negative correlation was observed with active living activities ($r = -.179, p < .05$). Socio-demographic factors accounted for 17.4% of the total variance in sleep related symptoms ($F=2.123, p < .05$) while women's self-perceived general health was significantly associated with the symptoms ($B = -1.986, p < .01$). The women's physical activity accounted for additional 9.5% of the total variance in sleep related symptoms ($F=2.165, p < .01$); household and caregiving activities ($B = 1.937, p < .05$) and active living activities ($B = -2.318, p < .01$) were identified as significant predictors of sleep related symptoms.

Conclusions: The identified predictors, including physical activity, need to be considered in future interventions to improve Asian-American women's sleep related symptoms.

Funding: This analysis was conducted as a part of a large study funded by NIH/NINR funded study (1R01NR010568-01) entitled "Ethnic Specific Women's Midlife Attitudes Toward Physical Activity."

CURRENT STUDIES BY THE ASIAN WOMEN'S HEALTH RESEARCH NETWORK

Sleep Quality of Korean Immigrant Mothers of Young Children

Eunjung Kim, ARNP, PhD

Associate Professor

Department of Family and Child Nursing

University of Washington

Seattle, WA

Kevin Cain, PhD

Biostatistician

School of Nursing

University of Washington

Seattle, WA

Purpose: To examine the relationship between sleep quality and depressive symptoms among Korean immigrant mothers of young children.

Background: Existing evidence suggests insomnia is bidirectionally related to depression. This relationship is not known among Korean immigrants who tend to have higher depressive symptoms than the general American population and other Asian immigrant populations.

Methods: Forty-nine mothers of young children (ages 3-8) reported on the Pittsburgh Sleep Quality Index (PSQI) and the Center for Epidemiologic Studies for Depression Scale (CES-D). Mothers were involved in the study of Korean parent training program conducted in the Pacific North west. Mothers mean ages was 36.39 (SD = 4.07), had received an average of 16.68 (SD = 1.36) years of education, and had lived in the U.S. 11.25 (SD = 8.63) years).

Results: Overall mothers scored 12.56 (SD = 9.93) in CESD and 29% (n = 14) mothers scores 16 or higher on CES-D, indicating they were experiencing high depressive symptoms. For PSQI, mean score was 6.00 (SD = 2.37) and 47% (n = 23) mothers scored 6 or higher on PSQI, indicating they have poor quality of sleep. When PSQI scores were compared with the results from Buysse, Reynolds, Monk, Berman, and Kupfer's (1989) study, Korean immigrant mothers scored similar to the subsample who had disorders of excessive somnolence (mean = 6.53, SD = 2.98). Results from multiple regression, controlling for mothers' identity, indicated sleep quality (standard coefficient = .30) was significantly related to depressive symptoms, $F(2, 42) = 3.63$, $p < .05$. The model explained 15% of variance in mothers' depressive symptoms.

Implications: When taking care of Korean immigrant mothers who have elevated depressive symptoms, their quality of sleep needs to be assessed.

Abstracts of Symposium Presentations

DESIGNING AND IMPLEMENTING AN INTEGRATED, CONCEPT-BASED CURRICULUM

Moderator:

*Jeannette A. O'Brien, PhD, RN
Assistant Professor
Nursing
Linfield College
Portland, OR*

OVERVIEW: DESIGNING AND IMPLEMENTING AN INTEGRATED, CONCEPT-BASED CURRICULUM

Jeannette A. O'Brien

EVIDENCE BASED PRACTICE ASSIGNMENTS IN A CONCEPT-BASED NURSING CURRICULUM

Suchawadee Yimnee, Jeannette A. O'Brien

DESIGNING AND IMPLEMENTING AN INTEGRATED CLINICAL EXPERIENCE

Miriam Volpin, Pam Wheeler

CURRICULAR CONCEPTS INTEGRATION INTO AN ACADEMIC EHR PLATFORM

Karen Maxwell, Joyce Betita

INNOVATIVE APPROACHES TO EXPERIENTIAL LEARNING FOR ONLINE RN-BSN STUDENTS

Henny Breen, Melissa Jones, Linda Luce

THE JOURNEY THUS FAR: LESSONS LEARNED

Pam Wheeler, Jeannette A. O'Brien, Suchawadee Yimnee

DESIGNING AND IMPLEMENTING AN INTEGRATED, CONCEPT-BASED CURRICULUM

Overview: Designing and Implementing an Integrated, Concept-Based Curriculum

*Jeannette A. O'Brien, PhD, RN
Assistant Professor
Nursing
Linfield College
Portland, OR*

Purpose/Aims: The purpose of this symposium is to describe the development, implementation, and ongoing evaluation of an integrated, concept-based curriculum in a small private liberal arts college. This new curriculum was implemented beginning with the student cohort entering Fall 2011.

Rationale/Background: Health care, nursing practice, and educational theory have changed significantly since Linfield-Good Samaritan School of Nursing (LGSSON) was last accredited in 2004. The curriculum revision was also prompted by changes in our organization, the 2008 AACN *Essentials of Baccalaureate Education for Professional Nursing Practice*, and changes in our student population.

Approach: Our Vision, Mission and revised Philosophy reaffirm our commitment to a community-based curriculum organized around six major themes: Community, Communication, Diversity, Ethics, Stewardship, and Health. These themes are threaded across four semesters: Foundations for Community-based Nursing Practice, Chronic Health, Acute Health, and Stewardship of Health. A unique feature of the curriculum is the Integrated Experiential Learning (IEL) courses, which tie all levels of simulation and clinical practice experience to a Semester theme rather than individual theory courses. Two new faculty roles were designed to support implementation of the curriculum: 1) the Semester Coordinator, charged with ensuring the integration of both theory and experiential learning of a specific semester and 2) the Integrated Experiential Learning (IEL) Coordinator who collaborates with theory faculty, clinical faculty, and experiential learning faculty to provide oversight, planning and coordination of the IEL activities within their assigned semester. There are 3 curriculum tracks, 2 for pre-licensure students (generic and accelerated) and one for post-licensure (RN-BSN).

Outcomes Achieved: Multiple methods that have been used to evaluate implementation of the revised curriculum in collaboration with the School of Nursing Curriculum and Quality Improvement Committees will be discussed.

Conclusion: The symposium will present some unique aspects of this revised curriculum and the faculty experiences during development and implementation.

DESIGNING AND IMPLEMENTING AN INTEGRATED, CONCEPT-BASED CURRICULUM

Evidence Based Practice Assignments in a Concept-Based Nursing Curriculum

Suchawadee Yimnee, PhD, RN
Assistant Professor
Linfield College
Portland, OR

Jeannette O'Brien, PhD, RN
Assistant Professor
Linfield College
Portland, OR

Purpose/Aims: Evidence-based practice (EBP) is the integration of the best relevant research evidence with one's own clinical expertise and client preferences and values to facilitate clinical decision making in nursing. This presentation demonstrates how faculty designed assignments to provide a foundation for students to attain competency in developing evidence-based solutions to clinical practice problems.

Rationale/Background: In Fall 2011, Linfield-Good Samaritan School of Nursing implemented an integrated, concept based curriculum. In the first term, the Scholarship of Nursing course addresses the EBP competency outlined by the Quality & Safety Education for Nurses Institute. The knowledge, skills, and attitudes developed in this course serve as the scaffolding upon which students can build their practice as they progress through the concepts presented in subsequent courses.

Description: Baccalaureate students are expected to distinguish valid research. The goal of a concept-based curriculum is for students to deepen their understanding of the nursing literature and become independent thinkers, able to transfer new knowledge into their practice. Students' knowledge, skills and attitudes towards EBP are demonstrated through two assignments from the *Scholarship of Nursing* course: an evidence-based practice synthesis paper, and a presentation that provides a critical appraisal of EBP guidelines. First, in the synthesis paper, students are assigned topics pertaining to the concepts in the first semester courses. Students read and appraise nursing research, then synthesize the evidence to make recommendations for best practice. Second, the critical appraisal of an EBP guideline consists of students working collaboratively with agency staff to identify a clinical practice question in the clinical setting. Students search CINAHL and guidelines databases for EBP guidelines related to the question and compare them with the existing protocol or guidelines from the clinical setting.

Outcomes Achieved/Documented: Findings from student course evaluations revealed the following results for both assignments: First, the evidence based synthesis paper gave students more depth in understanding concepts of research utilization and EBP for best nursing practice. Evaluations indicated students understanding of the value of evidence to support nursing practice in providing client centered care. Second, through the process of the critical appraisal of EBP guidelines, students learned to focus on clinical problems and client centered care which challenged them to distinguish between what has always been the practice and what is actually supported by evidence.

Conclusions: Overall, the course outcomes to assist students to recognize, value and implement the competencies associated with EPB have been achieved. Going forward faculty in subsequent semesters will need to build on the foundation created in semester one.

DESIGNING AND IMPLEMENTING AN INTEGRATED, CONCEPT-BASED CURRICULUM

Designing and Implementing an Integrated Clinical Experience

*Miriam Volpin, PhD, RN
Assistant Professor of Nursing
Linfield College
Portland, OR*

*Pam Wheeler, PhD, MSN, RN
Associate Professor of Nursing
Linfield College
Portland, OR*

Purpose/Aims: The purpose of this presentation is to discuss how faculty designed and implemented a singular clinical experience each semester to further support the integration of concepts and curricular themes from all courses taught in that semester, and to reinforce learning clinical learning from one semester to another.

Rationale/Background: In response to programmatic needs, faculty at the Linfield-Good Samaritan School of Nursing embarked on a curriculum revision planning process in spring 2008 that resulted in the implementation of a new curriculum in fall 2011. As part of that process, the clinical learning experience was redesigned to maximize the application and integration of concepts and curricular themes in a single clinical course each semester. Historically, the curriculum had separate clinical experiences aligned with each theory course.

Approach: The development of the clinical experience was based on concepts and curricular themes students were learning in the corresponding theory courses. The integration of theoretical concepts and curricular themes are viewed as occurring horizontally (i.e. across each semester) as well as vertically. That is, each semester's clinical experience built on concepts, curricular themes, clinical skills and clinical reasoning from previous semesters as well. Thus the students would develop both breadth and depth as they proceeded through the four semester nursing curriculum. Learning would become more complex as previous knowledge and skills were reinforced and expanded, serving as the base for future learning. Course outcomes for the clinical experience "mirrored" and reinforced what was being taught in the theory courses. The clinical courses are called Integrated Experiential Learning (IEL) I-IV to reflect their focus. While general attributes of the four IELs will be noted, the IEL of the second and fourth semester will serve as exemplars.

Outcomes Achieved/Documented: Formative evaluation data has been gathered for each course as the curriculum was implemented. Low, mid, and high fidelity learning has been utilized as part of the students' learning experiences each semester. Clinical seminars support the integration of key concepts and curricular themes. Evaluation and revision of the courses occurred each iteration in order to: better sequence skills; reinforce and build on prior learning; refine the use of our clinical model and clinical reasoning tools; create meaningful lab experiences and assignments.

Conclusions: Modifications to the new curriculum have continued to occur in response to the formative evaluation data, as well as additional student and faculty feedback. The horizontal integration of concepts and curricular themes has progressed at a rate that is faster than the vertical integration, although as the full curriculum continues to be presented, more vertical integration has occurred. Frequent planning meetings conducted by faculty in each semester have improved horizontal integration. It is anticipated that on-going coordination among semester and IEL coordinators across semesters will increase the vertical integration.

DESIGNING AND IMPLEMENTING AN INTEGRATED, CONCEPT-BASED CURRICULUM

Curricular Concepts Integration into an Academic EHR Platform

Karen Maxwell, MSN, RN, EdD(c)
Assistant Professor
Nursing
Linfield College
Portland, OR

Joyce Betita, MSN/Ed, RN
Experiential Learning Center Director
Nursing
Linfield College
Portland, OR

Purpose/Aims: The purpose of this presentation is to describe the experience of nursing faculty designing the integration of curricular concepts within an academic electronic health records (AEHR) platform. The AEHR platform implementation was phased in gradually with the revised curriculum implementation, beginning with the student cohort entering spring 2012.

Rationale/Background: Nursing graduates are expected to be knowledgeable about and responsive to the rapidly changing technology in the health care environment. The nursing faculty at the Linfield-Good Samaritan School of Nursing took on the challenges related to this innovative technological paradigm in order to keep pace and participate as co-creators of a relevant informatics technology curriculum that prepares graduates for the real life workforce.

Undertaking/Best Practice/Approach/Methods/Process: The Learning by Developing (LbD) model was used for AEHR implementation. This model provides a community learning atmosphere with overarching themes of creativity, authenticity, partnership, experiencing, and research orientation. Design of educational activities was guided by the ACCN Essential IV: Information Management and Application of Patient Care Technology, and the Quality and Safety for Educating Nurses (QSEN) competencies for informatics knowledge, skills, and attitudes. Triangulated survey, interview, and artifact data were used to provide an ongoing integration feedback loop which, in turn, provided relevant information for creation and development of activities. This process also supported development of faculty understanding of and confidence in working with the AEHR.

Outcomes Achieved/Documented: The AEHR is providing new ways to facilitate teaching and learning. Faculty now have a paperless asynchronous method for providing detailed feedback for students on their documentation skills. Assessment, intervention and/or procedure description, and evaluation documentation is expected of nursing students with most nursing lab skills learned. Quality and safety concepts such as real time documentation and data detail integrity are stressed as students incorporate bedside documentation into their skill set.

Conclusions: Understanding the challenges and successes in implementing curricular concepts through informatics technology with the LbD framework is helping the faculty develop strategies to support teaching and learning for use of informatics in clinical practice. Faculty also have a more informed perspective to design and facilitate integration of informatics in nursing education, hence learning by developing.

Funding: This project was funded in part by Ann & Bill Swindells Charitable Trust and The Jackson Foundation.

DESIGNING AND IMPLEMENTING AN INTEGRATED, CONCEPT-BASED CURRICULUM

Innovative Approaches to Experiential Learning for Online RN-BSN Students

*Henny Breen, PhD, RN, CNE, COI
Assistant Professor, LGSSON
Portland, OR*

*Melissa Jones, PhD(c), RN, CHPN, COI
Assistant Professor, LGSSON
Portland, OR*

*Linda Luce, MS, RN, COI
Visiting Assistant Professor
Portland, OR*

Purpose/Aims: Highlight three specific learning experiences using a virtual community in an Integrative Experiential Learning (IEL) clinical course designed to incorporate practice in leadership, management and population-based nursing care in a multicultural and global society.

Rationale/Background: The RN-BSN IEL course includes a combination of on-site clinical hours with an assigned preceptor, professional development activities and experiential learning using a virtual community. This combination was designed to meet the needs of the adult learner with previous clinical and educational experiences as they build on previous knowledge. The virtual community provides the opportunity to simulate real life experiences, meets the needs of working adults as they have accessibility to the community at any time of day, and provides an avenue for learning complex integrated concepts.

Description: Virtual learning activities that engage student interaction with peers and faculty through discussion, collaborative group activities, and role-playing were developed to help students integrate higher-level concepts that are applied to clinical practice. These activities included: (1) a case study used for the development of an individual nursing care plan using the clinical reasoning model adopted by LGSSON; (2) a case study to develop a nursing plan for disaster management following a simulated disaster in the virtual community; and (3) problem-based learning to develop a coalition to assist in providing outreach and support to homeless veterans.

Outcomes Achieved/Conclusions: The virtual community activities provided an excellent opportunity for experiential learning and integration of concept based knowledge. Students reported that, "...it motivated me to research the resources and how I could use them to assist the family." "I felt that this gave me the opportunity to apply what we have learned not only in this course but the other courses in the program. It really made me "live" and reflect on the roles and responsibilities of nurse leaders in the community." "I now have a heightened awareness of my extended role as a collaborative health team member in the community...". These integrative experiences allowed the RN-BSN students to develop higher level critical thinking and reasoning skills while building on previous knowledge and prior education and practice experiences.

DESIGNING AND IMPLEMENTING AN INTEGRATED, CONCEPT-BASED CURRICULUM

The Journey Thus Far: Lessons Learned

*Pam Wheeler, PhD, MSN, RN
Associate Professor
Nursing
Linfield College
Portland, OR*

*Jeannette A. O'Brien, PhD, RN
Assistant Professor
Nursing
Linfield College
Portland, OR*

*Suchawadee Yimnee, PhD, RN
Assistant Professor
Nursing
Linfield College
Portland, OR*

Purpose/Aims: This session will discuss some of the successes and challenges experienced during the implementation of a new, integrated curriculum. The impact on both students and faculty will be presented.

Rationale/Background: Changes in the revised curriculum include an increase in total semester credits from 52 to 54 due to an increase in clinical hours. The program of study was also changed from five to four semesters to fit the model of an upper division, transfer campus. The most significant change in the curriculum is the Integrated Experiential Learning (IEL) courses associated with each semester rather than clinical experiences associated with individual courses.

Approach: Several departmental changes were made to facilitate implementation of the revised curriculum. These included combining the roles of the Curriculum Committee chair and Curriculum Coordinator, implementing the Semester and IEL Coordinator roles, and reconfiguring the composition of the Curriculum Committee to include Semester Coordinators. Some of these changes involved reallocating nursing faculty workload. Formative evaluation processes were added at key points in each semester.

Outcomes Achieved: Overall, students have met or exceeded benchmarks compared to students in the previous curriculum. The concentration of credits and clinical hours per semester has made the program more challenging for some students.

Conclusion: The new curriculum was implemented without any major problems, although several areas of refinement have occurred as faculty have experienced this change.

Abstracts of Symposium Presentations

EAST AFRICA: TRANSFORMATION OF LIFE ACROSS THE AGE TRAJECTORY

Moderator:

*Benjamin J. Miller, PhD, ARNP, FNP, ACNP
College of Nursing
Seattle University
Seattle, WA*

OVERVIEW: EAST AFRICA: TRANSFORMATION OF LIFE ACROSS THE AGE TRAJECTORY

Benjamin J. Miller

ANTENATAL IRON SUPPLEMENTATION AND INFANT UNDERNUTRITION IN TANZANIA

Boyon Yun, Kristen Ziegler, Karen Cowgill, Albino Kalolo

GENDER DIFFERENCES IN HEALTH AND WEALTH FOR RURAL RESIDENTS OF TANZANIA

Benjamin J. Miller

PERCEPTIONS OF RESIDENTS OF THOGOTO HOME FOR THE AGED IN KIKUYU, KENYA

Locky Kamau, Karen Cowgill, Danuta Wojnar

EAST AFRICA: TRANSFORMATION OF LIFE ACROSS THE AGE TRAJECTORY

Overview: East Africa: Transformation of Life across the Age Trajectory

*Benjamin J. Miller, PhD, ARNP, FNP, ACNP
College of Nursing
Seattle University
Seattle, WA*

The continent of Africa is the second largest continent in the world. It measures 30.2 million square kilometers and encompasses 20% of the world land mass and almost 15% of the population. The entire United States, Western Europe, India, China, and Argentina can be combined to approximate the equivalent land mass of Africa. Given the significant size and diversity of cultures of the African continent, clinical studies conducted in one region of Africa may not be generalizable to other regions. Indigenous African people originate from five historical language groups and comprise more than 410 tribes with a variety of cultural beliefs.

Kenya and Tanzania are two east African countries originating from the Bantu tribal language. These countries have many similarities including language (Kiswahili), geographic climate, life expectancy (63.2 years v. 60.7 years), population (44 million v. 48 million), and gross domestic product per capita (\$1800 v \$1600). Each year the United States spends 17.4% of the GDP on healthcare compared to the 5.5% of GDP Tanzania and 4.8% Kenya spends on healthcare.

The presentations summarize three separate studies conducted in these two counties, providing a unique perspective on health and wellness in the rural communities of Kenya and Tanzania. We would like to present the work of these researchers to describe the effects of an antenatal iron supplementation program in Newala district of southern Tanzania, the gender differences of health and wealth in the rural communities of Arumeru district of northern Tanzania, and perspectives of elderly Kenyans from Kikuyu, who reside in the Thogoto home for the elderly. Conducting research in the United States has a host of challenges, but when researchers travel to a developing country, the challenges associated with research and data collection increase. In addition to obtaining approval for a research protocol and obtaining IRB approval, research in Tanzania requires ethical clearance of the National Institute for Medical Research (NIMR) and permits from the Commission for Science and Technology (COSTECH). Kenya has similar requirements with clearance being required from the Ministry of Higher Education, Science, and Technology.

These three studies engaged in research with three different techniques including a retrospective data analysis in southern rural township in Tanzania, a cross sectional analysis of multiple villages in rural northern Tanzania, and a qualitative exploration of elderly who live in a nursing home in Kenya. The evidence presented will provide a glimpse into the health challenges in rural east Africa.

EAST AFRICA: TRANSFORMATION OF LIFE ACROSS THE AGE TRAJECTORY

Antenatal Iron Supplementation and Infant Undernutrition in Tanzania

Boyon Yun, MSN, BS, ARNP, FNP-C
Graduate Student
College of Nursing
Seattle University
Seattle, WA

Kristen Ziegler, MSN, BS, ARNP, CNM
Graduate Student
College of Nursing
Seattle University
Seattle, WA

Karen Cowgill, PhD, MSc, RN
Assistant Professor
College of Nursing
Seattle University
Seattle, WA

Albino Kalolo, MD, MSc
Assistant Lecturer
College of Health and Allied Sciences
St. Francis University
Ifakara, Tanzania

Background: Maternal undernutrition during pregnancy is of great concern as it relates to the nutritional status and developmental potential of the child in the womb, with lasting effects into infancy and beyond. In particular, iron deficiency anemia during pregnancy can have negative impacts on both maternal and infant health. In Tanzania, universal access to antenatal care is available to all women at no cost. Proper provision of iron supplementation as part of this antenatal care is important given its potential to correct anemia during pregnancy. Despite high levels of antenatal care attendance, iron deficiency anemia in pregnant Tanzanian women remains widespread.

Purpose: The purpose of the present study was to measure the association between clinical antenatal iron supplementation and infant undernutrition in Newala District, Tanzania, while focusing on availability of and adherence to iron supplementation. Infants whose mothers had less exposure to iron supplementation during pregnancy were expected to show greater levels of undernutrition.

Methods: A retrospective cohort study of 193 women and their children at Newala District Hospital in Tanzania was conducted in order to assess the association between antenatal iron supplementation and infant undernutrition. Data was collected through maternal questionnaire responses and infant health records. Infant undernutrition was determined using weight-for-age z-scores at birth and through 12 months based on the WHO Child Growth Standards.

Results: Infant weights were significantly different from the median score of 0 in the WHO's distribution, both at birth and averaged over the first 12 months, $t(192) = -6.18, p < .001, d = -.44$ and $t(192) = -2.88, p = .004, d = -.21$, respectively. Of the 193 women, 161 (83.4%) reported being screened for anemia, 21 (10.9%) reported being diagnosed with anemia, and 177 (91.7%) reported receiving iron supplementation during pregnancy. Of those who received supplementation, 67 (37.9%) reported taking it every day, 55 (31.1%) reported most days, 27 (15.3%) reported half of the time, 24 (13.6%) reported less than half of the time, and four (2.3%) reported not taking it at all. Reported barriers to adherence were also collected. The relationship between antenatal iron supplementation and weight measures was not statistically significant.

Implications: Results indicated that newborn and infant weights within this region are lower than the global average by WHO standards. However, the hypothesis that infants whose mothers had less antenatal exposure to iron supplementation would show greater levels of undernutrition was not supported. Because the main exposure was assessed by questionnaire, recall and social acceptability bias likely affected data quality. The present study supports the need to further assess the quality of antenatal care provided in Tanzania with respect to maternal iron deficiency anemia. Future research should focus on examining additional variables, both ante- and post-natally, which contribute to decreased infant weight measures within this region.

EAST AFRICA: TRANSFORMATION OF LIFE ACROSS THE AGE TRAJECTORY

Gender Differences in Health and Wealth for Rural Residents of Tanzania

*Benjamin J. Miller, PhD, ARNP
College of Nursing
Seattle University
Seattle, WA*

Purpose: The purpose of this study was to determine the gender differences in health and wealth for residents in the Arumeru district of northern Tanzania.

Background: Tanzania is a developing country located in east Africa. The country has a population of 43 million residents with more than 75% considered rural dwellers. Access to health care services is limited because of disproportionate number of clinical services located in densely populated urban settings and a general country shortage of physicians and nurses. This study was designed to determine if there is a gender disparity for rural dwellers in biometric health indicators and predetermined surrogate wealth markers.

Methods: This was a cross sectional observational study of seven rural villages in northern Tanzania. Participants were selected and screened for health indicators including diabetes, hypertension, obesity as well as markers of wealth including mode of transportation, education level, household flooring construction, and source of cooking water. The income score was calculated by the sum of each domain of wealth (1-4). Data were screened for outliers and missing data. One-way ANOVA was conducted to determine if there was a gender difference in the prevalence of obesity, HTN, and diabetes. Paired T test were conducted to identify group mean differences between genders for composite wealth scores as well as individual wealth indicators.

Results: 645 people were evaluated from seven rural villages in the Arumeru district of northern Tanzania. Females represented 63.9% of the sample size with a mean age of 48.9 while men represented 36.1% of the sample size with a mean age of 54.3. The age adjusted prevalence was 11.1% for being overweight and 4.6% for obesity. The age adjusted prevalence for hypertension and diabetes were 24.7% and 4.6%, respectively. There was a significant difference between genders for obesity ($F(1,641) = 32.28, p < .001$); however there was no significant gender difference for hypertension or diabetes. Males had a significantly higher mean income score compared to women, $t(643) = 2.59, p = .01$. When examining the individual domains of wealth, men were more likely to own motorized vehicles or bicycles, $t(361.6) = 4.83, p < .001$. Males had obtained statistically significant higher levels of education than did the women, $t(643) = 2.05, p = .04$. The remaining domains of wealth were insignificant.

Conclusions: There is a high prevalence of hypertension and a concerning rise of diabetes in the rural Tanzanian community. Adiposity appears to be a concern more in women however this issue is complex as there were not increased rates of diabetes and HTN in women. There appeared to be a marginal wealth disparity between genders in rural Tanzania. Ownership of motorized vehicles and education favored male participants. The education disparity appeared to be particularly higher in the older population and may represent improvement in the educational system.

EAST AFRICA: TRANSFORMATION OF LIFE ACROSS THE AGE TRAJECTORY

Perceptions of Residents of Thogoto Home for the Aged in Kikuyu, Kenya

*Locky Kamau, MSN, RN, APRN
Karen Cowgill, PhD, MSc, RN
Danuta Wojnar, PhD, RN, MED, IBCLC
Seattle University
College of Nursing
Seattle, WA*

Background: It is estimated that by the year 2025 the global population of those aged 60 and above will exceed 1 billion. Of these, 700 million will be in the developing world. While the developed world has had time to adjust to the technological and medical advancement since the industrial age, population aging is a phenomenon that will affect Africa in a unique way, as it is characterized by cultural, socio-economic and family structural changes specific to the continent. Though homes for the aged have become a global phenomenon, little is known about the way residents perceive and experience life in these homes. This study was aimed at understanding the perception of residents of Thogoto Home for the Aged of their lived experience in the home. The findings can also provide a basis for evaluation and improvement of the quality of life for the residents, as well as a foundation for future research. They may also be utilized to inform policy and practice.

Methods: This was a qualitative study with a phenomenological approach. Permission was obtained from the Seattle University Institutional Review Board (IRB) and the Ministry of Higher Education, Science and Technology in Kenya. Data were collected using one-on-one semi-structured interviews with 18 residents and two resident focus groups sessions over a period of two weeks. Convenience sampling of the residents was utilized for sample selection. Giorgi's phenomenological method was utilized for data analysis.

Results: Four main themes were identified as affecting the quality of life (QOL) of the residents: (i) benefits of living in the home, (ii) living in harmony with the environment, (iii) securing the body and (iv) autonomy. The study showed that the resident's QOL was affected by their perspective on certain aspects of their lives at the home. The aspects that improved their QOL included: care provided and the sense of security that the home provided. The ability to perform chores, physical and environmental cleanliness, freedom of worship, keeping physically active and having an avenue to interact with peers and visitors all contributed towards a positive outlook. The main aspects of life in the home that negatively impacted their quality of life included the lack of medical assistance, disrespect from caregivers, lack of freedom to freely move in and out of the facility, lack of privacy and security of personal belongings and for the men, the provision of enough food to satiate their hunger.

Implications: This was the first time a qualitative study on the perspective of the residents of a care home in Kenya was performed. Recommendations emanating from the study include caregiver training, organizational involvement at the administrative level and government involvement.

Abstracts of Symposium Presentations

EMPOWERING POTENTIAL: STRENGTH-BASED PERSPECTIVES FOR KNOWLEDGE GENERATION

Moderator:

Julie Fleury, PhD, FAAN

College of Nursing and Health Innovation

Arizona State University

Phoenix, AZ

OVERVIEW: EMPOWERING POTENTIAL: STRENGTH-BASED PERSPECTIVES FOR KNOWLEDGE GENERATION

Julie Fleury

HEALTH EMPOWERMENT THEORY: FACILITATING ENGAGEMENT TO PURPOSEFULLY PARTICIPATE IN CHANGE

Nelma B. C. Shearer

PROMOTING PHYSICAL ACTIVITY AMONG HISPANIC WOMEN: WELLNESS MOTIVATION INTERVENTION

Jennifer L. Barrows

WELLNESS MOTIVATION THEORY: A STRENGTH-BASED PERSPECTIVE FOR KNOWLEDGE GENERATION

Julie Fleury, Adriana Perez,

TRANSITIONS OF CARE IN OLDER ADULTS: HEALTH EMPOWERMENT INTERVENTION

Laura J. Blank

EMPOWERING POTENTIAL: STRENGTH-BASED PERSPECTIVES FOR KNOWLEDGE GENERATION

Overview: Empowering Potential: Strength-Based Perspectives for Knowledge Generation

*Julie Fleury, PhD, FAAN
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ*

This symposium presents programmatic efforts in the development and testing of theory-based interventions focused on promoting strengths, abilities and potential among older adults. Approaches to care do not yet integrate strategies that promote continued growth in older adulthood; focusing on disease and deficits alone limits the exploration of individual strengths, thereby compounding vulnerability to diminished health and well-being. Empowering potential reflects an inherent process of growth and development consistent with valued goals which facilitates the emergence of new health patterns. The presentations are designed to address knowledge development through their focus on programmatic research including the conceptualization of empowering potential from the perspective of the strength-based health empowerment and wellness motivation theories, the operationalization of strength-based theory in intervention design, and the link between strength-based intervention and relevant behavioral and health outcomes. As a whole, the symposium is intended to foster dialog specific to strength-based intervention design and implementation, and to outline innovative approaches to knowledge development through intervention focused on promoting strengths, abilities and potential among older adults.

Dr. Shearer provides an overview of the health empowerment theory, a middle range theory that is expressive of a human health pattern of well-being and is viewed as a relational process that emerges from the recognition of personal resources and social contextual resources. This process facilitates purposeful participation in the attainment of health goals and the promotion of individual well-being. The health empowerment intervention (HEI) is designed to promote awareness of and builds on the strengths and capacity of older adults to engage and attain their own individualized health goals and enhance well-being.

Dr. Fleury provides an overview of the wellness motivation theory (WMT), a middle range theory which conceptualizes motivation for health behavior change as dynamic intention formation and goal-directed behavior. The wellness motivation intervention (WMI) is designed to promote individual wellness in accordance with individual goals, thereby fostering potential as defined by the individual. The WMI provides an understanding of behavior appraisal and change toward a healthier lifestyle and acknowledges the person interacting with their environment through social-contextual influences, behavior change processes, and action.

Innovative, theory-based perspectives for optimizing health outcomes are an essential component of nursing research and practice. Laura Blank presents operationalization of the HET in an intervention designed to promote well-being among older adults in the transition from an acute care setting to home. She outlines the essential components of the HEI, and provides a relevant example of intervention design targeting a specified problem focused on promoting strengths, abilities and potential among older adults.

The design of theory-based intervention is guided by specific theoretical content. Jennifer Barrows presents operationalization of the WMT in an intervention designed to promote moderate intensity physical activity in older Hispanic women. She outlines essential components of the WMI, and provides examples of intervention design focused on promoting strengths, abilities, and potential among older women.

EEMPOWERING POTENTIAL: STRENGTH-BASED PERSPECTIVES FOR KNOWLEDGE GENERATION

Health Empowerment Theory: Facilitating Engagement to Purposefully Participate in Change

Nelma B. C. Shearer, PhD

*Associate Professor and Director Hartford Center of Gerontological Nursing Excellence
College of Nursing and Health Innovation*

Arizona State University

Phoenix, AZ

Background: As adults age, their health needs may become complex. Recognition and engagement of personal resources and social contextual resources to achieve health goals may be limited due to limited awareness and access to resources. Older adults have strengths that can be built on to achieve individual health goals and promote well-being.

Purpose: The purpose of this presentation is to describe the health empowerment theory, a middle range theory which conceptualizes health empowerment as a relational process that emerges from the recognition and engagement of personal resources and social contextual resources, which facilitate purposeful participation in attainment of health goals, thereby promoting well-being.

Theoretical Perspective: Health empowerment is viewed as an inherent process, a relational process, an ongoing process of change, and a process expressive of a human health pattern of wellbeing. The health empowerment intervention (HEI) is designed to enhance the engagement of the older adult in the process of recognizing and engaging personal resources and social contextual resource and the identification of individualized health goals and the means to attain them. Enhancing health empowerment is based on facilitating recognition and building self-capacity; facilitating recognition and engagement of social supportive networks; and recognizing and engaging in social services. The HEI focuses on promoting older adults' awareness that they have the power and freedom to purposefully participate in attaining individualized goals by incorporating a focus on the older adult's health concerns and preferences.

Personal resources as self-capacity are perceived as unique characteristics of older adults, which comprise more than demographic characteristics. Recognition of self-capacity and building on their strengths will enhance an older adult's ability to participate in problem solving to make meaningful changes.

Social contextual resources are comprised of two components, social network and social service utilization. Support systems have been characterized as enduring patterns of attachment among individuals and groups that assist older people in managing life's challenges, difficulties, and transitions. Social service utilization includes knowledge of and access to needed health and material resources.

Health empowerment emerges from the recognition of personal resources and social contextual resources facilitating purposeful participation in goal attainment, thereby promoting well-being. Purposeful participation in goal attainment is manifested through awareness, choices, freedom to act intentionally, and involvement in creating change.

Conclusions: The HEI provides a framework for the development of theory-based interventions that bridge the gap between theory and practice and promote an awareness of the full spectrum of factors that may optimize health of older adults. Healthcare providers may operationalize the HEI to focus on understanding of personal and environmental factors that facilitate health empowerment, resulting in health outcomes unique to the individual.

EMPOWERING POTENTIAL: STRENGTH-BASED PERSPECTIVES FOR KNOWLEDGE GENERATION

Promoting Physical Activity among Hispanic Women: Wellness Motivation Intervention

*Jennifer L. Barrows, BSN
PhD Student, Hartford Scholar
College of Nursing and Health Innovation
Arizona State University*

Background: Older adults suffer a disproportionate burden of chronic health conditions that may be prevented, treated, or managed by making modest, sustainable changes in physical activity behavior. Interventions to promote physical activity among older Hispanic women have shown varying effectiveness. As the population ages and becomes increasingly diverse, there is a growing need for theory-based, culturally relevant health interventions focused on the abilities and strengths of older adults.

Purpose: To present the operationalization of a theory-based intervention to enhance motivation for physical activity and improve health outcomes in older Hispanic women. Essential components of the wellness motivation intervention are presented, with examples of intervention design focused on promoting strengths, abilities, and potential among older women.

Theoretical Perspective: Wellness motivation theory (WMT) guides intervention design, implementation, and evaluation. Enhancing motivation for health behavior change is conceived as empowering potential, a process of growth and development from which new, positive health patterns emerge. The wellness motivation intervention (WMI) focuses on the mechanisms that link motivation to physical activity, fostering the development of social contextual resources and behavioral change processes to facilitate processes of health behavior change. Intervention critical inputs include empowering education, motivational support, and social network support to facilitate theoretical mediating processes of self-knowledge, motivation appraisal, and self-regulation. The intervention incorporates yoga as an innovative approach to enhancing motivation for physical activity and promoting cardiovascular health outcomes in older Hispanic women. The intended effects of the WMI are changes in behavioral and health outcome variables of physical activity, body composition, and blood pressure. Factors identified that might influence receipt and development of resources include functional status, past experience, safety concerns, and core Latino values. Material resources needed include community setting, manualized protocol, and skilled bilingual interventionists.

Conclusions: Wellness motivation is focused on assisting individuals to achieve their optimum potential in a manner consistent with personal goals for health behavior change. Wellness motivation theory links health promotion efforts to the achievement of personal goals related to health, work, retirement, family, and other meaningful aspects of life.

EMPOWERING POTENTIAL: STRENGTH-BASED PERSPECTIVES FOR KNOWLEDGE GENERATION

Wellness Motivation Theory: A Strength-Based Perspective for Knowledge Generation

*Julie Fleury, PhD, FAAN
Adriana Perez, PhD, ANP
College of Nursing and Health Innovation
Arizona State University*

Background: A focus in the care of older adults has been testing of interventions targeting disability and clinical management, with the goal of achieving treatment defined outcomes. In contrast, there has been limited focus on interventions grounded in older adult strengths and development consistent with valued goals, designed to facilitate new health patterns.

Purpose: The purpose of this presentation is to describe the wellness motivation theory (WMT), a middle range theory which conceptualizes motivation for health behavior change as dynamic intention formation and goal-directed behavior leading to new health patterns.

Theoretical Perspective: The wellness motivation intervention (WMI) is designed to promote wellness consistent with individual goals, thereby fostering potential as defined by the individual. The WMI provides an understanding of behavior appraisal and change toward a healthier lifestyle and acknowledges the person interacting with their environment through social contextual resources, behavior change processes, and actualization of health behavior.

Social contextual resources originate within individuals or as part of the sociocultural and physical environment. Social resources include support from the social network and support systems consistent with cultural factors and norms. Contextual resources reflect the degree to which social and organizational resources are perceived as present in the community and consistent with individual goals. These resources influence behavioral change processes as well as behavior initiation and maintenance.

Behavioral change processes reflect ways in which individuals create and evaluate goals, establish standards and strategies for behavioral change, and regulate and strengthen patterns that result in behavioral change. The behavioral change process involves self-knowledge, motivational appraisal, and self-regulation, and reflects the individual striving toward new goals and moving beyond goals achieved. Self-knowledge provides a context for meaning through which individuals acknowledge their hopes and fears for future health outcomes and facilitates the activation of processes to achieve health goals. Motivational appraisal reflects intention formation for goal directed behavior consistent with personal beliefs and values, identified informational and resources, and goals. Through motivation appraisal, individuals assess their goals, make judgments about the means best suited to attain goals, generate plans and strategies for goal attainment, engage in problem solving, and determine commitment to outcomes. Through self-regulation, goal intentions are transformed into personalized action. Self-regulation reflects a process through which individuals attempt to make strategies for behavioral change congruent with goals, particularly when goals conflict or change over time.

Conclusions: The WMT provides a framework for the development of theory-based interventions that bridge the gap between theory and practice. Clinicians may operationalize the WMT to promote individual and community supports, cultural and contextual resources, and specific strengths to promote health behavior consistent with individual values and goals.

EMPOWERING POTENTIAL: STRENGTH-BASED PERSPECTIVES FOR KNOWLEDGE GENERATION

Transitions of Care in Older Adults: Health Empowerment Intervention

*Laura J. Blank, RN, MSN, CNE
PhD Student, Hartford Scholar
College of Nursing and Health Innovation
Arizona State University*

Background: Approximately 20% of Medicare beneficiaries discharged from the hospital are readmitted within 30 days. Hospitalized older adults are particularly vulnerable to readmissions due to their complex needs; older adults may lack awareness of personal and social-contextual resources as well as access to resources needed to assist in a successful transition from the hospital to the home. A positive relationship between self-capacity building and purposeful participation in care among older adults is significantly related to well-being, and the investment of personal and social contextual resources contribute to overall well-being. Approaches to promoting strengths, abilities and potential are essential for these vulnerable older adults.

Purpose: This paper presents operationalization of the health empowerment theory in an intervention designed to promote well-being among older adults in the transition from an acute care setting to home. The essential components of the health empowerment intervention are outlined, along with intervention design focused on promoting strengths, abilities and potential among older adults.

Theoretical Perspective: Current transitional models often fail to recognize the experiences of the older adult, preventing them from viewing their experiences as strengths, and using their personal and social contextual resources as a basis for self-participation in care and goal setting. The HEI, a strength-based interventional framework, views the older adult as the purveyor of their own care; fostering their self-capacity, and optimizing personal health consistent with their own health goals and potential. Enhancing the older adult's health empowerment is based on critical aspects of treatment: 1) facilitating recognition and building of self-capacity, 2) facilitating recognition of supportive networks and encouraging the building of social supportive networks, and 3) facilitating the recognition of social services and social service utilization. The HEI focuses on purposeful participation in individualized goal attainment by incorporating a focus on individual concerns and preferences in determining health goals. Emerging from the health empowerment process is a transformation in which older adults recognize their ability to purposefully participate in goal attainment and facilitate awareness of and access to needed health and material resources, thereby promoting well-being. The intended effect of the HEI is changes in the perceived well-being of older adults. Factors identified that might influence receipt and development of resources consistent with health empowerment include prior experiences identifying and developing personal and social contextual resources, physical and emotional health, and the presence of comorbid conditions that might limit receipt or action on information. Material resources needed include community setting, manualized protocol, and skilled interventionists.

Conclusion: Operationalizing the HEI provides an innovative approach to optimizing well-being among older adults, as well as promoting individual strengths, abilities and potential as the older adult transitions from the acute setting to home. Practice from a health empowerment perspective incorporates strategies that foster awareness of and access to personal and social contextual resources in the older adult in transition. The proposed intervention study is part of a continuing program of research which would add significantly to the body of knowledge on transitions of care.

Abstracts of Symposium Presentations

ENVIRONMENTS, NEUROSCIENCE AND MENTAL HEALTH

Moderator:

*Karen G. Schepp, PhD, PMHCNS-BC, FAAN
Psychosocial and Community Health
University of Washington
School of Nursing
Seattle, WA*

OVERVIEW: ENVIRONMENTS, NEUROSCIENCE AND MENTAL HEALTH

Shawn Elmore

NEIGHBORHOOD CONTEXT AND PSYCHOLOGICAL DISTRESS AMONG HISPANIC AND NON-HISPANIC WHITE WOMEN

*Wendy E. Barrington, Shirley A. A. Beresford, Thomas D. Koepsell,
Bonnie McGregor, Anne Vernez Moudon*

NEUROSCIENCE, ENVIRONMENTS AND EXTREME CHILDHOOD MALTREATMENT

Patricia Betrus

EPIGENETICS, NEUROSCIENCE AND MENTAL HEALTH

Shawn Elmore

GENE POLYMORPHISMS AND MENOPAUSAL SYMPTOM CLUSTERS: MENTAL HEALTH IMPLICATIONS

*Nancy Fugate Woods, Ellen Sullivan Mitchell,
Lori Cray, Gerald Herting*

ENVIRONMENTS, NEUROSCIENCE AND MENTAL HEALTH

Overview: Environments, Neuroscience and Mental Health

Shawn Elmore, PhD, RN
Associate Professor, Psychosocial and Community Health
University of Washington School of Nursing
Seattle, WA

The Burden of mental illness is daunting. The outcomes from the WHO World Mental Health Survey (WMH) indicate that mental health disorders are common, have an early age of onset, present a chronic/recurrent course and have significant, adverse effects on occupational and social function. A minority of affected individuals receives treatment for mental illness and the quality of treatment is often poor, especially among those who are socially disadvantaged. Current information from the Centers for Disease Control reflects similar patterns in the United States.

In January, 2013, Thomas Insel, MD, director of NIMH, presented data on the changes in mortality for several health disorders from the 1960s to the present. The mortality rates for Acute Lymphocytic Leukemia and Heart Disease have dropped 95% and 63 % respectively. The mortality rate for suicide, as an indicator of mental illness, is unchanged. There are approximately 38,000 suicides per year in the United States, about 1 suicide every 15 minutes. Suicide is twice as common as homicide and more common than traffic fatalities.

The bulk of neuroscience research in mental illness has been directed toward differences in patterns of brain structure and function that disrupt the individual's capacity to interpret experience and adapt to dynamic environments. Explicitly and implicitly, alterations in genetic endowment have been assumed to be the ultimate source of dysfunction in mental illness. The search for specific, genetic polymorphisms as an etiology for various types of mental illness has been disappointing. The environment may interact with genotype in a variety of ways, including contextual appraisal, social vulnerabilities, interpersonal adversity, toxins and extreme physical environments. The critical role environments play in the pathogenesis, prevention, early detection and treatment of mental illness is a rapidly emerging field.

The purpose of this symposium is to present current research on the possible paths through which environments could influence mental health and mental illness. Dr. Wendy Barrington will present data on the relationships among objective and perceived neighborhood characteristics, socioeconomic status, and perceived stress. Dr. Patricia Betrus will focus on how variations in genetic polymorphisms interact with experiences of serious childhood adversity. Dr. Shawn Elmore will provide an analysis on the contributions and challenges of epigenetics research as applied to mental health. Dr. Nancy Woods will provide a perspective on the importance of the menopausal transition, neuroendocrine polymorphisms, environments and mental health.

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ENVIRONMENTS, NEUROSCIENCE AND MENTAL HEALTH

Neighborhood Context and Psychological Distress among Hispanic and Non-Hispanic White Women

Wendy E. Barrington, PhD¹; Shirley A. A. Beresford, PhD^{2,3}; Thomas D. Koepsell, PhD²; Bonnie McGregor^{3,4}; Anne Vernez Moudon^{2,5}

¹U of Washington, School of Nursing, Psychosocial & Community Health, Seattle, WA

²U of Washington, School of Public Health, Epidemiology, Seattle, WA

³Fred Hutchinson Cancer Research Center, Div. of Public Health Sciences, Seattle, WA

⁴U of Washington, School of Public Health, Health Services, Seattle, WA

⁵U of Washington, College of Built Environments, Urban Design & Planning, Seattle, WA

Introduction: Substantial evidence links neighborhood socioeconomic status (SES) to health outcomes. Explanatory pathways, including the stress process, are being pursued to explain these associations, yet few studies have examined the association of neighborhood SES with perceived stress. Perceived neighborhood characteristics should be accounted for in models of neighborhood SES and stress as they are direct appraisals of neighborhood stressors and more related to stress ratings. Perceptions of neighborhood characteristics may provide more actionable intervention targets than neighborhood SES would provide and also account for individual-level SES (e.g. educational attainment) which may vary within the same neighborhood. The objective of this study was to investigate the degree to which perceived stress varies in relation to neighborhood SES and perceived neighborhood characteristics and whether these relationships depended on level of education among middle-aged non-Hispanic white women in South King County, Washington. We hypothesized that lower neighborhood SES would correlate with more neighborhood stressors and that both would be associated with higher perceived stress among women. Furthermore, we hypothesized that these associations would be strongest for women of lower educational attainment.

Methods: A multi-stage sampling design was employed to recruit women from blockgroups with a large range of objectively measured neighborhood SES and above-average proportion of Hispanic residents (N=143 blockgroups) per census data. Both Hispanic and non-Hispanic white women were recruited and invited to complete questionnaires that included questions on perceived neighborhood characteristics (i.e. neighborhood problems, neighborhood dissatisfaction, neighborhood walkability), perceived stress (via Cohen's 10-item Perceived Stress Scale; score range 0-40), and demographic information (i.e. age, education, income). This paper is restricted to the non-Hispanic white cohort. Generalized estimating equations (GEE) were used to assess predicted mean differences and 95% confidence intervals and accounted for correlations within blockgroups. Models were adjusted for individual-level age, education, and number of years lived in the neighborhood.

Results: Of the block-groups sampled, 112 had one or more non-Hispanic white women agreeing to participate in the study. The baseline survey was completed by 510 non-Hispanic white women. Associations between perceived stress and neighborhood SES were dependent on individual-level education whereas no interaction by education was present in associations between perceived stress and perceived neighborhood characteristics. Higher neighborhood SES was associated with lower stress for women with low education while the opposite was true for women with high education. Irrespective of individual-level educational attainment, higher perceived stress was associated with more neighborhood problems (Diff=0.42; 95% CI: 0.26, 0.58; $p<0.0001$) and greater neighborhood dissatisfaction (Diff=-1.97; 95% CI: 1.05, 2.89; $p<0.0001$). Conversely, lower perceived stress was associated with greater perceived walkability (Diff: -0.46; 95% CI: -0.73, -0.18; $p=0.001$).

Conclusion: Not only are objective and perceived measures of the neighborhood associated with levels of perceived stress, the degree of association may be different for women with lower versus higher education. This may have implications for socioeconomic disparities in mental health outcomes associated with stress and differences in neighborhood perceptions by education may inform prevention strategies. Additional longitudinal data are needed to confirm associations.

ENVIRONMENTS, NEUROSCIENCE AND MENTAL HEALTH

Neuroscience, Environments and Extreme Childhood Maltreatment

*Patricia Betrus, PhD, RN, BC-PMHCNS
Associate Professor, Psychosocial and Community Health
University of Washington School of Nursing
Seattle, WA*

There is growing appreciation that the mental health of adults can have its roots in gene polymorphisms and early childhood environments. The first polymorphism extensively investigated for its influence on mental health was the serotonin transporter gene (5- HTTLPR). This gene is located at chromosome 17q11.1-12. The polymorphisms include a short variant (ss), a short/long variant (sl) and a long/long variant (ll). The short alleles (sl, ss) impair transcription of serotonin transporters. Relative to having two long alleles, the ss/sl alleles are associated with reduced serotonin transporter binding, lower serotonin transporter mRNA, increased extracellular serotonin concentrations and altered serotonin receptor densities/function.

Child maltreatment or extreme abuse qualifies it as an environmental pathogen for a lifetime risk of mental illness. Early life adversity predicts nearly 45% of childhood-onset and 30% of adult-onset psychopathology. However, not all abused or maltreated children develop psychopathology. Emerging evidence suggests that the likelihood of an abused child developing mental illness, as a child or an adult, is linked to serotonin transporter alleles. Researchers comparing individuals with ss/sl to ll alleles report increased anxiety, depression, suicidality, risk of PTSD and psychopathology in those with the short variants. In the absence extreme maltreatment/abuse, the ss allele was not associated with an increased risk for symptoms or disorders.

What neural mechanism(s) are modified as a response to the ss/sl alleles? Evidence from animal and human studies demonstrates that the amygdala mediates physiologic, autonomic, and behavioral processes that allow an individual to respond to environmental and social challenges. fMRI of individuals with short variants revealed rapid, exaggerated, threat-related amygdalar reactivity compared to ll allele homozygotes. A complex network including the amygdala and medial prefrontal cortex processes contextual information. Short alleles confer diminished emotional regulation in this network. Serotonin plays significant role in the general development and function of this extended neural network

For ss allele carriers, this deficit in emotional regulation may manifest at the behavioral level as increased negative emotionality and .stress vulnerability. Carriers of ss/sl-alleles are characterized by the stable trait of negative affectivity that is converted to psychopathology only under conditions of severe stress or trauma. Negative affectivity is characterized by an attentional bias toward negatively valenced information and a cognitive sensitivity to label events as negative. A person with the short alleles is hyper-vigilant, scans their environment for negative events, resists habituation and perceives events as having negative consequences. Negative affectivity prospectively predicts risk for all psychiatric disorders.

Emerging evidence indicates that other polymorphisms are involved in mental illness, and are associated with short alleles. Polymorphisms of tryptophan hydroxylase, the MAOA gene promoter and brain-derived neurotrophic factor confer risk for a variety of psychiatric disorders including suicide, impulsivity, aggression, alcoholism, violence in maltreated children and childhood onset depression. A likely scenarios that multiple polymorphisms interacts with vulnerable environments increasing the risk of childhood and adult mental illnesses.

ENVIRONMENTS, NEUROSCIENCE AND MENTAL HEALTH

Epigenetics, Neuroscience and Mental Health

*Shawn Elmore, PhD, RN
Associate Professor, Psychosocial and Community Health
University of Washington School of Nursing
Seattle, WA*

There are several proposed mechanisms through which human health and illness are defined by collaboration among genetic and environmental factors. A primary focus of this presentation is the interaction of the genome and the epigenome as this influences mental health. The status of current epigenetics research and the challenges for future investigations will also be analyzed.

The genome is defined as an individual's complete set of DNA, including nuclear and mitochondrial genes. The double helix of polymerized nucleotides is wrapped around histone proteins and further compressed into chromatin, which allows huge amounts of genetic information to be stored in the miniscule spaces of the cell. The information contained in the DNA nucleotide sequence is translated into proteins that are critical and malleable components of neural structure and function. The inherent capacities of proteins allow the human brain to be the lynchpin for assimilation of the genetic blueprint and a host of dynamic experiences. The integrity and reliability of neuronal proteins, such as membrane transport systems, receptors and enzymatic pathways, are essential for the critical, human processes of context appraisal and adaptation.

The epigenome can be defined as a set of heritable, biochemical processes that transduce environmental circumstances into molecular memory. These processes regulate genetic expression without modification of DNA sequence. DNA methylation and histone modification, as epigenetic mechanisms, have received the most attention. Addition of a methyl group specific nucleotides suppresses transcription. Manipulation of histone acetylation, methylation, phosphorylation and ubiquitination influence the how tightly DNA is coiled around histones, which then influences DNA accessibility for transcription. As the individual engages in transactions with his or her environment, signal transduction systems (e.g., cAMP, IP3) convey information which can result in the modification of epigenetic mechanisms, thus influencing genetic expression and neuronal protein.

Current research has demonstrated the association of variations in neuroendocrine responses, emotional regulation, death by suicide and cognitive ability with differential epigenetic "tagging". Significant adversity, variation in maternal care, maternal circumstances during pregnancy and socioeconomic disparity are examples of environmental factors that are consistent with the linkage of mental health disturbances and differential epigenomic markers.

Despite the potential of epigenetic research as a tool for understanding the role environmental influences in the pathogenesis, prevention, early detection and treatment of mental illness, many challenges remain. Epigenetic mechanisms convey information regarding the person-environment transactions, but are not biomarkers for specific types of neuronal structure and function associated with mental illness. There are a vast number of locations where epigenetic "tagging" can influence genetic expression. Different types of epigenetic mechanism interact, making interpretation of research results difficult. The specificity and reliability of meiotic and mitotic heritability of the epigenome remain uncharted. Finally, there has been minimal investigation of additional types of epigenetic mechanisms, such as nucleosome remodeling, and non-coding RNA.

ENVIRONMENTS, NEUROSCIENCE AND MENTAL HEALTH

Gene Polymorphisms and Menopausal Symptom Clusters: Mental Health Implications

*Nancy Fugate Woods, PhD, RN, FAAN
Professor, Biobehavioral Nursing
University of Washington*

*Lori Cray, PhD, RN
Assistant Professor, Nursing
Seattle University*

*Ellen Sullivan Mitchell, PhD
Associate Professor
Family Child Nursing
University of Washington*

*Gerald Herting, PhD
Professor, Sociology
University of Washington*

Objective: During the menopausal transition and early postmenopause participants in the Seattle Midlife Women's Health Study (SMWHS) were likely experience one of three symptom severity classes: severe hot flashes with moderate sleep, mood, cognitive, and pain symptoms (High-severity Hot Flash); moderate levels of all but hot flashes (Moderate Severity); and low levels of all (Low Severity). We tested models of differential effects of gene polymorphisms in the estrogen synthesis pathways (CYP 19, 17 HSD) and neuroendocrine factors modulated by estrogen (serotonin (5HTLPPR), brain-derived neurotrophic factor (BDNF), and neuropeptide Y (NPY)) on the three symptom severity classes.

Methods: SMWHS participants recorded symptoms monthly in diaries and provided buccal smears that were genotyped for the polymorphisms in the estrogen synthesizing genes and genes involved in neuroendocrine factors modulated by estrogen. Multilevel latent class analysis with multinomial regression was used to determine the effects of gene polymorphisms on symptom severity class membership.

Results: Only the 17HSD polymorphisms (rs 5942 and rs 2389) significantly differentiated the high hot flash cluster from the low severity symptom cluster. None of the polymorphisms differentiated the moderate severity cluster from the low severity symptom cluster. Of interest was that the polymorphisms in the genes theoretically related to mental health, 5HTLPPR, BDNF, and NPY, did not differentiate women with the moderately high cluster of symptoms that included mood, sleep, and cognitive symptoms from those who were asymptomatic. In separate analyses, stress significantly differentiated the high hot flash cluster and the moderately severe cluster from the low severity symptom cluster.

Conclusion: Polymorphisms in the 17HSD gene differentiated women with the high hot flash cluster from those with the low severity cluster, suggesting that estrogen synthesis genes are influential in this cluster, consistent with earlier findings of 17HSD on hot flashes. None of the polymorphisms differentiated women who had the moderately severe cluster that included mood, sleep and cognitive symptoms. Future research focusing on the stressful nature of women's lives may contribute to a more full understanding of symptom clusters during the menopausal transition.

Abstracts of Symposium Presentations

GLOBAL RESEARCH: ETHICAL CONSIDERATIONS FOR NURSE RESEARCHERS

Moderator:

*Eden Brauer, RN, MSN
Pre-doctoral Research Fellow
School of Nursing
University of California, Los Angeles
Los Angeles, CA*

OVERVIEW: GLOBAL RESEARCH: ETHICAL CONSIDERATIONS FOR NURSE RESEARCHERS

*Eden Brauer, Ariel Rankin, Felicia Schanche Hodge,
Carol Pavlish, Eileen Fry-Bowers*

A META-SYNTHESIS OF ETHICAL CONSIDERATIONS IN COMMUNITY BASED RESEARCH

Ariel M. Rankin

ETHICAL CONSIDERATIONS IN ILLNESS BELIEFS/PERCEPTIONS FOR INDIGENOUS GROUPS

Felicia Schanche Hodge

ETHICAL MINDFULNESS FOR GLOBAL RESEARCHERS

Carol Pavlish

POLICY ANALYSIS AND RECOMMENDATIONS FOR THE ETHICAL CONDUCT OF INTERNATIONAL RESEARCH

Eileen K. Fry-Bowers

GLOBAL RESEARCH: ETHICAL CONSIDERATIONS FOR NURSE RESEARCHERS

Overview: Global Research: Ethical Considerations for Nurse Researchers

*Eden Brauer, RN, MSN
Pre-Doctoral Research Fellow
School of Nursing
University of California, Los Angeles
Los Angeles, CA*

*Ariel Rankin, PhD
Pre-Doctoral Research Fellow
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*

*Carol Pavlish, PhD
Associate Professor
School of Nursing
University of California, Los Angeles
Los Angeles, CA*

*Eileen Fry-Bowers, PhD
Post-Doctoral Research Fellow
School of Nursing
University of California, Los Angeles
Los Angeles, CA*

Purpose: Our overall aim is to report on historical and current ethical issues in global research among indigenous populations experienced by nurse researchers. A second aim is to make recommendations for ethical conduct in research in global settings.

Rationale: Health disparities persist in global regions thus health care and nurse researchers provide an invaluable service. Ethical challenges experienced by global researchers, however, can be both magnified and unique among these vulnerable populations. Policy analysis and recommendations for reducing health disparities while conducting ethical research at a global level are presented.

Undertaking: This presentation briefly highlights the components of succeeding presentations that address emerging issues in the ethical conduct of global research.

Outcomes Achieved: A detailed background that grounds the identification of ethical components of research will be presented, followed by an overview of nurse-led health interventions over the past 20 years using a meta-synthesis approach. A case study from research in Sudan will address the obligations that nurse researchers hold towards the individual and community of those being researched. Next, the potential for a range of health/illness perceptions by indigenous groups, such as the Hmong and Indians of the Americas, is presented. Finally, implications of these ethical concerns for policy will be discussed with recommendations for development and implementation in the global context.

Conclusions: Key ethical issues are changing the face of global research. Given the history and more recent evidence and shared experience from this presentation, there is significant need for increased attention and revisions to current practices to ensure ethical conduct of research among global indigenous groups. Changing power structures and the potential for adverse effects on the studied population must be recognized, methods and approaches revised, and new policies that can protect the rights of global groups implemented.

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

GLOBAL RESEARCH: ETHICAL CONSIDERATIONS FOR NURSE RESEARCHERS

A Meta-Synthesis of Ethical Considerations in Community Based Research

*Ariel M. Rankin, PhDc, MSN, RN
T32 Pre-Doctoral Research Fellow
School of Nursing
University of California, Los Angeles
Los Angeles, CA*

Purpose: A meta-synthesis process is described in this paper, providing valuable evaluative information on global research methods (meta-methods) conducted by nurse researchers. Nurse-led global health interventions over the past 20 years are explored to assess methods and ethical considerations.

Background: Nurses are rapidly entering the global research arena conducting studies that address health disparities globally. Research approaches have evolved over the years from clinical trials to hybrid methods that incorporate cultural approaches to data gathering and interpretation. These studies increasingly involve communities and individuals in program development and individual decision-making. A better understanding of the types of studies, ethical issues, and the impact of the research on current nursing research is needed.

Rationale: In the developing world, research has focused on methods to find new or improve medicines and vaccines; however, research aimed to find better ways of delivering existing products and services to those in need is also of growing value. The importance of clear-cut evaluation methods throughout the research process will be highlighted by a nurse pre-doctoral researcher. To better understand the impact of research on global indigenous groups- and to assess ethical concerns, evidence via research data is required. To minimize risks and maximize benefits under potentially new or revised ethical considerations, research policies and/or protocols may need to be designed and implemented.

Methods: A meta-synthesis process was developed and implemented. The research question was “what evaluative processes are used to ensure ethical conduction of nursing research globally.” Areas of review and analysis included: (1) study sample size/characteristics; (2) study location (developing/under-developed); (3) methods; (4) community participation; (5) ethical issues; and (6) outcomes. A thematic report was developed.

Results: While initial involvement in global research was centered around the provision of health services such as immunizations, nursing research topics have expanded to include areas of communication and decision-making. The advent of individual/community involvement, the choice of research, and selection of research methods is now driven by communities as well as researchers. All research participants deserve an equal opportunity to regulate practices and procedures taking place within research process.

Implications: Key ethical issues identified are the need for: (1) the involvement of the community in participatory research; (2) reciprocal methods for exchanges of information; and (3) effective feedback mechanisms for evaluative processes.

GLOBAL RESEARCH: ETHICAL CONSIDERATIONS FOR NURSE RESEARCHERS

Ethical Considerations in Illness Beliefs/Perceptions for Indigenous Groups

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

Purpose: This paper reports on the cultural constructs of illness causation, treatment and symptom management among indigenous populations. A secondary aim identifies the trajectory of ethical concerns given these cultural constructs.

Background/Rationale: Beliefs and perceptions about health and illness are deeply embedded in cultural constructs. This paper draws from several studies which aimed to describe the range of health/illness beliefs and perceptions by several indigenous groups including a sample of Hmong immigrants, an Indigenous group in Puerco Rico, and a sample of Indians of the Americas. These studies also explored a variety of approaches to data gathering, such as talking circles and storytelling, to better understand cultural methods of communication and their importance. To better understand the impact of research on global indigenous groups and to assess ethical concerns, research data is required to provide evidence. To minimize risks and maximize benefits, new ethical considerations must be considered and research policies and/or protocols may require revisions in both design and implementation that reflect these concerns.

Methods: A cross-sectional survey was administered to an adult Hmong population (N=107) in 2010, to a group of adults in the Dominican Republic (N=303), and to adult American Indian reservation groups (N=459) in 2002-04. These data sets provide information on indigenous illness beliefs, practices and health status. Quantitative data analysis assessed several issues of concern including the etiology of illness, perception of health status and treatment effect, preference for medication use and the relationships between adherence and the cultural constructs of illness beliefs. Important ethical concerns included culturally-based communication strategies and assessment of group capital protection and rights.

Outcomes Achieved: Capital in the form of cultural ownership (stories, history and knowledge) was illustrated in the studies. Removal and translation of stories/knowledge can be met with resistance and result in non-participation in research. The ethics of conducting research or healthcare services, while disregarding culture, harms the studied population in furthering stereotypes, providing potentially false analysis, and contributing to poor patient compliance. The trajectory of ethical concerns given these cultural constructs began with communication compatibility, to data collection methods and finally to interpretation of data and ownership of the study results.

Conclusions: Key ethical issues are changing the face of global research which calls for changes in research methods and understandings of data ownership that goes beyond the metrics of research. Changing power structures and the potential for adverse effects on the studied population must be recognized. Future work in this area must continue to develop new methods/approaches/protocol that recognizes the role of culture in health beliefs and practices.

GLOBAL RESEARCH: ETHICAL CONSIDERATIONS FOR NURSE RESEARCHERS

Ethical Mindfulness for Global Researchers

*Carol Pavlish, PhD, RN, FAAN
Associate Professor
School of Nursing
University of California, Los Angeles
Los Angeles, CA*

Purpose: To query moral responsibilities of nurse researchers as they conduct field studies with vulnerable populations in global arenas.

Rationale: Formal ethics guidelines from Institutional Review Boards (IRB) require a priori protection of participants. While this is an essential mandate for nurse researchers, field experiences often arise when the mandate to protect participants conflicts with vulnerable participants' wishes to be included in the study. Questions pertaining to voice and power will be described in the presentation.

Undertaking: The presenter briefly highlights a case study of an ethically difficult situation during an ethnographic research project in the post-conflict setting of South Sudan. The study was designed to explore community members' perspectives on intersections between health and human rights in preparation for program development on preventing violence against women. A nurse researcher and human rights researcher were interviewing a local police chief as a key informant about women's human rights violations such as gender-based violence when the chief brought in a young woman, three children, and an older woman. The young woman was being kept in the local jail for her own protection because her estranged military husband who had reportedly abused her in the past threw a grenade at the woman for her attempt to divorce him. While she and her children escaped physical harm, the explosion killed a bystander and injured many others. Families of the deceased and injured threatened to kill the woman and her family which is why they were being housed in the jail for their protection. The chief of police suggested we talk to the young woman as an informant regarding violence against women. Although the woman was capable of consent, indicated she really wanted to participate and tell her story, and a quiet and private place was provided for the interview, researchers were concerned about the potential for coercion.

Outcomes Achieved: Tension between IRB guidelines regarding protection of human subjects and participant agency will be discussed. The question of whether IRB guidelines can actually silence voices of those we need to listen to most (i.e., the most vulnerable) will be considered.

Conclusions: In the field, nurse researchers encounter everyday moments that raise important ethical questions. Global researchers need to adopt ethical mindfulness which is a constant alertness to ethical dilemmas not only within the research process but also in researchers' relationship with participants. Being sensitive to the power dynamics inherent in all research relationships and considering who has the ultimate right to decide on inclusion provide an opportunity to discuss ethically-important moments in the field and the meaning of ethical mindfulness.

GLOBAL RESEARCH: ETHICAL CONSIDERATIONS FOR NURSE RESEARCHERS

Policy Analysis and Recommendations for the Ethical Conduct of International Research

*Eileen K. Fry-Bowers, PhD, JD, RN, CPNP
Associate Professor*

*Loma Linda University School of Nursing
Loma Linda University Institute for Health Policy and Leadership
Loma Linda, CA
ekbowers@llu.edu*

Purpose: Guided by the abstracts presented in this symposium and illustrated with additional examples, this presentation describes an analytic process used to examine current public policy associated with conducting nurse-led research in international settings, makes recommendations for ethical practice, and discusses advocacy for international standards and policies to ensure protection of vulnerable populations.

Rationale/Background: Rigorous research is essential for advancing the science of nursing and achieving the United Nation's Millennium Goals, which have the potential to meet the needs of the world's poorest and most vulnerable populations. However, the incorporation of and reliance on Western bioethical principles in study design and Western socio-political policies may not be suitable, sufficient or relevant to participants in developing nations. In fact, such practices may be harmful, disrespectful and unethical. Importantly, increased numbers of international nurse-led research studies, the growing popularity of "satellite" Western universities at global sites, and multinational scientific collaborations enhance the likelihood of research being conducted with populations at risk of exploitation. Considerable progress has been made regarding the development of universal standards for research on human subjects, yet tension remains between accepting ethics as invariable universal principles and ethics as contingent norms relative to culture.

Approach/Process: Current ethical principles, the interpretation of which reflects substantial Western bias, were examined for cultural congruence and applicability to the conduct of research in non-Western populations. Contextual factors explored include the degree of cultural difference between the researcher and study participants, the ability of individuals to give informed consent, either as a result of education/literacy, social class, gender or customs, and the economic and research capacity and socio-political infrastructure of the participant's community or country.

Outcomes: Public policy regarding the conduct of international research rooted in Western bioethics is too narrow to ensure protection of vulnerable populations across the globe. Ethical research with international participants requires considerable attention to understanding the significance of the individual and the community for each unique population. Broader conceptualizations of informed consent, privacy and benefit/risk are necessary and must be considered within the context of cultural norms and the value placed on those norms.

Conclusions/Recommendations: Nurse researchers need to examine current research policies that adhere to traditional Western notions of the researcher-participant relationship and subsequent ethical ideals. The practice of nursing requires that advocacy for health improvements be rooted in partnership with others, especially in the context of promoting human rights. Similarly, nurse researchers are obligated to advocate for institutional and governmental policies that are driven by researcher's responsibilities to the participants within a collaborative relationship and informed by cultural context.

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

Abstracts of Symposium Presentations

GOING GLOBAL WITH NURSING RESEARCH: CHALLENGING BARRIERS AND SUCCESSFUL STRATEGIES

Moderator:

*Betty Winslow, PhD, RN
Professor and Research Director
Graduate Nursing Department
Loma Linda University School of Nursing
Loma Linda, CA*

OVERVIEW: GOING GLOBAL WITH NURSING RESEARCH: CHALLENGING BARRIERS AND SUCCESSFUL STRATEGIES

*Betty Winslow, Ahlam Jadalla, Vanessa Jones-Oyefeso, Lisa Roberts,
Elizabeth Johnston Taylor*

CHALLENGES AND OPPORTUNITIES: LESSONS LEARNED FROM CONDUCTING RESEARCH IN JORDAN

Ahlam Jadalla

CONDUCTING RESEARCH IN TRINIDAD AND TOBAGO

Vanessa Jones-Oyefeso, Naomi Modeste, Helen Hopp Marshak, Curtis Fox

WRESTLING WITH INTERVENTIONAL RESEARCH IN RURAL INDIA

Lisa Roberts, Susanne Montgomery

AN AMERICAN IN AOTEAROA: LESSONS FROM RESEARCHING WITH MAORI

Elizabeth Johnston Taylor

GOING GLOBAL WITH NURSING RESEARCH: CHALLENGING BARRIERS AND SUCCESSFUL STRATEGIES

Overview: Going Global with Nursing Research: Challenging Barriers and Successful Strategies

*Betty Winslow, PhD, RN
Professor and Research Director
Graduate Nursing Department
Loma Linda University School of Nursing
Loma Linda, CA*

*Ahlam Jadalla, PhD, RN
Assistant Professor
School of Nursing
California State University, Long Beach
Long Beach, CA*

*Vanessa Jones-Oyefeso, DrPH, CRNA
Assistant Professor
Graduate Nursing Department
Loma Linda University School of Nursing
Loma Linda, CA*

*Lisa Roberts, Dr.PH, MSN
Director of FNP and AGNP Programs
Graduate Nursing Department
Loma Linda University School of Nursing
Loma Linda, CA*

*Elizabeth Johnston Taylor, PhD, RN
Professor
Loma Linda University
School of Nursing
Loma Linda, CA*

Purpose: This symposium will provide a description of challenges, opportunities, and strategies for conducting nursing research in international settings.

Background: Nursing's focus on global research is increasing. The development of graduate education for nurses in international settings has opened opportunities for nursing research across national and cultural boundaries. With this enhanced potential for global research, the nursing profession is faced with new opportunities and responsibilities.

Methods: The presentations in this symposium will provide observations and reflections of nurse researchers, educated in Western culture, who have conducted research in the Caribbean with adolescents, in India with rural women, in New Zealand with the indigenous Maori people and in Jordan with adults. Each presenter has lived within the country selected for their research at some time in their life. Despite their background knowledge of culture, language and people, they confronted challenges that were not anticipated when their studies were planned. Through the lens of their research experience, each presenter will share recommendations for methods that support best practices in global research with specific insights that fit the country and culture in which they conducted their research.

Results: Despite the challenges faced, each of the presenters completed her study. Some lessons learned in the process included ways of negotiating entrée to settings, securing approval of research plans, gaining trust, developing collaborations and partnerships, and balancing the requirements of rigorous research standards with culturally appropriate approaches.

Implications: Nurse researchers can successfully conduct studies in international settings. If done collaboratively, with cultural sensitivity and ethical integrity, the potential for improving health-care and the lives of people globally is possible.

GOING GLOBAL WITH NURSING RESEARCH: CHALLENGING BARRIERS AND SUCCESSFUL STRATEGIES

Challenges and Opportunities: Lessons Learned from Conducting Research in Jordan

*Ahlam Jadalla, PhD, RN
Assistant Professor
School of Nursing
California State University, Long Beach
Long Beach, CA*

Purpose: This presentation will describe the process and logistical challenges of conducting a descriptive study about health and health promoting practices of Jordanian adults.

Background: This study replicated similar research that was conducted in the US; the goals were to: compare the general health and health promotion practices of participants in both studies, and explore if acculturation explained any differences in health and practices observed in the US sample.

Methods: Data were collected from eligible adults at various locations in Jordan, using surveys validated in Arabic. Challenges arose at all the stages of the study. First, delays occurred in obtaining IRB approval from the sponsoring US institution due to language issues and difficulty in identifying from whom to obtain IRB approval in Jordan. Second, barriers were encountered during recruitment of participants and data collection because of: mistrust of research; mistrust for the researcher (who was perceived more as an American than an Arab despite her fluency in the culture and language); and use of a collective approach by participants when completing surveys. Third, because of regulations and the current political atmosphere, logistical and ethical challenges were encountered when transporting completed surveys back to the US. Finally, despite the use of validated tools, some subscales showed marginal reliability after analysis, possibly related to difference in culture and health care between the US and Jordan.

Results: Researchers conducting international research face challenges resulting from differences in culture, research practices, and prevailing political atmospheres. Strategies used to overcome these challenges included: attending IRB review meetings to respond to reviewers concerns and make necessary changes; obtaining a support letter from Jordan permitting the research; recruiting a Jordanian collaborator who helped facilitate IRB approval in Jordan, facilitated data collection, mediated issues with participants on behalf of the investigator, and collected data after the researcher returned to the US. Negotiation skills were used to produce a solution during data transport that respected Jordanian and US regulations, as well as the ethical obligations of the researcher.

Implications: Conducting research internationally requires thorough planning, knowledge of culture, including country-specific characteristics and political environments around research. Enlisting the collaboration of a trusted national entity may facilitate IRB process and facilitate recruitment in some countries. Obtaining documentation from institutions sponsoring the research may mediate difficulties during data transportation. Local collaborators, or “cultural insiders,” are key to gaining entrée in a culture and collecting data. It is vital that benefits of conducting research are balanced with cultural appropriateness and respect for participants.

Funding: IRB #09-208 California State University Long Beach, SCAC award grant.

GOING GLOBAL WITH NURSING RESEARCH: CHALLENGING BARRIERS AND SUCCESSFUL STRATEGIES

Conducting Research in Trinidad and Tobago

Vanessa Jones-Oyefeso, DrPH, MSNA
Assistant Professor
School of Nursing
Loma Linda University
Loma Linda, CA

Naomi Modeste, DrPH
Professor
School of Public Health
Loma Linda University
Loma Linda, CA

Helen Hopp Marshak, PhD
Associate Dean, Academic Affairs
School of Public Health
Loma Linda University
Loma Linda, CA

Curtis Fox, PhD
Chair, Counseling and Family Science
School of Behavioral Health
Loma Linda University
Loma Linda, CA

Purpose: This presentation will describe the challenges and the rewards of research in the Republic of Trinidad and Tobago and encourage nurse researchers to contemplate conducting research outside of the United States.

Rationale: Within the past 50 years approximately five million people have emigrated from the Caribbean to the United States, Canada, the United Kingdom, and other non-Caribbean countries. A portion of these immigrants were nurses, and this has led to a decrease in affordable healthcare and social services in the Caribbean. Individuals conducting research in the Caribbean, and specifically in Trinidad and Tobago, have the potential to fill the research void created by the “brain drain,” influence nursing practice and research, and assist national government officials in developing policies that promote best practice models for nursing and health education.

Methods: Insights gained about research in the Caribbean were learned during the process of conducting a quasi-experimental study (N = 196) to explore 11-18 year old adolescents’ perceptions about human immunodeficiency virus (HIV) in selected secondary schools located in the Republic of Trinidad and Tobago. The research proposal was submitted to the appropriate parties associated with the Ministry of Education. There were no official policies on conducting research in schools, therefore all interested parties wanted to ensure that neither the children nor the schools were exploited. After schools were selected, the research purpose was explained to the students. Even after explanations were given, many students did not complete the assent form or take the consent form home leading to their non-enrollment in the study. There were occasions when parents questioned the researcher’s knowledge of the subject matter and whether officials in the Ministry of Education were aware that research was being conducted in the school even though this information was included in the consent form.

Results: The challenges included difficulty in accessing schools in certain regions due to lack of “buy in” from school supervisors, participant recruitment, and time constraints related to the regular curriculum instruction. Traveling within the country to conduct the study presented difficulties with unfamiliar taxi protocols. The rewards, however, outweighed these challenges. The principals and teachers were supportive of the research content and the students were appreciative of a forum where they could learn about HIV in an environment free of judgment.

Implications: Conducting research outside of the United States is a worthwhile endeavor; it not only generates evidence to inform practice, but also broadens the personal horizons of the researcher. The researcher can counteract some of the challenges by anticipating delays, planning ahead, and engaging in community-based participatory research at the development of the proposal. This allows the researcher to establish relationships with key individuals who are aware of the cultural norms and can provide information about what is most important to the local communities.

GOING GLOBAL WITH NURSING RESEARCH: CHALLENGING BARRIERS AND SUCCESSFUL STRATEGIES

Wrestling with Interventional Research in Rural India

Lisa Roberts, Dr.PH, MSN
Director of FNP and AGNP Programs
Graduate Nursing
Loma Linda University
Loma Linda, CA

Susanne Montgomery, PhD, MPH
Director of Interdisciplinary Studies
School of Behavioral Health
Loma Linda University
Loma Linda, CA

Purpose: This presentation will describe the process and challenges of interventional research among women in rural India.

Background: Stillbirth rates in India are among the highest globally, resulting in high rates of depression in affected women. Our earlier research at a rural hospital in central India indicated that perceived lack of social support and traditional norms contributed to high levels of perinatal grief. Highest grief levels were among women with the combined experience of stillbirth and loss of another child, followed by women who had experienced one or more stillbirths, then women who had lost a child but had not experienced stillbirth. Complications of perinatal grief include poor mental health, yet stigmatization around mental health and lack of resources preclude the women from seeking help. Based on these early findings we designed and pilot tested a culturally relevant mindfulness intervention to enhance women's ability to more effectively cope with perinatal grief. We hypothesized that a mindfulness-based perinatal grief reduction intervention would be suitable to address this complex issue of perinatal grief related depression in a culturally acceptable way.

Methods: Key informant interviews (N =10) and a focus group (N = 6) were utilized to validate that the intervention was a good cultural fit (concept acceptance) and receptivity to the treatment modality. Once the qualitative work corroborated that this intervention approach was well suited to this target population, we developed and pilot tested the intervention to confirm receptivity and determine feasibility. The mindfulness-based intervention was culturally adapted and a shortened version of the eight-week intervention was delivered in two lengthy sessions with pre and posttest interviews. Program evaluation included open-ended questions regarding the best season to provide the intervention and delivery options.

Results: Both sessions were well attended (N = 22), however, only six of the women who attended the first also attended the second session. While attendance was clearly a challenge, participants were engaged, embraced mindfulness concepts, positively evaluated the intervention, and endorsed the adaptations as culturally appropriate. A number of program delivery barriers were identified: family obligations; harvest, local festivals, and marriage season. Indeed, village women in a collectivistic society are able to attend local events but not at regularly scheduled intervals. Process barriers included: individual consent versus family/community permission, meeting IRB expectations, maintaining consistency with interventions and precision with measurements, and balancing cultural adaptation with scientific rigor.

Implications: International research is challenging to implement, requiring careful planning and willingness to proceed through many iterations. Essentials include: local community support; trust between the investigator and program staff; and respect between program staff and the target population. Intervention researchers also need to be flexible with delivery methods while maintaining content and measures. Incentives are not enough to offset potential consequences if taboos are breached; therefore, cultural competence is imperative and ethical principles must be carefully upheld to ensure that beyond the research, individual participants and the community benefit. Small studies are worthwhile and can lead to future partnerships with other organizations to support full-scale, sustainable interventions.

Funding: Loma Linda University School of Nursing Seed Grant.

GOING GLOBAL WITH NURSING RESEARCH: CHALLENGING BARRIERS AND SUCCESSFUL STRATEGIES

An American in Aotearoa: Lessons from Researching with Maori

Elizabeth Johnston Taylor, PhD, RN
Professor
School of Nursing
Loma Linda University
Loma Linda, CA

Purpose: This presentation will provide observations about the process of a Euro-American conducting research with Maori, the indigenous peoples of Aotearoa (the land known to non-Maori as New Zealand). These observations result from completing an exploratory, qualitative study from 2010 - 2011 to describe Maori perspectives on hospice care.

Rationale/Background: Given globalization, Western nurse researchers (and nurses socialized and trained in the Euro-centric scientific paradigm) increasingly need to extend their cultural sensitivities to study the health-related needs of persons within pluralistic societies. By squinting at the process of how one non-Maori (i.e., *Pakeha*) researcher naively led and collaborated with Maori co-researchers to successfully complete a research project from inception to dissemination, lessons can be learned about how to conduct research outside one's own culture.

Methods: The context for this study was Mary Potter Hospice (MPH), a large and well-established hospice in the capital city of Aotearoa. Administrators wanted to determine what might contribute to disparities in hospice utilization between Maori and *Pakeha*, as health and health service disparities have been documented (e.g., cancer treatment and many other aspects of health care are poorer for Maori). Thus, government funding was obtained to explore how Maori perceived hospice care. Although I was a North American, as the hospice's Research Director, I led a research team that included a Maori junior research fellow and two Maori employed by the hospice. Data were collected from the next of kin of MPH patients during two focus groups as well as during personal interviews with five *kaumatua* (i.e., specially chosen and respected elders who lead and teach within Maori communities). Recorded data were transcribed (and translated when necessary), and then thematically analyzed. Study findings produced a thick description of "misperceptions" about what is a hospice, barriers to accessing hospice, unique desired cultural practices related to healing and dying, as well as positive and negative hospice experiences which influenced participants' perceptions.

Results: Along the journey, this *Pakeha* researcher learned much about crossing a cultural boundary to conduct research. This presentation will comment on a number of challenges and insights related to this process. These topics include: postcolonial thinking influencing Maori research design and methods, historical factors making it difficult to gain entrée with Maori for research purposes, recruitment considerations related to culture, cultural practices respected while collecting data, the process of working with Maori co-researchers, and sensitivities related to dissemination of findings.

Implications: This case study of an American conducting research within an indigenous culture highlights and illustrates issues other researchers may encounter when conducting research for persons of another culture. Perhaps the most pivotal requirements for such an endeavor are personal characteristics (e.g., open-heartedness, sincerity, patience, respect, willingness to learn) and engagement with co-researchers representing that culture.

Funding: Seeding Grant from the Maori Health Committee of the New Zealand Health Research Council (SG-10-727).

Abstracts of Symposium Presentations

**INCREASING DIVERSITY, STUDENT
RETENTION, AND CULTURAL SAFETY
IN NURSING EDUCATION**

Moderator:

Kelly Marley, MSN, RN

Associate Dean

Seattle Pacific University School of Health Sciences

Seattle, WA

**OVERVIEW: INCREASING DIVERSITY, STUDENT RETENTION,
AND CULTURAL SAFETY IN NURSING EDUCATION**

Kelly Marley

**IMPROVING RETENTION OF DIVERSE NURSING STUDENTS
THROUGH A CULTURALLY SAFE ORIENTATION**

Bethany Rolfe Witham

**FACULTY ADVISING FOR SUCCESS OF UNDERREPRESENTED
AND AT-RISK NURSING STUDENTS**

Heidi Monroe

**LUNCH WITH THE LADS: CREATING A SENSE OF
BELONGING FOR MEN IN A PRE-LICENSURE BSN PROGRAM**

Jim Mitre

INCREASING DIVERSITY, STUDENT RETENTION, AND CULTURAL SAFETY IN NURSING EDUCATION

Overview: Increasing Diversity, Student Retention, and Cultural Safety in Nursing Education

Kelly Marley, MSN, RN

Associate Dean

Seattle Pacific University School of Health Sciences

Seattle, WA

The 2004 Sullivan Commission report identified a lack of minorities in health professions as a major factor contributing to health disparities among under represented populations. The diversity of nurses in the United States is not representative of the population for whom they provide care. AACN (2013) addressed the strong connection between a culturally diverse nursing workforce and the ability to provide quality, culturally competent patient care. The challenges of recruiting students into nursing from underrepresented populations are well known. Many diverse students face new challenges in successfully progressing to graduation, licensure, and entry into practice. Diverse students need support to feel welcome, stay connected, and build community. Diverse students often perform poorly on standardized tests, struggle with course content, and have challenges with writing throughout the program. New approaches to support learning and success for diverse students are needed.

The purpose of this symposium is to describe innovative programs that aim to increase retention, progression, graduation, and licensure of diverse students in a baccalaureate nursing program. Critical factors effecting retention of diverse students are addressed through a cultural safety initiative. Through the combined effects of this initiative we have seen retention rates improve from 94% in 2009-2010 to 99% in 2012-2013. Components of the initiative include: role models and mentors, a positive campus and department climate, early intervention programs, a diverse faculty and student body, commitment to diversity, and academic and social support.

In the first paper, Rolfe Witham presents the Pre-Start Program designed to offer information and support as students transition into the nursing program through specially designed orientation, peer support, academic support, and inter-cohort and intra-cohort activities. Next, Mitre discusses a mentor and peer support group model that leads to professional growth, improved interprofessional communication, nurse retention, and satisfaction among men in nursing. Finally, Monroe describes Engaged Advising, a model of advising used by nursing faculty for the success of underrepresented and at-risk nursing students.

Taken together, this symposium will demonstrate how schools of nursing can increase the educational level and diversity of the nursing workforce to better serve the diverse patient population in the United States.

INCREASING DIVERSITY, STUDENT RETENTION, AND CULTURAL SAFETY IN NURSING EDUCATION

Improving Retention of Diverse Nursing Students through a Culturally Safe Orientation

Bethany Rolfe Witham, DNP, FNP-BC
Assistant Professor
School of Health Sciences
Seattle Pacific University
Seattle, WA

Purposes/Aims: To create a culturally safe orientation program to specifically target current students of color, transfer students, and gender minority students in order to support early cognitive and behavioral skill integration prior to the start of the nursing program. The overarching goal is to increase retention, progression, and graduation of diverse students in a baccalaureate nursing program.

Rationale/Background: The 2004 Sullivan Commission report identified a lack of minorities in health professions as a major factor contributing to health disparities among under-represented populations. Seattle Pacific University (SPU) is addressing this concern by significantly increasing the number of diverse students who attend the university. As more diverse students are admitted into the School of Health Sciences (SHS) nursing program, we have found that they face challenges in successfully progressing to graduation, licensure, and entry into practice. Diverse students need support to feel welcome, stay connected, and build community. New approaches to support learning and foster connection for diverse students are needed.

Methods: In 2009 and 2010 culturally diverse and/or transfer nursing students were invited to attend focus groups to determine their learning needs and suggestions for support systems. Results of this data led to the creation of the first Pre-Start Orientation in the Fall of 2010. The Pre-Start Orientation is held on a yearly basis, during the week prior to the start of Fall quarter. All students who will be entering the nursing program and who self-identify as a student of color, gender minority, or transfer student are invited to participate. The Pre-Start Orientation Program consists of one 6-hour session and includes an overview of the SHS Nursing Program and keys to success; orientation to university, school, and course support programs/systems; and social time for students to connect. Content has been revised through the years based on evaluation feedback and relevance.

Outcomes: Program attendees are asked to complete an evaluation of the Pre-Start Orientation program at the end of the orientation and at the end of Fall quarter. The evaluation contains quantitative Likert scale questions and qualitative questions. Results (n=32) from 2010-2012 have been reviewed. Students rated the program as effective to very effective in helping them become familiar with the nursing program and faculty; in helping them become familiar with SPU resources that assist them as a learner; and in helping reduce anxiety and make friends. Students also indicated that talking with senior nursing students who are transfer students and/or culturally diverse was very helpful in getting advice and building connections. Retention of culturally diverse students who participated in the program is 94%.

Conclusions: As SHS and other nursing schools continue to recruit and admit culturally diverse and transfer students, we require programs that support these students both academically and socially. The Pre-Start Orientation Program is an effective way to connect students to university, school, faculty, and peer support systems/programs that aid in learning and successful completion of the nursing program.

INCREASING DIVERSITY, STUDENT RETENTION, AND CULTURAL SAFETY IN NURSING EDUCATION

Faculty Advising for Success of Underrepresented and At-Risk Nursing Students

*Heidi Monroe, MSN, RN, CPN
Instructor of Nursing
School of Health Sciences
Seattle Pacific University
Seattle, WA*

Active engagement of nursing faculty with students who struggle in one or more areas of their course of study is expected to contribute to retention of those students through successful program completion. Nursing faculty developed the Engaged Advising Protocol (EAP) to promote retention of pre-licensure students.

Higher education institutions (HEIs) in the United States are concerned with not only recruiting nursing students, but also with retaining those students through rigorous programs of study. Underrepresented groups are areas of focus for many programs desiring to attract and keep students who more closely represent the population of people whom they will serve as nurses. These groups include students who are ethnic minorities, multilingual students whose first language is not English, male students, and culturally diverse students. In the United States, faculty advising is considered a component of the student's educational experience in HEIs.

The EAP was developed collaboratively in the nursing program through the work of the school's faculty, with student involvement. Overarching EAP goals address the provision by faculty of a climate of safety and support for the individual student. These goals include recognition of cultural communication differences, beliefs, and attitudes among students, as well as faculty self-awareness of resources and limitations. The EAP triggers specific steps course instructors will take with students who earn low exam scores, including recommended strategies for advising them. Additionally, strategies are recommended for helping students who struggle with academic writing. Personal considerations for faculty support of the student in non-academic ways are also suggested, including encouraging students to discuss personal challenges, referring students to campus resources as appropriate (eg. counseling center, disability services), spiritual support, and encouraging stress relief techniques.

The EAP was formalized and piloted during the 2012-2013 academic year. Results from the pilot suggest that the early intervention nature of the EAP is effective in fostering persistence in the pre-licensure nursing program. The retention rate improved from 96% in the 2011-2012 academic year to 99% in the 2012-2013 academic year. Based upon the early success of the EAP pilot, faculty are now including consistent language related to exams across course syllabi. Ongoing work includes refinement of the EAP, and tracking success metrics including retention, overall academic performance, and student satisfaction with advising.

Nursing faculty members have considerable power in relationships with students, and this power can be leveraged in helpful ways to facilitate positive change toward successful student outcomes. Faculty who take initiative through advising sessions to extend encouragement, give useful formative feedback, initiate conversations about students' unique experiences, offer words of support, and invite students to be partners in learning, are likely to be powerful resources for student success. Students who persist and succeed in their programs of study then contribute to the diversification of the nursing workforce.

INCREASING DIVERSITY, STUDENT RETENTION, AND CULTURAL SAFETY IN NURSING EDUCATION

Lunch with the Lads:

Creating a Sense of Belonging for Men in a Pre-Licensure BSN Program

*Jim Mitre, MN, RN-BC
Instructor of Nursing
School of Health Sciences
Seattle Pacific University
Seattle, WA*

Aims: The aim of this activity is to foster a sense of belonging and provide support and motivation for men in a pre-licensure baccalaureate of nursing program to increase the likelihood that they will persevere to graduation.

Background: Recruitment and retention of men in nursing programs has been a challenge. Despite a rigorous process of candidate selection for entry into a pre-licensure baccalaureate nursing program at a small faith-based University, some male students do not persevere to completion. Historically, in some cohorts, the men accepted into the program have had a withdrawal rate as high as 50%. One reason cited for withdrawal from a program was the failure to have a sense of belonging or connectedness to the program.

Best Practice Approach: To enhance a feeling of community and shared experience we introduced a monthly lunch for the men in the undergraduate nursing program. The informal lunch is hosted by a male faculty member and attended by both first- and second-level nursing students. The faculty member facilitates discussion on topics such as how gender differences could affect their learning experiences and their professional practice. Time is also spent discussing strategies to recognize and overcome challenges encountered in academic and clinical settings. During one lunch, early in their 1st quarter, a first-level student asked if anyone else felt uncomfortable providing perineal care to a female geriatric patient. This question led to discussions about the importance of touch in providing care and the distinctions in types of touch. These discussions also serve as opportunities to provide emotion coaching and social coaching as the men are exposed to their new profession.

Outcomes Achieved/Documented: Since the program's introduction in 2009, there has been a steady increase in the number of men who persist to graduation from the program, with 15 of 21 men successfully completing the program over this timeframe. Currently, there are 6 second-level student participants with no attrition from their cohort. Eleven first-level student participants have recently started the program and participate in the monthly lunches. Men that have participated in the lunch gatherings have expressed appreciation for having a forum to express their concerns. Some participants have stated that having a male faculty and upperclassmen as role models, providing social coaching and emotion coaching, has been invaluable.

Conclusions: Recruitment and retention of men in nursing programs has been a challenge. One possible reason for withdrawing from a program is having a lack of connectedness or sense of belonging to the program. Feelings of belonging are increased when one can make a connection to those also involved in an organization. Regularly meeting with other students and faculty that share common perspectives increases the likelihood that a person will foster a sense of belonging and provide support and motivation to persevere to graduation.

Abstracts of Symposium Presentations

INTERDISCIPLINARY APPROACHES FOR INVESTIGATING CHRONIC WIDESPREAD PAIN ACROSS THE LIFESPAN

Moderator:

*Kim D. Jones, PhD, FNP, FAAN
Associate Professor
Oregon Health & Science University
Portland, OR*

OVERVIEW: INTERDISCIPLINARY APPROACHES FOR INVESTIGATING CHRONIC WIDESPREAD PAIN ACROSS THE LIFESPAN

Kim D. Jones

MINDFULNESS AND EXERCISE IN FIBROMYALGIA: SHOW ME THE DATA

Kim D. Jones, Scott D. Mist, James Carson, Kari A. Firestone, Marie Casselberry

MOVEMENT MODALITIES FOR ADOLESCENTS WITH CHRONIC PAIN

Kari A. Firestone, Scott D. Mist, Anna Long, Kim D. Jones

VOICES OF EXPERIENCE: RESILIENT AGING WITH FIBROMYALGIA

Linda Morrow Torma, Gail M. Wagnild, Kim D. Jones

PELVIC FLOOR SYMPTOMS IN FIBROMYALGIA

*Charlene Maxwell, Virginia King, Mary Anna Denman, Scott D. Mist,
W. Thomas Gregory, Kim D. Jones*

COUPLES PERCEPTIONS OF FIBROMYALGIA SYMPTOMS

Karen S. Lyons, Kim D. Jones, Robert M. Bennett, Shirin O. Hiatt, Aline G. Sayer

INTERDISCIPLINARY APPROACHES FOR INVESTIGATING CHRONIC WIDESPREAD PAIN ACROSS THE LIFESPAN

Overview: Interdisciplinary Approaches for Investigating Chronic Widespread Pain
across the Lifespan

*Kim D. Jones, PhD, FNP, FAAN
Associate Professor
Oregon Health & Science University
Portland, OR*

Chronic widespread pain (CWP) is conceptualized as a continuum with fibromyalgia representing the most extreme end of the CWP spectrum. The prevalence of CWP is approximately 15%, carrying an annual U.S. direct care cost of >\$20 billion. Some persons with CWP, especially men, may experience pain as their only symptom. Others on the continuum, especially women, will additionally experience pelvic pain, irritable bowel/bladder, temporomandibular pain and debilitating symptoms such as fatigue, disrupted sleep, stiffness, anxiety and depression. These diagnoses and symptoms present unique challenges for children, adults, elders and families coping with CWP. This symposium will present original data on treating these issues as well as methodological modalities for investigating this complex problem.

INTERDISCIPLINARY APPROACHES FOR INVESTIGATING CHRONIC WIDESPREAD PAIN ACROSS THE LIFESPAN

Mindfulness and Exercise in Fibromyalgia: Show Me the Data

Kim D. Jones, PhD, FNP, FAAN; Scott D. Mist, PhD, MACOM, L.Ac; James Carson, PhD; Kari A. Firestone, MS, CNS, PhD Student; Marie Casselberry, FNP, DNP Oregon Health & Science University, Schools of Nursing and Medicine, Portland, OR Contact: joneskim@ohsu.edu

Purpose: To present two original studies in fibromyalgia (FM). Both studies relate to mindfulness and mindful movement exercises with a goal of learning more about how to best employ these modalities to optimize symptom management and improve physical function.

Rationale: Over 125 original, traditional, mostly aerobic exercise studies in FM have been published date. They demonstrate significant improvements in self-report and laboratory based measures of physical function/fitness ($d=0.65$). However traditional exercise fails to produce improvements in sleep ($d=0.01$) and exerts small effects for pain reduction ($d=0.31$) which are not sustained at follow-up (all p values <0.05 immediately post-intervention). The overarching rationale of the two studies presented here is to investigate the acceptability and feasibility of mindfulness-based movement as an alternative to traditional exercise. We also sought to better understand the construct of mindfulness and how it can be measured in an FM population.

Methods: One study was a meta-analysis of 832 participants enrolled in 16 mindful movement exercise studies, of which 10 were randomized controlled trials. The second study is a descriptive, correlational survey that sought to more fully understand the relationship between fibromyalgia severity (Revised Fibromyalgia Impact Questionnaire, FIQ-R) and mindfulness (Five Facet Mindfulness Questionnaire, FFMQ- subscales: observe, describe, act with awareness, non-judgment and non-reaction).

Results: For the meta-analysis, qigong, tai chi and yoga demonstrated positive symptom improvement (forest plots), but none was superior to the others. The meta-analysis included many early phase studies with no bias demonstrated by regressing against Jadad scores. For the survey, in three weeks, 5,000 persons with FM responded to the internet-based survey eBlasted to an FM non-profit list serve. Complete data were available on 4,986, representing each state in the United States and 30 additional countries. Participants, mean age 52 years (SD 10.6), were largely female (97%), and most commonly reported using rest (78.1%) to control FM symptoms. Fifty-two percent were not working outside the home due to FM, yet 47% were college graduates or had post graduate education. Small to moderate but consistent correlations were found between FM severity and four of the five facets of the FFMQ (r ranges= -0.24 to -0.39 , $p=0.000$). The observations subscale performed in the opposite of anticipated direction meaning that persons with more observation strategies had more severe FM ($r=0.15$, $p=0.000$).

Implications: Mindful movement exercises are emerging as a safe, acceptable alternative to aerobics, producing improvements in physical function, sleep and pain. There is a need for large, rigorous trials with active parallel-arms - such as traditional aerobic exercise compared with mindful movement exercise - to extend this body of literature. The operating characteristics of the FIQ-R and FFMQ have been established in a large sample of FM patients and can now be used in large trials.

Funding: NIH/NCCAM 5K23AT006392-02 and the National Fibromyalgia and Chronic Pain Association.

INTERDISCIPLINARY APPROACHES FOR INVESTIGATING CHRONIC WIDESPREAD PAIN ACROSS THE LIFESPAN

Movement Modalities for Adolescents with Chronic Pain

Kari A. Firestone, MS, RN, CNS
Assistant Professor
School of Nursing
Loma Linda University
Loma Linda, CA

Anna Long, PhD
Assistant Professor
Pediatrics, CDRC Division of Psychology
Oregon Health & Science University
Portland, OR

Scott D. Mist, PhD
Assistant Professor
School of Nursing
Oregon Health & Science University
Portland, OR

Kim D. Jones, PhD
Associate Professor
School of Nursing
Oregon Health & Science University
Portland, OR

Chronic pain is a debilitating condition affecting ~15% of adolescents in the United States. The experience of chronic pain during adolescence has been associated with; fatigue, sleep disturbances, poor academic performance, social limitations and changes in physical function and physical activity. Furthermore, the experience of chronic pain during the adolescent period increases the risk of developing chronic widespread pain during adulthood. Adolescents experiencing chronic pain engage in less moderate to vigorous physical activity than their healthy counterparts and spend more daytime hours in sedentary activity further exacerbating the symptom cycle. Multiple position statements recommend exercise as an adjunct to pharmaceutical therapy for adolescent chronic pain. Although recommended, there is little evidence to support the use of exercise as an adjunct therapy with few studies focusing on the effectiveness of exercise as a treatment in adolescent chronic pain. Despite this, recent findings suggest that exercise modalities, such as yoga, are both desirable and effective in the adolescent population. The purposes of this meta-analysis was to critically and statistically review the extant literature on yoga exercise therapies for adolescents with chronic pain. PubMed was searched using the key MeSH terms “chronic pain” and “adolescence” combined with “yoga”; to maximize search results, no search limitations of language, year, or study design were implemented. Searching published bibliographies of selected studies and personal contact with researchers in the field identified additional studies. Selected studies met the following meta-analytic criteria: (1) enrollment of participants 8-21 years of age (2) met diagnostic criteria for chronic pain (pain at least once per week occurring for longer than 3 months) (3) study intervention met the definitions of yoga (4) inclusion and reporting of pre-and post- pain intensity measures. Only three studies were identified meeting meta-analysis eligibility requirements –2 randomized controlled trials, 1 open-label single group observational study. Across studies of varied design and rigor, there is evidence that yoga reduces pain, pain related disability and decreases functional limitations even with small doses and is feasible in an adolescent population. Based on positive trials in adults with chronic pain conditions, these findings show yoga’s promise of acceptability, feasibility and effectiveness of yoga as an adjunct intervention in the treatment of adolescents with chronic pain. Moreover, movement interventions during the adolescence may decrease the risk of development of chronic widespread pain as these teens enter adulthood.

INTERDISCIPLINARY APPROACHES FOR INVESTIGATING CHRONIC WIDESPREAD PAIN ACROSS THE LIFESPAN

Voices of Experience: Resilient Aging with Fibromyalgia

*Linda Morrow Torma, PhD, APRN, GCNS-BC
Assistant Professor, College of Nursing, Missoula Campus
Montana State University-Bozeman
Bozeman, MT*

*Gail M. Wagnild, PhD, RN, LAC
Founder/CEO
The Resilience Center
Worden, MT*

*Kim D. Jones, PhD, FNP-BC, FAAN
Associate Professor, School of Nursing
Oregon Health & Science University
Portland, OR*

Purpose: This presentation will describe research exploring the lived experience of resilience in older adults living with Fibromyalgia (FM).

Background: The percentage of persons over 65 years of age is expected to grow to almost 20% of the U.S. population by 2030. Unfortunately, the prevalence of FM, a chronic widespread pain condition that can significantly threaten an older adult's ability to live independently, is also growing. FM is also characterized by tenderness, fatigue, depression, and sleep disturbance. It often begins in the third or fourth decade of life and is as disabling as osteoarthritis and rheumatoid arthritis. FM has not been studied extensively in older adults, but there is evidence that, despite longer duration of disease, older adults experience less impact from FM than middle-aged persons. Pain is a biopsychosocial experience and positive psychological factors like resilience, the protective and adaptive capacity to recover from adversity, may explain some of this variation in FM impact. While it is important to examine the impact of negative psychological factors like depression, anxiety, and fear on the experience of FM, there is also much to be learned from older adults who exhibit a resilient response to the disease.

Methods: A phenomenological design was used to guide the study. Participants were recruited through the use of community flyers and referrals from primary care and rheumatology providers. A purposive sample of 14 participants who identified themselves as resilient and met the following inclusion criteria were enrolled in the study: age \geq 50 years of age, documentation of 1990 ACR FM classification criteria, English-speaking. A partially structured interview format with follow up questions was used to collect data which were recorded and transcribed. Themes and categories were defined from the data and verified by a second researcher.

Results: Analysis of the participant interviews revealed 4 inter-related themes that described the essence of resilience in this sample of older adults: Movement, Engagement, Balance, and Appreciation. Despite significant difficulties with physical function, participants noted that it is important to keep moving and remain engaged in meaningful activity. Strengthening one's ability to achieve balance, physically and emotionally, was also a dominant theme. Lastly, participants expressed heightened awareness and appreciation for their bodies. Behaviors and interdisciplinary treatments that enhance mind-body integration were mentioned frequently in the interviews.

Implications: Care of persons with FM should include strategies that enhance one's ability to move and engage in meaningful activity, balance demands with abilities, and deepen one's awareness and appreciation for the body. Given the increased prevalence of FM in older age groups and anticipated growth in the number of older adults expected to occur over the next 20 years, it is important for nurses to research interventions that reduce FM impact and increase resilience.

Funding: In part by Montana State University College of Nursing Block Grant.

INTERDISCIPLINARY APPROACHES FOR INVESTIGATING CHRONIC WIDESPREAD PAIN ACROSS THE LIFESPAN

Pelvic Floor Symptoms in Fibromyalgia

*Charlene Maxwell, BS, BSN, MSN,
RN, FNP-BC
School of Nursing
Oregon Health & Science University
Portland, OR*

*Virginia King, MD
Department of Urogynecology
Oregon Health & Science University
Portland, OR*

*Mary Anna Denman, MD
Department of Urogynecology
Oregon Health & Science University
Portland, OR*

*Scott D. Mist, PhD
School of Nursing
Oregon Health & Science University
Portland, OR*

*W. Thomas Gregory, MD
Department of Urogynecology
Oregon Health & Science University
Portland, OR*

*Kim D. Jones, PhD
School of Nursing
Oregon Health & Science University
Portland, OR*

Purpose: Characterize pelvic floor symptoms in a sample of fibromyalgia [FM] patients and compare to patients presenting to a surgical urogynecology [UG] practice in a 6 year period.

Background: Bothersome genitourinary and pelvic floor symptoms are prevalent in patients with fibromyalgia (FM), yet remain poorly defined. Previous studies have indicated that there may be an increased frequency of lower urinary tract health problems in patients with fibromyalgia, but the types of symptoms and specific incidences of various problems has not been determined. We sought to characterize these symptoms with the use of validated questionnaires and correlate to overall fibromyalgia symptom burden.

Methods: Female members of the Fibromyalgia Information Foundation completed an online survey of 4 validated questionnaires including the Pelvic Floor Distress Inventory 20 [PFDI-20]; the Revised Fibromyalgia Impact Questionnaire [FIQR]; self-report of co-morbidities and demographic information. Scores were characterized using descriptive statistics. Fibromyalgia PFDI-20 scores were compared to PFDI-20 scores of patients presenting to surgical gynecology practice using Spearman's rho.

Results: Fibromyalgia group n=204; Mean age 53.5±11 years and mean parity 1.7±1.4. Majority of subjects were Caucasian (98%), married (73%), reported FM symptoms for >10 years, diagnosed in the past 5 years. Co-morbidities included chronic fatigue, headache, irritable bowel symptoms (80%), depression (79%), anxiety (63%), chronic pelvic pain (42%) and irritable bladder symptoms (37%). Fibromyalgia mean FIQR score was 48.4±20 (scale 0 to 100), and positively correlated with PFDI-20 159±55 (Spearman's rho 0.44, p<.001). Urogynecology group n=1748; mean age 50.6±16 years and mean parity of 2.5±1.6. Urogynecology mean PFDI-20 score was 102.0±61.

Implications: Women with fibromyalgia report multiple pelvic floor symptoms at a severity similar or greater than women presenting to a urogynecology practice for surgical management, despite being younger with lower parity. Fibromyalgia management should include evaluation and treatment of pelvic floor disorders recognizing that pelvic distress is associated with higher reports of overall fibromyalgia symptoms.

INTERDISCIPLINARY APPROACHES FOR INVESTIGATING CHRONIC WIDESPREAD PAIN ACROSS THE LIFESPAN

Couples Perceptions of Fibromyalgia Symptoms

*Karen S. Lyons¹, Kim D. Jones¹, Robert M. Bennett¹,
Shirin O. Hiatt¹, Aline G. Sayer²*

*¹Oregon Health & Science University, School of Nursing
²Center for Research of Families, Department of Psychology
University of Massachusetts at Amherst*

Contact: lyonsk@ohsu.edu

Purpose: The purpose of this study was to apply the developmental-contextual model using multilevel modeling to (1) describe fibromyalgia patient-spouse incongruence regarding patient pain, fatigue, and physical function. We further aimed to (2) examine associations of individual (depressive symptoms, role overload) and interpersonal (communication problems) factors with patient-spouse incongruence.

Rationale: Fibromyalgia has been shown to reduce the ability of the couple to engage in shared activities and intimate behaviors. The developmental-contextual model of couples coping with chronic illness proposes that couples appraise, cope and adjust to the illness context as a unit. Yet, little is known about fibromyalgia couples, as individuals with fibromyalgia and their spouses are more commonly examined independently.

Methods and Results: Two hundred four fibromyalgia patients and their coresiding partners rated the patient's symptoms and function. Multilevel modeling revealed that spouses, on average, rated patient fatigue significantly lower than patients. Couple incongruence was not significantly different from zero, on average, for pain severity, interference, or physical function. However, there was significant variability across couples in how they rated the severity of symptoms and function, and how much incongruence existed within couples. Controlling for individual factors, patient and spouse reports of communication problems were significantly associated with levels of couple incongruence regarding patient fatigue and physical function, albeit in opposing directions. Across couples, incongruence was high when patients rated communication problems as high; incongruence was low when spouses rated communication problems as high. An important within-couple interaction was found for pain interference, suggesting that couples who are similar on level of communication problems experience low incongruence; those with disparate ratings of communication problems experience high incongruence.

Implications: Fibromyalgia has been found to challenge the supportive nature of the couple. Taking a dyadic approach and moving beyond individual risk factors will broaden our ability to support couples through the process and facilitate adaptive coping and adjustment for both patient and spouse. Findings from the current study suggest the important roles of spouse response and the patient's perception of how well the couple is communicating. Couple-level interventions targeting communication or other interpersonal factors may help to decrease incongruence and lead to better patient outcomes.

Abstracts of Symposium Presentations

INTERNATIONAL NURSING ENGAGEMENT: UNDERGRADUATE, MASTERS AND CE

Moderator:

Elizabeth Bossert, PhD, RN

Associate Dean, Academic Affairs and Graduate Nursing

Graduate Department, School of Nursing

Loma Linda University

Loma Linda, CA

OVERVIEW: INTERNATIONAL NURSING ENGAGEMENT: UNDERGRADUATE, MS, AND PROFESSIONAL

Elizabeth Bossert, Patricia S. Jones, Eric F. Molina, Dolores J. Wright

BOTSWANA: AN UNDERGRADUATE INTERNATIONAL EXPERIENCE

Dolores J. Wright

CHALLENGES AND REWARDS IN GLOBAL NURSE ANESTHETIST CLINICAL EDUCATION: A CASE SCENARIO

Eric F. Molina

MS IN NURSING EDUCATION OFFERED INTERNATIONALLY

Elizabeth Bossert

GLOBAL PARTNERSHIPS IN NURSING FOR WHOLISTIC NURSING CARE

Patricia S. Jones

INTERNATIONAL NURSING ENGAGEMENT: UNDERGRADUATE, MASTERS AND CE

Overview: International Nursing Engagement: Undergraduate, MS, and Professional

Elizabeth Bossert, PhD, RN
Associate Dean, Academic Affairs and Graduate Nursing
Graduate Department, School of Nursing
Loma Linda University
Loma Linda, CA

Patricia S. Jones, PhD, RN, FAAN
Professor
Director of International Nursing
Loma Linda University School of Nursing
Loma Linda, CA

Eric F. Molina, MSNA, CRNA
Associate Coordinator
Nurse Anesthesia Concentration
Graduate Nursing Department
Loma Linda University School of Nursing
Loma Linda, CA

Dolores J. Wright, PhD, RN
Professor
Graduate Nursing Department
Loma Linda University School of Nursing
Loma Linda, CA

Purposes/Aim: To describe 4 international nursing activities that engage students and faculty from Loma Linda University with nursing colleagues globally.

Rationale/Background: We live in a global community. As nurses, it is our responsibility to both share our knowledge and to learn from other nurses in other areas of the world. This principle is relevant to the undergraduate nursing students, the graduate nursing students, and to nurses with years of professional experience.

Description: Four international experiences will be discussed. These are: 1) an undergraduate public health clinical experience in Botswana; 2) a mission trip to Honduras in which nurse anesthesia students had the opportunity to provide anesthesia during surgical procedures in a setting very unlike that of the U.S. operating suite; 3) a program to provide an MS degree in Nursing Education to international students in an international setting; 4) a series of international conferences held to bring professional nurses from select areas of the globe together to learn cutting edge concepts and share best practices.

Outcomes: Four very different international experiences from one School of Nursing will provide the opportunity for other schools to create appropriate variations of these experiences for their own students, faculty, and constituents.

Conclusions: International engagement in nursing provides a rich learning experience and growth in cultural understanding for all involved.

INTERNATIONAL NURSING ENGAGEMENT: UNDERGRADUATE, MASTERS AND CE

Botswana: An Undergraduate International Experience

Dolores J. Wright, PhD, RN
Professor
Loma Linda University
Loma Linda, CA

Aim/Purpose: To describe a study-abroad project; in which senior public health nursing students have the opportunity to participate in a service-learning experience in a low-resource country.

Background: Nursing education locally, through individual institution mission statements, nationally through organizations such as the National League for Nursing (NLN), and internationally through the International Council of Nurses (INC) seeks to prepare nurses to meet the health needs of broad populations and to “ensure quality nursing care for all.” Study-abroad programs have been part of the college experience in the U.S. for over 30 years, but have been difficult to provide for undergraduate nursing students.

Approach: For 10 years senior nursing students at a private, health sciences university have had the opportunity to apply and be accepted to participate in a study-abroad program which fulfilled the clinical portion of their public health nursing course. To date over 150 students have taken advantage of this opportunity. The students fulfill all of the clinical objectives by participating in a community assessment, working side-by-side with local nurses in village clinics, and by addressing a specific health need of an identified vulnerable population. The U.S. nursing students are housed on the campus of a school of nursing which provides transportation to the clinics and other sites as necessary. Financial obstacles identified by McKinnon and McNelis (2013) were manageable barriers. Concerns about safety and security while abroad are managed by careful site selection and specific policies.

Outcomes: In their reflection papers, students acknowledged becoming more culturally sensitive and recognizing that as part of the process of becoming culturally competent. They developed appreciation for nursing’s foundation in caring and realized that one does not require high-tech to be a caring nurse. The students expanded their skill set and gained confidence while working in the village clinics. They learned about themselves and how they changed through the experience. Several of the students stated that they had a clearer direction for their career path after this service-learning experience.

Conclusion: The service-learning experience the nursing students had in a low-resource country enabled them to go beyond completing all clinical objectives for the public health nursing course. Research needs to be done to determine the long-term effects of the experience on the professional or career development of the nursing students.

INTERNATIONAL NURSING ENGAGEMENT: UNDERGRADUATE, MASTERS AND CE

Challenges and Rewards in Global Nurse Anesthetist Clinical Education: A Case Scenario

*Eric F. Molina, MSNA, CRNA
Associate Director Nurse Anesthesia Program
Graduate Nursing Department
Loma Linda University School of Nursing
Loma Linda, CA*

Purpose: The objective is to present methods to develop an international clinical experience and discuss the rewards for nurse anesthesia students who engage in these opportunities. Perspectives from students who participated in an international clinical experience at a small mission hospital in Honduras will be shared.

Background: While accreditation standards for international nurse anesthesia training continue to be a topic of debate, voluntary mission work remains a rewarding and unique setting for global learning. An interdisciplinary global experience was developed for elective nurse anesthesia training.

Process: Developing an international clinical site offered a mixed bag of rewards and challenges. A planning trip conducted by the members of the surgical team and anesthesia faculty occurred one year prior to introducing learners into the mission environment to determine adequacy of equipment, patient population, needs assessment, housing and overall safety. Students were selected by the nurse anesthesia concentration administration based on request, clinical skill, languages spoken and academic standing. Organization for the international mission occurred through meetings and emails. The nurse anesthesia students assisted in all phases of planning, execution and review. The mission group (11 participants) consisted of a specialized team of ear, nose and throat surgeons with a resident physician (5), a nurse anesthetist faculty member with senior student nurse anesthetists (5), and one medical student. The hospital was a small, rural facility with primitive equipment and supplies. The group provided a variety of clinical and surgical services each day culminating in a rare surgical procedure performed on a previously untreatable pediatric patient.

Outcomes: Outcomes for developing international clinical experiences included appreciation for global healthcare systems in underserved populations. Students learned methods for providing safe healthcare with limited resources in atypical global environments. Challenges included acquiring resources, selecting clinical sites, obtaining administrative support and negotiating international barriers.

Conclusion: Creation of a successful international clinical experience has many rewards and challenges. Overcoming perceived and unexpected challenges will result in a rewarding clinical and life experience for students. Inclusion of students in all phases of planning and development provides your graduates the skills necessary to continue humanitarian work.

INTERNATIONAL NURSING ENGAGEMENT: UNDERGRADUATE, MASTERS AND CE

MS in Nursing Education Offered Internationally

*Elizabeth Bossert, PhD, RN
Associate Dean, Academic Affairs and Graduate Nursing
Graduate Department, School of Nursing
Loma Linda University
Loma Linda, CA*

Purposes/Aim: To describe a program that provides preparation as a Nurse Educator to nurse leaders working in a faith-based school of nursing or hospital around the world and selected nurse leaders from other countries in which graduate education opportunities are limited.

Rationale/Background: Graduate nursing education is limited or not available in many countries. Yet, international nurse leaders increasingly are required by their country to have an advanced degree for a teaching or administrative position. Accordingly, many nurse leaders from church-based schools of nursing have asked the University to be accepted into the on-campus M.S. program and, because of disparity of wages, to waive tuition and provide help with living expenses. As meeting these requests was not possible and due to the tendency of international students to remain in the U. S. after graduation, another model of master's level education for international nurse leaders was needed.

Description: Using the existing MS in Nursing Education as the template, a program was developed that would allow the international nurse leaders to earn the degree in 3 ½ years. Admission criteria beyond the standard included: assessment of transcripts for equivalency to a U.S. bachelor degree in nursing; RN or equivalency in the home country; acceptable TOEFL; letter of support from their institution; and signed agreement to work for the home institution for three years following graduation. The School waived tuition and the students were charged for transportation, room and meals and books. Sponsors provided funds for students unable to meet even the minimal cost. The teaching assignments were included in faculty workload. Letters to church-based Schools of Nursing, hospitals and regional administration were used to identify potential students. Sites for the program have included Thailand, Argentina, and South Africa. The Thailand site has been the most successful as it has an infrastructure that meets the needs of the students and educational process. A contractual agreement was made for use of the facilities. The students and faculty met for four sessions over three and one-half years, four weeks each time, about the middle third of the quarter. Books and readings were provided prior to the session. The students were given two quarters to participate in the courses and complete the assignments.

Outcomes: Three cohorts of students have completed the MS Program with the Nurse Educator focus with a total of 67 graduates from 30 countries. Most have stayed in their home institution, country or another country in the area. The majority are serving as Directors of a nursing school or nursing faculty. Six of the graduates are currently in a doctoral program. Attrition was due to academic issues, decision to complete an alternate degrees, illness or death.

Conclusions: This program has demonstrated that it is possible to provide a program leading to the M.S. in Nursing Education to international students at a site outside the U.S. using the same curriculum and standards as in the program at the home institution.

INTERNATIONAL NURSING ENGAGEMENT: UNDERGRADUATE, MASTERS AND CE

Global Partnerships in Nursing for Wholistic Nursing Care

*Patricia S. Jones, PhD, RN, FAAN
Professor, Director of Global Nursing
School of Nursing
Loma Linda University
Loma Linda, CA*

Purpose/Aims: The Global Partnerships in Nursing project was created at Loma Linda University School of Nursing (LLUSN) in 1998 as a mechanism to provide continuing education and promote networking within the global system of Adventist nursing. Because Loma Linda University is operated by the world church of Seventh-day Adventists, LLUSN serves as a resource to approximately 75 programs outside of North America. Adventist Nursing was global in nature from its beginning in 1883, but the global nursing shortage has led to a rapid increase in new programs in countries from Zimbabwe and Madagascar to Bangladesh and Nepal.

Description: The Global Partnerships project contributes to LLUSN's international impact by conducting regional and international conferences in different parts of the world. Presentations on safety, leadership and management skills, teaching strategies, critical thinking and research contribute to the development of nursing professionals and leaders according to the needs of that particular area. Since 1998, nurse educators, clinicians and administrators have attended one or more of the 10 conferences in Thailand, Brazil, China, South Africa, Malawi, Romania, England, Switzerland, and most recently (August 2013) in Bali, Indonesia.

Outcomes: A variety of outcomes result from this project. First of all it serves as a valuable source of information exchange. When participants from 15 or more different countries compare their clinical and academic strengths and challenges it leads to partnerships of different kinds, which facilitate collaboration and ongoing exchanges. Individuals gain experience in making presentations to international audiences and develop leadership skills, which are further applied in their home settings. Minds are opened to new ways of being professional and ethical. Last, but not least, the shared common commitment to whole person care is strengthened as they learn from each other concerning its meaning and application in unique cultural settings.

Conclusions: The future of Adventist nursing globally is highly relevant to nursing at large. In keeping with the report on the *Education of Health Professionals for the 21st Century: A Global Independent Commission* (Lancet, 2010), the Global Partnerships in Nursing project will continue to support the imperative of 'networking for equity'. It will also promote awareness of Adventist nursing's accountability to two global constituencies: (1) its internal system of more than 75 schools of nursing globally, and (2) human beings for whom equity of access to health care is not yet available. The recommendations of the Global Independent Commission for teamwork, competency based, and inter-professional education serve as a guide for the future of Adventist nursing education and practice.

Abstracts of Symposium Presentations

THE JOURNEY OF A WORKSHOP: RUSSIAN NURSING RESEARCH CAPACITY BUILDING

Moderator:

Marie J. Driever, PhD, RN

Clinical Practice and Research Consultant

Seattle, WA

OVERVIEW: THE JOURNEY OF A WORKSHOP: RUSSIAN NURSING RESEARCH CAPACITY BUILDING

*Marie J. Driever, Valentina Sarkisova, Natalia Serebrennikova, Barbara Mandleco,
Janet L. Larson*

RESEARCH WORKSHOPS AND RESOURCES FOR PRACTICING RUSSIAN NURSES

Janet L. Larson, Valentina Sarkisova, Natalia Serebrennikova, Marie J. Driever

EVALUATING INTERVENTIONS STRENGTHENING RUSSIAN NURSING TB PRACTICE

Barbara Mandleco, Valentina Sarkisova, Natalia Serebrennikova, Marie J. Driever

EVIDENCE AND QUALITY IMPROVEMENT TO STRENGTHEN ONCOLOGY NURSING PRACTICE

Marie J. Driever, Valentina Sarkisova, Natalia Serebrennikova

CHALLENGES INVOLVED ASSISTING THE RNA BUILD NURSING RESEARCH CAPACITY

*Barbara Mandleco, Valentina Sarkisova, Natalia Serebrennikova, Marie J. Driever,
Janet L. Larson*

THE JOURNEY OF A WORKSHOP: RUSSIAN NURSING RESEARCH CAPACITY BUILDING

Overview: The Journey of a Workshop: Russian Nursing Research Capacity Building

Marie J. Driever, PhD, RN¹; Valentina Sarkisova, MsN, RN²;
Natalia Serebrennikova, PhD²; Barbara Mandelco, RN, PhD, ANEF³;
Janet L. Larson, PhD, RN, FAAN⁴

¹*Clinical Practice and Research Consultant, Seattle, WA*

²*Russian Nurses Association, St. Petersburg, Russia*

³*College of Nursing, Brigham Young University, Provo, UT*

⁴*University of Michigan, Ann Arbor, MI*

Global health endeavors can take diverse forms and pose many opportunities for collaboration. Key to any endeavor is a collaborative partnership centered on mutual learning among partners as the project is jointly designed, implemented and evaluated. The purpose of this symposium is to trace a journey of learning and milestones to integrate nursing research as an organizational priority for the Russian Nurses' Association (RNA), the national nursing organization of the Russian Federation. This symposium has four papers, with three reports on key project components and the fourth a delineation of the challenges encountered in the collaborative work of the RNA to progress from offering nursing research workshops to its members to creating strategies whereby Russian nurses use nursing research as part of their practice. These papers will:

Paper #1: Describe the workshops and resources developed (an online learning module, "Introduction to Nursing Research" and a nursing research column published quarterly in the RNA journal, *the Tribune*) to increase nursing research knowledge and make it more widely available to Russian nurses.

Paper #2: Present information on the RNA's goal of integrating nursing research as an organizational priority by collaborating with an International Council of Nurses (ICN) project concerned with improving care of patients with tuberculosis (TB) by offering a nursing research workshop to members of the Russian nurse TB Network. The outcome of the workshop was for attendees to conduct a study evaluating interventions for TB patients and staff caring for these patients learned from participating in prior TB education workshops.

Paper #3: Describe RNA's implementation of a project funded by the Bristol Myers Squibb Foundation's *Bridging Cancer Care* grants program to introduce evidence informed oncology interventions and knowledge of quality processes to Russian oncology nurses. This project is using a train the trainer model to develop a group of regional oncology nurse trainers. These nurse trainers are also learning how to use quality improvement processes to apply their workshop learning to improve care of patients undergoing chemotherapy. This paper will report on phase one of the project, which focused on testing the feasibility of approaches to monitor and evaluate the outcomes of using evidence based oncology practices to improve care of patients undergoing chemotherapy.

Paper #4: Describe challenges encountered, strategies used to overcome them and the ends achieved throughout the collaborative process of this Russian nursing research capacity building project.

Indeed, the collaborative partnership between US nurse researchers and the RNA has progressed from learning together and overcoming challenges while offering nursing research workshops to practicing Russian nurses, to assisting the RNA design implement and evaluate major projects whereby Russian nurses caring for two populations of patients, those with TB and cancer undergoing chemotherapy, integrate nursing research in their practice.

THE JOURNEY OF A WORKSHOP: RUSSIAN NURSING RESEARCH CAPACITY BUILDING

Research Workshops and Resources for Practicing Russian Nurses

Janet L. Larson, PhD, RN, FAAN¹; Valentina Sarkisova, MSN, RN²;
Natalia Serebrennikova, PhD²; Marie J. Driever, PhD, RN³

¹University of Michigan, Ann Arbor, MI

²Russian Nurses Association, St. Petersburg, Russia

³Clinical Practice and Research Consultant, Seattle, WA

Aim: The purpose of this project was to build research capacity of practicing nurses in Russia through collaborative work with the Russian Nurses' Association (RNA).

Background: Many Russian nurses are eager to advance the quality of nursing care by using research evidence. However, these nurses have limited access to the nursing research literature and many educational programs do not include research methodology content. This project included delivering research workshops, developing an online module entitled "Introduction to nursing research" and writing a regular research column in the journal of the Russian Nurses Association (RNA).

Project Description: Six workshops were offered in Arkhangelsk (n=3), St. Petersburg (n=2) and Moscow (n=1). Attendance ranged from 18 to 40, totaling approximately 150 nurses. Arkhangelsk and Moscow workshops attracted a regional audience, whereas the St. Petersburg workshops attracted a national audience including nurses from outlying regions. Workshop objectives included: 1) examine key questions and practice issues related to caring for patients and families; and 2) design projects using nursing research processes, evidence-based practice and/or quality improvement to improve patient care. Major learning activities included presentations on research methodology, evidence-based practice and quality improvement; and small group work facilitated by 2-5 US nurses. On the last day of the workshop participants presented research projects they would implement in their work settings. The workshops were well received and some nurses attended the workshop multiple times. The module introducing nurse research was a collaborative effort between the RNA, the Arkhangelsk RNA, the US nurse researchers, and Sigma Theta Tau International Nursing Honor Society. It was translated from English to Russian and posted on the RNA website. The RNA created a column on nursing research in the association's journal, the *RNA Tribune*. The first column appeared in 2010 and described how nurses use evidence to improve practice. Other topics included the hierarchy of evidence, framing research questions, searching the literature for evidence to use in practice and critiquing nursing research studies. The three US nurse researchers work in collaboration with the RNA journal editor to plan column topics for 1-2 years in advance; the journal editor works with a committee of Russian nurses to identify and confirm column topics. The US nurse researchers author most articles. Russian nurses have been invited to serve as co-authors and the goal is to identify ways for them to be more involved in authoring these articles.

Outcomes/Conclusions: Outcomes of this initiative include: (a) the online module is posted on the RNA website, (b) research columns are regularly published in the *RNA Nursing Times*, (c) the RNA established research as a priority in 2010 and (d) the RNA developed a Scientific Committee comprised of nurses from various regions, who participated in one of the nursing research workshops. Russian nurses who attended the workshops are highly motivated and have assumed leadership for the continued development of nursing research as a method for improving the quality of patient care. They will need continued support with ongoing education and mentoring to sustain the current momentum.

THE JOURNEY OF A WORKSHOP: RUSSIAN NURSING RESEARCH CAPACITY BUILDING

Evaluating Interventions Strengthening Russian Nursing TB Practice

Barbara Mandleco, RN, PhD, ANEF¹; Valentina Sarkisova, MsN, RN²;
Natalia Serebrennikova, PhD²; Marie J. Driever, PhD, RN³

¹Brigham Young University, Provo, UT

²Russian Nurses Association, St. Petersburg, Russia

³Clinical Practice and Research Consultant, Seattle, WA

Aim: To discuss collaborative efforts between US nurse researchers, the Russian Nurses Association (RNA), and the International Council of Nursing (ICN) TB project to evaluate interventions for TB patients/families/staff provided by members of the Russian TB nurse network.

Background: Since 2006, the RNA has been a member of an ICN TB project, supported by a United Way Worldwide grant funded by Lilly Foundation on behalf of the Lilly Multidrug Resistant TB partnership. The partnership seeks to improve the care of patients with TB around the world by implementing a *train the trainer* model of education on caring for patients with TB and creating a network of TB nurses to share information and practice resources. Therefore, in 2013, because the RNA established research as an organizational priority, a workshop was offered by US nurses researchers in collaboration with the ICN TB project to help attendees from the Russian nurse TB network learn about nursing research and then integrate that into their practice.

Project Description: The five day workshop was similar to other RNA sponsored workshops taught by US nurse researchers. A session on evaluation was added and participants were encouraged to develop study proposals assessing outcomes of an intervention that was designed to impact TB patients, their families or health care providers.

Outcomes: Five projects were planned and most involved several attendees from the same geographic area as investigators. Project research questions included: (1) Would information taught by care providers to TB patients improve patients' adherence to prescribed treatment regimens during the inpatient phase of treatment or (2) during the outpatient phase of treatment? (3) Was depression related to patient adherence? (4) When children with TB are admitted to inpatient units without parents will they adapt better to the inpatient units if their care providers are knowledgeable about and integrate the following into their care: principles of growth and development and how children react when separated from parents? ; and (5) If health care workers were educated about TB and how it is treated, would it make a difference in whether or not the workers developed TB or used that information to prevent being infected with TB?

Conclusions: The Russian TB nurse network participants as well as representatives from the ICN and the Lilly Multidrug Resistant TB partnership who attended the workshop were positive in their evaluations of the workshop. However, several challenges were identified by the RNA and the US nurse researcher faculty as needing to be addressed not only prior to but also during and after the workshop. To date, we know four of the five projects are currently underway and two of these project investigators have voiced an interest in presenting their results at an interdisciplinary Russia TB Congress to be held in Moscow in November of 2013.

Funding: This project was funded by the ICN TB Project, supported by a United Way Worldwide grant made possible by the Lilly Foundation on behalf of the Lilly Multidrug Resistant TB Partnership.

THE JOURNEY OF A WORKSHOP: RUSSIAN NURSING RESEARCH CAPACITY BUILDING

Evidence and Quality Improvement to Strengthen Oncology Nursing Practice

Marie J. Driever, PhD, RN¹; Valentina Sarkisova, MsN, RN²;
Natalia Serebrennikova, PhD²

¹Clinical Practice and Research Consultant, Seattle, WA

²Russian Nurses Association, St. Petersburg, Russia

Aim: Report on Phase 1 of a Russian Nurses' Association (RNA) project to develop a set of regional trainers to bring evidence-based nursing practices to selected oncology nurses in 30 Russian regions and use quality improvement processes to both monitor changes in oncology practice and evaluate the impact of this project. The purpose of Phase 1 was to develop, implement and evaluate a train the trainer workshop and test the feasibility of collecting quality improvement (QI) data on applying new nursing practices in selected regions of Russia.

Background: Funding from the Bristol Myers Squibb Foundation *Bridging Cancer Care* grants program created an opportunity to increase the use of evidence as a basis for improving nursing practice delivered by Russian nurses caring for oncology patients. The RNA's project was to create two workshops that would develop a set of regional oncology nurse trainers to in turn offer evidence-based oncology training in their respective regions. Quality improvement processes were designed to collect monitoring and evaluation data in the trainer regions.

Project Description: The RNA collaborated with a US nurse researcher and the Oncology Nursing Society to design a train the trainer workshop which included information on using quality improvement processes to both introduce and monitor changes in Russia nursing practice. During phase 1 of the project 33 nurses from 14 Russian regions attended the first train the trainer workshop. Here, they learned how to use an evidence-based risk assessment and interventions to not only decrease side effects of nausea and vomiting but also identify and manage phlebitis complications for patients receiving chemotherapy through peripheral IVs. Phase 1 also tested the feasibility of creating a monitoring data collection protocol using specific tools to document the introduction of a nausea and vomiting risk assessment, determine phlebitis prevalence rates and increase the use of nausea/vomiting and phlebitis interventions as new practice behaviors by the regional trainers.

Outcomes: Even though workshop effectiveness was evaluated with a mean of 9.3 on a scale of 0 to 10 with 10 being the most effective/valuable and participants agreed on new practice behaviors they were to implement in their work settings, for Phase 1 only five of the 14 participating regions submitted required QI data on 15 patients per region. The data confirmed feasibility even though there were initial questions about nurses being able to collect data in their settings, and we still need to understand barriers to data collection in the other regions of Russia. On the other hand, data collected provided information on how to make collection and protocols more usable/consistent through rewording items (level of risk for nausea and vomiting), more consistently categorizing patients as inpatients/outpatients and using traditional study methodologies for prevalence rates.

Conclusions: Phase 1 demonstrated the feasibility of collecting QI data and reinforced the RNA strategy of encouraging Russian regions to send chief nurses, head nurses with procedure experiences, and ward nurses to these workshops so these teams could integrate new nursing practices/data collection approaches in their settings. Strategies to encourage other regions to engage in applying workshop information need to be used so all regions can promote nurses to use more current evidence based practices with an oncology population of patients undergoing chemotherapy.

Funding: RNA Project funded by the Bristol Myers Squibb Foundation *Bridging Cancer Care* grants program.

THE JOURNEY OF A WORKSHOP: RUSSIAN NURSING RESEARCH CAPACITY BUILDING

Challenges Involved Assisting the RNA Build Nursing Research Capacity

Barbara Mandleco, RN, PhD, ANEF¹; Valentina Sarkisova, MsN, RN²; Natalia Serebrennikova, PhD²; Marie J. Driever, PhD, RN³; Janet L. Larson, PhD, RN, FAAN⁴

¹Brigham Young University, Provo, UT

²Russian Nurses Association, St. Petersburg, Russia

³Clinical Practice and Research Consultant, Seattle, WA

⁴University of Michigan, Ann Arbor, MI

Aim: To discuss challenges encountered during collaboration with the Russian Nursing Association (RNA) while building nursing research capacity.

Background: Challenges, difficult tasks needing to be solved to achieve goals, can be short/long term. Global collaborative challenges often arise from differences in culture/experience and generally relate to resources and communication. Identifying challenges and then overcoming them based on previous experiences were/are necessary to achieve workable understandings when moving forward in working collaboratively with the RNA.

Project Description: We identified two *resource* challenges. Having been invited to do a nursing research workshop in Russia, there were immediate differences in what workshop expenses were to be paid for by the RNA. The RNA expected the US faculty to pay for their airfare based on their previous experience. It has taken time and negotiation with the RNA to pay these expenses and understand the expectation to do so. A second resource challenge continues to be ways to provide access to current literature and reliable measures for workshop attendees to use in their studies; many do not know how to access literature/measures or do not have access to search engines allowing them to find current literature/measures. There were also two *communication* challenges. The first is the need for translation since English is not the first language of attendees. Materials, including handouts and power points need to be translated before the workshop so they are available the first day of the workshop. Translating from English to Russian and from Russian to English is also a challenge during the workshop as presentations/discussions with attendees formally and informally in small groups is essential. After the workshop follow up questions from participants and answers from faculty need translation, as do articles/measures used by participants as most are written in the English language. The second communication challenge relates to maintaining connections over time. All attendees were eager to maintain contact and seek assistance from faculty at the end of the workshop but few followed through. There are several reasons for this; one is related to translation; another may be hesitation to contact faculty. *A cultural difference* encountered by workshop faculty relates to vacations/time away from the office and how this takes precedence over the need to complete assignments, answer questions and maintain contact. It has taken time and clarifying differences in expectations about deadlines to negotiate how time is used. The last challenge, both needing resolution as well as well as being frequently encountered, is *learning together* what is necessary to successfully undertake any collaborative project with another country. For example, US faculty discovered no Russian language nursing research texts or evidence based literature exist and most attendees lack knowledge of research/research protocols.

Outcomes: Each challenge has been or is in the process of being overcome. For example, one communication challenge was overcome by shortening/simplifying power point slides/presentations so only essential content needs to be translated. We have also learned ways to communicate with the RNA liaison to forestall other challenges.

Abstracts of Symposium Presentations

NURSING RESEARCH TO ADVANCE EVIDENCE-BASED ABORTION CARE

Moderator:

*Nancy Fugate Woods, PhD, RN, FAAN
Biobehavioral Nursing & Health Systems
University of Washington
Seattle, WA*

OVERVIEW: NURSING RESEARCH TO ADVANCE EVIDENCE-BASED ABORTION CARE

Diana Taylor

EXPANDING ABORTION ACCESS: OUTCOMES FROM THE CALIFORNIA HEALTH WORKFORCE PROJECT

Diana Taylor, Tracy A. Weitz

TRAINING TO COMPETENCE: EVALUATION OF AN EARLY ABORTION CARE TRAINING PROGRAM

Amy J. Levi

BARRIERS AND FACILITATORS TO THE INVOLVEMENT OF NURSES IN ABORTION CARE PROVISION

Monica R. McLemore, Susan M. Kools, Amy J. Levi

ACCESSING ABORTION SERVICES: REFERRAL PROCESSES AND CARE COORDINATION

Adeline Wakeman

NURSING RESEARCH TO ADVANCE EVIDENCE-BASED ABORTION CARE

Overview: Nursing Research to Advance Evidence-Based Abortion Care

*Diana Taylor, PhD, RNP, FAAN
Professor Emerita, Department of Family Health Care Nursing
Research Faculty, Advancing New Standards in Reproductive Health Program
University of California, San Francisco
Oakland, CA*

Unintended pregnancy remains a significant public health issue in the United States with half of all pregnancies unintended (either mistimed or unplanned). Of these, 25% are carried to term, 32% result in miscarriage, and 43% result in termination, either by the use of medication or uterine evacuation. The termination of a pregnancy is a decision that all women make in the complex reality of their own lives, and the decision to terminate a pregnancy, like all health care decisions, needs to be supported by health professionals within the context of patient-centered care.

Despite their enormous role in health care, nurses are often unprepared to care for the woman with an unintended pregnancy. This leads to staffing shortages that prevent women's access to abortion care, and a lost opportunity for nurses to serve as a trusted health resource for women seeking abortion care. Little empirical research has been available to guide best practices and to improve access to quality care by the utilization of nurses in secondary prevention of unintended pregnancy, including abortion care.

In the spirit of promoting translational research emanating from practice-based evidence, the purpose of this symposium is to present data from several projects related to improving access to abortion care, standardizing competency-based abortion care training, health systems barriers and enablers for women seeking early abortion, and the role of nurses in secondary and tertiary prevention of unintended pregnancy prevention. The four papers are as follows:

1. **Expanding Abortion Access: Outcomes from the California Health Workforce Project**
Early abortion is one of the safest and most common health care procedures for women, yet almost half of California counties (and 87% of U.S. counties) have no abortion provider. Dr. Diana Taylor will present key findings from California Health Workforce Pilot Project (HWPP) program, which partnered with community clinics across California to train and to evaluate the safety, effectiveness and acceptability of NPs, CNMs and PAs in providing first-trimester aspiration abortion.
2. **Training to Competence: Evaluation of an early abortion care training program.**
There is broad support for competency-based education and training, but has not been systematically studied in the area of abortion provision. Dr. Amy Levi presents on data from the California Health Workforce Pilot Project—the evaluation of a standardized, competency-based training program in early abortion care.
3. **Barriers and Facilitators to the Involvement of Nurses in Abortion Care Provision**
Access to quality abortion care continues to be limited by available nurses who are trained and/or routinely elect to care for women choosing pregnancy termination. Dr. Monica McLemore will present her research on nurses' opinions regarding the provision of nursing care to women seeking abortions.
4. **Accessing Abortion Services: Referral Processes and Care Coordination**
Dr. Adeline Wakeman contributes important new data about barriers to health systems improvement in abortion care from her study of the referral process and care coordination between primary care providers and abortion providers.

NURSING RESEARCH TO ADVANCE EVIDENCE-BASED ABORTION CARE

Expanding Abortion Access: Outcomes from the California Health Workforce Project

*Diana Taylor, PhD, RNP, FAAN
Professor Emerita, School of Nursing
Research Faculty, ANSIRH Program
University of California, San Francisco
San Francisco, CA*

*Tracy A. Weitz, PhD, MPA
Associate Professor, OB-GYN Department
Director, ANSIRH Program
University of California, San Francisco
San Francisco, CA*

Purpose/Aims: Present key findings from California Health Workforce Pilot Project (HWPP #171), which partnered with community clinics across California to train and to evaluate the safety, effectiveness and acceptability of advanced practice nurses (NPs, CNMs) and physician assistants (PAs) in providing first-trimester aspiration abortion.

Objectives: To examine the impact on patient safety if NPs/CNMs/PAs were permitted to provide aspiration abortions in California and to identify aspects of abortion care that are associated with the overall patient care experiences, including the role that a particular clinician type plays in the outcome.

Background: Early abortion is one of the safest and most common health care procedures for women, yet almost half of California counties (and 87% of U.S. counties) have no abortion provider. This shortage, compounded by maldistribution of providers, results in barriers to abortion access which disproportionately impacts low-income and minority women. Advanced practice nurses and physician assistants are often primary care providers in underserved areas, and therefore well positioned to address women's need for comprehensive primary health care that includes abortion.

Methods: This multi-site prospective, observational cohort study has collected data from 11,000 patients whose first-trimester aspiration abortion is provided by a NP, CNM or PA, and a comparable number of patients seen by physicians (for a total sample size of almost 20,000 patients), to compare their outcomes to published standards for abortion safety and quality metrics across provider groups. A non-inferiority analysis was performed to determine whether complication rates from NP/CNM/PA-performed procedures were any worse than complication rates from physician-performed procedures by a pre-specified margin of difference of 2%. A multivariate analysis was performed using a mixed-effects logistic regression to determine significant differences in overall patient experience across provider and clinical care characteristics.

Results: As of June 2013, 97% (247 out of 255) of abortion-related complications have been minor and completely resolved without adverse outcomes; 8 cases have been classified as major complications requiring hospitalization and were successfully managed and resolved with appropriate treatment. Variation in complication rates for NPs/CNMs/PAs (1.6%; 10,633 procedures) and physicians (1.3%; 8,009 procedures) is within an acceptable clinical margin of difference (<1%). Patient experience scores were high across the entire sample (mean overall satisfaction = 9.4 [0-10]) and were not statistically significant by clinician type when controlling for patient and clinic level factors.

Implications: Outpatient abortion is very safe, whether it is provided by a NP, CNM, PA or physician. These findings support the adoption of policies that increase access to abortion by expanding the pool of qualified health professionals who can perform early abortions. Clinician type is not significantly associated with patient experience after controlling for clinic-level factors. Rather, clinic environment, treatment by clinician and staff, and managed pain levels are significant predictors of a positive patient experience.

NURSING RESEARCH TO ADVANCE EVIDENCE-BASED ABORTION CARE

Training to Competence: Evaluation of an Early Abortion Care Training Program

*Amy J. Levi, PhD, CNM, WHNP-BC
Albers Professor of Midwifery
College of Nursing
University of New Mexico
Albuquerque, NM*

Purposes/Aims: This presentation will discuss the analysis of the training program experienced by the clinicians trained to do first trimester vacuum aspiration abortion as part of the Health Workforce Pilot Program research study at the University of California San Francisco. Quantitative data identifying the demographic characteristics of the trainees will be presented, as well as the qualitative results of interviews with clinicians during the training and practice phases of their participation in the study. The process of developing competence in the performance of vacuum aspiration abortions is described by the clinicians, and indicated by their increasing confidence in their practice.

Rationale/Conceptual Basis/Background: The secondary prevention of unintended pregnancy includes the option of first trimester pregnancy termination. Nurse practitioners and nurse midwives provide the majority of sexual and reproductive health care in the United States, and are well positioned to add this skill to the continuity of care they provide to women experiencing an unintended pregnancy. This study evaluated a training program for first trimester vacuum aspiration abortion by nurse practitioners, nurse midwives, and physician assistants to examine how clinicians developed competence in the performance of these procedures.

Methods: Demographic data was collected from all clinicians enrolled in the study. Descriptive statistics have been used to illustrate the background, experience, and education of the clinicians. Interviews with open-ended questioning were recorded and analyzed in the tradition of grounded theory, looking for the inductive emergence of broad themes. A descriptive coding scheme was established by the primary interviewer after examining the themes, and reviewed and refined by a second researcher.

Results: The clinicians described the development of confidence in their ability to perform aspiration abortion, although they expressed this confidence in different ways. Some clinicians tended to credit their adherence to the study protocols and steps they learned as the source of their certainty (protocol confidence). Some drew internally from their own sense of safe practice to know they were competent providers (vigilant confidence). Some clinicians who had extensive work and training experience seemed to express confidence in terms of faith in their knowledge base and ability to learn and integrate new skills (experiential confidence). Finally, some clinicians saw confidence as something that ebbed and flowed depending on their stage of training (progressive confidence). These four approaches to developing clinical confidence, although demonstrated differently, represent a valid strategy for coping with the uncertainties of training.

Implications: First trimester abortions are the safest pregnancy termination procedures available, yet over 85% of counties in the United States have no identifiable abortion provider. Increased access to first trimester abortion can be increased by adding nurse practitioners and nurse midwives to the cadre of available abortion providers. Nurse practitioners and nurse midwives can become competent providers of vacuum aspiration abortions when trained in a systematic program that encompasses both didactic education and manual skill development.

NURSING RESEARCH TO ADVANCE EVIDENCE-BASED ABORTION CARE

Barriers and Facilitators to the Involvement of Nurses in Abortion Care Provision

Monica R. McLemore, PhD, MPH, RN
Assistant Adjunct Professor
Family Health Care Nursing
University of California, San Francisco
San Francisco, CA

Susan M. Kools, PhD, RN, FAAN
Professor
Family Health Care Nursing
University of California, San Francisco
San Francisco, CA

Amy J. Levi, CNM, WHNP-BC, PhD, FACNM, FAAN
Interim Associate Executive Dean
Albers Endowed Professor of Midwifery
University of New Mexico
College of Nursing
Albuquerque, NM

Purpose: To describe the barriers and facilitators to the involvement of nurses in abortion care provision.

Background: The perceived dichotomy between designated staff and conscientious objectors is too simplistic of a representation of the complexities that underlie the factors that contribute to provision of nursing care for women seeking abortions. The purpose of this study was to discover and identify the continuum between conscientious objectors and designated staff in the provision of nursing care to women seeking abortions. More specifically, we sought to gain a deeper understanding of the barriers and facilitators to the involvement of nurses in abortion care provision.

Methods: Qualitative semi-structured interviews were used to collect data from 24 nurses and grounded theory methods were used to analyze the data.

Results: Several factors influence nurses decision-making regarding care for women seeking abortions. Facilitators of participation include: the reasons for the abortion, the level of empathy for the patients, and personal commitment to women's autonomy. Barriers to participation include poor communication with co-workers and other professions, institutional issues such as confusion regarding documentation and fetal remains disposition, unclear role in the care of these women, and an uncertainty in their ability to meet basic care needs of patients and their families, particularly emotional and social support in the context of end of life care for the terminated fetus. Informal designated staff, who specifically care for women seeking abortions exist in all units and clinical areas. In other words, a small number of nurses routinely elect to care for these women in clinical areas where abortion care provision is not routine. Additionally, other people (i.e., family members, other healthcare providers and team members) influence nurses' decision about their personal level of involvement in care provision.

Implications: Nurses have complex opinions regarding the provision of nursing care to women seeking abortions. Several domains impact nurses' ability to participate in abortion care, which include personal, patient, institutional and familial characteristics that can facilitate and/or be barriers to nurses' level of comfort participating in abortion care.

NURSING RESEARCH TO ADVANCE EVIDENCE-BASED ABORTION CARE

Accessing Abortion Services: Referral Processes and Care Coordination

Adeline Wakeman, DNP, ARNP

*DNP Resident, Center of Excellence in Primary Care Education
Veterans' Administration Puget Sound Health Care*

Objectives: To explore provider perspectives on how the referral process and care coordination between primary care providers and specialty abortion providers impacts the ease and timing of service for patients seeking pregnancy termination.

Methods: Interviewees included 3 primary care providers, 2 abortion providers, and an expert informant in the field. Semi-structured individual interviews were recorded with consent of those being interviewed. Themes from the interviews were identified using qualitative content analysis. The University of Washington Institutional Review Board designated the project as exempt from a full review.

Results: Primary care providers identified common areas in the referral process and care coordination that either served as barriers or facilitators to care. Internal referrals were more coordinated for patients than external referrals. In most cases, formal referrals were not provided for patients, which differed from other specialty referrals in the same organization. While women were able to obtain Medicaid funding for the procedure, this created an additional step for uninsured patients in some facilities. Patients received more counseling and guidance when the abortion clinic was staffed by trained personnel who conducted initial interviews and scheduled appointments rather than by scheduling staff through a call-center. In some cases, responsibility for follow-up care was unclear between primary care and specialty abortion care. There was little communication between primary care providers and abortion specialists after the procedure and in some cases very little information provided to women regarding what to expect following the abortion and when to contact a health care provider.

Conclusions: Referrals and care coordination in abortion care differs from other specialty medical services. Abortion referrals may facilitate care if they mirror other semi-urgent referrals for medical conditions at the same organization without delaying access to abortion care. Post procedure care of the abortion patient may be improved through clear follow-up coordination and communication between primary care providers and abortion providers as well as to women. Fully incorporating abortion care into women's healthcare would require abortion training of healthcare professionals by educational institutions, enhancing care coordination and standardizing abortion care to quality of care guidelines.

Abstracts of Symposium Presentations

**OVERLOOKED WOMEN'S HEALTH:
THEORETICAL AND RESEARCH
PERSPECTIVES**

Moderator:

Janet C. Mentes, PhD, APRN, BC, FGSA

Associate Professor

University of California, Los Angeles

Los Angeles, CA

**OVERVIEW: OVERLOOKED WOMEN'S HEALTH:
THEORETICAL AND RESEARCH PERSPECTIVES**

Janet C. Mentes

**BARRIERS TO MENTAL HEALTH SERVICES UTILIZATION
AMONG OEF/OIF WOMEN VETERANS**

Lindsay Williams

**OVERCOMING BARRIERS TO EARLY TREATMENT
FOR OLDER BLACK WOMEN WITH HIV/AIDS**

Ariel M. Rankin

**WAITING TOO LONG: ENCOURAGING EARLY TREATMENT
IN OLDER HISPANIC WOMEN WITH DIABETES**

Stephanie Michelle Pavon, Janet C. Mentes, Linda R. Phillips

**THE IMPACT OF PATHWAYS INTO HOMELESSNESS
ON THE HEALTH OF OLDER HOMELESS WOMEN**

Nancy Salem, Janet C. Mentes

**INTERVIEWS WITH AGING AFGHAN AMERICAN WOMEN
REGARDING HEALTH EXPERIENCES AND CONCERNS**

Hafifa Siddiq

OVERLOOKED WOMEN'S HEALTH: THEORETICAL AND RESEARCH PERSPECTIVES

Overview: Overlooked Women's Health: Theoretical and Research Perspectives

Janet C. Mentes, PhD, APRN, BC, FGSA
Associate Professor
University of California, Los Angeles
Los Angeles, CA

Purpose: The purpose of this symposium is to present theoretical and research perspectives on understanding the psychological, socio-cultural and personal barriers that aging, ethnic women face in procuring and receiving essential health care for chronic diseases such as HIV/ AIDS, diabetes, mental health problems and homelessness.

Background: The concept of “overlooked” women will frame the presentations. “Overlooked” women include women experiencing homelessness, women veterans attempting to get health care in a health system designed for male veterans, African American women first diagnosed with HIV/AIDS as an older woman, Afghan immigrant women struggling with health care decisions in a foreign culture, and older Mexican American women with diabetes. We will take the perspective that within this population of vulnerable women, the toll of un- or under-treated health problems causes premature chronic illness, which in turn promotes an acceleration of the aging process. This literally means that these women prematurely age and must deal with health problems often seen in much older women. In addition, these “overlooked” women are more likely to live in poverty and in communities that are not safe or that do not provide the familial or social supports needed to deal with chronic illness. This isolation further places them at risk for depression, anxiety disorders and other mental health problems. As a result of these cascading events, many women, for a variety of psychological, socio-cultural or personal reasons, tend to delay assessment and treatment of their serious health problems.

Current Work: In the papers to be presented in this symposium, we will present theoretical perspectives on access to care in “overlooked” women which results in delayed diagnosis and treatment. For example, Williams will address issues of mental health outpatient utilization barriers among women Veterans who access Veterans Administration (VA) health services, framed within the revised version of Andersen's Behavioral Model of Health Services Research. Rankin will address navigating both personal and socio-cultural barriers to assessment and early treatment of HIV/AIDS in older African American women and Pavon will present a systematic review of factors contributing to delayed diagnosis and poor glycemic control of diabetes in Hispanic American older women. Salem will present an explanatory model examining the pathways to homelessness in older women. Finally, Siddiq will present results of qualitative interviews with Afghan immigrant women about their response to trauma, migration and resettlement in a foreign country and the struggles with health care decisions that come with being an immigrant.

OVERLOOKED WOMEN'S HEALTH: THEORETICAL AND RESEARCH PERSPECTIVES

Barriers to Mental Health Services Utilization among OEF/OIF Women Veterans

*Lindsay Williams, RN, BSN, PHN
Doctoral Student
UCLA School of Nursing
Los Angeles, CA*

Purpose/Aims: As a basis for knowledge development this presentation utilizes Andersen's revised Behavioral Model of Healthcare Utilization to frame the perceived barriers of women Veterans to mental health outpatient care and the system characteristics that impede the implementation of gender specific mental health outpatient care.

Description of Theory/Model: Andersen's model conceptualizes access to care as the use of health services and the outcomes of use across five major components: health policy, characteristics of the health delivery system, characteristics of the population at risk, utilization of health services, and consumer satisfaction. The five components are labeled predisposing if applicable to the individual and enabling if applicable to the system. The last portion of this model is the notion of need, or the biological imbalance within the individual.

Internal Consistency: Performing a concept analysis using Meleis' Integrated Approach to Concept Development to re-analyze Andersen's model in the context of women Veterans unique mental health and primary care needs. The internal consistency of this adapted model is similar to the strong internal consistency of Andersen's original model.

Link to Nursing: Nurses are at the forefront of implementing primary and secondary prevention, with the tacit responsibility of practicing quality care. Women Veterans are facing a healthcare system within the VA that historically and culturally serves a predominantly male population, and are facing obstacles in receiving care that addresses their military service in community based settings. Therefore, this theoretical adaption will inform nurses of relevant barriers to providing gender-specific Veteran services.

Conclusions: Women Veterans are the fastest growing population of United States (U.S.) Veterans, currently representing 10% of the Veteran population nationwide. Women Veterans who served in Iraq and Afghanistan during the OEF/OIF conflicts are a group at particularly higher risk of developing PTSD and depression because of their unique set of combat exposures. The utility of this adapted theory to nursing practice is evidenced by identifying barriers to service utilization and the unique health needs of this group, which are not fully understood. Furthermore, this presentation is relevant to nursing research to generate culturally sensitive, gender specific research questions and approaches.

OVERLOOKED WOMEN'S HEALTH: THEORETICAL AND RESEARCH PERSPECTIVES

Overcoming Barriers to Early Treatment for Older Black Women with HIV/AIDS

*Ariel M. Rankin, PhDc, MSN, RN
T32 Pre-Doctoral Fellow
School of Nursing
University of California, Los Angeles
Los Angeles, CA*

Purpose: The following paper will describe a theoretical conceptualization surrounding barriers to timely HIV treatment among older African American women diagnosed with HIV/AIDS. In addition, nursing strategies that can facilitate early HIV treatment will be discussed.

Theoretical Conceptualization: As the number of racial and ethnic minorities entering older adulthood rises, so has the number of new HIV infections among persons aged 50 and older. Among older women, African American women are diagnosed with HIV/AIDS earlier in their HIV disease trajectory; however, they account for the highest rates of death among older women. A complex mixture of economic, social, cultural, biological, environmental, and behavioral factors impact the contrast in mortality rates. (1) *Perception of HIV risk*, awareness (by way of self, media, healthcare providers) that one could contract HIV; (2) *social networks*, individuals/groups who are important/significant to the woman and may be affected by the HIV diagnosis; and (3) *ability to navigate the healthcare system*, are factors that influence the timely diagnosis of HIV/AIDS and the timely start of HIV treatment.

Internal Consistency: Internal consistency was established using Fawcett and Parse criteria for evaluation of nursing theories. The philosophical claims of pragmatism, and the sociological perspective of symbolic interactionism were used to conceptualize this theoretical model. The link between the concepts of perception of risk, healthcare utilization and social support were determined using existing HIV/AIDS literature.

Implications for Nursing Practice: Understanding the interplay between these three concepts can facilitate timely linkage and retention in HIV care and decrease morbidity and mortality rates among older African American women. Nurses can identify the specialized needs of older African American women living with HIV/AIDS. Nurses are in a prime position to assess for the unique economic, social and environmental stressors that present at the onset of care. Barriers such as decreased perception of risk, lack of social support and inability to navigate the healthcare system can be addressed by nurses. Over the years, AIDS service organizations have been used to reduce stigma and offer people living with HIV/AIDS physical and mental health services. However, for the ever-changing older adults, these organizations are seldom used, due to lack of programs that discuss aging-specific and culturally-specific topics. This isolation from healthcare system and service organizations place older adults living with HIV are at risk for falling between the cracks. Nurses offer holistic care that focus on the biopsychosocial individual. This focus increases communication between the provider and the patient and decreases the risk for missed opportunities to address barriers to early treatment and care.

Conclusion: This theoretical conceptualization can be utilized and tested in nurse-led interventions aimed at decreasing barriers to early HIV treatment.

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

OVERLOOKED WOMEN'S HEALTH: THEORETICAL AND RESEARCH PERSPECTIVES

Waiting Too Long: Encouraging Early Treatment in Older Hispanic Women with Diabetes

*Stephanie Michelle Pavon, BA, MSN
Doctoral Student*

*Janet C. Mentes, PhD, APRN, BC, FGSA Linda R. Phillips, PhD, RN, FAAN
Associate Professor Professor and Section Chair*

*University of California, Los Angeles
Los Angeles, CA*

Purpose: The purpose of this paper is to present a systematic review of the literature on appropriate interventions that will encourage improved management of T2DM among older Hispanic women with T2DM.

Background: Type 2 diabetes mellitus (T2DM) is fast becoming the 21st centuries major public health concern, it has reached epidemic proportions in the United States, particularly within the aging Hispanic population. According to the CDC (2013), due to diabetes being an age related disease, it is affecting 26.9% (10.9 million) of Americans 65 years and older, with the aging of the baby boomer generation that number will only grow. Consequently, the epidemic of T2DM disproportionately afflicts Hispanic's, increasing the risk of being diagnosed with diabetes by 66%. Although, the prevalence of diabetes is somewhat evenly split among the genders, it is the complications of the disease, such as heart disease that adversely affect women more than men. The risk for fatal myocardial infarctions associated with diabetes is 50% higher in women than it is in men, with women having lower survival rates and a poorer quality of life than men post-myocardial infarction. In addition, studies have shown that older Hispanics with diabetes are more likely to seek care when symptoms are severe as evidenced by a higher prevalence of poor glycemic control, higher rates of health complications and increased incidence of morbidity and mortality.

Method: A literature search was conducted using seven health databases: Cinahl Plus, Cochrane Library, HealthStar, Medline, PsycInfo, ProQuest Nursing & Alliance Health and PubMed. Keywords used during the search: T2DM, Hispanic women, Latino, older adults, patient care management, patient-centered care, interventions, adherence and peer coaching. Randomized control studies and other high-level studies were selected based on inclusion criteria consisting of primary studies that provided intervention outcomes using: HbA1c levels, BMI, waist circumference in older Hispanic women.

Results: The literature review findings identify a variety of health management strategies with the older Hispanic population, including health coaching, peer coaching, and empowerment-based self-management education for improving a variety of outcomes, such as, improved HbA1c levels, collaborative care, patient-satisfaction regardless of glycemic control, improved self-efficacy and self-care scores.

Implications: With the older and Hispanic populations being two of the fastest growing populations within the U.S., it is imperative that we explore cultural barriers and age appropriate treatments to help reduce existing disparities among older Hispanic women with diabetes.

OVERLOOKED WOMEN'S HEALTH: THEORETICAL AND RESEARCH PERSPECTIVES

The Impact of Pathways into Homelessness on the Health of Older Homeless Women

*Nancy Salem, RN, MSN, CNL
Doctoral Student
School of Nursing
University of California, Los Angeles
Los Angeles, CA*

*Janet C. Mentes, PhD, APRN, BC, FGSA
Associate Professor
School of Nursing
University of California, Los Angeles
Los Angeles, CA*

Purpose: The aim of this presentation is to describe a framework of the pathways in which homelessness in women ages 50 and older occurs and the implications of the pathways on the health of this highly vulnerable population.

Background: Homelessness is a major public health issue in the United States (U.S.). There are approximately 3.5 million homeless individuals living in the U.S., and between 60,000 to 400,000 are older homeless adults. By 2050 it is anticipated that the elderly homeless population will double due to the growth of the baby boomer population. The literature indicates that older homeless adults experience four times higher rates of morbidity and premature mortality when compared to the general population, specifically related to diabetes, hypertension, and cardiovascular disease. While much attention has been given to homeless adults between the ages of 18-44, there is a paucity of literature, which focuses on the needs of older homeless adults, specifically older women experiencing homelessness.

Method: An explanatory model developed by the author will be used as a framework to understand the different pathways in which women aged 50 and older enter into homelessness and the implications of homelessness on the health of this highly vulnerable population.

Implications: In order for nurses to effectively address the unique needs of older women experiencing homelessness, it is imperative to understand the different pathways in which individuals enter into homelessness. This paper will examine homelessness in older women from a life course perspective, emphasizing the historical, sociodemographic, and structural factors influencing pathways into homelessness that should be included when conducting nursing research with older homeless women.

OVERLOOKED WOMEN'S HEALTH: THEORETICAL AND RESEARCH PERSPECTIVES

Interviews with Aging Afghan American Women Regarding Health Experiences and Concerns

*Hafifa Siddiq, MSN, RN
Doctoral Student
University of California, Los Angeles
School of Nursing
Los Angeles, CA*

Background: Afghans constitute one of the largest refugee groups in the world, and have been for the past twenty years. The largest population of Afghan refugees in the United States currently resides in California, and many of the thousands of refugees from Afghanistan who arrived in the 80's are now aging. A review of the literature indicates that there are very few studies related to Afghan women's health in the U.S., and particularly aging Afghan women, making them a largely "overlooked" group of women.

Purpose: The purpose of this explorative study is to examine the factors that influence aging Afghan women's health experiences and concerns that contribute to decisions about whether to seek care.

Methods: Using focus groups and semistructured interviews in a variety of settings, the investigator recruited women from local community centers that provide services to the Afghans residing in Orange County and San Diego Counties within California. With the help of a Farsi translator, interviews were conducted and content analyzed for common themes.

Results: Interviews with Afghan women revealed themes of health beliefs, health maintenance strategies and health concerns. Afghan women's health beliefs are largely influenced by religion (which was perceived to produce good health), Afghan cultural traditions and superstition. Culture-specific health maintenance strategies includes preference for same sex providers, having adult children translate provider's orders, the inclusion of the extended family's input on health care decisions and prayers as a source of healing. Health concerns for aging Afghan women included fatigue, sleep disturbances, social isolation of the elderly, triple burden of caregiver role strain, fear of neglect by their children and heart disease.

Implications: The findings reflect the importance of increasing understanding of the cultural context of health beliefs by providers when dealing with women from a different culture. Nurses have a profound role in caring for immigrant populations by planning and making care decisions with respect for the person's health perspective. In order to provide culturally congruent care that is beneficial and meaningful to the persons being cared for, health care providers should encourage their patients to voice their own health expectations and concerns.

Abstracts of Symposium Presentations

PATIENT-CENTERED CARE COORDINATION: SOCIAL NEEDS, NURSING RESPONSE

Moderator:

*Shigeko (Seiko) Izumi, PhD, RN
Assistant Professor
School of Nursing
Oregon Health & Science University
Portland, OR*

OVERVIEW: PATIENT-CENTERED CARE COORDINATION: SOCIAL NEEDS, NURSING RESPONSE

*Shigeko (Seiko) Izumi, Katherine J. Bradley, Laura Mood, Caroline Neunzert,
Ruth Tadesse, Christine A. Tanner*

ENVIRONMENTAL CHANGES REQUIRING INNOVATIONS IN NURSING

Katherine J. Bradley

ORGANIZATIONAL STRATEGIES TO ALIGN A SCHOOL OF NURSING WITH SOCIETAL DEMANDS

Christine A. Tanner, Caroline Neunzert, Laura Mood

NURSING PRACTICE IN CARE COORDINATION AT THE FRONTLINE OF HEALTHCARE TRANSITIONS

*Shigeko (Seiko) Izumi, Christine A. Tanner, Caroline Neunzert, Laura Mood,
Ruth Tadesse*

IMPLEMENTING CARE COORDINATION COMPETENCIES IN NURSING EDUCATION

Laura Mood, Caroline Neunzert, Ruth Tadesse

PATIENT-CENTERED CARE COORDINATION: SOCIAL NEEDS, NURSING RESPONSE

Overview: Patient-Centered Care Coordination: Social Needs, Nursing Response

Shigeo (Seiko) Izumi, PhD, RN
Assistant Professor
School of Nursing

Oregon Health & Science University
Portland, OR

Katherine J. Bradley, PhD, RN
Clinical Associate Professor
School of Nursing

Oregon Health & Science University
Portland, OR

Laura Mood, MSN, RN
Clinical Instructor
School of Nursing

Oregon Health & Science University
Portland, OR

Caroline Neunzert, MS, RN
Instructor
School of Nursing

Oregon Health & Science University
Portland, OR

Ruth Tadesse, MS, RN
Assistant Professor
School of Nursing

Oregon Health & Science University
Portland, OR

Christine A. Tanner, PhD, RN, FAAN
Professor
School of Nursing

Oregon Health & Science University
Portland, OR

Purpose: The purpose of this symposium is to illustrate one school of nursing's multi-armed response to the need and current call for a health care system with effective, affordable and sustainable patient-centered care coordination.

Background: An aging population, increasing chronic illness, and soaring health care costs highlight the need for health care reform. The Institute for Healthcare Improvement (IHI) has proposed a Triple Aim Initiative – to focus on patient-centered care, redesigning primary care services, and system integration. Faculty at a school of nursing have identified critical roles and processes for nursing in addressing the Triple Aim Initiative and discuss the processes involved in positioning nursing and aligning the School with the directions of health care.

Environmental Changes Requiring Innovations in Nursing: The first paper addresses current national and regional health care changes and identifies specific areas in need of innovative nursing leadership and practice – including care coordination.

Organizational Strategies to Align School of Nursing to Societal Demands: The fourth paper describes larger organizational strategies involved in aligning the School's education, research, and practice mission with emerging health and system needs, while developing the infrastructure to generate and support future nursing education efforts and nursing.

Nursing Practice in Care Coordination at the Frontline of Healthcare Transitions: The second paper presents findings from an interpretive phenomenological study exploring the practice of care coordination, highlighting competencies required to provide patient-centered care coordination in current health care environment.

Implementing Care Coordination Competencies in Nursing Education: The third paper describes the implementation process, providing insights from integrating care coordination competencies in nursing education curriculum.

PATIENT-CENTERED CARE COORDINATION: SOCIAL NEEDS, NURSING RESPONSE

Environmental Changes Requiring Innovations in Nursing

*Katherine J. Bradley, PhD, RN
Clinical Associate Professor
School of Nursing
Oregon Health & Science University
Portland, OR*

Purpose: The purpose of this presentation is to describe the environment in a state actively involved in health reform; the framework the state selected to guide implementation; and how it influenced nursing clinical roles.

Background: The Institute for Health Care Improvement (IHI) developed a framework for health system improvement known as the Triple Aim: 1) improving the individual experience of care; 2) improving the health of populations; and 3) reducing the per capita costs of care. In 2010, this framework was adopted by one state to guide their approach to health reform implementation. At the local/regional level, Medicare clients were assigned to one of 16 Coordinated Care Organizations (CCO). The CCO's were required to use the Triple Aim framework to develop systems of care, patient centered primary care homes, and evaluation metrics.

Description: In the 1990's, the state engaged in a multi-year effort to expand health coverage to a broader population, with limited success. Policy reviews of the effort, informed the agency and legislative health discussions in 2010, and led to the adoption of the Triple Aim. This framework was consistently used to guide state and local health policy decisions in a new wave of health reform activities. The school determined the rapidly changing external environment required a review of nursing workforce needs in three areas: leadership opportunities for system change; nursing roles in current and emerging models; and exploring CCO's and Patient Centered Primary Care Homes.

Outcomes: Understanding how the Triple Aim framework was used to shape health system redesign, led to the identification of expanding nursing clinical and leadership roles. New models of care coordination were aligning inpatient and community resources around complex patients. To address the evolving care models, the school organized a Patient-Centered Care Coordination Initiative.

Conclusions: Analysis of the health reform environment and policy implications can support schools in identifying evolving models of practice and workforce needs.

PATIENT-CENTERED CARE COORDINATION: SOCIAL NEEDS, NURSING RESPONSE

Organizational Strategies to Align a School of Nursing with Societal Demands

*Christine A. Tanner, PhD, RN, FAAN
AB Youmans-Spaulding Distinguished Professor*

*Caroline Neunzert, MS, RN
Clinical Assistant Professor*

*Laura Mood, MSN, RN
Clinical Instructor*

*School of Nursing
Oregon Health & Science University
Portland, OR*

Purpose: The purpose of this presentation is to describe the vision for the Patient-Centered Care Coordination Initiative at OHSU School of Nursing and its relationship to our tripartite mission of teaching, research and practice.

Background: The State of Oregon has moved rapidly with its planning for implementation of the Affordable Care Act. The centerpiece is 16 coordinated care organizations designed to improve access to primary care, improve patient outcomes while reducing costs. While care coordination has long been a part of nursing practice, the current environment and complexity of care requires enhanced competencies in this area of practice. In addition, shift in focus from hospital-centered incident-based care to patient-centered care coordination requires alterations in not only how we prepare nurses and students but how and where nursing faculty practice and how to evaluate outcomes of nursing care. As a school of nursing leading the future of healthcare, we endeavored to identify areas needing the alteration and intentionally align our missions, resources, and faculty's work with the direction of future health care.

Methods: Faculty organized a steering committee for this initiative to develop goals and strategies related to (1) enhanced learning experiences in care coordination/transitional care in the pre-licensure program; (2) research related to care coordination, including identification of best practices, competencies, and eventually outcomes of care; (3) continuing education program for practicing nurses; (4) interprofessional exploration of commonalities and differences among care coordination/transitional care models currently in use at OHSU; (5) development of faculty practice opportunities.

Outcomes: The team developed an overall plan, launched a continuing education series on care coordination, created partnerships with Hartford Center for Geriatric Nursing Excellence, OHSU Health System and Portland Veterans Administration Hospital to provide enhanced learning opportunities, led a research project on care coordination competencies. Without having immediate and direct funding supporting this effort, the steering committee had to be creative to leverage existing interests, expertise, and connections among faculty. Some of the strategies employed will be shared during the presentation.

Conclusion: To meet the societal demands in rapidly evolving healthcare environment, nursing needs to envision what the future demand of society and future nurses' roles will be, and chart out how to get there using the present system and resources. Challenges and ideas emerged in our effort will be shared and discussed in this symposium.

PATIENT-CENTERED CARE COORDINATION: SOCIAL NEEDS, NURSING RESPONSE

Nursing Practice in Care Coordination at the Frontline of Healthcare Transitions

Shigeko (Seiko) Izumi, PhD, RN
Assistant Professor
School of Nursing
Oregon Health & Science University
Portland, OR

Christine A. Tanner, PhD, RN, FAAN
Professor
School of Nursing
Oregon Health & Science University
Portland, OR

Caroline Neunzert, MS, RN
Clinical Assistant Professor
School of Nursing
Oregon Health & Science University
Portland, OR

Laura Mood, MSN, RN
Clinical Instructor
School of Nursing
Oregon Health & Science University
Portland, OR

Ruth Tadesse, MS, RN
Clinical Assistant Professor
School of Nursing
Oregon Health & Science University
Portland, OR

Purpose: The purpose of this presentation is to report findings from an interpretive phenomenological study exploring the practice of care coordination and identifying competencies required to provide patient-centered care coordination in current health care environment.

Background: Although the importance of care coordination in improving quality of care and patient outcomes has been recognized, explicit descriptions of core competencies to provide effective care coordination are lacking. Clear descriptions of practice and competencies in effective care coordination are needed to prepare nurses to meet the emerging new role.

Methods: Twenty nurses practicing in care coordinator roles were identified using snowball sampling and invited to a small group interview. Fifteen nurses participated in the interviews in which they were asked to describe specific examples of their practice in care coordination and to discuss their understanding of key elements of their practice. The interviews were audio recorded and transcribed verbatim, and the transcriptions were analyzed using interpretive phenomenological approach delineated by Benner et al. (1996). IRB approval was obtained from the researchers' institution.

Results: Nine competencies in two domains were identified from the data. Patient-centeredness domain contains five competencies: 1) know/understand patient; 2) assess patient's needs; 3) build collaborative relationship with patient; 4) assist patient to set goals of care; and 5) coach patients to take care of themselves. Coordination domain has four competencies: 6) know systems and resources; 7) communicate patient information across settings and healthcare providers; 8) make sure the care happen; and 9) evaluate outcomes.

Implications: Identified competencies provide a foundation to prepare nurses to meet the needs of the society filling the gap in the current fragment healthcare system and providing continuous tailored patient-centered care across settings.

PATIENT-CENTERED CARE COORDINATION: SOCIAL NEEDS, NURSING RESPONSE

Implementing Care Coordination Competencies in Nursing Education

*Laura Mood, MSN, RN
Clinical Instructor, PhD Student
School of Nursing
Oregon Health & Science University
Portland, OR*

*Caroline Neunzert, MS, RN
Clinical Assistant Professor
School of Nursing
Oregon Health & Science University
Portland, OR*

*Ruth Tadesse, RN, MS
Clinical Assistant Professor
School of Nursing
Oregon Health & Science University
Portland, OR*

Purpose: The purpose of this paper is to describe our pilot project implementing concepts of patient-centered care coordination into an undergraduate nursing education curriculum, and explore a model to expand the implementation to foster the needed competencies of future nurses.

Background: The Affordable Care Act of 2010 implicitly calls for coordinated care efforts in pursuit of the Triple Aim Initiative. Although care coordination has been a core professional standard for nurses, most of current pre-licensure nursing education focuses on preparing nurses to provide direct care in a discrete setting, falling short of understanding patient-centered care coordination beyond the specific care setting. There are no reports to date of programs integrating the increasingly important concept of care coordination into an undergraduate educational curriculum.

Approach: As a first step to integrating the competencies of care coordination into the curriculum, a teaching-learning innovation around transitional care was implemented as an educational pilot project with 20 baccalaureate students in their senior-level leadership course. This pilot project was designed to immerse students in the subject of transitional care via concept-based learning, giving them the opportunity to discover the role of the nurse in care coordination from a systems perspective.

Outcomes: Students discovered: (1) the nurse's role in care coordination is critical yet often overlooked; (2) the value of nurses' role as a care coordinator is difficult to measure; (3) care coordination requires multifaceted assessment of the health literacy of each patient; (4) nurses must have holistic understanding of patient's life beyond illness to identify 'root cause' of specific healthcare concerns; and (5) system level communication processes can either facilitate or hinder safe and effective care transitions. Through this project, faculty also gained insights about the care coordination in current health care system, and identified areas of competencies future nurses need to develop.

Conclusions: Full integration of care coordination competencies as a thread throughout the curriculum may provide a stronger foundation to prepare nurses who are responsive to the foreseeable societal needs. Faculty development for better understanding of care coordination in current health care system and development of academic-clinical-community partnerships would be critical part of the model integrating the care coordination competencies in nursing education.

Abstracts of Symposium Presentations

PUTTING UNINTENDED PREGNANCY PREVENTION INTO PRACTICE: SCIENCE, THEORY AND EVIDENCE

Moderator:

Judith A. Berg, PhD, RN, WHNP-BC, FAAN, FAANP

The University of Arizona

College of Nursing

Tucson, AZ

OVERVIEW: PUTTING UNINTENDED PREGNANCY PREVENTION INTO PRACTICE: SCIENCE, THEORY AND EVIDENCE

Ellen Olshansky, Nancy Fugate Woods

PRACTICE: INTEGRATING UNINTENDED PREGNANCY PREVENTION INTO NURSING PRACTICE

Monica R. McLemore

SCIENCE: UNDERSTANDING MULTIPLE UNINTENDED PREGNANCY

E. Angel James

CONTEXT: THE PROBLEM OF UNINTENDED PREGNANCY

Amy J. Levi

PREGNANCY PREVENTION EDUCATION: ADAPTING COMPETENCIES FROM GLOBAL MODELS

Joyce Cappiello

THEORY: AN EVIDENCE-BASED GUIDELINE FOR UNINTENDED PREGNANCY PREVENTION

Diana Taylor, E. Angel James

PUTTING UNINTENDED PREGNANCY PREVENTION INTO PRACTICE: SCIENCE, THEORY AND EVIDENCE

Overview: Putting Unintended Pregnancy Prevention into Practice: Science, Theory and Evidence

*Ellen Olshansky, PhD, RN, WHNP-BC,
FAAN, Professor and Director
Program in Nursing Science
University of California, Irvine
Irvine, CA*

*Nancy Fugate Woods, PhD, RN, FAAN
Professor and Dean Emerita
School of Nursing
University of Washington
Seattle, WA*

Purpose: In this symposium, nursing scholars present data, theoretical models and strategic initiatives on new information about emerging science on root contributors to unintended pregnancy in the U.S., the historical role of nurses in promoting and protecting reproductive health in the U.S. and U.K., a public health model for primary, secondary and tertiary prevention of unintended pregnancy, and strategies for aligning practice and education for all health professionals focused on unintended pregnancy prevention.

Background: Unintended pregnancies create a large social and economic burden to individuals, families and society. Little progress on improving health outcomes has been made for reducing two pregnancy-related conditions: unintended pregnancy and maternal morbidity and mortality. Especially troubling is the unequal burden of unplanned pregnancies among disadvantaged women and women of color. Although reducing unintended pregnancies remains a national health goal in Healthy People 2020, the target rate has been reset from 30% to a disappointing 44% in the next 10 years. The Women's Health Expert Panel of the American Academy of Nursing has called for renewed efforts to curb unintended pregnancies. As a profession, Nursing is well-suited to take the lead in advancing the science, practice, education and policy to ensure that populations have full access to sexual and reproductive health services and to facilitate expansion of knowledge related to preventing unintended pregnancies.

Presentation: The symposium will consist of an overview followed by five individual presentations on various aspects of this topic. Ami Levi will describe the concept and context of unintended pregnancies, Angel James will describe the science that helps to explain unintended pregnancies, Diana Taylor will present an evidence-based guideline in an effort to prevent unintended pregnancies which is followed by Monica McLemore's discussion of how nursing practice can help prevent unintended pregnancies, and Joyce Capiello will present lessons learned from a global perspective.

Conclusion: Further research is needed to illuminate salient underlying causes for persistent high rates of unintended pregnancy, leading to novel, more personalized, and culturally sensitive interventions for women and their partners as they choose fertility options, apply them to their particular life circumstances, and prevent unwanted and therefore high risk pregnancies. Also essential is determining how to promote rapid translation of existing evidence into education and clinical practice. This symposium seeks to spur further action in addressing these important issues.

PUTTING UNINTENDED PREGNANCY PREVENTION INTO PRACTICE: SCIENCE, THEORY AND EVIDENCE

Practice: Integrating Unintended Pregnancy Prevention into Nursing Practice

*Monica R. McLemore, PhD, MPH, RN
Assistant Adjunct Professor
Family Health Care Nursing
University of California, San Francisco
San Francisco, CA*

Purposes/Aims: To describe the application of a public health model of unintended pregnancy prevention to current nursing practice.

Rationale/Background: Current policies at the federal level impact the provision of sexual reproductive health care and under the Patient Protection and Affordable Care Act (PPACA), policies will move to include contraception as an essential component of preventive health care. Nurses, first-line health care providers can be trained to implement preventive, comprehensive sexual and reproductive health services across the lifespan for adolescents, men and women of reproductive age. These services include primary and secondary unintended pregnancy interventions, contraceptive management, reinforcement and support, and health education and promotion. This session will provide practical implementation strategies that support the education, training and deployment of staff nurses to preventive health services to women of reproductive age. Under this model and consistent with several Institute of Medicine reports, nurses practice to the full extent of their licensure and with an implementation model and a road map for their practice.

Undertaking/Best Practice/Approach/Methods/Process: A model of unintended pregnancy prevention, including primary, secondary and tertiary prevention will be presented and exemplars of how to apply the framework across clinical areas of the nursing workforce will be presented. National and state programs will be highlighted that can be replicated in a variety of clinical settings and geographic locations. A summary of nursing competencies in unintended pregnancy prevention will be presented in addition to resources to support nurses in the implementation of the model.

Outcomes Achieved/Documented: This session, in partnership with the other 4 panel sessions should provide nurses with information to fully implement and unintended pregnancy prevention interventions and comprehensive sexual and reproductive health services in diverse clinical settings.

Conclusions: The current nursing workforce can be trained to implement preventive, comprehensive sexual and reproductive health services across the lifespan for adolescents, men and women of reproductive age. Nurses, specifically can seamlessly integrate a public health model of unintended pregnancy prevention into their current practice and have a significant impact on unintended pregnancy rates in the United States.

PUTTING UNINTENDED PREGNANCY PREVENTION INTO PRACTICE: SCIENCE, THEORY AND EVIDENCE

Science: Understanding Multiple Unintended Pregnancy

*E. Angel James, BSN, MS, RN, CNM, WHNP-BC
Community Health Systems, School of Nursing
University of California, San Francisco
San Francisco, CA*

Purposes: The purpose of this paper is to review the existing literature to identify reported incidence and prevalence of multiple unintended pregnancies and to determine what factors have been demonstrated to be associated with an increased risk of experiencing more than one unintended pregnancy for women in the United States (U.S.).

Background: It is estimated that 49% of all U.S. pregnancies are unintended. Pregnancies that are unintended are associated with negative health outcomes for both mothers and babies. It has been suggested in the literature that higher-order, second or greater, unintended pregnancies may be associated with the worst health outcomes. However, less is known about the risk factors for these higher-order pregnancies than for primary or solitary unintended pregnancies.

Methods: PubMed, PsychInfo, CINAHL, Web of Science, and JSTOR databases were searched for relevant studies. Combinations of the following keywords were used: *multiple, repeat, higher order, unintended, unplanned, unwanted, pregnancy, abortion, birth, and childbearing*. Reference lists of relevant articles were also searched iteratively to identify additional articles. Study inclusion criteria were: (1) empirical research with a primary outcome of multiple unintended pregnancy (2) research performed in the U.S. (3) research performed after 1979. The earlier date boundary of January 1979 was chosen as 1979 was the year the first *Healthy People* report identified unintended pregnancy as a national concern.

Results: Using the search strategy described above, 1,384 studies were initially identified. Of these initially identified studies, nine had primary outcomes of multiple unintended pregnancies and met the study inclusion criteria. The nine included studies were published between 1985 and 2012, had sample sizes that ranged between 17 to 7,643 and included women between 12 and 44 years of age. The included studies utilized a variety of research designs including prospective, cross-sectional, retrospective cohort, and randomized controlled trial designs. Different measures to identify multiple unintended pregnancies were used among these studies. Reported prevalence rates of multiple unintended pregnancies ranged from 17 to 36 percent. Incidence rates ranged from 3.7% in a 6-month time period to 30.9 per 100 person-years. Analysis of these nine studies identified specific sociodemographic, contraceptive use patterns, and life event factors that significantly increased the risk of experiencing more than one unintended pregnancy. Additionally, this analysis highlights the need for additional studies on the strength and direction of the effect of these risk factors, better tools for identifying unintended pregnancies, and further investigation of risk factors that are amenable to intervention such as drug/alcohol use and exposure to violence.

Implications: To prevent the most concerning health sequelae of unintended pregnancy, the risk factors for multiple unintended pregnancies must be better understood. As advanced practice nurses, certified nurse midwives, and physician assistants are more likely to provide care to women at risk for unintended pregnancy who live in medically underserved areas than physicians, it is particularly important for nurses to know what factors increase a woman's risk of experiencing multiple unintended pregnancies.

PUTTING UNINTENDED PREGNANCY PREVENTION INTO PRACTICE: SCIENCE, THEORY AND EVIDENCE

Context: The Problem of Unintended Pregnancy

*Amy J. Levi, PhD, CNM, WHNP-BC
Albers Professor of Midwifery
College of Nursing
University of New Mexico
Albuquerque, NM*

Purposes/Aims: The purpose of this presentation is to describe the concept of unintended pregnancy. Unintended pregnancy is a public health concern that has yet to be addressed successfully in the United States. Understanding the key characteristics, antecedents, and consequences of unintended pregnancy will enable nurses at all levels of practice, education, and research to address efforts for the prevention and management of unintended pregnancy.

Description/Definition of Theory/Concept: Unintended pregnancy is defined as a pregnancy that is mistimed, unplanned, or unwanted. The current rate of unintended pregnancy in the United States is reported to be between 49 and 51%. Unintended pregnancies disproportionately affect women of color, and women of lower socioeconomic status. The outcomes of unintended pregnancies carry an increased risk of morbidity and mortality. The Healthy People 2020 Goal for an intended pregnancy rate of 51 to 56% represents a decrease in the current unintended pregnancy rate by 10%. Prevention of unintended pregnancy needs to be incorporated into the competencies of nurses at all educational levels to achieve this goal.

Internal Consistency of the Theory/Concept: The process of concept analysis introduced by Walker and Avant was utilized to identify the definition of unintended pregnancy in the biomedical and public health literature. The key characteristics of unintended pregnancy are that it is mistimed, unplanned, or unwanted by a woman and/or her partner. Antecedents of unintended pregnancy include lack of access to sexual and reproductive health education and services, such as contraception and pregnancy termination. Consequences of unintended pregnancy include unsafe abortion, at risk pregnancies, and an inability for the mother to improve her education and economic status when carrying an unintended pregnancy to term.

Logic Linking Theory/Concept to Practice/Research Problem: Nurses at all levels of practice provide disease prevention and health promotion information to individuals; the extent of nursing knowledge of sexual and reproductive health, and the understanding of the nature of preconception, interconception, and contraception care needs to be included as part of this information. There is a paucity of research identifying the extent of sexual and reproductive health content in prelicensure nursing education, as well as in programs for advanced practice nurses. Consequently, the ability of nurses at all educational levels to provide comprehensive sexual and reproductive health care is unrealized.

Conclusions, Including a Utility of Theory/Concept: Reducing unintended pregnancy is a public health issue, and is of concern to all nurses. Unintended pregnancy reduction requires a response from all levels of nursing in all aspects of nursing education, research, and practice. Preventing unintended pregnancy using a public health approach can have an appreciable impact on the morbidities and mortality associated with an unplanned, unwanted, or mistimed pregnancy.

PUTTING UNINTENDED PREGNANCY PREVENTION INTO PRACTICE: SCIENCE, THEORY AND EVIDENCE

Pregnancy Prevention Education: Adapting Competencies from Global Models

*Joyce Cappiello, PhD, FNP, FAANP
Assistant Professor of Nursing
University of New Hampshire
Director of ROE Consortium
Cambridge, MA*

Purposes/Aims: The identification and adoption of educational core competencies specific to prevention and management of unintended pregnancy can inform nursing education, better prepare students and improve patient outcomes. The impetus for this work is based on the high rate of unintended pregnancies, approximately 50%, in the United States.

Description of concept to be discussed: Competencies, as defined by the US Department of Education and National Postsecondary Education Cooperative, are the domain or body of knowledge and skills that define a profession, as well as guide training programs, provide employer expectations, and drive performance standards for credentialing institutions, certifying agencies, and accrediting organizations. Clinical competencies designed to meet patient needs define nursing practice and form the basis for curriculum development, measurement of student and program outcomes and program accreditation.

Internal consistency of the theory developed; concept analysis approach or process used: Competencies for sexual and reproductive health and specifically unintended pregnancy prevention (UPP) have lagged behind other competencies. When UPP competencies exist, they are rarely situated within a public health prevention model. Large knowledge and practice gaps usually persist. Currently in the U.S., there are no nationally agreed upon core competencies for unintended pregnancy prevention. The lack of such competencies impedes comprehensive nursing education and training in UPP across the country.

Logic linking the theory or concept to nursing practice or research problem: Two models are likely to drive a coordinated system of sexual and reproductive health services: (1) UPP within a public and private primary care system in the US: the WHO model of Sexual Reproductive health services and the necessary standards and provider competencies (2011); and (2) the UK model of community SRH specialty standards and clinical competencies within the UK National Health Service (2005, 2009). These models formed the basis of a recent Delphi study to identify UPP competencies for the pre-licensure nursing student.

Conclusions, including a statement about the utility of the concept for nursing practice or research: Based on the international experience, developing and implementing competencies for unintended pregnancy prevention within the context of nursing education is an effective, initial strategy to building a coordinated approach to UPP. Providing nurses with the needed education and skill has the potential to improve overall health for women and move toward reducing unintended pregnancy rates.

PUTTING UNINTENDED PREGNANCY PREVENTION INTO PRACTICE: SCIENCE, THEORY AND EVIDENCE

Theory: An Evidence-Based Guideline for Unintended Pregnancy Prevention

*Diana Taylor, PhD, RNP, FAAN
Professor Emerita, School of Nursing
Research Faculty, ANSIRH Program
University of California, San Francisco
San Francisco, CA*

*E. Angel James, PhD(c), WHNP-BC, CNM
Predoctoral Fellow, School of Nursing
Clinical Consultant, ANSIRH Program
University of California, San Francisco
San Francisco, CA*

Purpose/Aims: As there are no comprehensive clinical practice guidelines established for the specific goal of reducing unintended pregnancy to serve as a guide for health professionals, a model that applies accepted public health concepts to effective prevention strategies is proposed. The purpose of this presentation is to present a plan for incorporating a coordinated system of unintended pregnancy prevention into practice and to delineate the role of the nurse as a potential leader in this process.

Description of Theory: In spite of the frequency of and significant costs associated with unintended pregnancy, evidence-based clinical guideline development for prevention of unintended pregnancy has lagged behind other important health threats resulting in a system-wide failure to successfully provide care to individuals of reproductive potential who are risk of unintended pregnancy.

A coordinated public health model as applied to the national health goal of reducing unintended pregnancy includes primary, secondary and tertiary prevention goals, strategies and essential prevention services for health professionals who provide care for patients at risk for unintended pregnancy.

Approach: Applying a public health model, *primary prevention* of unintended pregnancy results in desired and planned pregnancies and the application of evidence-based preconception care strategies and risk reduction. Primary prevention strategies may have the best empirical evidence (e.g., preconception care guidelines from the Centers for Disease Control & Prevention and March of Dimes), but there is also evidence indicating that a coordinated system of *secondary and tertiary prevention* has the potential to improve outcomes through the removal of barriers and the quick return of individuals to primary prevention.

Logic Linking the Theory to Nursing Practice: Effective utilization of the model blueprint will depend on integration of prevention guidelines across all sectors of health care delivery providing services to populations at risk for unintended pregnancy. The role of nursing, as a facilitator of coordinated care, in the prevention of unintended pregnancy is an essential one if prevention is to be included in care for populations at risk.

Conclusions: To meet the Healthy People 2020 goals of increasing the number of intended pregnancies, unintended pregnancy prevention will need to be an aspect of the routine care of all men and women of reproductive potential. The model presented is a tool to aid in the integration of unintended pregnancy prevention into routine care. For this model to be effectively implemented, nurses will need to be leaders in developing a coordinated system.

Abstracts of Symposium Presentations

**REMEMBERING RHEBA:
A LEGACY OF ADVANCING NURSING
LEADERSHIP AND EDUCATION**

Moderator:

*Basia Belza, PhD, RN, FAAN
Aljoia Endowed Professor of Aging
School of Nursing
University of Washington
Seattle, WA*

**OVERVIEW: REMEMBERING RHEBA: A LEGACY
OF ADVANCING NURSING LEADERSHIP AND EDUCATION**

Basia Belza, Azita Emami

**ADVANCING NURSING THROUGH A LEGACY
OF LEADERSHIP**

Nancy Fugate Woods

ADVANCING NURSING THROUGH A LEGACY OF TEACHING

Sarah E. Shannon

WEDNESDAYS WITH RHEBA

Oleg Zaslavsky

**THE LATEST SCIENCE ON THE IMPACT OF MUSIC
AND SINGING FOR HEALTHY AGING**

Musetta Chang-Chi Fu, Shih-Yin Lin

REMEMBERING RHEBA: A LEGACY OF ADVANCING NURSING LEADERSHIP AND EDUCATION

Overview: Remembering Rheba: A Legacy of Advancing Nursing Leadership and Education

*Basia Belza, PhD, RN, FAAN
Aljoya Endowed Professor of Aging
School of Nursing
University of Washington
Seattle, WA*

*Azita Emami, PhD, MSN, RNT, RN, FAAN
Robert G. and Jean A. Reid Dean
School of Nursing
University of Washington
Seattle, WA*

The purpose of this symposium is to reflect on the contributions of Dr. Rheba de Tornyay, a nursing pioneer and advocate for healthy aging. Dr. de Tornyay has deep roots in the west having been born in a rural area of Northern California and obtained her undergraduate and graduate education in the Bay area. She obtained her first faculty position at the School of Nursing at University of California, San Francisco; served as the second dean of the School of Nursing at University of California, Los Angeles; and then took over the helm at the School of Nursing at University of Washington. Among her many accomplishments, she was the third nurse elected to the Institute of Medicine; a Founding Fellow and first board president of the American Academy of Nursing; and the first woman and first nurse elected to the Robert Wood Johnson Foundation board of trustees.

In our symposium we will trace how Dr. de Tornyay's vision and goals align with current developments and new directions in nursing. A brief video will be shown that captures the life and legacy of Dr. de Tornyay. The first presentation will highlight the role Dr. de Tornyay has had in advancing leadership in national organizations in a time and place when nursing was wrestling to be accepted as a profession. The second presentation will focus on how Dr. de Tornyays' *Strategies for Teaching Nursing* (1971) heralded the flipped classroom we have today. The third presentation will be given by one of Dr. de Tornyay's last mentees who will share an innovative model for mentorship with a nursing pioneer. Finally, two PhD in Nursing Science students, one a recipient of a de Tornyay scholarship and both professional musicians, will present the latest science on the impact of music and singing on healthy aging. As Dr. de Tornyay relished listening to Mozart, our symposium will conclude with a musical tribute.

REMEMBERING RHEBA: A LEGACY OF ADVANCING NURSING LEADERSHIP AND EDUCATION

Advancing Nursing through a Legacy of Leadership

*Nancy Fugate Woods, PhD, RN, FAAN
Professor
School of Nursing
University of Washington
Seattle, WA*

Purpose/Aims: The purpose of this presentation is to review and reflect on the rich legacy left by Dr. Rheba de Tornyay which is attributable to her leadership in nursing, higher education, and health.

Rationale/Background: During her tenure as Dean, University of Washington School of Nursing, Dr. de Tornyay's leadership was essential to nurture the development, approval and launch of the PhD in Nursing Science program which admitted its first class in 1978. Her support for an Office of Nursing Research and administrative leadership for providing consultative services to faculty was foundational to developing the research essential to support the original fields of study in Nursing Science that characterized the first PhD curriculum. At the same time, Dr. deTornyay's leadership of nursing's leaders shaped the American Academy of Nursing. As a founding member and first president of the Academy, she launched and led during early formative years, culminating in an enduring organization that helps shape policy in health and health care. Recognized for her leadership, Dr. deTornyay was elected to the Institute of Medicine of the National Academy of Sciences as one of its first "nurse" members. From this vantage point, she influenced the development of the section for "other health professionals", helping develop a strong cadre of nurse colleagues to serve on influential committees advising federal policy. Dr. deTornyay was also appointed to the Robert Wood Johnson Foundation Board of Trustees where she served as the first woman and first nurse member.

Description: Instrumental in shaping program initiatives for foundations and academia, Dr. de Tornyay enhanced her colleagues understanding of nursing and the profession's and discipline's many contributions to health care.

Outcomes/Conclusions: In conclusion, Dr. de Tornyay has left a legacy of leadership that both shaped and inspired the best in nursing and the health professions.

REMEMBERING RHEBA: A LEGACY OF ADVANCING NURSING LEADERSHIP AND EDUCATION

Advancing Nursing through a Legacy of Teaching

*Sarah E. Shannon, PhD, RN
Associate Professor
School of Nursing
University of Washington
Seattle, WA*

Purpose/Aims: The purpose of this presentation is to reflect on the landmark book *Strategies for Teaching Nursing* (de Tornyay, 1971) to consider the foundation it provided for today's interactive teaching methodologies.

Rationale/Background: Although provocative at the time, Rheba de Tornyay's classic book became the standard in the field through three editions and influenced the way professionals were taught in schools of nursing throughout the country. Dr. de Tornyay challenged educators to move from a view of students as passive recipients of learning to active participants in the educational process. Simultaneously, she challenged educators to evaluate their own teaching strategies and outcomes through reflective practice.

Description: This presentation will address two complementary questions. First, what aspects of *Strategies for Teaching Nursing* remain relevant and useful with current educational challenges such as increasingly embedded technologies (e.g., web-based course materials, audience response systems and on-line discussion groups) and flipped classrooms (e.g., taped lecture content, discovery-based learning activities, etc.)? Second, what aspects of this early foundational text are no longer relevant or have been superseded by competing ideas?

Outcomes/Conclusions: Using the publication of this text to trace educational trends, allows a unique opportunity to consider how the leading edge of teaching innovation has evolved over 35 years. The delivery of this presentation will be a short TED-style talk.

REMEMBERING RHEBA: A LEGACY OF ADVANCING NURSING LEADERSHIP AND EDUCATION

Wednesdays with Rheba

*Oleg Zaslavsky, PhD, RN
Assistant Professor
University of Haifa
Haifa, Israel*

Purpose/Aims: The purposes of this presentation are to highlight life lessons I learned from Dr. Rheba de Tornyay and describe our weekly Wednesday seminars.

Rationale/Background: Mentoring is an opportunity to provide guidance and support. Robert Frost said it well when he described himself not as a teacher, but as an awakener. Through good mentoring one becomes awakened. During my doctoral program at the University of Washington School Of Nursing I had the wonderful and unique opportunity to be mentored by Rheba.

Description: I will share the invaluable lessons that I learned from long talks with Rheba. The key points I will address during my presentation are: 1) perspectives on the present and future of nursing; 2) teaching in nursing, how it is different from other disciplines; 3) importance of positive reinforcement; 4) “believe in individuals, even before they believe in themselves, and they will exceed your expectations”; and 5) example of boundary less mentoring that maximizes ones potential.

Outcome/Conclusions: My hope is these “pearls of wisdom” will help young and more seasoned scholars in nursing to excel in their professional career.

REMEMBERING RHEBA: A LEGACY OF ADVANCING NURSING LEADERSHIP AND EDUCATION

The Latest Science on the Impact of Music and Singing for Healthy Aging

*Musetta Chang-Chi Fu, MM, RN
PhD in Nursing Science Student
University of Washington
Seattle, WA*

*Shih-Yin Lin, MM, MT-BC
PhD in Nursing Science Student
University of Washington
Seattle, WA*

Purpose/Aims: The purpose of this presentation is to highlight key findings of current research studies on the benefits of music and singing to promote older adult health.

Rationale/Background: There is a growing body of literature about utilizing music and singing interventions to promote healthy aging. Music can be used to design various interventions and activities to address a wide range of health conditions. A number of studies have investigated the impact of listening to relaxing music on psychological states, physiological responses (e.g. blood pressure, heart rate, and respiratory rate), and sleep quality. In addition to listening to music, active music participation (e.g. singing and/or playing an instrument) has been studied to explore the benefits to promoting older adult cognition, physical functioning, socialization, and quality of life.

Description: This presentation focuses on the benefits of music and singing. As Dr. Rheba de Tornyay supported both music and healthy aging, it is appropriate that this session is presented by two nursing scientist students who are also musicians.

Outcomes/Conclusions: A TED-style talk followed by a musical tribute.

Abstracts of Symposium Presentations

ROLE OF NURSING IN FOSTERING UNDERGRADUATE PUBLIC HEALTH KNOWLEDGE

Moderator:

Cheryl L. Cooke, PhD, RN

Assistant Professor

Nursing and Health Studies Program

University of Washington Bothell

Bothell, WA

OVERVIEW: ROLE OF NURSING IN FOSTERING UNDERGRADUATE PUBLIC HEALTH KNOWLEDGE

*Cheryl L. Cooke, Mary Abrums, Annette Anderson, Mary Baroni, Bonnie Blackley,
Mabel Ezeonwu, Kerri Hatfield, Nora Kenworthy, Andrea Kovalesky, Selina Mohammed,
Jereilyn Resnick, Andrea L. Stone, Christopher H. Wade, Linda Westbrook*

ORIGINS OF A NURSING PROGRAM'S JOURNEY INTO PUBLIC HEALTH EDUCATION

*Andrea Kovalesky, Mary Baroni, Jereilyn Resnick, Christopher H. Wade,
Linda Westbrook*

DESIGN AND PROCESS CONSIDERATIONS IN CREATING A HEALTH STUDIES PROGRAM

*Christopher H. Wade, Cheryl L. Cooke, Jereilyn Resnick, Mary Abrums,
Mabel Ezeonwu, Selina Mohammed, Annette Anderson*

A PORTRAIT OF THE INTERESTS AND CAREER GOALS OF AN INITIAL COHORT OF HEALTH STUDIES MAJORS

Andrea L. Stone, Christopher H. Wade, Nora Kenworthy, Kerri Hatfield

ROLE OF NURSING IN FOSTERING UNDERGRADUATE PUBLIC HEALTH KNOWLEDGE

Overview: Role of Nursing in Fostering Undergraduate Public Health Knowledge

Cheryl L. Cooke, PhD, RN, Assistant Professor

Mary Abrums, PhD, RN, Associate Professor

Annette Anderson, MA, Curriculum Development Director

Mary Baroni, PhD, RN, Professor

Bonnie Blackley, MN, Lecturer

Mabel Ezeonwu, PhD, RN, Assistant Professor

Kerri Hatfield, MEd, Academic Advisor

Nora Kenworthy, PhD, Assistant Professor

Andrea Kovalesky, PhD, RN, Associate Professor

Selina Mohammed, PhD, RN, Associate Professor

Jerelyn Resnick, PhD, RN, Senior Lecturer

Andrea L. Stone, PhD, Assistant Professor

Christopher H. Wade, PhD, MPH, Assistant Professor

Linda Westbrook, PhD, RN, Senior Lecturer

Nursing and Health Studies Program

University of Washington Bothell

Bothell, WA

With the enactment of the Affordable Care Act and other national trends, schools of nursing may be looking for additional ways to utilize the expertise of their nursing faculty and generate new sources of revenue. Responding to community requests and the challenges of a campus that does not offer a pre-licensure program, the UW Bothell nursing faculty developed and implemented a non-nursing major, the Health Studies Program. The purpose of this symposium is to describe how the UW Bothell Nursing and Health Studies Program faculty adopted, planned, and implemented this new major.

The first paper describes how our nursing program became a stakeholder in the national effort to develop undergraduate programs in public health. This paper explores how Health Studies was identified as a potential major, and the particular strengths that nursing faculty can bring to public health education.

The second paper describes the multi-year and interdisciplinary effort of developing and implementing the Health Studies program. In this presentation, the challenges, successes, and lessons learned from this experience will be examined. Additionally, it will describe the ultimate design of the new major and the underlying rationale behind key curricular decisions.

The final paper is an analysis of evaluation data from the first cohort. Data were analyzed to examine academic goals and career paths exploring alterations in these related to program course choices. This paper concludes with a discussion of how changes in the curriculum can alter students' academic and career goals.

ROLE OF NURSING IN FOSTERING UNDERGRADUATE PUBLIC HEALTH KNOWLEDGE

Origins of a Nursing Program's Journey into Public Health Education

*Andrea Kovalesky, PhD, RN
Associate Professor*

*Mary Baroni, PhD, RN
Professor*

*Jerelyn Resnick, PhD, RN
Senior Lecturer*

*Christopher H. Wade, PhD, MPH
Assistant Professor*

*Linda Westbrook, PhD, RN
Senior Lecturer*

*Nursing and Health Studies Program
University of Washington Bothell
Bothell, WA*

Purpose: To share a brief history about why and how our nursing education program became a stakeholder in national efforts to promote the development of undergraduate programs in public health.

Background: In 2003, the Institute of Medicine (IOM) issued an assessment of the national public health workforce that anticipated a severe shortage of professionals with appropriate training. They recommended increasing access to undergraduate programs in public health. In 2007 the Association of American Colleges and Universities (AACU) supported the IOM's efforts by establishing networking venues for The Educated Citizen and Public Health initiative to increase knowledge among all college students about global/public health issues. AACU published its *Recommendations for Undergraduate Public Health Education* in 2008, which suggested that a core curriculum in global health, public health, and epidemiology be available to all students.

Approach: Our Nursing Program had a long-standing interest in population health, and therefore began to investigate this potential alignment of faculty skills and public health education priorities. A team of nursing and interdisciplinary campus faculty colleagues attended a national AACU workshop on creating educated citizens in public health in 2008 and on their return recommended the development of a minor in public health on our campus. Conversations ensued with the nursing program faculty, liberal studies department, academic affairs office, other campuses of our university, and the regional School of Public Health to determine curricular gaps and possible duplications for this minor. Concerns were raised about the nursing program becoming fragmented, the need for non-nursing faculty, and cross-over with established programs. Yet as the dialogues progressed and these and other concerns were addressed, the possibility of a major in public health studies through the nursing program rather than a minor evolved. Reasons for this change included beneficial impacts within the community, the campus, and the nursing program itself.

Outcomes: Evaluation of the nursing program faculty and resources initially indicated a strong potential for implementing an undergraduate minor that addressed national recommendations for public health training. However this evaluative process ultimately led the program to proceed with developing a related major and to a program name change which would encompass this broader scope.

Conclusions: In the last decade, considerably strides have been made to addressing the lack of undergraduate public health education opportunities identified by the IOM. Nursing programs with faculty expertise in population health can play a key role in these efforts.

ROLE OF NURSING IN FOSTERING UNDERGRADUATE PUBLIC HEALTH KNOWLEDGE

Design and Process Considerations in Creating a Health Studies Program

Christopher H. Wade, PhD, MPH
Assistant Professor

Cheryl L. Cooke, PhD, RN
Assistant Professor

Jerelyn Resnick, PhD, RN
Senior Lecturer

Mary Abrums, PhD, RN
Associate Professor

Mabel Ezeonwu, PhD, RN
Assistant Professor

Selina Mohammed, PhD, MPH, RN
Associate Professor

Annette Anderson, MA
Curriculum Development Director

Nursing and Health Studies Program
University of Washington Bothell
Bothell, WA

Purpose: This presentation will describe the process of designing a new undergraduate Health Studies degree program, including the challenges, successes, and lessons learned.

Background: National public health priorities and groundwork with community partners indicated to nursing faculty in our program that there was a need for an undergraduate health major in our region. Of particular concern was the absence of a direct pathway for allied health graduates and other health professionals working in the community to complete a bachelor's degree in an area relevant to their daily work. Our program faculty were tasked with finding a way to meet this demand through the development of a new major that trains undergraduate in public health principles and practical applications.

Approach: Senior nursing faculty members completed the pre-application process. Following approval of the pre-application, an interdisciplinary team of faculty and education professionals worked together to develop a program mission, demonstrate need, outline educational goals, assess capacity, and create a program structure. After program approval, a team proceeded to operationalize the plan for a Health Studies Major.

Outcomes Achieved: Faculty developed a series of introductory core courses focused on public and community health principles including public health practice, epidemiology, and global communities, equity, and culture. Once matriculated into the program, students identify either an open pathway or directed studies in Health and Life Sciences, Community Engagement, Local and Global Health, or Health Policy, Leadership and Ethics. In the program, students have access to electives offered by nursing faculty (e.g., courses on vulnerable populations, health education, ethics, and policy) and courses in interdisciplinary arts and sciences, technology, engineering, and mathematics.

Conclusions: Interest in the Health Studies degree is high and the enrollment of majors is expected to double in the coming year. Key challenges include: 1) balancing the needs of this new program with our current nursing degree programs (BSN, MN), 2) providing an education that converges with students' career aspirations, and 3) creation of additional high quality course offerings that can accommodate program expansion. These continuing developments in the Health Studies major will provide our program with new ways to serve students who are interested in nursing and other health professions.

ROLE OF NURSING IN FOSTERING UNDERGRADUATE PUBLIC HEALTH KNOWLEDGE

A Portrait of the Interests and Career Goals of an Initial Cohort of Health Studies Majors

*Andrea L. Stone, PhD
Assistant Professor*

*Christopher H. Wade, PhD, MPH
Assistant Professor*

*Nora Kenworthy, PhD
Assistant Professor*

*Kerri Hatfield, MED
Academic Advisor*

*Nursing and Health Studies Program
University of Washington Bothell
Bothell, WA*

Purpose: This aim of this paper is to provide a picture of the educational and career goals of undergraduate upperclassmen entering a new Health Studies degree program within a Nursing and Health Studies program. More specifically, we examine whether or not students' planned concentration areas and planned career paths change during the first year of study within the program.

Background: The rationale for this examination is to ensure the development of concentration area specific and elective courses that are aligned with student needs and interests. It is hypothesized that, as students are exposed to new areas of inquiry and thinking embedded within the Health Studies curriculum, they may alter their planned educational and career paths.

Approach: The first wave of data was collected from new Health Studies students at the beginning of fall quarter, 2013. Students were asked to complete a survey that included questions regarding their planned degree concentration areas, and planned career directions post-graduation. Results and implications will be discussed with regards to consistency or change after taking an identical survey at the end of winter quarter.

Outcome: Ninety one percent of the first year Health Studies students (n=41) completed the survey. Of the four degree concentration areas (*health and life sciences; community engagement; local and global health; and health policy, leadership and ethics*), *health and life sciences* was the most frequently endorsed (70.7%), with *local and global health* emerging as the second most frequent response (56%). The majority of students (73%) were interested in two or more of the concentration areas, again with *health and life sciences* being endorsed most frequently by individuals interested in multiple concentrations (76.7%). The concentration area data were interesting in light of the fact that the most frequently endorsed career interests were in the realms of *global health and public* (58.5% each), and *health administration* (48.8%). However 61% of students endorsed interest in at least one clinical career path including *nursing, physician, physician assistant, dentistry, alternative medicine, physical therapy, or occupational therapy*, which accounts for the heavy interest in the *health and life sciences* concentration area. Student change at the end of winter quarter will be assessed.

Conclusion: While engaging in program development, it is important to understand both the intended academic and career goals of enrolled students. It is also important to estimate how exposure to course content may alter student academic and career goals, as a shift in the offering of concentration specific and elective courses may be warranted. Data from this study will aid in the development of appropriate elective courses for this Health Studies degree.

Abstracts of Symposium Presentations

SECONDARY ANALYSIS OF NATIONAL SURVEYS: A WIN-WIN IN DOCTORAL NURSING EDUCATION

Moderator:

Janice F. Bell, MN, MPH, PhD

Assistant Professor

Betty Irene Moore School of Nursing

University of California, Davis

Sacramento, CA

OVERVIEW: SECONDARY ANALYSIS OF NATIONAL SURVEYS: A WIN-WIN IN DOCTORAL NURSING EDUCATION

Janice F. Bell

DOES RURALITY MODIFY ASSOCIATIONS OF INSURANCE INSTABILITY AND HEALTH SERVICE USE?

Bronwyn Fields, Janice F. Bell, Sally Moyce, Jeri Bigbee

PHYSICAL ACTIVITY AND NATIVITY AMONG U.S. BLACKS: ANALYSIS OF NHANES 1999-2009

Daphene Francis, Janice F. Bell, Carolina Apesoa-Varano

INSURANCE COVERAGE AND ANTICIPATORY GUIDANCE: ARE HISPANIC CHILDREN AT A DISADVANTAGE?

Sally Moyce, Janice F. Bell, Bronwyn Fields, Mary Lou De Leon Sianz

ADVERSE EVENT EXPOSURE AND RESILIENCE IN EARLY CHILDHOOD

Holly S. Thurston, Janice F. Bell

HAS PSYCHOSOCIAL CARE IMPROVED AMONG ADULT CANCER SURVIVORS IN THE UNITED STATES?

Robin L. Whitney, Janice F. Bell, Richard J. Bold, Jill G. Joseph

SECONDARY ANALYSIS OF NATIONAL SURVEYS: A WIN-WIN IN DOCTORAL NURSING EDUCATION

Overview: Secondary Analysis of National Surveys: A Win-Win in Doctoral Nursing Education

Janice F. Bell, MN, MPH, PhD
Assistant Professor
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

This symposium session highlights an innovative research methodology course designed to introduce doctoral nursing students to data management and analysis for studies of health and health care. The course—recently pilot-tested at the Betty Irene Moore School of Nursing—focuses on secondary analysis of large, national complex survey data sets and hands-on use of statistical software. In addition to learning the important skills required to manage and analyze survey data with complex sampling designs, students build their curriculum vitae by developing a paper for publication.

The course format includes short didactic sessions, demonstrations, class discussion, and review of published papers focused on data management and analysis. Each student selects a publicly available complex survey dataset sponsored by the National Centers for Health Statistics (NCHS) and, over one quarter, develops research aims, cleans and prepares data, conducts appropriate statistical analyses to answer their research question(s), and develops a draft manuscript for publication in a target journal. Weekly class assignments build toward the final paper and include peer review of another student's paper. Students are encouraged to work collaboratively as co-authors and with faculty mentors outside the class. They are also encouraged to complete independent study credits the following quarter to refine their papers and submit them for publication in peer-reviewed journals.

This symposium session is organized to provide general details about the course, followed by brief presentations by doctoral student course participants, each focused on one of four data sets: Medical Expenditures Panel Survey, National Health Interview Survey, National Health and Nutrition Examination Survey, and National Survey of Children's Health. Each presenter will provide an overview of the data source, their research (aims, methods, results, implications) and lessons learned from their experiences with the course work. Together, the presentations illustrate the breadth of research questions, populations and statistical methods that can be applied using NCHS survey resources.

This innovative course supports the rapid trajectory required for future academic success by assisting students to: develop proficiency in data management and analysis; understand the peer review and publication process; gain experience working collaboratively in teams; and build their curriculum vitae through development of papers for publication. This session will be useful to researchers interested in working with large, national survey datasets and to faculty members developing courses with similar aims.

SECONDARY ANALYSIS OF NATIONAL SURVEYS: A WIN-WIN IN DOCTORAL NURSING EDUCATION

Does Rurality Modify Associations of Insurance Instability and Health Service Use?

Bronwyn Fields, RN, MPH
Doctoral Student

Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Bronwyn.fields@ucdmc.ucdavis.edu

Janice F. Bell, MN, MPH, PhD
Assistant Professor

Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Sally Moyce, RN, BSN
Doctoral Student

Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Jeri Bigbee, RN, PHD
Professor

Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Aim: To examine if non-metropolitan versus metropolitan residence is associated with differences in health care utilization in the face of insurance instability.

Background: Rural residents in the U.S. have higher morbidity and mortality rates, and have higher risk of being uninsured or having discontinuous insurance coverage in comparison to their urban counterparts. Lack of insurance and insurance discontinuity are major barriers to health care use and access. It is not known to what extent associations of insurance instability and health service use are similar for rural and urban residents.

Methods: This cross-sectional analysis of adults aged 18 – 64 years, used data from the 2006 – 2010 Medical Expenditures Panel Survey (N = 61,039). Negative binomial regression was used to model six measures of health service utilization (emergency room visits, inpatient discharges, office-based visits, dental visits, prescription drug fills and home health visits) as functions of insurance continuity, adjusted for socio-demographic and health related covariates. Interaction terms for insurance continuity and rurality were included in the models and partial f-tests were used to test their significance. Stratified models were reported if the interaction terms were significant.

Results: Health insurance continuity was significantly associated with several measures of health service utilization for residents of metropolitan and non-metropolitan residents alike, including more ER visits for those with health insurance coverage gaps (IRR=1.31; 95% CI: 1.18, 1.45); fewer inpatient discharges for those who were continuously uninsured (IRR=0.50; 95% CI: 0.43, 0.58); and fewer office-based visits for those with coverage gaps (IRR=0.79; 95% CI: 0.67, 0.76) or continuous lack of insurance (IRR=0.55; 95% CI: 0.51, 0.60). Individuals who were uninsured or discontinuously insured had significantly fewer dental visits, prescription fills, and home health visits; however, the magnitudes of these associations were generally significantly greater for residents of non-metropolitan areas.

Implications: Insurance instability is associated with higher use of emergency and hospital services and reduced use of non-hospital health care services. In the face of unstable or no insurance coverage, residents of non-metropolitan areas may be at particular risk for reduced access and use of some health services relative to residents of metropolitan areas. Further investigation of these differences, based on more refined measures of rurality, is warranted.

SECONDARY ANALYSIS OF NATIONAL SURVEYS: A WIN-WIN IN DOCTORAL NURSING EDUCATION

Physical Activity and Nativity among U.S. Blacks: Analysis of NHANES 1999-2009

Daphene Francis, BSN

Doctoral Student

Betty Irene Moore School of Nursing

University of California, Davis

Sacramento, CA

Daphene.francis@ucdmc.ucdavis.edu

Janice F. Bell, MN, MPH, PhD

Assistant Professor

Betty Irene Moore School of Nursing

University of California, Davis

Sacramento, CA

Carolina Apesoa-Varano, PhD

Assistant Professor

Betty Irene Moore School of Nursing

University of California, Davis

Sacramento, CA

Aims: To identify factors associated with meeting current national recommendations for physical activity among non-Hispanic black residents in the U.S. and, specifically, to examine the role of nativity.

Background: Immigrants to the United States are at increased risk of obesity possibly due to lifestyle changes such as diminishing levels of physical activity. Most of the work in this area has focused on Hispanic or Latino populations; we found no population-based studies of these associations focused on non-Hispanic black residents.

Methods: This cross-sectional study combined data collected from 1999 through 2009 in the National Health and Nutrition Examination Survey (NHANES) to identify a sample of 7,014 US black residents 18 years and older. The outcomes of interest were binary measures of respondents' report of meeting current national recommendations for moderate physical activity and vigorous physical activity. The primary independent variable incorporated nativity and length of time in the US in three comparison groups: foreign born/living in the US less than 5 years, foreign born living in the US for five years or longer and US born. Other potential predictors, selected *a priori*, included age, sex, education, US citizenship, income as a percentage of the federal poverty level, body mass index, perceived weight status and general health status. Survey-weighted logistic regression was used to model the physical activity outcomes as a function of nativity and the covariates.

Results: In the fully adjusted logistic regression models nativity was not significantly associated with meeting recommendations for moderate or vigorous physical activity. Significant predictors included US citizenship, male (versus female), younger age, very good/excellent health status, higher educational attainment, healthy weight status and reporting a desire to weigh less.

Implications: Interventions aimed to increase levels of physical activity among US black residents should be tailored to meet the needs of specific risk groups regardless of nativity and length of time in the United States. Risk factors include older age, lower education levels, less optimal health status, and weight status categorized as overweight or obese.

SECONDARY ANALYSIS OF NATIONAL SURVEYS: A WIN-WIN IN DOCTORAL NURSING EDUCATION

Insurance Coverage and Anticipatory Guidance: Are Hispanic Children at a Disadvantage?

Sally Moyce, RN, BSN

Doctoral Student

Betty Irene Moore School of Nursing

University of California, Davis

Sacramento, CA

Sally.moyce@ucdmc.ucdavis.edu

Janice F. Bell, RN, PhD, MPH

Assistant Professor

Betty Irene Moore School of Nursing

University of California, Davis

Sacramento, CA

Bronwyn Fields, RN, MPH

Doctoral Student

Betty Irene Moore School of Nursing

University of California, Davis

Sacramento, CA

Mary Lou De Leon Sianz, PhD, RN

Professor

Betty Irene Moore School of Nursing

University of California, Davis

Sacramento, CA

Aims: To examine associations between health insurance coverage and receipt of weight-related anticipatory guidance among Hispanic compared to white non-Hispanic children.

Background: Compared to white, non-Hispanic children, Hispanic children are at increased risk of overweight and obesity and are also disproportionately underinsured. Few studies have considered relationships between insurance coverage and receipt of weight-related anticipatory guidance, and how that relationship differs for Hispanic children.

Methods: The study data were derived from the 2008-2010 Medical Expenditures Panel Survey. Logistic regression was used to examine associations between insurance coverage continuity and parental report of receipt anticipatory guidance regarding diet ($n = 11,340$) and exercise ($n = 11,321$) for white non-Hispanic and Hispanic children ($n=12,438$). All models were adjusted for important confounding variables including age, sex, family income, maternal age, maternal education, parental employment, having a usual source of care, and child health status.

Results: Hispanic children were more likely than white non-Hispanic children to receive anticipatory guidance about diet (OR 1.19, CI 1.03-1.39) and exercise (OR 1.48, CI 1.29-1.70). They were also more likely to have gaps in insurance coverage (17% versus 10%) or to be continuously uninsured (12% versus 6%). However, health insurance continuity was not associated with receipt of anticipatory guidance for either group, while having a usual source of care was a significant predictor.

Implications: Hispanic children receive more anticipatory guidance than white non-Hispanic children, regardless of insurance continuity. Continuously uninsured children in both groups receive less guidance about both healthy diet and regular exercise, and a usual source of care emerged as an important mediator for this relationship. Interventions to assure a usual source of care could improve receipt of anticipatory guidance among all children.

SECONDARY ANALYSIS OF NATIONAL SURVEYS: A WIN-WIN IN DOCTORAL NURSING EDUCATION

Adverse Event Exposure and Resilience in Early Childhood

Holly S. Thurston, MSW

Doctoral Student

Betty Irene Moore School of Nursing

University of California, Davis

Sacramento, CA

Holly.thurston@ucdmc.ucdavis.edu

Janice F. Bell, PhD, MPH

Assistant Professor

Betty Irene Moore School of Nursing

University of California, Davis

Sacramento, CA

Aims: To examine associations of exposure to Adverse Childhood Events (ACEs) and measures of resilience in children from birth to five years of age.

Background: Exposure to ACEs (defined as stressful or traumatic experiences, including abuse, neglect and a range of household dysfunction in the home) are associated with a broad range of adverse social and health outcomes in children. We found no studies that have examined associations of ACE exposure and resilience in a population-based sample of very young children.

Methods: Data were derived from the United States Department of Health and Human Services (DHHS)-sponsored National Survey of Children's Health (NSCH, 2011-2012), generalizable to all non-institutionalized U.S. children. Cases were limited to children ages 0 to 5 years (N=29,997). Two binary independent variables were considered: 1) exposure to any ACE internal to the family locus of control (e.g., living with a parent or guardian who died, served time in prison, got divorced or separated); and 2) exposure to any ACE external to the family locus of control (e.g., victim of violence in the neighborhood, unfair treatment because of race/ethnic group). Three parent-reported measures of resilience were examined as outcomes: child shows interest and curiosity in learning new things; child smiles and laughs a lot; child bounces back quickly when things don't go his/her way. Poisson regression models were used to examine relationships between both measures of ACE exposure and resilience in models controlled for important confounding variables.

Results: The weighted national prevalence of ACE exposure in children aged 0 to 5 years was approximately 36%. Exposure to ACEs internal to the family locus of control were not associated with any of the three resilience measures. Exposure to ACEs external to the family locus of control had modest associations with the child's interest in learning new things (IRR=0.98; 95% CI: 0.97-0.99) and with the child bouncing back quickly when things don't go her way (IRR=0.96; 95% CI: 0.93-0.99).

Implications: Over a third of young children have been exposed to adverse events. External adverse events may have more influence on resilience than internal adverse events. While these effects are of small magnitude, the pervasiveness of the exposure among very young children is of concern and lends new urgency to the need for prevention strategies and for research to identify potential mitigating factors in this population.

SECONDARY ANALYSIS OF NATIONAL SURVEYS: A WIN-WIN IN DOCTORAL NURSING EDUCATION

Has Psychosocial Care Improved among Adult Cancer Survivors in the United States?

Robin L. Whitney, BSN
Doctoral Student
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA
robin.jensen@ucdmc.ucdavis.edu

Janice F. Bell, MN, MPH, PhD
Assistant Professor
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Richard J. Bold, MD
Professor
School of Medicine
University of California, Davis
Sacramento, CA

Jill G. Joseph, MD, PhD
Professor
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Aims: To provide national estimates of mental health (MH) need and service use among adult cancer survivors in the United States and test temporal differences before and after important policy recommendations for psychosocial cancer care.

Background: Cancer survivors experience many psychosocial problems, including psychological distress. Services to address psychological distress are essential to person-centered, high quality care for cancer survivors. It is unclear if estimates of psychological distress and unmet need for mental health (MH) services have changed since the release of key national policy recommendations for routine psychosocial cancer care.

Methods: Adults (n=58,585) in the National Health Interview Survey, 2005 and 2010, were categorized as having: 1) no chronic disease; 2) chronic disease other than cancer; 3) cancer without other chronic disease; 4) cancer with other chronic disease. In these groups, we compared psychological distress, MH visits, and unmet need for MH services (defined as having distress but no MH visit). Survey-weighted logistic regression was used to model these variables as functions of disease status and socio-demographic covariates.

Results: Compared to the group with no chronic disease, cancer survivors with other chronic disease had the highest odds of psychological distress (OR=2.78; 95% CI: 2.18-3.54) followed by cancer survivors without other chronic disease (OR=2.06; 95% CI 1.45-2.92) and individuals with chronic disease other than cancer (OR=1.94; 95% CI 1.71-2.21). Cancer survivors with other chronic disease had the highest odds of a MH visit (OR=1.70; 95% CI: 1.42-2.05) followed by cancer survivors without other chronic disease (OR=1.51; 95% CI 1.16-1.98) and individuals with chronic disease other than cancer (OR=1.48; 95% CI 1.35-1.62). Among cancer survivors, the odds of unmet need for MH services were lower in 2010 than in 2005.

Implications: We find evidence of MH care quality improvement among cancer survivors between 2005 and 2010, a period that coincides with policy and clinical attention to psychosocial cancer care. These efforts may have reduced, but not eliminated, unmet need for MH services among cancer survivors. Healthcare providers should continue efforts to integrate psychosocial screening and support into the routine care of cancer survivors with particular attention to individuals with both cancer and other chronic disease, who may be more apt to suffer from psychological distress.

Abstracts of Symposium Presentations

SUSTAINING NURSING RESEARCH PROGRAMS

Moderator:

Suzan (Suzie) Kardong-Edgren, PhD, RN, ANEF, CHSE

Jodie De Meyer Endowed Chair in Nursing

Research Associate Professor

School of Nursing

Boise State University

Boise, ID

OVERVIEW: SUSTAINING NURSING RESEARCH PROGRAMS WITHOUT TRADITIONAL EXTERNAL FUNDING

Suzan (Suzie) Kardong-Edgren, Jane Grassley, Cynthia M. Clark

DEVELOPING AN EDUCATIONAL RESEARCH PROGRAM WITH INDUSTRY FUNDING

Suzan (Suzie) Kardong-Edgren

DEVELOPING A SUSTAINABLE CLINICAL RESEARCH PROGRAM

Jane Grassley

USING AN ENTREPRENEURIAL APPROACH TO SUSTAIN A PROGRAM OF NURSING RESEARCH

Cynthia M. Clark

SUSTAINING NURSING RESEARCH PROGRAMS

Overview: Sustaining Nursing Research Programs without Traditional External Funding

Suzan (Suzie) Kardong-Edgren, PhD, RN, ANEF, CHSE
Jodie De Meyer Endowed Chair in Nursing
Research Associate Professor
School of Nursing
Boise State University
Boise, ID

Jane Grassley, PhD, RN, IBCLC
Associate Professor
Friends of Nursing Innovation Scholar
School of Nursing
Boise State University
Boise, ID

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

Purposes/Aims: The purpose of this symposium is to explore the dynamics of developing and sustaining an effective and focused research program without major funding from traditional external sources. Three papers will present life experiences of developing research programs using creative approaches: industry, clinical, and entrepreneurial.

Rationale/Background: While federal and state funding is critical to public institutions of higher learning, the prospects for adequate revenue support for higher education are unfavorable. Dwindling state budgets, competing demands for limited grant funding, and reduced private giving have converged to create a challenging environment for faculty attempting to begin or continue a program of research. This decline has increased the need for faculty to acquire funding to support their research through creative alternatives.

Description: Three papers will present diverse approaches of nurse scholars in developing and sustaining an active program of research. The first paper will describe a research program based on the use of technology, simulation, and cardiopulmonary resuscitation to improve health provider education and patient care, funded by industry and non-profit sources. The second paper discusses the development of a clinically focused research program, whose purpose is to improve the health of women and children through facilitating breastfeeding support. The final paper illustrates a robust program of research focused on creating and sustaining civility in practice settings and academic workplaces. This research agenda spans a decade of work using multiple methodologies and creative funding sources to develop and implement theory-driven interventions, empirical measurements, and theoretical models to prevent, measure, minimize, and address uncivil behavior.

Outcomes: Each of the three presenters has a focused research program that has spanned nearly a decade. Results of their research have been disseminated in more than 200 publications and 200 oral presentations. The presenters have received recognition for their scholarship such as fellowships, professional academy recognitions, and national research awards.

Conclusions: A viable research program can be developed and sustained without traditional external funding through creative approaches. Research programs need to be focused and address a phenomenon or population important to nursing through a series of planned and sequential studies.

SUSTAINING NURSING RESEARCH PROGRAMS

Developing an Educational Research Program with Industry Funding

*Suzan (Suzie) Kardong-Edgren, PhD, RN, ANEF, CHSE
Jodie De Meyer Endowed Chair in Nursing
Research Associate Professor
School of Nursing
Boise State University
Boise, ID*

Purposes/Aim: This paper explores the dynamics of developing and sustaining a program of educational research that has been funded by industry and non-profit health organizations for multiple years. Essential components of building an educational research program will be identified and discussed.

Rationale/Background: Nursing doctoral programs actively dissuade students from pursuing programs of research in nursing education research (Broome, Ironside, McNelis, 2012) despite the fact that evidence indicates that we are not producing graduates prepared for today's clinical environments. Funding for nursing educational researchers is severely limited, thus deciding upon a program of research in education is not for the faint of heart. However, "scholars who display high academic productivity and achievement often cannot distinguish work from play" (McGaghie, 2009, p. 577).

Description: This paper describes building a research program based on a love for educational inquiry over the past nine years. An initial small Sigma Theta Tau simulation research grant led to a university sponsored \$100K grant for educational technology, which evolved into a nine-year program of educational research. The skills required to be successful in conducting research include: choosing top flight researchers as mentors, working in teams as leader, follower, and partner, choosing work environments that value and understand educational research, and writing for publication.

Outcomes: A long-term relationship with a major equipment vendor and a non-profit organization, led to two series of multi-site funded research studies, with large workload buyouts over multiple years, with a third large multi-site study beginning shortly. Major outcomes from this line of inquiry include 27 data-based peer-reviewed publications with colleagues, 15 refereed non-data based publications with colleagues, 28 invited international/regional presentations, numerous consultations, a journal editorship, a fellowship, and a recent national educational research award.

Conclusions: It is possible to have a meaningful, fulfilling, and sometimes even funded program of educational research that produces new knowledge that prepares new graduates with vital skills for today's workplace environments.

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SUSTAINING NURSING RESEARCH PROGRAMS

Developing a Sustainable Clinical Research Program

*Jane Grassley, PhD, RN, IBCLC
Associate Professor
Friends of Nursing Innovation Scholar
School of Nursing
Boise State University
Boise, ID*

Purposes/Aims: The purpose of this paper is to explore the dynamics of developing and sustaining an effective and focused clinical research program without major funding from traditional external sources. Essential components of a viable research program with a clinical focus will be identified and discussed.

Rationale/Background: Clinical research is important for advancing nursing practice; however, the expectation to begin and sustain a clinical research program may seem daunting, particularly to new nurse scientists. A good place to begin is with the definition of a research program provided by Dr. Patricia Gray in her 2010 address at the Southern Nursing Research Society meeting in Austin, TX. She defined a research program as a “sequential, focused series of studies that address a phenomenon of concern, a population, or a theory.” Funding for this series of studies may appear to be an impossible hurdle.

Approach: This paper describes a journey that began 40 years ago with a vision to make a difference in the lives of mothers and their infants and to improve their health through facilitating breastfeeding support. This vision has driven the presenter’s clinical research program, developed through a series of studies that have built upon each other and have been funded through a series of small grants awarded by the presenter’s workplace or professional organizations. This presentation will include discussion of the essential components needed to launch and sustain a viable research program. These include choosing a phenomenon that fits your passion; following where the research questions take you; developing writing skills; having a disciplined, dedicated time to thinking about research; growing a supportive community of scholars; and developing interdisciplinary teams. Developing collaborative relationships with nurse clinicians as a research consultant and mentoring students as undergraduate and graduate research assistants have been key to sustaining this research program. Positive outcomes of these partnerships include increasing excitement and improved skill on the part of clinicians and students for conducting their own research and the strengthening of the presenter’s research program.

Outcomes Achieved: A major outcome of this research program has been dissemination of the findings through 12 peer-reviewed publications, 12 podium presentations, and 8 poster presentations. Most of the publications and poster presentations were collaborations with clinical partners or students. This dissemination has resulted in invitations to be a manuscript reviewer for nine interdisciplinary professional journals.

Conclusions: Developing a clinical research program begins with a passion and a vision to make a difference; it begins with the questions generated by one’s clinical practice. Sustaining a viable program of research involves perseverance and a long obedience in the same direction traveled in the company of others.

SUSTAINING NURSING RESEARCH PROGRAMS

Using an Entrepreneurial Approach to Sustain a Program of Nursing Research

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

Purposes/Aim: This paper illustrates how an entrepreneurial approach for creative funding can be used to develop and sustain a rigorous program of research in nursing education. The presenter will describe how innovative funding sources have been utilized to support a robust research agenda that spans nearly a decade. The research program involves a collection of focused and sequential, multi-methodological studies to develop and implement best-practices and theory-driven interventions. The program also includes the development of empirical measurements, theoretical models, and reflective assessments to prevent, measure, and address uncivil behavior and to create healthy workplaces. Essential components of building and sustaining an educational research program will be identified and discussed.

Rationale/Background: Greater emphasis is being placed on acquiring external funding to support programs of research in higher education. Yet, the competition for these funds is increasing exponentially. Dwindling state budgets, competing demands for limited grant funding, and reduced private giving have converged to create a challenging environment for faculty attempting to begin or continue a program of research.

Description: After failing to acquire financial support for scholarly work through traditional means, a nurse scholar pursued other funding and collaborative strategies to build a successful program of research. These included 1) the sale of intellectual property [empirical instruments that have been copyrighted and licensed for use by researchers], 2) self-funding initiatives, 3) creative use of internal funding for undergraduate Research Assistants, 4) partnering with other scholars in practice and academe. Other strategies included identifying a research topic that ignited passion, engaging in mentoring relationships focused on a logical research trajectory, a deep desire to make a difference in the lives of others, and a commitment to improving academic and practice workplaces.

Outcomes: This program of research resulted in the dissemination of more than 40 peer-reviewed and open-access publications—many of which have been co-authored with nurses in practice, nursing students, and collaborators outside the nursing discipline, more than 150 professional presentations, numerous consultations, a book, two book chapters, podcasts, webinars, and a popular nursing organization sponsored blog site. The presenter has received recognition for her scholarship through fellowships, professional academy recognition, and a national research award.

Conclusions: A sustainable program of research that contributes to a body of knowledge and advances nursing science can be accomplished without major external funding by using creative funding approaches and by collaborating with skilled mentors and co-investigators who share a passion for the subject matter and a zeal for making a difference. A prolonged and deep commitment to a program of research may eventually evolve to a point where traditional external funding sources may become available to take the research trajectory to the next level.

Abstracts of Symposium Presentations

TECHNOLOGY ACROSS THE LIFE SPAN: IMPROVING ASSESSMENT, COMMUNICATION AND OUTCOMES

Moderator:

*Christina Baggott, RN, PhD, PNP-BC, CPON
Assistant Professor
Physiological Nursing
University of California, San Francisco
San Francisco, CA*

OVERVIEW: TECHNOLOGY ACROSS THE LIFE SPAN: IMPROVING ASSESSMENT, COMMUNICATION AND OUTCOMES

Christina Baggott, Janine K. Cataldo, Caroline Stephens, Melinda S. Bender

PSYCHOMETRIC EVALUATION OF AN ELECTRONIC SYMPTOM DIARY FOR ADOLESCENTS WITH CANCER

Christina Baggott, Christine Miaskowski

ENGAGING STAKEHOLDERS IN DEVELOPING TELE-ED TO REDUCE NURSING HOME TO ED TRANSFERS

*Caroline Stephens, Elizabeth Halifax, Prasanthi Govindarajan, Sei J. Lee,
Christine Ritchie, Janet Shim*

A VIRTUAL GAME TO IMPROVE COMMUNICATION AND SYMPTOM MANAGEMENT FOR LUNG CANCER PATIENTS

Janine K. Cataldo, Cati Brown-Johnson

DIGITAL TECHNOLOGY USE AMONG DIVERSE ETHNIC POPULATIONS

Melinda S. Bender, JiWon Choi, Prisila Gonzalez, Yoshimi Fukuoka

TECHNOLOGY ACROSS THE LIFE SPAN: IMPROVING ASSESSMENT, COMMUNICATION AND OUTCOMES

Overview: Technology across the Life Span: Improving Assessment, Communication and Outcomes

*Christina Baggott, RN, PhD, PNP-BC, CPON, Assistant Professor, Physiological Nursing
Janine K. Cataldo, PhD, APRN-BC, FAAN, Assistant Professor, Physiological Nursing
Caroline Stephens, RN, PhD, GNP, Assistant Professor, Community Health Systems
Melinda S. Bender, APRN, PhD, T32 Postdoctoral Fellow, Family Health Care Nursing
University of California, San Francisco
San Francisco, CA*

Digital technology is changing the face of healthcare. With technology, clinicians have new options to communicate with each other and patients; to monitor and evaluate new sources of data; and to promote healthy lifestyles. Technology innovations can improve patient safety through new possibilities for remote monitoring and the omnipresence of critical information in clinicians' pockets. Multimedia options for patient education are widely available so that "no child or adult is left behind". This symposium focuses on the incorporation of new technology for symptom assessment across the lifespan.

Baggott and colleagues used technology to assess adolescent cancer patients' symptoms. Adolescents' capabilities to utilize technology is without question, but the concern remained "Would they be willing to interact with the program on a daily basis, despite busy lives and the occurrence of numerous acute and chronic health conditions?" Adherence to Baggott's smartphone symptom assessment tool was consistently high at 79%. These results are superior to adherence to pen and paper diaries, which is estimated as 11% to 55%.¹

Clearly when selecting digital health solutions, one size does not fit all. Input from stakeholders throughout the stages of technology development is needed to determine the optimal user interface. The research conducted by Stephens and by Cataldo focuses on aging populations. Their work emphasizes the importance of eliciting the input of end-users during the development phases of health technology interventions.

Stephens and colleagues demonstrated the use of combined multimodal evaluation (i.e., electronic surveys, ethnographic observations, and focus group-based interviews) as they developed a novel tele-health intervention. Their ability to bring together multidisciplinary teams (e.g., family members and clinicians and staff from a variety of healthcare settings) enhanced the evaluation process, by highlighting how various stakeholders interacted with the technology as well as how they interacted with one another.

Cataldo embedded symptom assessment in a virtual world gaming intervention improve patient-clinician communication and self-management of their cancer care. Although gaming and virtual reality are more commonly used by adolescents and young adults, Cataldo's virtual reality game was found to be feasible and acceptable to lung cancer patients.

Bender and colleagues addressed an issue that crosses the lifespan. They investigated technology use by diverse ethnic groups. As noted by survey results from the Pew Internet and American Life Project, Internet access and smartphone ownership is increasing among minorities in the United States, to decrease the "digital divide" noted in the previous decade.² However, the results from Bender and colleagues suggest that differences among ethnic groups do exist, particularly across age ranges. Researchers must be aware of these differences to design and implement technology-based health interventions.

Technology can clearly enhance the care provided across the lifespan and should not be limited to the young and "technologically savvy". However, care must be taken to involve input from key stakeholders to promote adherence to assessments and create positive experiences for the users. In addition, clinicians and researchers must be aware of differences in familiarity with technology across ages and among ethnic groups.

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TECHNOLOGY ACROSS THE LIFE SPAN: IMPROVING ASSESSMENT, COMMUNICATION AND OUTCOMES

Psychometric Evaluation of an Electronic Symptom Diary for Adolescents with Cancer

Christina Baggott, RN, PhD, PNP-BC, CPON
Assistant Professor
Department of Physiological Nursing
University of California, San Francisco
San Francisco, CA

Christine Miaskowski, RN, PhD, FAAN
Professor
Department of Physiological Nursing
University of California, San Francisco
San Francisco, CA

Aims: With input from adolescent cancer patients, our team developed an electronic diary (eDiary), to collect symptom data from these patients on a smartphone platform. Psychometric evaluation of this tool is essential prior to its use in symptom research or clinical care. Therefore, the aims of this study, in a sample of oncology patients, ages 13 to 21 years, were to:

1. Determine the concurrent validity of the eDiary by comparing item responses on the eDiary to corresponding symptom reports on validated instruments;
2. Determine the discriminant validity of the eDiary by comparing responses on the eDiary of patients currently receiving chemotherapy to those of patients who have completed cancer therapy;
3. Calculate test-retest reliability of symptom assessments on the eDiary;
4. Determine patient adherence rates to daily symptom queries over a 21-day period via the eDiary.

Background: Adolescents with cancer experience a myriad of disease- or treatment-related toxicities. Accurate assessment of cancer patients' disease and treatment-related symptoms is vital to provide quality supportive care and to evaluate therapies. The subjective nature of symptoms related to cancer and its therapy necessitate the collection of patient-reported outcomes. Current strategies used to elicit cancer patients' symptom reports rely on recall or completion of pen and paper diaries, which may lead to inaccurate and incomplete data. The collection of data directly from patients via mobile phones eliminates the reliance on recall and may promote adherence with symptom reporting.

Methods: In this study, 58 cancer patients aged 13-21 years (on therapy, n=22; off-therapy, n=36) completed an eDiary on a smartphone platform daily for 21 days.

Patients rated the severity of 4 symptoms (i.e., pain, nausea, sleep quality, fatigue) and could report the occurrence of other symptoms. On Day 8 patients completed a series of validated symptom measures with a one-week recall. In this abstract results will be limited to findings related to nausea. In the eDiary, nausea was measured on the Pediatric Nausea Assessment Tool (PeNAT, potential range: 1-4) and a visual analog scale (VAS, potential range: 0-100). Higher scores on both instruments indicate more severe nausea.

Results: The correlation of nausea scores collected via the eDiary (i.e., the on PeNAT and VAS scores) were strong and positive ($p=0.75$, $p < 0.001$). However, patients provided inconsistent reports of nausea occurrence on 2 validated instruments that rely on one-week recall administered on Day 8. As expected, PeNAT scores were significantly higher among on-therapy patients than those who had completed treatment. Test-retest reliability for the PeNAT was 0.8. Adherence to daily symptom reporting was 79%.

Implications: While inconsistencies were noted between daily nausea occurrence reports on the eDiary and those from validated tools, the eDiary daily reports are more likely to accurately describe patients' symptom experience than measures that rely on recall. The initial psychometric evaluation of the eDiary demonstrated adequate validity and reliability and warrant further evaluation. Adolescents were adherent to daily symptom reports using the eDiary. The ability to evaluate symptom trajectories with daily reports may lead to important discoveries regarding symptom etiologies and treatment.

Funding: This work was supported by a grant from the National Institute of Nursing Research (1P30NR011934-01, PI: Miaskowski) and an American Cancer Society Institutional Research Grant (PI: Baggott). Dr. Baggott is funded by an American Cancer Society Mentored Research Scholar Grant (MRSRG 12-01-PCSM).

TECHNOLOGY ACROSS THE LIFE SPAN: IMPROVING ASSESSMENT, COMMUNICATION AND OUTCOMES

Engaging Stakeholders in Developing Tele-ED to Reduce Nursing Home to ED Transfers

Caroline Stephens, PhD, MSN, APRN, BC, Asst. Professor, Community Health Systems¹
Elizabeth Halifax, PhD, RN, Research Specialist, Community Health Systems¹
Prasanthi Govindarajan, MD, MAS, Associate Professor, Dept. of Emergency Medicine²
Sei J. Lee, MD, MAS, Associate Professor, Division of Geriatrics^{2,3}
Christine Ritchie, MD, MSPH, Professor, Division of Geriatrics²
Janet Shim, PhD, Associate Professor, Dept. of Social & Behavioral Sciences¹

¹University of California, San Francisco School of Nursing, San Francisco, CA

²University of California, San Francisco School of Medicine, San Francisco, CA

³San Francisco VA Medical Center, San Francisco, CA

Purpose/Aims: 1) To better understand stakeholders' (patients/families, nursing home nurses/physicians, and emergency department staff) background, experience and preferences related to the use of technology and nursing home resident transfers to the emergency department. 2) To observe how these stakeholders interact with a multifaceted telehealth platform and each other to better understand their needs and platform features required to optimize their experiences using this technology.

Rationale/Background: Transfers of frail nursing home (NH) residents to and from the emergency department (ED) are common, costly, and expose vulnerable residents to the well-documented risks associated with care transitions. Many NH resident ED visits are for conditions such as pneumonia, heart failure, and urinary tract infections that can be safely and effectively managed in the NH setting with early identification and treatment. Unfortunately, most NHs lack access to timely on-site medical expertise, and many NH staff report needing greater guidance to confidently evaluate and treat NH residents when there is a concern for clinical deterioration. Little is known about how emerging health technologies (e.g., digital EKGs, WiFi and videoconferencing with shared desktops) can virtually connect care providers, patients and families in real-time across care settings to improve timely clinical assessment, communications, care coordination and access to care. Evidence suggests that the paucity of data on what factors influence successful adoption and implementation of sustainable systems contributes to underused/short lived telehealth networks that fail to garner sufficient stakeholder support.

Methods: We convened focus groups comprised of dyads of the following stakeholder groups: patient families, NH nurses, NH physicians, and ED staff. Prior to the start of the focus group, the stakeholders completed a brief REDCap survey regarding their background, experience and preferences related to technology and nursing home resident transfers to the ED. We then conducted ethnographic observations of these stakeholder dyads' interactions with a TeleED platform and each other, followed by semi-structured focus group interviews, to better understand their needs and the platform features required to optimize their experiences using this technology.

Results: Stakeholder dyads provided valuable insights regarding how they navigated through the platform; what issues they encountered; workarounds they developed to deal with problems; when they needed assistance; aspects of the platform that they did not engage with; perceived barriers/facilitators to using this technology; and how different stakeholders interacted with each other.

Implications: Active engagement and input of stakeholders is critical to the development, optimization and testing of telehealth interventions in vulnerable nursing home populations. Such stakeholder input will hopefully increase future opportunities for dissemination and sustainability.

Funding: This study was funded by UCSF CTSI KL2 Career Development Award (8 KL2 TR000143-08).

TECHNOLOGY ACROSS THE LIFE SPAN: IMPROVING ASSESSMENT, COMMUNICATION AND OUTCOMES

A Virtual Game to Improve Communication and Symptom Management for Lung Cancer Patients

Janine K. Cataldo, PhD, APRN-BC, FAAN
Assistant Professor, Physiological Nursing
University of California, San Francisco
San Francisco, CA

Cati Brown-Johnson, PhD
Research Fellow
Stanford Prevention and Research Center
Palo Alto, CA

Background: With the rise of technology in health care, the use of electronic games provides new possibilities for cost-effective and individually tailored health care interventions. The advantages of virtual games are the ability to incorporate ethnic and cultural diversity, increased patient access, behavior change motivated by positive feedback, and information for personalized symptom management.

Lung cancer patients report inadequate communication with clinicians about: symptom experience, prognosis, treatment preferences, finances, spiritual concerns, and palliative care. Lung cancer stigma (LCS) is one factor that contributes to poor patient-clinician communication. The Mobile Health Tool for Lung Cancer (mHealth TLC) is the first interactive, immersive 3-dimensional iPad health game that allows lung cancer patients to experience first person virtual visits with their clinicians. The aims of mHealth TLC are to decrease LCS, improve patient-clinician communication, improve symptom management, and promote optimal cancer self-management. mHealth TLC provides coached patient-provider communication techniques, symptom assessment, and patient-specific health information. This paper reports on the development and usability testing of mHealth TLC.

Theoretical Framework: Health games are conceptualized as motivational play for adults and can influence social skills, self-perception, psychosocial functioning and cognitive skills. The theoretical basis for mHealth TLC draws from gaming, virtual reality, and communication theories to create a safe environment where lung cancer patients can be motivated to practice self-management with virtual providers. Throughout the trajectory of the cancer experience, patients are exposed to both physical and psychological discomfort that can decrease motivation toward self-management. Play promotes motivation through the incorporation of voluntary engagement and pleasure, independent of external rewards. In addition, play is a means of stress management and has a key role in helping patients manage distasteful or shameful aspects of their illness. Role-play fosters increased understanding of various social roles and encourages empathy.

Purpose: To test the feasibility and usability of mHealthTLC, an interactive, immersive 3-dimensional iPad health game that coaches lung cancer patients toward assertive communication strategies and effective symptom assessment during first-person virtual clinics visits.

Methods: We observed players and conducted semi-structured interviews. Research questions focused on scenario believability, the impact of technical issues, transparency of game goals, and potential of mHealth TLC to provide intended game outcomes.

Results: Eight users confirmed mHealth TLC to be: 1) believable, 2) clinic-appropriate, and 3) helpful in promotion of informed healthcare consumers. Concerns were expressed about emotionally charged content, and plans to use mHealth TLC in clinic settings as opposed to at home.

Implications: Although the dialogue and interactions addressed emotionally charged issues, players were able to engage, learn, and benefit from role-play in a virtual world. Health games have the potential to improve patient-clinician communication, improve symptom assessment, decrease LCS, and promote optimal self-management. Process reflection revealed the need for health games to be created by experienced game developers in collaboration with patients, and health care experts. To prepare for this best practice, research institutions and game developers interested in health games should assess all stakeholders and proactively seek out networking and collaboration opportunities.

TECHNOLOGY ACROSS THE LIFE SPAN: IMPROVING ASSESSMENT, COMMUNICATION AND OUTCOMES

Digital Technology Use among Diverse Ethnic Populations

Melinda S. Bender, APRN, PhD, T32 Postdoctoral Fellow¹

JiWon Choi, RN, PhD, Assistant Adjunct Professor²

Prisila Gonzalez, RN, MPH, Masters in Science Nursing Student¹

Yoshimi Fukuoka, RN, PhD, Associate Professor²

¹Department Family Health Care Nursing, UCSF, CA

²Department of Social and Behavioral Science,
Institute for Health and Aging, UCSF, CA

Purpose/Aims: The purpose of this survey study was to assess digital technology use among Filipinos, Koreans, and Hispanics living in the United States. Knowledge, prevalence, and types of mobile and digital technology use among these ethnic populations at risk for obesity and type 2 diabetes will inform the development of tailored lifestyle intervention programs delivered through -digital technology to reduce these risks.

Background: Mobile technology provides an ideal platform to deliver and disseminate cost-effective lifestyle modification programs. Specifics about mobile technology behaviors, such as use of: smartphones, the Internet, mobile applications (e.g. health apps), texting, and social media are of interest. However, little is known on how Filipinos, Koreans, and Hispanics specifically use digital and mobile technology.

Methods: In this cross sectional survey study, 612 adults (Filipinos N=221, Koreans N=195, and Hispanics N=196) were recruited through community events, clinic, churches, and online through Survey Monkey. The survey was administered in English, Spanish, and Korean. Descriptive statistics were used for demographics and digital technology variables. Correlations were used to assess the association between digital technology use with age, gender, marital status, language, education, and years lived in the US.

Results: Preliminary findings indicated: 1) mean age for: Filipinos, Koreans, and Hispanics, were 34 (SD 15.3), 45 (SD 5.5), and 47 (SD 14.3) years, respectively; 2) primary language for Filipinos=English (91%), Koreans= Korean (85%), and Hispanics=Spanish (95%). Mobile phone and smartphone use was prevalent among all groups: Filipinos (95.8%, 92%), Koreans (95%, 75%), and Hispanics (90%, 45%). A majority of Filipinos (88%) and Koreans (75%) accessed the Internet using smartphones, whereas less than half (42%) of Hispanics did. Social media access and text messaging were more prevalent among Filipinos (92%, 79%) and Koreans (85%, 65%), whereas Hispanics were less likely to access social media (41%) and more likely to text (62%). Mobile phone applications (apps) were primarily used by Filipinos (88%) and Koreans (85%); and less likely by Hispanics (29%). However, Filipinos (50%) were more likely to use health apps compared to Koreans (20%) and least likely by Hispanics (3.5%).

Filipinos and Hispanics at younger ages were more likely to own a mobile smartphone, access the Internet, apps, and social media using their mobile phones ($p \leq .05$). For Hispanics higher education was associated with digital technology use ($p \leq .05$). For Filipinos, speaking English and having a paid job was associated with mobile phone and computer ownership and accessing the Internet ($p \leq .05$). There were no significant associations with Korean demographics and digital technology use.

Implications: Results indicated digital technology is widely used among US Filipinos, Koreans, and Hispanics. They differed in their use of digital technology. Digital technology is an ideal platform to deliver tailored health promotion interventions to large diverse ethnic populations as a means of mitigating the incidence of multiple chronic diseases at a relatively low cost. Findings from this study will inform health providers and researchers on developing digital technology-based health promotion programs tailored for at-risk ethnic populations in an effort to reduce health disparities.

Abstracts of Podium Presentations

ADVANCEMENTS IN NURSING EDUCATION

Moderator:

Nancy Haugen, PhD, RN

Associate Professor and Accelerated BSN Program Chair

School of Nursing

Samuel Merritt University

Oakland, CA

INTERPROFESSIONAL EDUCATION IN THE CLINICAL SETTING: HOW DOES THE FACULTY DO IT?

Angel Chen, Josette Rivera, Emily Green, Nicole Rotter, Susan Kools

IS THERE EVIDENCE OF 'FAILING TO FAIL' IN SCHOOLS OF NURSING?

Angie Docherty, Nathan Dieckmann

ANATOMY ACADEMY: A STUDY ON NURSING STUDENTS' SELF-PERCEIVED ABILITIES

Gaye Ray, Jane H. Lassetter, Jon Wisco

THE CLINICAL SCHOLAR PROGRAM: A FULBRIGHT COLLABORATION IN THE NORTHERN PHILIPPINES

Alyce A. Schultz

RWJF NURSE FACULTY SCHOLARS PROGRAM APPLICATION: IT TAKES A VILLAGE

M. Danet Lapiz Bluhm, Carrie Jo Braden, Janie Canty-Mitchell

ADVANCEMENTS IN NURSING EDUCATION

Interprofessional Education in the Clinical Setting: How Does the Faculty Do It?

Angel Chen, RN, MSN, CPNP

Associate Clinical Professor and Departmental Vice Chair

Department of Family Health Care Nursing¹

Angel.chen@nursing.ucsf.edu

Josette Rivera, MD, Health Sciences Associate Clinical Professor, Dept. of Medicine²

Emily Green, RN, Doctoral Candidate, Dept. of Family Health Care Nursing¹

Nicole Rotter, RN, MS, PNP, Madison Clinic for Pediatric Diabetes³

Susan Kools, RN, PhD, FAAN, Professor, Dept. of Family Health Care Nursing¹

¹UCSF School of Nursing ²UCSF School of Medicine ³UCSF Medical Center

Purpose/Aims: The primary aim of this pilot study was to examine how Advanced Practice Nurses (APN) and medical faculty teach Interprofessional Education (IPE) in the clinical setting with APN students and medical trainees. Our research questions were:

1. How do faculty preceptors adjust clinical teaching to emphasize IPE?
2. What do faculty preceptors do to engage IPE in the clinical setting – before, during, and post-clinical session?

Background: The Institute of Medicine (IOM) Future of Nursing Report recommends that the nursing profession work collaboratively with physicians and other health care professionals to transform and advance health care for the future (IOM, 2011). This involves major changes in nursing education, with one of the recommendations stressing the need for IPE among the learners in both classroom and clinical settings. However, little is known about how preceptors currently engage learners of different professions. Therefore, this study sought to elucidate the methods used by clinical preceptors teaching interprofessional learners, as well as related facilitators and barriers they encounter in the clinical setting.

Methods: This descriptive qualitative pilot study employed ethnographic methods. Structured observations, using tools designed by the researchers, of IPE precepting and follow up interviews were done by two knowledgeable clinician-observers, one MD and one NP, representing a methodology that operationalized the interprofessional nature of this research. The research team identified three participant sites as clinical environments that have a variety of interprofessional trainees and preceptors on site. A total of 15 interprofessional faculty preceptors participated. Thematic analysis was employed as the primary analytic strategy.

Results: Our analysis revealed an overall enthusiasm for IPE among all faculty observed. Three major themes were identified: 1) a variety of teaching approaches to and levels of engagement with IPE from precepting learners of different professions all the same to not engaging at all with learners from other professions, 2) preceptor knowledge gaps related to interprofessional curricula, goals, and scope of practice of learners from other professions, and 3) administrative, structural and logistical elements that support or impede the success of IPE teaching in the clinical setting (such as time, scheduling, and evaluation).

Implications: There are a wide range of styles used by clinical preceptors to teach IPE, though the vast majority of current faculty are not formally trained on how to implement IPE in the clinical setting with their own trainees, nor with trainees from other professions. Without specific preparation, there are missed opportunities to maximize the unique IPE learning experiences in the clinical setting for students to learn with and from each other. Faculty development is needed to optimize IPE teaching in the clinical setting, and should include information on profession specific curricula and scope of practice. Further development of methods for evaluating both learners and preceptors are also needed. Future studies should include trainee perspectives and a larger sample of participants and sites.

Funding: UCSF Medical Center and School of Nursing Clinical Nurse Research Award.

ADVANCEMENTS IN NURSING EDUCATION

Is There Evidence of 'Failing to Fail' in Schools of Nursing?

Angie Docherty, NursD, MPH, RN
Assistant Professor, School of Nursing
Oregon Health & Science University
Monmouth, OR

Nathan Dieckmann, PhD
Statistician and Decision Scientist
Assistant Professor, School of Nursing
Oregon Health & Science University
Portland, OR

Aim: To assess the evidence for 'failing to fail' within schools of nursing. Specifically: have clinical and academic faculty passed student nurses they believe should have failed? If so, what factors were instrumental in supporting this situation?

Background and Rationale: The National Council Licensure Examination (NCLEX) is the 'safety net' through which nursing graduates must pass before they are considered competent for practice. However, in 2011, the first-attempt pass rate in Oregon ranged from 77.3% to 100%. This is a broad range and the question arises as to what is happening in terms of assessment in the three years preceding graduation. We are building our knowledge in this area, stemming from the original 'failing to fail' study in the UK in 2003, but the literature continues to focus on *either* clinical assessment or academic grading. For example: in clinical practice, there is evidence to suggest that student assessment is fraught with challenges that lead to some students 'passing' without merit; in academic grading, the issue of grade inflation brings into question whether failing students are being pulled into passing grades. By continuing to review both as distinct entities we may be missing a more fundamental issue: is there a systemic grading problem in our schools of nursing?

Methods: A cross-sectional survey targeted 235 undergraduate, Oregon based faculty working in a shared curriculum across 5 university campuses and 9 community colleges. The protocol aimed for an estimated response rate of 20-40%; participation was voluntary and anonymous. Chi-square tests of independence explored the relation between variables determining the prevalence of 'failing to fail' and faculty experience, qualifications and institutional factors, which might be associated with academic and clinical assessment. The study was subject to IRB review.

Results: A response rate of 34% included participation from all institutions. The descriptive findings suggest that 'failing to fail' may be evident across clinical *and* academic settings: 72% of respondents reported giving clinical students the 'benefit of the doubt'; 67% had instructed students they felt should not have passed their previous placement; 43% had awarded higher grades than merited; and 18% had awarded a pass in exams that should have failed. Institutional practices may be influential: for example, 33% reported being influenced by non-anonymous grading and 30% were influenced by the likelihood of the student being removed from the course. Of note: faculty from community colleges were more likely to have failed a student at the end of a clinical placement than faculty from university campuses ($p=.05$).

Conclusions and Implications: The results suggest evidence of 'failing to fail' *across* academic and clinical settings. We found few relations between 'failing to fail' and faculty experience, qualifications or institutional factors suggesting that this problem cuts across many instructional settings. It is a challenge for schools of nursing to explore this controversial issue, and those that do should be seen as leaders willing to stimulate debate. Further exploration is imperative as, collectively, schools of nursing must better engender a climate for rigorously measuring student attainment.

Funding: This study was internally funded.

ADVANCEMENTS IN NURSING EDUCATION

Anatomy Academy: A Study on Nursing Students' Self-Perceived Abilities

Gaye Ray, MS, FNP-C
Assistant Teaching Professor
College of Nursing
Brigham Young University
Provo, UT

Jane H. Lassetter, PhD, RN
Associate Professor
College of Nursing
Brigham Young University
Provo, UT

Jon Wisco, PhD
Associate Professor
Physiology and Developmental Biology
Brigham Young University
Provo, UT

Purpose: In this pilot intervention study, we examined the impact of student nurses teaching and mentoring in a school-based, childhood obesity prevention program called Anatomy Academy (AA) on nursing students' self-perceived abilities to 1) tailor lessons on health-related concepts to an elementary school audience, 2) teach and mentor healthy behaviors, and 3) collaborate with other organizations such as schools toward common health-related goals.

Background: As healthcare costs soar, it is critical for nurses to encourage individuals and groups to develop healthy lifestyles. To accomplish this, nurses need to refine their skills in teaching, mentoring, communicating with individuals and groups, and collaborating with organizations such as schools. However, few opportunities exist for nursing students to engage in mentoring and teaching children in community settings. Additionally, current research is limited on interventions to enhance student nurses' self-perceived ability to promote healthy behaviors through mentoring in school-based interventions.

Methods: 14 student nurses (13 female and one male, average age 21.3 years) volunteered in Anatomy Academy and participated in this study. At baseline and post-intervention, participants responded to the Self-Perceived Abilities Questionnaire (SPAQ), a self-assessment tool developed for this study. A paired t-test was used to assess changes in overall self-assessment scores from baseline to the end of the intervention.

Results: Participants' scores on the overall SPAQ rose significantly ($p < .001$) from baseline ($m = 15.9$, $S.D. = 3$) to post-intervention ($m = 15.9$, $SD = 2.2$). Cohen's $d = 3.3$, indicates that the effect of participation in Anatomy Academy on student nurses was large. The largest increase in self perceived abilities from baseline ($m = 2.714$) to post-intervention ($m = 4.143$) occurred in the self- perceived ability of student nurses to collaborate with organizations, such as elementary schools, toward a common goal of helping children maintain a healthy BMI and establish healthy habits. Internal consistency of the tool showed Cronbach's alphas of .84 at baseline and .74 post-intervention.

Implications: The large effect size and significant increase in participants' self-perceived abilities indicate mentoring in Anatomy Academy is an effective intervention to increase student nurses' self-perceived abilities to mentor, communicate and collaborate inter-professionally. Opportunities for student nurses to participate in interventions, such as Anatomy Academy, should be included in nursing school curriculums to develop students' abilities in these areas and promote children's health.

Funding: Brigham Young University's Mentoring Environment Grant.

ADVANCEMENTS IN NURSING EDUCATION

The Clinical Scholar Program: A Fulbright Collaboration in the Northern Philippines

Alyce A. Schultz, PhD, RN, FAAN

Owner, Consultant

EBP Concepts

Bozeman, MT

Purposes/Aims: The purpose of this global Fulbright Collaborative was to utilize an evidence-based practice model to develop the capacity of nursing faculty and nurse clinicians in synthesizing and applying research and other forms of evidence in curriculum planning and in improving patient outcomes. The secondary aim of the project was to strengthen the partnership in research-related initiatives between the nursing faculty from the School of Nursing and the nurse clinicians from the University hospital.

Rationale/Background: The Clinical Scholar Program is designed to develop the skills and knowledge needed to implement the use of research and other forms of evidence in academic curricula and in clinical practice for the improvement of patient outcomes. The Fulbright Specialist program, initiated in 2001, provides two to six week grants to qualified scholars to work with colleagues in smaller or isolated non-United States institutions where placing a traditional Fulbright scholar is not feasible.

Approach/Process: A Fulbright application was submitted by the Dean of the St. Louis University School of Nursing utilizing the Clinical Scholar Program©, a series of workshops, for teaching the principles of evidence-based practice, developing and implementing evidence-based guidelines, and evaluating the outcomes for improving patient care. Based on the Clinical Scholar Model, two series of 5-day workshops were conducted in September, 2013. During the workshops, participants generated clinically relevant questions and searched for and evaluated primary quantitative and qualitative research studies, meta-analyses, and published guidelines. Scientific evidence was synthesized and recommendations were incorporated into clinical practice guidelines. Strategies for implementation, evaluation, and dissemination were presented and adapted to the local settings and available resources. During the final workshop, participants presented their work to colleagues and discussed the teams would continue to move forward as members were from diverse organizations in multiple geographic areas.

Background: The Complementing Alliance for Research and Evidence-Based Practice (CARE) project was initiated in 2006 in northern Thailand to develop regional capacity for emphasizing evidence-based practice (EBP) in international health; 5 projects were initiated. In 2009, Making Evidence and EBP Consultations Accessible to Practitioners (MECAP) was added to accelerate the uptake of EBP using a nurse clinician-instructor model. The Fulbright Senior Specialist program, initiated in 2001, provides two to six week grants to qualified scholars to work with colleagues in smaller or isolated non-United States institutions where placing a traditional Fulbright scholar is not feasible.

Approach: A Fulbright application submitted by the Director of Research at Boromrajonani College of Nursing Nakhon Lampang, Thailand utilizing the Clinical Scholar Program©, a series of workshops for EB guideline development and implementation by nurse clinicians, requesting the program developer as the Fulbright Senior Specialist was approved. Based on the Clinical Scholar Model, three series of 6-day workshops were conducted in November-December, 2010. During the workshops, participants generated clinically relevant questions and searched for and evaluated primary quantitative and qualitative research studies, meta-analyses, and published guidelines. Scientific evidence was synthesized and recommendations were incorporated into clinical practice guidelines. Strategies for implementation, evaluation, and dissemination were presented and adapted to the local settings. During the final workshop, participants presented their work to colleagues.

Outcomes: Ninety nurse clinicians and faculty from 24 healthcare facilities and colleges of nursing attended the workshops. Preliminary work was completed for 39 evidence-based clinical practice guidelines addressing nurse-sensitive quality indicators. A website, www.guidelinesforall.org, was developed for ongoing communication of guideline work and free dissemination of completed guidelines in Thai language to nurses and faculty throughout Thailand.

Implications for Nursing: An update of the clinical projects in northern Thailand and the collaborative model used by the Fulbright Senior Specialist Program will be presented.

ADVANCEMENTS IN NURSING EDUCATION

RWJF Nurse Faculty Scholars Program Application: It Takes a Village

M. Danet Lapid Bluhm, PhD, RN
Assistant Professor
Family and Community Health Systems (FCHS)
University of Texas Health Science Center
San Antonio, TX

Carrie Jo Braden, PhD, RN, FAAN
Associate Dean, Research and Scholarship
UT Health Science Center San Antonio

Janie Canty-Mitchell, PhD, RN
Chair, FCHS
UT Health Science Center San Antonio

Purposes/Aims: This paper aims to provide description of a funding mechanism from the Robert Wood Johnson Foundation specifically targeting nurse faculty scholars, the RWJF Nurse Faculty Scholars Program. Further, it will share the process undertaken by a nurse faculty towards a successful funding application.

Rationale/Background: One of the many challenges of the nursing profession is the shortage of nursing faculty. To support academic nurses, the Robert Wood Johnson Foundation (RWJF) created the Nurse Faculty Scholars Program, aimed at accelerating the development of the next generation of doctorally (PhD)-prepared academic nurse leaders (1). Academic nurses need assistance to tap sources for funding. A description of the process towards a successful RWJF NFS application will serve to inform future nurse academic applicants.

Brief Description of Undertaking: This descriptive qualitative reflection will share the experience of a faculty during her application for the RWJF Nurse Faculty Scholars Program including, but not limited to, decision to apply, development of scientific proposal and personal narrative, application submission, preparation for the semi-finalist interview, finalist stage and being a 2013 RWJF Nurse Faculty Scholar. Learning points and themes were identified.

Outcomes Achieved/Documented: More than one mentor supported the initial application development. A nursing mentor provided support for the program of science description. The Chair of the Department, a 2009 RWJF Nurse Executive Fellow, provided support for the academic career and national leader components. An interdisciplinary scientific mentor provided support for the science component. Others, school of nursing faculty and student scholars, provided feedback on presentation slides. The Dean provided insights on a RWJF interview. In other words, it took a village to provide the essential support for development of the application materials and semifinalist interview preparation, culminating on a successful RWJF Nurse Faculty Scholar application.

Conclusion: The Robert Wood Johnson Foundation Nurse Faculty Scholars Program offers a wonderful opportunity for PhD-prepared junior nursing faculty to become academic nurse leaders. Although the process is labor intensive, through intraprofessional and interprofessional collaborations, a nurse faculty successfully competed for the Program. All PhD-prepared junior nurse faculty are encouraged to apply.

Abstracts of Podium Presentations

AT-RISK HOMELESSNESS AND VIOLENCE

Moderator:

*Mark Siemon, RN, APHN-BC, MPH, CPH
Teaching Associate
School of Nursing
Boise State University
Boise, ID*

CANINE COMPANIONSHIP DURING FORENSIC INTERVIEW IN CHILD SEXUAL ABUSE CASES

Cheryl A. Krause-Parello

RESULTS OF A STUDY TESTING A “TALKSTORY” INTERVENTION FOR INTIMATE PARTNER VIOLENCE

Jan Shoultz, Lois Magnussen

NAVIGATING HOMELESSNESS: VOICES OF PRE-FRAIL AND FRAIL HOMELESS WOMEN

Benissa E. Salem, Adeline Nyamathi

SUPPORTING SHELTERED HOMELESS FAMILIES TOWARD PERMANENT HOUSING

Caroline R. Ellermann

AT-RISK: HOMELESSNESS AND VIOLENCE

Canine Companionship during Forensic Interview in Child Sexual Abuse Cases

Cheryl A. Krause-Parello, PhD, RN

Associate Professor

College of Nursing

University of Colorado-Denver/Anschutz Medical Campus

Aurora, CO

Purposes/Aims: The purpose of this study was to examine the effects of animal-assisted intervention (AAI) on stress indicators (as measured by alpha-amylase (sAA) and pulse) in children undergoing forensic interviews for alleged sexual abuse.

Rationale/Conceptual Basis/Background: Reported cases of child sexual abuse in the United States are in the tens of thousands. These statistics represent alarming acts against children. In 2009, the American Humane Association launched a national initiative entitled Therapy Animals Supporting Kids (TASK) Program. The purpose of the TASK Program is to promote the use of therapy animals to improve child welfare, explicitly including forensic interviews for alleged sexual abuse. Children who have suffered a stressful trauma may find it difficult to speak of their experiences. Therefore, it was postulated that incorporating a therapy canine into the forensic interview process could reduce biological stress indicators.

Methods: A repeated measures design was used in this study. Upon receiving signed informed consents and assents, children were enrolled in the study. Children ($N = 42$) whose age ranged from 5-14 years ($M = 8.91$, $SD = 2.33$) were randomly assigned to the intervention ($n = 19$; AAI during forensic interview) or control ($n = 23$; standard forensic interview practice) condition. The children's parent/guardian completed a demographic form and saliva samples and pulse measures were obtained from each child before and after the forensic interview.

Results: Mixed linear models were tested with a level of significance set at $p \leq .05$. There was an interactive effect of the duration of the interview and the presence of the dog on sAA after the forensic interview ($p = .047$). There also was a significant interaction between age and length of interview ($p = .01$). Results further indicated that drop in pulse was greater in longer interviews and with older children ($p = .02$) when the canine was present.

Implications: Nurses working in child welfare and other health care systems can use the results of this study to advocate for the use of therapy canines as a therapeutic intervention to reduce stress indicators during forensic interviews. Moreover, it is important for nurse scientists to continue to investigate the psychological and biological components of human-animal interaction in order to improve health outcomes in vulnerable populations. Future research is needed to further examine the relationships among canine intervention, salivary biomarkers, and stress responses in children to improve child welfare.

Funding: Provided in part by the Council for the Advancement of Nursing Science/American Nurses Foundation and the Foundation Faculty Research Award-Kean.

AT-RISK: HOMELESSNESS AND VIOLENCE

Results of a Study Testing a “Talkstory” Intervention for Intimate Partner Violence

*Jan Shoultz, DrPH, APRN
Professor
Department of Nursing
University of Hawaii
Honolulu, HI*

*Lois Magnussen, EdD, APRN
Professor Emeritus
Department of Nursing
University of Hawaii
Honolulu, HI*

Purpose/Aims: The purpose of this community based participatory research (CBPR) intervention based on the Community Engagement Model was to determine if community owned, community led “talkstory” groups lead to an increased awareness of the gender based crime of Intimate Partner Violence (IPV) 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’.” “Talkstory” is a culturally appropriate practice consistent with the perspective of CST and the CBPR approach that combines research and community capacity-building strategies. This presentation focuses on results of the intervention.

Methods: The quasi experimental intervention includes 5 talkstory sessions over 7 months. Pre and post testing was conducted to determine changes in between group means on 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 research study has been completed in 4 groups (n = 20) testing the intervention and 2 control groups (n = 19) matched for age, gender and ethnicity.

Results: In the intervention group changes between pre and post testing resulted in a statistically significant change on measures of the acceptability of violence ($p < .006$) and awareness ($p < .02$) and confidence ($p < .01$; $p < .005$; $p < .009$) in the ability to prevent and address IPV. In the control group changes between pre and post testing did not show a statistically significant change on measures of the acceptability of violence. However, the participants in the control group did perceive that they had more confidence ($p < .002$; $p < .001$) and ability to prevent and address IPV.

Implications: Previously traditional assumptions regarding gender have guided perceptions of IPV and resulting attitudes in many communities. The change in the intervention group regarding the decreased acceptability of violence demonstrates the potential of “talkstory” as a way of changing social norms. Increased awareness and confidence among the participants has led to identification of leaders who are engaged in further training and conducting additional community intervention groups. These results are consistent with CST. The hallmarks of CST are building the capacity of individuals and groups to engage in participatory dialogue, consciousness-raising, action in the community.

Funding: USDHHS, Office of Women’s Health, 1CCEWH101006-01-00 & 1 CCEWH111025-01-00.

AT-RISK: HOMELESSNESS AND VIOLENCE

Navigating Homelessness: Voices of Pre-Frail and Frail Homeless Women

Benissa E. Salem, PhD, RN, MSN
Postdoctoral Research Fellow

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/Aims: The United States (U.S.) faces consistently high rates of homelessness, along with an aging homeless population. Pre-frail and frail homeless women are one of the most disenfranchised subpopulations among the homeless; yet, minimal data is available to understand challenges experienced while they are homeless. The purpose of this descriptive, qualitative study was to understand the needs and perspectives of pre-frail and frail homeless women using focus group methodology.

Background: Among middle age and older homeless women (n=75, ages 40-73), over one third (35.3%) were found to be frail. Further, older age, increased health care utilization, poor nutrition, and low resilience were significantly related to frailty. Understanding the journey of pre-frail and frail homeless women as they navigate homelessness and life challenges will inform nurses and other healthcare providers in designing culturally-sensitive programs.

Methods: This descriptive, qualitative study focused on homeless women who were pre-frail and frail in the Skid Row area of Los Angeles. Homeless women were eligible if they met the following criteria: (a) > 40 years of age; (b) homeless; (c) pre-frail or frail as determined by the Tilburg Frailty Instrument and the Survey of Health Aging and Retirement Frailty Instrument (SHARE-FI); (d) free of evidence of acute, psychotic hallucinations, and (e) English-speaking. Using community-based participatory research (CBPR) methods, a semi-structured interview guide (SSIG) was developed which guided the direction of focus groups with the homeless women (N=20; ages 43-62). Content analysis was conducted by the authors and themes were identified.

Results: The average age was 53.4 and the majority of the sample was African American (68.5%), followed by Hispanic/Latino (10.5%), Caucasian/White (10.5%) and other (10.5%). The majority were never married (55%), divorced (30%) or separated (15%); 70% reported having children. Lifetime experiences described by pre-frail and frail homeless women included: (1) chaotic childhoods and cyclical patterns of abuse, characterized by unhealthy relationships, incarceration, substance use; (2) spousal betrayal; and (3) lack of support. Several challenges to navigating homelessness were also experienced and included: (1) managing physical and chronic health conditions; (2) health issues not being taken seriously; and (3) resource, employment and transportation limitations.

Conclusions: For pre-frail and frail homeless women, our findings indicate that individual and structural-level changes are necessary to integrate. In particular, increasing emergency shelter capacity, lengthening hours of operation, and including job placement at the respective sites may be necessary. Interdisciplinary health promotion interventions designed with community partners should focus on developing programs for pre-frail and frail women in order to improve physical, psychological and social well-being.

Funding: This work was supported by the NIH/NINR T32 NR007077.

AT-RISK: HOMELESSNESS AND VIOLENCE

Supporting Sheltered Homeless Families toward Permanent Housing

Caroline R. Ellermann, PhD, RN
Associate Professor
College of Nursing and Health Sciences
Hawaii Pacific University
Kaneohe, HI

Purposes: This research describes the adults' experience of working toward self-sufficiency while they are living in a two year family transitional homeless shelter.

Background: Sheltering homeless families while providing comprehensive support services has been shown to be an effective means of reintegrating the homeless family back into mainstream society where they have stable housing and self-sufficiency. Common means of providing families support for the reintegration process vary, but are well described in literature. There is a dearth of information however that relates to Pacific Islander program support where the uniqueness of island life and the needs of this diverse, multicultural population influence success in permanent housing.

Methods: A qualitative grounded theory method was used to describe the process of support, and potential unaddressed needs, for families attempting to move from transitional housing to permanent shelter. Recorded interviews were conducted with fathers and mothers living with their children in the shelter for nine to 24 months. Informants must have complied with numerous strict rules, including the prohibition of any type of substance use on or off the facility, while enrolled in the shelter program. Staff members were similarly interviewed for confirmation of the homeless shelter's processes.

Results: By using interviews to understand families' perspectives, common routes to successful reintegration are described. Conversely a trajectory that predictably leads to exiting the program unsheltered at the end of two years is also identified. Internal and external influences on the reintegration process are characterized; those influences can predict whether the parent would *engage* or *fail to engage* in the process that supports the family's future permanent shelter. When engaged, clear elements of a change process are delineated within the parents. A process of transformational learning is evident in those parents who were successful in achieving permanent shelter on program exit. A key issue identified by residents and confirmed by shelter staff, was the need for very open communication between the parent and staff in relation to dealing with current life influences. Residents did not identify any support services that were needed from the staff.

Implications: This research was initiated partially as a formative program evaluation. Gaining understanding from the client's perspective on how they personally incorporate skills and knowledge needed is unique and extends current thinking in the field of running and improving outcomes in homeless reintegration programs. Clarifying the process helped to reinforce, suggest change and created additional intervention points in the ways that the homeless shelter staff works to empower adults responsible for housing their family. Knowledge of a change process that systematically integrates transformational learning opportunities may significantly contribute to social agencies focused on the process. The theory generated is potentially generalizable to other institutions.

Funding: This study was supported in part by a Hawaii Pacific University Technology Enhancement Grant and Trustees' Scholarly Endeavor Program.

Abstracts of Podium Presentations

BUILDING POTENTIAL FOR HEALTH

Moderator:

Daphene Francis, BSN, MS

Doctoral Student

Betty Irene Moore School of Nursing

University of California, Davis

Sacramento, CA

FROM GUN SAFETY TO NUTRITION: INTERGENERATIONAL DISCUSSIONS ABOUT HEALTH TOPICS

Martha Driessnack, Lioness Ayres

GENERATION 1.5: STRENGTHS, CHALLENGES AND UNMET HEALTH NEEDS OF LATINO IMMIGRANT YOUTH

Naomi A. Schapiro, Susan M. Kools

A SYSTEMATIC REVIEW ON THE RELATIONSHIP BETWEEN SMOKING AND PLAYING VIDEO GAMES

Susan R. Forsyth

AMERICAN INDIAN EXPERIENCES PARTICIPATING IN A DIGITAL STORYTELLING WORKSHOP

Emily A. Haozous

BUILDING POTENTIAL FOR HEALTH

From Gun Safety to Nutrition: Intergenerational Discussions about Health Topics

Martha Driessnack, PhD, PNP-BC
Associate Professor
Oregon Health & Science University
Portland, OR

Lioness Ayres, PhD, RN
Associate Professor
The University of Iowa
Iowa City, IA

Purpose: The purpose of this study was to explore the focus/frequency of health-related household discussions as reported by parents and children within the same family.

Background: Health-related behaviors learned in childhood stick, meaning they are often resistant to change later in life. In using the *Intergenerational Transmission of Health Model*, Rimal (2003) highlights that among the various intrapersonal, interpersonal, and communicative influences; the most influential factor in changing an individual's health-related behavior is the focus/frequency of household discussion surrounding the behavior.

Methods: Ninety-four individual interviews were conducted to assess focus/frequency of household discussions. The structured interview guide included 16 required health topics from the current National Health Education Standards (Grades K-5) and 1 additional topic related to disease risk/inheritance. The 47 parents and 47 children (ages 7-12) also individually completed a short health literacy assessment, the *Newest Vital Sign* (NVS), and responded to a single-item Household Literacy Environment (HLE) screening question - the number of children's books in the home. Data were analyzed using descriptive statistics and qualitative cluster analysis (by cross-referencing of NVS and HLE scores).

Results: Parent/child dyads agreed on only 4 topics: *bullying, gun safety, computer safety, sleep/rest*. Dyads were at opposite extremes on 11 (73%) out of 17 topics. In 10 (91%) of these – including *teeth brushing, staying active, eating healthy food*, for example - parents reported heavy emphasis/high frequency of discussion, while the child reported no discussion at all; In the remaining 1 (9%) – *disease risk/inheritance* - children reported heavy emphasis/high frequency of discussion, while the parent reported no discussion. Incorporating NVS/HLE correlations and foci/frequency counts, one cluster was noted - households where both parent and child reported > 10 children's books in home (single-item HLE) had increased agreement re: household discussion foci/frequency data.

Implications: As household discussion has been shown to mediate both children's and adults' health-related behavior, this study provides early insight into incongruences in health-related household discussion focus/frequency both within and across parent/child dyads and the potential value of a single-item HLE screening question about the number of children's books in the home.

BUILDING POTENTIAL FOR HEALTH

Generation 1.5: Strengths, Challenges and Unmet Health Needs of Latino Immigrant Youth

Naomi A. Schapiro, RN, PhD, CPNP
HS Clinical Professor

Susan M. Kools, RN, PhD, FAAN
HS Professor

*Department of Family Health Care Nursing
University of California, San Francisco
San Francisco, CA*

Rationale/Conceptual Basis/Background: As many as 80% of children who immigrate to the United States in late childhood have been separated from one or both parents, living with relatives in their home country for several years while their parents work in the United States.

An emerging body of research describes difficulties with family separation and reunification, yet few studies explore the meaning of these transitions from the viewpoint of the adolescent. In addition, there are gaps in the nursing literature, with a dearth of research on migration-related family reunification and perceived health issues from the point of view of the adolescent.

Methods: This grounded theory study used focus groups, participant observation and interviews with 20 adolescents who were reunifying with their parents, to explore parent-teen interactions from the adolescent's perspective. A conceptual model, Believing in a Better Life, was developed to explain factors related to overall adaptation. A thematic analysis was used to deepen understanding of adolescents' experiences with health care.

Results: Participants experienced greater pre-migration and migration-related adverse experiences than anticipated, including gang threats in their home country that impelled migration for some. Frequency and quality of communication with family in home and host countries, support of migration by home country caretakers and belief in the value of parental migration in supporting a "better life" helped youth navigate adverse and protective conditions shaping separation and reunification. Gender roles and expectations impacted their skill at negotiating family and peer connections and their utilization of health care. Participants had limited access to health care outside of school-based settings, and saw telling their migration story as essential to their health.

Implications: Immigration status has a profound impact on every aspect of immigrant adaptation. Nurses can improve care of immigrant adolescents by incorporating questions about migration and transnational family ties into history-taking and providing opportunities for youth to tell their migration stories. Nurses can also advocate for expanded health care access for immigrant children, youth and families.

Funding: Sigma Theta Tau, Alpha Eta Chapter; Programa de Investigación en Migración y Salud (PIMSA); University of California Institute for Mexico and the United States (UC MEXUS).

Reference:

Schapiro, N. A., Kools, S. M., Weiss, S. J., & Brindis, C. D. (2013). Separation and reunification: the experiences of adolescents living in transnational families. *Current Problems in Pediatric and Adolescent Health Care*, 43, 48-68. doi: 10.1016/j.cppeds.2012.12.001.

BUILDING POTENTIAL FOR HEALTH

A Systematic Review on the Relationship between Smoking and Playing Video Games

Susan R. Forsyth, RN, MS, PhD(c)

*Department of Social and Behavioral Sciences, School of Nursing
University of California, San Francisco
San Francisco, CA*

Background: 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). Annually smoking kills 400,000 people. Exposure to smoking imagery from a variety of media sources has been linked to increased smoking rates (2); however, little is known about smoking content in video games, even though they are rapidly becoming a preferred medium of entertainment for adolescents. In the U.S., 88% of youth aged 8-18 play video games at least occasionally. The median amount of time spent playing is 13.2 hours a week (3). The purpose of this systematic review is to summarize the existing research on the relationship between video games and teen smoking and to suggest areas of further research.

Method: The terms “smoking and video games” and “tobacco and video games” were searched using the using the PubMed interface and PsycInfo, for a total of 4 searches. All abstracts and/or full articles were reviewed for possible inclusion. Inclusion criteria were: studies that used video game playing as an independent variable and smoking as a dependent variable and studies that described smoking related video game content. Excluded were: studies not in English, articles that were not in peer-reviewed journals and opinion pieces.

Findings: The four searches yielded 79 citations; after eliminating 21 duplicates, 58 unique citations resulted. Sixteen met search criteria and were included in the review. The review found that research about the relationship between video game playing and smoking and smoking behaviors is still in its nascence. It does appear, however, that tobacco imagery is present in at least a significant subset of games played by adolescents, although it is unclear how much or how substantial the “dose” may be. It appears that there is likely to be a relationship between playing video games and tobacco use, although more empirical evidence is needed to assess the size, direction and strength of the relationship and whether that relationship is specifically associated with problem game playing, duration of game playing, types of games played or a combination of constructs. Because this is an emerging field, there is considerable debate over definitional issues, complicating how and what to measure, and adding considerable complexity to the issue.

Implications: As more adolescents engage in active electronic lives it becomes increasingly important for nurse researchers to understand how viewing and interacting with tobacco imagery in games can have actual real-world effects on adolescent smoking so that effective tobacco control strategies can be developed to address these new media influences.

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BUILDING POTENTIAL FOR HEALTH

American Indian Experiences Participating in a Digital Storytelling Workshop

*Emily A. Haozous, PhD, RN
Assistant Professor
University of New Mexico College of Nursing
Albuquerque, NM*

Purposes/Aims: The purpose of this study was to describe the experience of American Indians (AIs) who participated in a digital storytelling workshop during which they created short videos about health promotion, cancer screening, and early cancer detection.

Background: Digital stories are brief 3-5 minute videos created in a collaborative and facilitated workshop setting. The videos contain first-person stories about a specific life experience, and are designed to share personal information in a manner that can be used to deliver health information. Storytelling as a strategy for sharing cultural and health information has a long tradition in AI communities. Integrating the ancient practice of storytelling with technology to create digital stories is fast becoming a popular method for sharing health information across the AI diaspora. Although digital storytelling is popular in AI communities, few studies have described the experience of participating in a digital storytelling workshop.

Methods: Open-ended qualitative interviews with 8 participants from the digital storytelling workshop were analyzed using thematic analysis.

Results: Participants described the digital storytelling workshop as being a transformative, healing, instructive, and community building experience. Participants were also enthusiastic about having learned the skills required to create additional digital stories in the future.

Implications: Participation in digital storytelling workshops builds community and is a conduit for sharing important cultural and health information in AI communities.

Abstracts of Podium Presentations

CAM INTERVENTIONS ACROSS CLINICAL POPULATIONS

Moderator:

Jill Mount, RN, PhD

Assistant Professor

RN-to-BSN Program

Western Washington University

Bellingham, WA

HEALTH PROMOTION FOR SOMALI WOMEN IMMIGRANTS: STUDY OF A COMMUNITY MASSAGE PROGRAM

Cynthia Price, Anab Abdullahi

MANTRAM REPETITION FOR HIV HEALTHY LIFESTYLE BEHAVIORS: A RANDOMIZED TRIAL

Jill Bormann, Brian Johnson, Ann Kelly

PRACTICES AND MINDFULNESS OF PERIPHERALLY INSERTED CENTRAL CATHETER CARE

Hiroko Kiyoshi-Teo, Satyen Nichani, Latoya Kuhn, Vineet Chopra

CAM INTERVENTIONS ACROSS CLINICAL POPULATIONS

Health Promotion for Somali Women Immigrants Study of a Community Massage Program

Cynthia Price, PhD, MA, LMP
Research Assistant Professor
Biobehavioral Nursing and Health Systems
University of Washington
School of Nursing
Seattle, WA
cynthiap@uw.edu

Anab Abdullahi, MD
Medical Interpreter
Interpretive Services
Harborview Medical Center
Seattle, WA

Purpose/Aims: The purpose of this study was to initiate the study of massage to treat somatic complaints among Somali women immigrants in the United States. The study aims were to: 1) to examine the mental health characteristics of this sample, and 2) describe reasons for seeking massage, and the experience and perceived benefits of massage among Somali women attending the massage program.

Background/Rationale: Somali women immigrants commonly present with somatic complaints for which there are no “medical explanations” and few treatment options. They typically have significant trauma histories related to war-related torture, rape and displacement. In 2009, a Seattle nurse that worked with this population developed a community-based program for Somali women to provide massage therapy as a culturally congruent treatment approach to address their somatic pain. This is the first known community massage program for this population. This IRB-approved project was designed to examine the health characteristics and experiences of Somali women attending this program.

Methods: A mixed methods approach was used to address the study aims. In the recruitment process, massage program attendees were given the choice to complete a one-time set of questionnaires regarding their health, to participate in a focus group specific to their experience of the massage program, or to do both. Seventeen women opted to complete the questionnaires, and 21 women opted to participate in one of three focus groups; among these, ten women participated in both activities. To address Aim 1, three self-report questionnaires, the Hopkins Sx Checklist -25, the Somatization subscale of the Symptoms Checklist-90, and the Harvard Trauma Questionnaire were administered to examine symptoms of depression, somatization, and trauma. These measures had been previously translated into Somali and validated for use with this population. Descriptive statistics were used for the analysis. To address Aim 2, three focus groups were held with 6-8 participants each. The focus groups were facilitated by in Somali and the digital recordings were later translated into English for interpretation. Two researchers independently analyzed the focus group transcripts to identify common themes and quote examples using a content analysis approach.

Results: The community massage program serves women that have significant mental health symptoms. The majority (53%) scored above the cut-off for PTSD, and 88% scored in the high range for somatization. Three of the 17 participants surveyed scored above the cut-off for major depression. Massage was perceived to be very helpful for reducing symptoms of depression and somatic pain. The program structure, which involved a weekly four-hour gathering, was highly satisfying and addressed the common experience of social isolation.

Implications: A culturally congruent approach for the treatment of somatic complaints among Somali women immigrants, massage therapy is an under-utilized, highly acceptable and promising treatment for mental and physical health conditions. This program can serve as a community health model to promote health and well-being for Somali women immigrants.

Funding: Study funded by the Massage Institute Foundation.

CAM INTERVENTIONS ACROSS CLINICAL POPULATIONS

Mantram Repetition for HIV Healthy Lifestyle Behaviors: A Randomized Trial

Jill Bormann, PhD, RN, FAAN
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

Brian Johnson, PhD, RN
Assistant Professor
Hahn School of Nursing & Health Science
University of San Diego
San Diego, CA

Ann Kelly, MSN, PMHCNS-BC, RN
Assistant Professor
Department of Nursing
National University
San Diego, CA

Purposes/Aims: The purpose of this study was to examine the effects of the Mantram Repetition Program (MRP) on lifestyle behaviors (stress management, spiritual growth, interpersonal relations, health responsibility, physical activity, and nutrition) using the Health-Promoting Lifestyle Profile-II as compared to an human-immunodeficiency virus (HIV) educational control group in adults living with HIV disease.

Rationale/Background: The MRP is a mind-body-spiritual intervention that teaches strategies of relaxation by repeating powerful, sacred words intermittently throughout the day; slowing down thoughts and practicing one-pointed attention. The theoretical model supporting this study was the modified stress response model by Biondi and Picardi (1999).

Methods: A randomized controlled trial was conducted with 93 HIV+ adults assigned to either mantram treatment ($n = 46$) or educational control ($n = 47$) groups. A 2-group (mantram vs. control) by 4-time (pre-intervention/week 0, mid-intervention/week 5, post-intervention/week 10, and follow-up/week-22) mixed repeated measures design was implemented. Analyses involved separate sets of 2 (group) by 4 (time) repeated measures ANOVAs using the principle of intent-to-treat.

Results: Majority of the participants were male (81%), White (52%), identified as gay or lesbian (52%), had never been married (67%), graduated high school and had some college, but had not yet earned a college degree (43%), were unemployed (38%), reported they identified with a religious group (65%), and practiced their religion frequently (43%). They ranged in age from 19 to 57 years old ($M=43$, $SD=6.8$), reported a moderate duration of HIV infection ($M=9.8$ years, $SD= 5.9$), and were taking HIV medications (70%). Most participants (83%) had a CD4 cell count of ≥ 200 and HIV-PCR < 400 . Group by time interactions indicated significant improvements in the MRP group on the total Lifestyle Profile score ($p<.03$) and stress management ($p < .001$). The education control had significant improvements in spiritual growth ($p<.05$) and interpersonal relationships ($p<.02$). Both groups had significant improvements over time on physical activity ($p<.001$), nutrition ($p<.001$) and health responsibility ($p<.002$).

Implications: The MRP was found beneficial for improving stress management and the control group improved in behaviors of spiritual growth and interpersonal relationships. Both the MRP and HIV education provided unique contributions to living with HIV disease. Implications of this study suggest that a multi-disciplinary approach for managing HIV disease needed.

Funding: This study was supported by the VA San Diego Healthcare System and funded by the National Center of Complementary and Alternative Medicine (NCCAM/NIH) R21, University of California San Diego (UCSD), San Diego State University School of Nursing's Institute of Nursing Research (#900521); and Sigma Theta Tau International Honor Society—Gamma Gamma Chapter.

CAM INTERVENTIONS ACROSS CLINICAL POPULATIONS

Practices and Mindfulness of Peripherally Inserted Central Catheter Care

*Hiroko Kiyoshi-Teo, PhD, RN
Clinical Assistant Professor
School of Nursing
Oregon Health & Science University
Portland, OR*

*Satyen Nichani, MD
Clinical Assistant Professor
Department of Internal Medicine
University of Michigan
Ann Arbor, MI*

*Latoya Kuhn, MPH
Research Health Science Specialist
Department of Veterans Affairs
Ann Arbor, MI*

*Vineet Chopra, MD, MSc
Assistant Professor of Medicine
Division of General Internal Medicine
University of Michigan
Ann Arbor, MI*

Objectives: To explore practices and mindfulness of PICC care by bedside nurses.

Background: A mindful practitioner will be able to tailor evidence-based practice recommendations to the individual patient by considering both patient and contextual factors through awareness and self-reflection. Peripherally inserted central catheters (PICCs) are frequently used in healthcare settings to provide convenient and vital access to patients. However, there are increasing concerns about inconsistent practices and lack of mindfulness related to daily maintenance of PICCs.

Methods: A survey was created to assess nurses' practices and mindfulness related to PICC care. Mindfulness was assessed by awareness of appropriate catheter placement practices and risks related to PICC placement, and self-reflection on the comfort level of PICC care practices and desire to learn. A paper-based multiple-choice survey with 16 questions was distributed to bedside nurses at six medical and surgical units at one academic medical center in 2013.

Results: A total of 163 bedside nurses responded to the survey. Mean years as a registered nurse was 8 years, representing day, evening, and night shifts. There were variations in PICC maintenance practices. While 62.0% flushed only the unused lumens of a PICC, 29.4% of respondents flushed all lumens regardless of whether there is an ongoing infusion. Frequencies of dressing change depended on the each nurse as well. Only 15.4% of respondents routinely change the dressing, whereas 34.4% change only if wet, loose, or soiled. More than 66% of respondents replied that less than 10% of patients had PICC for inappropriate indications. Subsequently, respondents were most concerned about catheter or bloodstream infections (66.3%) or clotting complications (31.9%). More than half of respondents were comfortable or very comfortable with various aspects of PICC care, however respondents reported the least level of comfort in restoring patency to a PICCs (58.3%) and initiating interventions for PICC complications (60.1%). Respondents thought they could benefit from learning more about PICC care (flushing, dressing, troubleshooting/32.5%), and appropriateness for PICC placement (indications for PICC placement, overuse, or misuse of PICCs/23.3%).

Implications: Nurses indicated various approaches and degrees of mindfulness in providing PICC care. Instead of being stagnant, nurses were open to learning more about routine care of PICCs and troubleshooting. Evaluating nurses' mindfulness through contextual awareness and self-reflection related to PICC care may be beneficial in identifying and addressing issues related to PICC care practices.

Abstracts of Podium Presentations

CARING FOR ACTIVE DUTY MILITARY PERSONNEL AND VETERANS

Moderator:

Sheryl Nespor, RN, FNP, MSN, PhD

Nursing

Scripps Clinic

and Azusa Pacific University

San Diego, CA

PROFESSIONAL NURSING PRACTICE: OPTIMIZING MILITARY AMBULATORY HEALTHCARE

Leilani A. Siaki

CHANGES IN SALIVARY ALPHA AMYLASE AND CORTISOL IN POSTTRAUMATIC STRESS DISORDER

M. Danet Lapiz Bluhm

TRANSFORMING CARE TRANSITIONS: IMPLEMENTING PROJECT RED AT A VA MEDICAL CENTER

*Jeanette M. Broering, Christine Welles, Rachael Lucatoro, Amalia Garcia, Jennifer
Crist-Pickett, Dolores Sapiro-Swanson, Jane Rudolph, Caroline Stephens, Margaret I.
Wallhagen, Melissa Bachhuber*

TELEHEALTH COACHING TO PROMOTE BONE HEALTH AND NUTRITION IN DEPLOYED SOLDIERS

Mary S. McCarthy, Sabrina M. Ramme, Lori A. Loan

TRANSITION TO PRACTICE: SEATTLE VA CENTER OF EXCELLENCE IN PRIMARY CARE DNP RESIDENCY DESIGN AND IMPLEMENTATION

Kameka Brown, Joyce Wipf

CARING FOR ACTIVE DUTY MILITARY PERSONNEL AND VETERANS

Professional Nursing Practice: Optimizing Military Ambulatory Healthcare

Leilani A. Siaki, PhD, FNP-BC
Nurse Scientist, U.S. Army Nurse Corps
Tacoma, WA

Purpose: Explore effects of implementing a professional practice model (PPM) on indicators of optimum care in two military ambulatory clinics.

Background: Nightingale, the American Nurses Association, and Institute of Medicine (IOM) endorsed PPM as means of empowering nurses to retain control over their professional practice, facilitate optimum care, improve patient outcomes, and establish/sustain cultures of excellence through interdisciplinary efforts at local and national levels. The Army Nurse Corps embedded a PPM in its philosophy of care, the Patient CaringTouch System (PCTS). Essential elements of the PCTS PPM identified in the literature and by subject matter experts included: professional nursing values and ethics, interdisciplinary collaboration, differentiated practice, shared governance, and employee recognition. Family (FM) and Internal Medicine (IM) outpatient clinics implemented the PPM guided by the Iowa Model of Evidence-Based Practice. During implementation, outpatient clinics Army-wide transitioned to patient centered medical homes (PCMH). The PCMH are provider-focused while the PPM is nursing centric.

Methods: Nursing leaders and staff implementation goals included: refocus nursing care from task- to patient-centered; differentiate professional nursing practice by level of licensure and expertise; incorporate the concept of relationship-centered care; facilitate optimal healthcare; and emphasize interdisciplinary collegial relationships. Under the PPM, RN-led teams were redesigned to be patient-centered, based on skill mix of the team, and organized into provider-specific panels. Elected unit practice councils and daily interdisciplinary “huddles” were initiated within the auspices of the PCMH. Staff satisfaction and nurse-sensitive patient outcomes such as patient satisfaction, access to care, continuity, and National Committee for Quality Assurance (HEDIS) metrics were tracked. Progress was measured over three 6-month intervals in two large clinics.

Outcomes: Patient satisfaction indices were more favorable for FM than IM (Wilk’s $\lambda = .982, p = .001$) across time. Communication ($p = .004$), access/convenience ($p = .012$), seeing a provider when needed ($p = .039$), and overall satisfaction ($p = .015$) improved over time for both clinics. However, qualitative data obtained from surveys indicated these areas remained problematic for patients. The HEDIS metrics showed no improvement. For staff satisfaction, only RN/MD relationships improved over time ($F(2, 85) = 19.2, p < .05$). Qualitative staff data from surveys cited frequent changes, lack of resources, ineffective leadership communication, management style, and practice constraints as issues. Furthermore, the provider-focused PCMH eclipsed PPMs, as staff felt excluded from decision-making, citing a lack of leadership communication and practice council input.

Conclusions: Significant work turbulence such as policy changes, staff and leadership turnover, construction, military deployments, and financial cutbacks impacted results. Additionally, nurse-sensitive optimal care indicators for outpatient clinics are not as well defined as inpatient metrics. Staff dissatisfaction was mirrored in patient comments noting they felt rushed through appointments and staff needed more help, underscoring the link between patient and staff satisfaction. More research and EBP projects are needed to define nurse-sensitive optimum care indices for ambulatory clinics. Education for both leadership and staff regarding managing change, effective communication, autonomy and genuine interdisciplinary collaboration in the spirit of the IOM report on nursing is needed.

Funding: TriService Nursing Research Program, grant number HU0001-10-1-TS18.

CARING FOR ACTIVE DUTY MILITARY PERSONNEL AND VETERANS

Changes in Salivary Alpha Amylase and Cortisol in Posttraumatic Stress Disorder

M. Danet Lapiz Bluhm, PhD, RN
Assistant Professor
Family and Community Health Systems (FCHS)
University of Texas Health Science Center
San Antonio, TX

Purposes/Aims: This paper aims to characterize the changes in salivary alpha amylase (sAA) and cortisol pattern of activation in individuals with posttraumatic stress disorder (PTSD).

Rationale: Chronic activation of the sympathetic nervous system (SNS) has been implicated in PTSD. Salivary alpha-amylase (sAA) has been considered as a convenient and promising candidate for the assessment of SNS activity in PTSD. While changes in the hypothalamic-pituitary-adrenal (HPA) axis have been demonstrated through characteristic changes in cortisol levels, not much is known about SNS involvement in PTSD. sAA may be a potential biomarker for PTSD.

Methods: Individuals who experienced civilian or combat trauma in the past 12 months (N=24) and normal healthy controls (N=22) completed the demographics survey and PTSD Symptom Scale-Interview (PSSI). They collected salivary samples at 6 time points: 1) early evening; 2) before bed; 3) immediately upon wake-up; 4) 30 minutes after wake-up; 5) mid-morning, and 6) early evening the next day, for 3 consecutive days. Samples were immunoassayed for sAA and cortisol levels and analyzed (significance at $p < 0.05$).

Results: Individuals with PTSD symptoms have an abnormal pattern of sAA activation. PTSD symptoms were associated with significantly lower ($p < 0.05$) sAA at early evening, wake-up and midday compared with controls. They also had an abnormal pattern of cortisol activation. Individuals with PTSD symptoms were more likely to have higher early morning cortisol.

Conclusion: PTSD symptoms were associated with an abnormal pattern of sAA and cortisol. The data support the growing body of evidence for the use of sAA as a potential biomarker for PTSD. Reliable biomarkers for PTSD will aid in the diagnosis and evaluation of treatment response for this disorder. However, more studies using advanced technology are needed to provide further evidence to support the reliability and validity of sAA for sympathetic nervous system involvement in PTSD.

CARING FOR ACTIVE DUTY MILITARY PERSONNEL AND VETERANS

Transforming Care Transitions: Implementing Project RED at a VA Medical Center

*Jeanette M. Broering, RN, PhD, MPH¹; Christine Welles, MD¹;
Rachael Lucatoro, MD^{2,3}; Amalia Garcia, RN, BSN²;
Jennifer Crist-Pickett, RN²; Dolores Sapiro-Swanson, RN²;
Jane Rudolph, RN, MB^{3,4}; Caroline Stephens, RN, PhD⁴;
Margaret I. Wallhagen, RN, PhD, FAAN⁴; and Melissa Bachhuber, MD^{2,3}*

¹VA Quality Scholars Program

²San Francisco Veterans Affairs Medical Center

³UCSF School of Medicine, Division of Hospital Medicine

⁴UCSF School of Nursing, Departments of Community Health and Physiological Nursing

Purposes/Aims: To evaluate the first three months post-implementation of an evidence-based transitional care model, Re-engineered Discharge or Project RED (PR) (Project RED (Re-Engineered Discharge, 2013), on 30 and 90-day readmission rates; length of stay; and seven process measures of care transition, among high-risk Veterans at a Veterans Affairs Medical Center (VAMC).

Rationale/Background: Implementation of the RED transitional care model has been shown to reduce preventable readmissions by 30% (Jack et al., 2009). Local VAMC data suggests that Veterans over age 65-years have a 16.8% and 28.6%, 30 and 90-day readmission rate, respectively. The 30-day readmission rate has risen by 3% over the past five years. On average, there are 300 medicine service inpatient discharges per quarter. Of these, it is estimated that at least 25% are among Veterans at high risk for readmission (Bachhuber, Moy, Stephens, & Pierce, 2011).

Methods: A total of 333 Veterans were managed by 5 PR nurse case managers from December 2012 to March 2013. One-hundred and twenty-seven (38%) electronic medical records were randomly selected for in-depth review. Five charts were excluded (3 died and 2 left against medical advice) with a final sample of 122 (96%) reviewed. Veterans acted as their own control for history of hospitalization in the year prior to receiving PR intervention.

Outcomes Achieved: Veterans were on average 68 years-old (± 12); 97% male; 33% with mental health comorbid condition; and 22% with poly substance abuse. Thirty-day readmission rate was 59% pre-intervention versus 20% post-intervention ($p < 0.00$). Ninety-day readmission rate was 72% pre-intervention versus 30% post-intervention ($p < 0.00$). Average length of stay was higher among PR recipients (6.5 versus 5.7 days) when compared to all Veterans admitted from January to November 2012. Process measures (target goal versus actual achieved) were: Medication reconciliation (100% vs. 98%); handoff note to primary care team (80% vs. 81%); Veteran reached by phone call follow-up within 48-hours (95% vs. 83%); discharge summary completed within 48-hours (80% vs. 74%); 14-day follow-up appointment scheduled (90% vs. 65%); 14-day follow-up appointment attended (80% vs. 54%); after hospital care plan in place (80% versus 46%).

Conclusions: Early data suggests Project RED was successful in reducing 30 and 90-day readmissions. Challenges remain for nurse case managers in follow-up care (i.e., scheduling and attendance at post-hospital primary care visit); and with the timely creation of the after hospital care plan. Future directions will aim to improve process measures to at least 80% or greater in all categories in order to achieve a sustained improvement in primary outcome measures.

CARING FOR ACTIVE DUTY MILITARY PERSONNEL AND VETERANS

Telehealth Coaching to Promote Bone Health and Nutrition in Deployed Soldiers

Mary S. McCarthy, PhD, RN

*Senior Nurse Scientist, Center for Nursing Science & Clinical Inquiry
Madigan Army Medical Center, Tacoma, WA*

*Sabrina M. Ramme, MS, RD
Project Director, Center for Nursing
Science & Clinical Inquiry
Madigan Army Medical Center
Tacoma, WA*

*Lori A. Loan, PhD, RN, FAAN
Senior Scientist
Medical Training & Health
Information Science Research Program
Fort Detrick, MD*

Purpose: The purpose of this study was to determine if telehealth coaching is superior to one-time nutrition and fitness education regarding: a) dietary contributions to bone health, and b) exercise contributions to bone health, assessed before and after deployment.

Background: Young service men and women are returning from war with significant physical injuries, as well as “wear and tear” from long work hours, heavy body armor, and alterations in diet and exercise behaviors. This is the second in a series of studies examining the impact of deployment on bone health and nutrition specifically. Previous findings have demonstrated that inadequate consumption of calcium and vitamin D and a decrease in exercise while deployed can be detrimental to bone health. Intervention studies are lacking on how to optimize calcium and vitamin D intake in the diet and encourage resistance-type exercise to promote bone health.

Methods: This prospective, longitudinal, cluster-randomized, controlled trial enrolled 234 Soldiers at baseline; 155 returned from deployment with 85 in the telehealth group and 70 in the control group, yielding a 34% attrition rate. Methods were used to collect outcome data include: anthropometric assessments, Baecke Habitual Physical Activity Questionnaire for work, sport, and leisure habits, Block Food Frequency Questionnaire for dietary habits, heel bone ultrasound for bone density, and serum osteocalcin, alkaline phosphatase, vitamin D, and calcium for bone turnover prior to and following a 12-month deployment. All Soldiers received a nutrition and bone health class prior to deployment; Soldiers randomized to the telehealth intervention group received on-demand health-related messages via the Army Milbook and Outlook mail platforms.

Results: For this presentation, the focus will be on the bone health outcomes. Baseline 25(OH) vitamin D revealed a high rate of insufficiency (61%, level < 30 ng/mL) and moderate level of deficiency (17%, level < 20 ng/mL) in both groups. Soldier participants significantly improved their vitamin D levels post-deployment with the control group achieving a “sufficient” level; $M=34.9$ ng/mL. Post-deployment bone turnover measured by osteocalcin was significantly higher in the telehealth group (22.0 ± 0.99 vs 28.3 ± 1.1 ng/mL; $p = 0.01$) and change in sport index was positive for this group but negative for the control group ($-0.17 \pm .09$ vs 0.29 ± 0.11 ; $p = .01$). Bone density remained stable with no significant difference between groups.

Nursing Implications: Choices regarding lifestyle are important for all young adults but the challenges to a balanced diet and exercise regimen in the deployed environment may have longstanding consequences for the Soldier, and a fit-and-ready force. Normal vitamin D status and remaining active while deployed appears to sustain healthy bone density in young Soldiers. Health promotion efforts by Brigade-level public health nurses, during deployment and in peacetime, can have a major impact on lifestyle behaviors and bone health of young Soldiers who are developing peak bone mass. Early and aggressive educational outreach efforts can prevent chronic musculoskeletal conditions and disabling osteoporosis.

Funding: This work is sponsored by a TriService Nursing Research Program grant (TSNRP #N10-C02, MDA #0001-10-1-TS15).

Disclaimer: The content and conclusions are those of the authors and should not be construed as the official position or policy of nor should any official endorsement be inferred by the Uniformed Services University of the Health Sciences, the Department of Defense, or the U.S. Government.

CARING FOR ACTIVE DUTY MILITARY PERSONNEL AND VETERANS

Transition to Practice: Seattle VA Center of Excellence in Primary Care DNP Residency Design and Implementation

*Kameka Brown, PhD, MBA, MS, FNP-BC
Nurse Practitioner Co-Director
and Program Director
Center of Excellence in Primary Care Ed
VA Puget Sound Health Care System
Seattle, WA*

*Joyce Wipf, MD
Physician Co-Director
Center of Excellence in Primary Care Ed
VA Puget Sound Health Care System
Seattle, WA*

Purpose/Aims: The VA Puget Sound Health Care System’s Center of Excellence (CoE) in Primary Care Education embarked on a transition to practice in June 2013. The purpose was to offer DNP graduates a yearlong patient-centered interprofessional experience with clinical mentorship.

Rationale/Background: With the aging of both our larger populating and our returning Veterans, the VA is uniquely positioned to direct clinical innovation. With chronic illness and complex issues within and outside of the VA population, Veterans and non-veterans will likely identify their future PCP as a NP. However, the complexity of many patients’ issues warrant additional clinical training for many NPs.

Undertaking/Best Practice/Approach/Methods/Process: As the only VA CoE site to focus on DNP graduates, our Transition to Practice residency model sought to glean best practices from established residencies for skills needed to serve our complex population.

- Medicine residency structure offers established primary care and specialty rotations “block” most likely to be seen by graduate DNP providers. This variety will compliment the health promotion and primary care many DNPs have been trained for during their programs.
- Pharmacy offers the most comparable yearlong residency structure with both a scholarship requirement (manuscript) and clinical rotation blocks. By benchmarking this residency structure, DNPs also increase awareness to specialty pharmacology and pharmacokinetics.
- Psychology internship offers a yearlong rotation that focuses on a group dynamic and the inclusion of the family. With the increase of family support to improve outcomes, the need for the family as the team is important when benchmarking residency design.

Each rotation block developed was structured to foster our DNP resident’s knowledge chronic care issues with veterans not commonly seen in general population while promoting the transition from novice to proficient provider. Each module includes both an online didactic and an immersion block. Finally, our resident has a triad clinical advisory team of clinical advisor (senior NP), medical advisor (senior MD) and program advisor (director NP).

Outcomes Achieved/Documented: As our program is ongoing, several measures are captured to assess success including health outcome (panel size increase, ER and Readmission, 3rd day appointment availability) and qualitative (resident journal reflections, self-report questionnaire).

Conclusions: Historically, Veterans Administration has been a pioneer in medically residency program design and is keenly positioned to develop DNP residency programs as the largest employer of APNs nationally. Similarly, the complexity of veteran health warrants a unique training that is unparalleled to those in a traditional primary care practice. As the first VA based, and possibly US, our design can inform future curriculum design.

Abstracts of Podium Presentations

COMMUNITY-BASED RESEARCH AND PARTNERSHIPS

Moderator:

Anjanette Raber, PhD, RN

Research Associate

Oregon Health & Science University

Portland, OR

THE EFFICACY OF A COMMUNITY-BASED PARTICIPATORY (CBPR) OBESITY PROGRAM

Carol J. Stevens, Bonnie Gance-Cleveland

NATIVE HAWAIIAN COMMUNITY VIEWS OF COMMUNITY-BASED PARTICIPATORY RESEARCH

Alice M. Tse, Donna-Marie Palakiko, Ephrosine Daniggelis, Emily Makaha

INTERNATIONAL HEALTHCARE: A STUDY IN PARTNERSHIP

Debra Brinker, Laura Hahn, Susan McFadden

CONNECTIONS AMONG PRIVATE AND PUBLIC SECTORS FOR IMMIGRANT WORKER HEALTH

Jenny Hsin-Chun Tsai, Elaine Adams Thompson, Miruna Petrescu-Prahova

BUILDING INTERDISCIPLINARY COLLABORATION IN COMMUNITY-BASED HEALTH EQUITY RESEARCH

*Marjorie A. Pett, Lauren Clark, Scott Wright, Stephanie Richardson,
Sara Hart, Donna Richards, Erin Johnson, Jia-Wen Guo, Jackie Eaton,
Ann Lyons, Cheryl Wright, Beth Cardell, Kristine Jordan, Justine Reel,
Jeff Burley, Josette Dorius*

COMMUNITY-BASED RESEARCH AND PARTNERSHIPS

The Efficacy of a Community-Based Participatory (CBPR) Obesity Program

Carol J. Stevens, PhD, RN
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ
Carol.stevens@asu.edu

Bonnie Gance-Cleveland, PhD, RNC, PNP, FAAN
Loretta C. Ford Endowed Chair
University of Colorado
Anschutz Medical Campus
Aurora, CO
Bonnie.Gance-Cleveland@ucdenver.edu

Purpose: The purpose of the study was to evaluate the efficacy of a Community-Based Participatory Research (CBPR) obesity intervention program for Hispanic adults. The study is part of a larger obesity project created to identify families living in uninsured, underinsured or uninsurable target areas who are at-risk for obesity related diseases. The goal of the obesity project was to create a seamless navigation for families seeking access to a range of health services, including the culturally appropriate obesity intervention, Salud con Sabor Latino (SSL).

Background: Obesity in Hispanics continues to rise and has been associated with multiple chronic health care conditions. Obesity prevention programs typically emphasize nutrition and physical activity education and often, behavior change skills, as key to preventing and reducing obesity. The SSL (Health with a Latin Flavor) program is a 4-week culturally sensitive obesity prevention curriculum that incorporates the traditions and values of the Latino community. The goals of the program are to improve (a) knowledge of fitness and nutrition, (b) physical activity, (c) healthy eating, and (d) body fat measures (Araiza, Valenzuela & Gance-Cleveland, 2012).

Methods: A quasi-experimental, pre-test/post-test design using a convenience sample, and a wait-list control was used. A total of seven cohorts were offered the SSL intervention. Intervention group participants (n = 63) and control group participants (n = 64) completed the survey and physiological measurements at T1 (pre-test) and at T2 (post-test). Nutrition behavior, nutrition knowledge, physical activity behavior, physical activity knowledge, height, weight, waist circumference, BMI, systolic blood pressure (BP), and diastolic BP were measured.

Results: A one-way between subjects ANOVA was conducted to compare the effect of the SSL intervention on the variables studied. There was a significant effect for nutrition behavior at the $p < .05$ level, $F(1,125) = 17.72$, $p < 0.0001$ and there was marginally significant effect for the physical activity behavior at the $p < .05$ level, $F(1, 125) = 4.18$, $p = 0.045$. No other variables were significant. After analysis, community partners suggested that the domestic violence shelter participants had different characteristics than those recruited at other sites. By excluding the three cohorts that received the intervention at the domestic violence shelter, further examination of the data revealed different results. As before, there were significant changes in nutrition behavior at the $p < .05$ level, $F(1, 69) = 6.06$, $p < 0.05$, yet significant changes in physical activity behavior were not found. Other changes found to be significant at the $p < .05$ level were: physical activity knowledge [$F(1, 69) = 4.318$, $p < 0.05$], systolic BP [$F(1,65) = 4.255$, $p < 0.05$], and diastolic BP [$F(1,65) = 5.099$, $p < 0.05$]. We determined that the domestic violence shelter may not be the best place for clients to engage in this healthy lifestyle curriculum.

Implications/Significance: Findings from this study will provide valuable information for interventional research on obesity prevention in diverse Hispanic populations. Using CBPR, an understanding of the characteristics of culturally sensitive populations studied is important to interpretation of research findings.

Funding: Dignity Health Foundation #30005230.

COMMUNITY-BASED RESEARCH AND PARTNERSHIPS

Native Hawaiian Community Views of Community-Based Participatory Research

Alice M. Tse, PhD, APRN, RN
Associate Professor, Department of Nursing
University of Hawaii at Manoa
Honolulu, HI

Donna-Marie Palakiko, MS, BS, APRN, RN
Projects Administrator
Ke Ola Mamo, O'ahu
Honolulu, HI

Ephrosine Daniggelis, PhD, MPH
Facilitator
Ke Ola Mamo, O'ahu
Honolulu, HI

Emily Makaha, MSW
Client Services Manager
Ke Ola Mamo, O'ahu
Honolulu, HI

Purposes/Aims: Determine Native Hawaiian community partners' perceptions and expectations about community-based participatory research (CBPR).

Rationale/Conceptual Basis/Background: There are many resources guiding academics' engagement in CBPR but not much is known about how community-based research approaches are perceived by communities. Since CBPR involves a partnered approach between academic researchers and community members, understanding community partners' expectations and views will inform the customization needed to meet the expectations of both partners.

Methods: The study design is qualitative. Focus groups obtained by a networking approach provided the views and perceptions of Native Hawaiian community members. Led by the community partner, the focus groups encompassed rural and urban communities on the Island of O'ahu in Hawaii. Prior to collecting the data, the processes and interview guide was vetted with 10 Native Hawaiian kupuna (wise elders) experienced in CBPR representing Native Hawaiian grass roots communities, advocacy groups and community leaders. Vetting signified the receipt of the elders' permission to approach the community and "community content validity" of the project's partnership, intent and procedures. The narrative content was audiotaped and transcribed verbatim.

Results: Responses of 50 community dwelling Native Hawaiian community members representing urban and rural locales were obtained, with 20% of the participants indicating they had some type of prior community-based research experience. Trustworthiness of the analysis involved the focus group participants' examination of the themes. Thematic content analysis indicated that: (1) Trustable communication processes are needed between the academic researcher and the community; (2) Perceptions about the purpose, research intent and expectations determined level of participation and (3) Strength of participation reflected meaningfulness of the interaction.

Implications: Understanding community partners' expectations of community-based research will inform academic researchers on how to customize the CBPR methodology to fit expectations of minority and underserved populations. The methodology used provides one way to determine synchrony of CBPR approaches with the community partner's expectations. Responsiveness to partners' perspectives is needed to for shaping sustainable mechanisms for reducing health disparities for ethnic minority communities.

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COMMUNITY-BASED RESEARCH AND PARTNERSHIPS

International Healthcare: A Study in Partnership

Debra Brinker, RN, MSN, CNS¹

Laura Hahn, MS, ARNP²

Susan McFadden, MN, ARNP¹

¹*College of Nursing, Washington State University, Spokane, WA*

²*College of Nursing, Washington State University, Yakima, WA*

Purposes/Aims: Our presentation will highlight the process utilized to develop an ongoing international partnership between Washington State University (WSU) and the People of Peru Project (POPP), a non-governmental organization, whose mission is to improve the health of the most vulnerable in Iquitos, Peru. We will also explore the interdisciplinary approach that our Health care in Peru project utilizes.

Rationale/Background: WSU has been partnering with POPP since 2005. We've evolved from a grass-roots mix of nursing students and interested faculty volunteering part of their summer break to a formal, community-health focused class that includes undergraduate and graduate nursing, pharmacy, and physical therapy students. Coordinating the program has required support from administration and WSU's International Programs department. It has also required university partnerships as our physical therapy student participants are from Eastern Washington University.

Undertaking/Best Practice/Approach/Methods/Process: Health care in Peru uses a community-health focus to model culturally appropriate care to both undergraduate and graduate students from a variety of disciplines. We have utilized student reflections to explore growth in their understanding of community-based services and the impact of working in an interdisciplinary-rich environment. Prior to travel, we have multiple pre-departure classes designed to prepare the students for travel. In Peru, students work in an interdisciplinary environment with clinical teams made up of a mix of nursing, pharmacy, PT, and Peru interpreters. Our time in-country begins with a community assessment and also includes primary care clinics, educational offerings, and tours of various health-related and cultural sites, as well as out-reach to populations in need. We partner closely with POPP to focus our activities in ways that also help to advance their mission, and improve the health status of the Peruvian people with whom we network.

Outcomes Achieved/Documented: Our program and partnerships have continued to grow, and our partnerships have continued to strengthen. Following the initial connection with WSU, People of Peru has utilized similar models with multiple health care groups, both education and community based. We have had the opportunity to share Peru with over 225 students (typically traveling with 20-25 per summer). Collaboration with Eastern Washington University and Pacific Northwest University has sparked the interest of other health care professionals. Students who participated in this program have gone on to further international service.

Conclusions: Forming a workable international partnership is complex and requires continued adjustments. Our experience provides a real-world example of how to develop an international partnership with an interdisciplinary group of health care students, staying focused on their learning needs, while still meeting the needs of the most important stake holders—the population with whom we are working, in this case the citizens of Iquitos, Peru.

COMMUNITY-BASED RESEARCH AND PARTNERSHIPS

Connections among Private and Public Sectors for Immigrant Worker Health

Jenny Hsin-Chun Tsai, PhD, ARNP, PMHCNS-BC
Associate Professor
School of Nursing, Dept. of PCH
University of Washington
Seattle, WA

Elaine Adams Thompson, PhD, RN
Professor Emerita
School of Nursing, Dept. of PCH
University of Washington
Seattle, WA

Miruna Petrescu-Prahova, PhD
Assistant Professor
School of Public Health
University of Washington
Seattle, WA

Purpose: This research presentation focuses on an innovative application of social network methods to characterize the community organizational infrastructure for disseminating preventive interventions to improve immigrant worker health and reduce health disparities.

Background: Ethnic minority immigrants, compared to their US-born counterparts, are more likely to be employed in high health risk jobs, and to experience disparities related to worksite hazard exposures and associated health and safety problems. Traditional worksite prevention efforts have been ineffective in reaching this vulnerable population. Alternatively, collaboration among community and public agencies is a recognized, but underutilized, sustainable approach capable of modifying socio-cultural conditions that contribute to health disparities. Interagency connections strengthen community capacity, and foster diffusion of health information and practices in communities. Nonetheless, few investigators have systematically examined how interagency connections might optimize immigrant worker health through community prevention and health promotion efforts. This study, focusing on Chinese American communities, has generated new knowledge essential for shifting the delivery of worker health interventions through these community resources.

Methods: To capture an inclusive network structure, a roster of Chinese and non-Chinese community agencies pertinent to immigrant worker health was generated using extensive community information sources. In a joint interview, two representatives from each agency provided detailed data on cross-agency links based on information, resources and service sharing for Chinese immigrants. The roster was expanded as new community agencies were identified across the agency interviews. Social network analytical methods were used to summarize interagency network properties (e.g., density, multiplexity, centrality), while characterizing the network structures, strengths of links, and relative position of each agency within the organizational networks.

Results: The sample consisted of 42 agencies representing community-based organizations (CBOs), faith-based organizations (FBOs), unions, and public agencies. Analysis revealed agency interconnections, primarily through information sharing followed by interagency referrals and resource sharing. Notably, a small proportion of agencies mediated the links between most other agencies in the network for referrals. Chinese FBOs and unions had the fewest links with other agencies, whereas Chinese, pan-Asian and nonprofit CBOs and public agencies had the most established relations. Three community agencies were in both central and gatekeeper positions in the networks, revealing their crucial roles for effectively and efficiently reaching Chinese immigrants for disseminating worker health interventions.

Implications: Effective community-based prevention is essential to dramatically reduce US health disparities. This research, operationalizing a systems science method, yields important new understanding of interagency networks *within* and *across* community sectors, and in turn points to innovative strategies to identify and foster community partnerships to facilitate the dissemination and diffusion of community—as opposed to worksite—preventive interventions for immigrant worker health.

Funding: The National Institute for Occupational Safety and Health, R21 OH009955.

COMMUNITY-BASED RESEARCH AND PARTNERSHIPS

Building Interdisciplinary Collaboration in Community-Based Health Equity Research

*Marjorie A. Pett, Research Professor,
University of Utah, College of Nursing, Salt Lake City, UT*

*Lauren Clark, Scott Wright, Stephanie Richardson, Sara Hart, Donna Richards,
Erin Johnson, Jia-Wen Guo, Jackie Eaton, Ann Lyons: College of Nursing
Cheryl Wright: Family and Consumer Studies
Beth Cardell, Kristine Jordan, Justine Reel: College of Health
Jeff Burley: Adaptive Recreation, Salt Lake County Parks & Recreation
Josette Dorius: Neurobehavioral Home*

Purpose: The purpose of this presentation is to critically examine the efforts of an interdisciplinary faculty, student, and community initiative to form a working collaborative to generate government-funded health equity research among persons with disabling conditions.

Background: Sustainable, research-based initiatives for persons with disabling conditions is a national priority, and arguably best addressed through the expertise of interdisciplinary research teams and affiliated community partners. Approximately 54 million Americans are affected by a disability. Millions more are at risk for disabling conditions across the lifespan. “Disabling conditions” include chronic and acute situations resulting in compromised function and/or increased risk for often preventable co-morbid conditions. Health care disparities associated with disability include blatant and subtle discrimination in health, recreation, and mental health services. “Preservation and enhancement of the population’s health demands sophisticated, professional skills and the integration of many disciplines into a broad strategy that understands the way people live, the environment, and systems of health care” (Drum et al, 2009, p. 7).

Process: In 2012-13, our Research Innovation Team (RITe) was one of five teams to receive funding from the College of Nursing to develop fundable and sustainable federal research grant programs that are thematically coherent, synergistic and innovative. Our collaborative brought together a diversity of investigators (e.g., clinical, research, and tenure track faculty, community partners, and doctoral students) from many disciplines who contributed their expertise, approaches, technologies, and creativity to the study of developing potential and promoting health equity among persons with/at-risk for disabling conditions. For the past 1-1/2 years, our RITe team has met twice monthly to discuss research ideas, review and critique manuscripts/ proposals, and, most importantly, to be a sounding board and problem-solving support group.

Outcomes: Our challenge to sustain the commitment of a large, diverse body of individuals with varied but similar interests has been significantly made easier through the valued contributions of a PhD-prepared research associate who orchestrates grant submissions and team development. To date, 3 federal grant applications, 2 foundation applications, and 1 intra-university application have been submitted, most with positive funding outcomes. Members have valued networking opportunities and report renewed confidence in engaging in financially and emotionally-supported research risk-taking (e.g., to move in uncharted research career directions). New research directions include technology and intergenerational interventions for persons with autism, community-based health promotion interventions for people with intellectual disabilities, and applied studies of health and health promotion for people with/at risk for disabling conditions.

Implications: Our success in building interdisciplinary collaboration to further community-based health equity research can serve as a model for bringing together educators, clinicians, and researchers of diverse backgrounds and interests to pursue common research goals.

Abstracts of Podium Presentations

CULTIVATING QUALITY IN PRACTICE

Moderator:

*Lorraine S. Evangelista, PhD, RN, FAAN
Associate Professor
Program in Nursing Science
University of California, Irvine
Irvine, CA*

CONTEXTUAL FACTORS INFLUENCING NURSE-LED QUALITY IMPROVEMENT IN US HOSPITALS

*Susan S. Tavernier, Susan L. Beck, Jeannine Brant,
Jia-Wen Guo, Jacqueline Eaton, Nancy Dunton*

ONE HOSPITAL'S USE OF RELEASING TIME TO CARE: THE PRODUCTIVE WARD

Kristin Haydon, Laurel Brookhyser, Lisa McKerlick

COMPARISON OF SNAPPS VS. SBAR

Christine K. Finn, Theresa Holsan, Duggan Courtney

SUSTAINING A CULTURE OF INQUIRY: SEVEN YEARS OF AN EVIDENCE-BASED SCHOLARS PROGRAM

Kathleen Adlard, Eileen K. Fry-Bowers

INFORMATION EXCHANGE IN PEDIATRIC ACUTE CARE: WHAT'S GOING WRONG AND HOW DO WE IMPROVE?

Jennifer Baird

CULTIVATING QUALITY IN PRACTICE

Contextual Factors Influencing Nurse-Led Quality Improvement in US Hospitals

*Susan S. Tavernier, PhD, APRN-CNS, AOCN, Assistant Professor
School of Nursing, Idaho State University
Meridian, ID*

Susan L. Beck, PhD, APRN, AOCN, FAAN, Professor and Endowed Chair
Jeannine Brant, PhD, RN, AOCN, Nurse Scientist, The Billings Clinic, Billings, MT
Jia-Wen Guo, PhD, RN, Assistant Professor**

Jacqueline Eaton, MS, PhD(c), Adjunct Instructor
Nancy Dunton, PhD, Research Professor, University of Kansas School of Nursing
College of Nursing, University of Utah, Salt Lake City, UT

Purpose: The purpose of this study was to explicate the contextual framework perceived by nurses leading a team effort to improve pain management on inpatient units across the U.S. **Background:** Patient reported scores of satisfaction with pain management are often a component of patient satisfaction surveys and tied to hospital reimbursement. Despite the reimbursement incentive and decades of research, pain management continues to be problematic in the acute care setting. Lewin's Field Theory provides a theoretical approach to mapping the helping and hindering forces for leading an improvement effort. Point of care nurses are critical members of the health care team in providing quality pain management and need to lead quality improvement. Documentation exists on the importance of an organizational context for such efforts yet studies at the nursing unit level are sparse.

Methods: This study was part of a larger mixed-method study to measure and improve pain care processes and outcomes in a sample of hospitals across the U.S. who participated in National Database of Nursing Quality Indicators. Hospital care units (n=148) were randomized to one of three intervention strategies designed to improve pain care quality. To understand the context for leading a project focused on improving pain we interviewed nurses leading the quality improvement intervention. The study received ethical review approval at all sites. Investigators coded interviews with ATLAS.ti qualitative analysis software using the approach described by Bernard and Ryan. Investigators used thematic analysis to develop a contextual matrix mapping codes to the thematic fields of helping and hindering forces.

Results: Investigators completed interviews with 125 of the 148 nurse team leaders who agreed to participate. Most were female, had a Bachelor's degree or higher, little or no experience in pain improvement or formal training in quality improvement. There was widespread heterogeneity of responses describing the context of quality improvement. However, nurses consistently described the unit and organizational context of quality improvement consisting of constant change and competing priorities. Helping forces included the quality of nurses, teamwork and involvement, pain management resources, and a culture of quality and accountability for pain management. Hindering forces included barriers to involvement in pain improvement initiatives, attitudes and relationships, lack of knowledge, characteristics of patients and their pain, and competing quality improvement efforts.

Implications: The heterogeneity of responses was noteworthy, alluding to the unique cultural context within a nursing care unit. The juxtaposition of helping and hindering forces may contribute to the ongoing problem of improvement in US hospitals. There is a need for further interventional studies to strengthen helping forces and reduce the hindering forces to promote better pain care management at the nursing unit level.

Funding: The investigators gratefully acknowledge funding by the Robert Wood Johnson Foundation as part of the Interdisciplinary Nurse Quality Research Initiative.

CULTIVATING QUALITY IN PRACTICE

One Hospital's Use of Releasing Time to Care: The Productive Ward

*Kristin Haydon, MPH, BSN, RN-BC
Clinical Development Specialist
Nursing Administration
Providence Portland Medical Center
Portland, OR*

*Laurel Brookhyser, MS, RN-BC, CNL
Releasing Time to Care Facilitator
Nursing Administration
Providence Portland Medical Center
Portland, OR*

*Lisa McKerlick, BSN, RN-BC
Releasing Time to Care Facilitator
Nursing Administration
Providence Portland Medical Center
Portland, OR*

Research finds that hospital nurses function at a “staccato pace” within complex environments that include frequent interruptions and work flow inefficiencies, which lead to less time in actual patient care.¹ Evidence correlates nursing time per patient with better patient outcomes², highlighting the need for increasing focused time spent caring for patients, in part through improvements in the work environment. As people of Providence, we value excellence in all we do to achieve the organizational mission and goals of the Triple Aim. However, like many hospitals, Providence Portland Medical Center (PPMC) has struggled to sustain improvements in patient and staff satisfaction and quality outcomes. In the spring of 2010, Karen Logsdon, CNE, learned about Releasing Time to Care: The Productive Ward (RT2C), a Lean-based program developed by the United Kingdom’s Institute for Innovation and Improvement which showed sustained improvement in efficiency, quality and satisfaction indicators in the UK. At the same time, the CEO of CareOregon recognized the opportunity and potential impact of RT2C and funded a visit to England by representatives from PPMC, Oregon Health and Science University, Tuality and St. Charles hospitals to learn more about RT2C. These four hospitals, along with CareOregon, returned to establish a collaborative through which training and implementation resources were offered. The program is designed specifically for nurses to decrease interruptions and identify and eliminate workflow inefficiencies while increasing time spent caring for patients and improving clinical outcomes. We have now successfully implemented RT2C on twelve units at PPMC. The following are some examples of unit-based RT2C improvements that reduced cost:

Project	Impact
Standardization of in-room nursing cabinets – 7S	\$12,751 in time
Standardization of in-room nursing cabinets – 7N	\$12,751 in time
Use of snap gowns vs. tie gowns in patients admitted to 5G from the Emergency Department.	\$6,600.00 time and laundry costs
Glucometer quality control process compliance increase	42% to 90% day shift
Storage closet reorganization (commode search) - 5G	\$8,640.00 in time
Post operative room set-up – 4R	\$8,970.00 in time
Development of internal PPMC RT2C Basic Training	\$11,250 per cohort

References:

- ¹ Tucker, A. and Spear, S. (2006). Operational Failures and Interruptions in Hospital Nursing. *Health Services Research*. 2006 June; 41:3: 643 – 662. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1713207/>
- ² Aiken, L. et al. (May 2008). Effects of Hospital Care Environment on Patient Mortality and Nurse Outcomes. *Journal of Nursing Administration*. 2008 May; 38(5): 223–229. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2586978/pdf/nihms74339.pdf>
- Grant number: 10-0620, CareOregon

CULTIVATING QUALITY IN PRACTICE

Comparison of SNAPPS vs. SBAR

Christine K. Finn, PhD, RN, MS, MA, Associate Professor, Nursing, Regis University, CO
Theresa Holsan, DNP, FNP, Assistant Professor, Nursing, Regis University, CO
Duggan Courtney, Instructor, Nursing, Regis University, CO

Background: APRN Education takes place in a fast-paced, chaotic environment in which oft times there is little time for teaching, observation, and feedback. The office practice, offers few opportunities for reflection and collaborative learning. Office-based preceptors often believe that they have no occasion to observe others teach and to receive feedback on their own teaching skills.

Nurse Practitioner students have a need to present a comprehensive and succinct patient presentation to preceptors and other multi-disciplinary colleagues. This critical advanced practice registered nurse (APRN) skill has been noted by faculty, preceptors, and clinical partners as a potential deficit of new graduate APRNs. No formal theory or model for addressing critical thinking and developing an approach to the diagnostic process exists. Teaching has been intuitive and based on faculty expertise. Providing students with a method of transferring empiric knowledge to practice quickly and efficiently is the identified challenge of this project.

SNAPPS is a learner-led, preceptor facilitated model designed for outpatient education; the mnemonic represents summarizing the history and findings, narrowing the differential, analyzing the differentials, probing the preceptor, planning the management, and selecting a case related issue (Alguire, DeWitt, Pinsky & Ferenchick, 2001). The goal is to present a concise summary of the patient encounter to the preceptor, utilizing clinical reasoning and clustering of cues to find the relevant diagnoses, and then compare and contrast the data to clarify and areas of uncertainty. The final step promotes individual growth by allowing the student to select something specific from the encounter to expand their learning.

SBAR (situation, background, assessment, plan) is a model adapted for medical use from the airline and military industry. It emphasizes brief communication with a summary of relevant clinical information including history, patient assessment, and recommendations. While it has been used for telephone reporting between nurses and physician colleagues, the model is being expanded for use with practitioners, residents, and physicians. Cunningham et al (2012) implemented this model with medical students with the goal of organizing report.

Purpose: This study compared two methodologies of patient presentation – the SBAR and SNAPPS model.

Methodology: This research was designed to answer the question: Which model will facilitate clinical reasoning and clear, succinct patient presentation in the outpatient setting by Family Nurse Practitioner (FNP) students. It was a convenience sample with quasi-experimental design utilizing a pre-test and post-test. A self-efficacy exam was utilized. According to Bandura (2006) self-efficacy makes a difference in how people feel, think, and act. This tool was chosen to measure student's generic self-management strategies developed in one realm of activity and application of a patient presentation model (SBAR vs SNAPPS).

Results: This study is currently in progress (due to complete data collection and analysis in December 2013).

Implications: Effective communication will aid providers in prioritizing care and share information related to individual patient needs and safety.

References:

- Alguire, P. C., DeWitt, D. E., Pinsky, L. E., & Ferenchick, G.S. (2001). *Teaching in your office*. American College of Physicians.
- Bandura, A., (2006). Self-efficacy beliefs of adolescents. *Information Age Publishing*, pp 307-337.
- Cunningham, N. J., Weiland, T. J., van Dijk, J., Paddle, P., Shilkofski, N., & Cunningham, N. Y. (2012). Telephone referrals by junior doctors: A randomized. *Postgraduate medical journal*, 88, 619-626. doi: 10.1136.

CULTIVATING QUALITY IN PRACTICE

Sustaining a Culture of Inquiry: Seven Years of an Evidence-Based Scholars Program

*Kathleen Adlard, MN, RN
Clinical Nurse Specialist, Hyundai Cancer Institute
CHOC Children's Hospital of Orange County
Orange, CA*

*Eileen K. Fry-Bowers, PhD, JD, RN, CPNP
Associate Professor
Loma Linda University School of Nursing
Loma Linda University Institute for Health Policy and Leadership
Loma Linda, CA
ekbowers@llu.edu*

Purpose: We discuss the development and evolution of an Evidence-Based Practice Scholars program at a Magnet® designated Children's Hospital.

Background: Innovations in patient care, nursing, and the practice environment are hallmarks of Magnet® recognition. Evidence-based practice (EBP) is a problem-solving approach to clinical practice that incorporates the best evidence from well-designed studies with a clinician's expertise, and a patient's preferences and values. Evidence-based nursing care improves patient outcomes and reduces costs. Nurses who work at institutions that support EBP have high levels of job satisfaction with low turnover rates, and EBP is a key mechanism for attaining Magnet recognition. Re-designation of Magnet status requires demonstration of sustainability in meeting established criteria, including EBP, over time.

Best Practice: In 2005, the institution successfully implemented a nursing research fellowship program. In 2007, the institution broadened its efforts to increase the use of evidence for delivering and improving pediatric care and implemented a selective 6-month guided experience, the "EBP Scholars Program." The institution partnered with faculty from a local university to deliver didactic content. An on-site advanced practice nurse, with expertise in EBP, provided support and mentorship. The institution's nursing research council, faculty and on-site mentor, developed the core content. The curriculum enables nurses to develop skills needed to review evidence, engage stakeholders, complete and evaluate an EBP project, and disseminate findings internally and externally. Scholars earn continuing education units, points for clinical ladder advancement and receive a stipend. In 2011, the program introduced the "Stakeholders' Luncheon" so Scholars could present their projects to key stakeholders in order to enhance successful implementation of recommended practice changes. An annual graduation ceremony facilitates diffusion of information, recognizes the Scholar's efforts and stimulates interest in EBP.

Outcomes: To date, 36 Scholars have/are enrolled in the program. All Scholars present their findings at the program graduation and at the institution's monthly clinical grand rounds. Presentations to external audiences include: 13 posters, 3 podium presentations, 2 publications. Three Scholars have received awards/scholarships for their EBP work; one enrolled in an MSN program, citing the program as her inspiration, and two later entered the Research Fellowship Program. Their work has stimulated multiple changes to nursing practice, including an institution-wide change in assessment of pediatric pain, and serves as resources to local community hospitals. In 2013, the institution hired a full-time on-site Nurse Researcher/Scientist to support and expand the institution's culture of inquiry.

Conclusions/Implications: Building and sustaining a culture of inquiry requires individual commitment, departmental and institutional support and collaborative partnerships. Challenges encountered include providing on-going mentorship beyond the didactic component of the program, especially for project implementation and evaluation. Early involvement of multidisciplinary stakeholders facilitates practice change.

Funding: Walden and Jean Young Shaw Foundation.

CULTIVATING QUALITY IN PRACTICE

Information Exchange in Pediatric Acute Care: What's Going Wrong and How Do We Improve?

*Jennifer Baird, PhD(c), RN, MSW
Doctoral Candidate
Department of Family Health Care Nursing
University of California, San Francisco
San Francisco, CA*

Purpose: The purpose of this presentation is to identify ways in which breakdowns in information exchange (IE) occur in the nursing care of children with complex chronic conditions (CCC) in the pediatric intensive care unit (PICU), to explore the implications of these breakdowns, and to offer potential mechanisms for the improvement of IE, both in this particular setting and more broadly in the pediatric acute care setting.

Background: The quality and consistency of care for patients and families is dependent upon the extent to which healthcare providers effectively communicate information about care amongst one another and with the family; this is particularly true for children with CCC, whose fragile health status necessitates increased communication and frequent and often complex care coordination. Existing nursing literature has focused on the handover report as a time of vulnerability for the patient and family, but IE is an ongoing and dynamic process involving multiple parties and influenced both by individual providers and organizational factors.

Methods: The data for this presentation came from a qualitative study examining best practices in parent-healthcare provider interactions in the PICU. Data collection consisted of observation and interviews with seven parents and sixteen healthcare providers; the interviews, field notes from the observations, and relevant institutional texts were analyzed using grounded theory methods, including open coding, memoing, and constant comparative analysis in group discussion with members of the research team.

Results: Observations and interviews with both parents and nurses revealed at least four ways in which breakdowns in IE occurred: amongst nurses, between nurses and parents, between nurses and physicians, and amongst the members of the multidisciplinary team. The causes of each type of breakdown were multifactorial, involving both individual provider choices and organizational/structural limitations. These breakdowns ultimately resulted in frustration for parents and a decreased quality and consistency of care for this vulnerable population of children.

Implications: Pediatric nurses have a responsibility to improve IE in the acute care setting; such improvements will involve changes to both individual and unit-based nursing practice and to existing organizational patterns of communication, particularly those involving the multidisciplinary pediatric healthcare team. Parents should be invited to provide feedback about such process changes based on their personal experiences in the healthcare system, and they should be invited to participate in information exchange about their child whenever possible and to the extent that they desire.

Funding: NIH- 5F31NR012093.

Abstracts of Podium Presentations

ENHANCING NURSING EDUCATION

Moderator:

*Ellen E. Goldstein, MA, MFT
Psychotherapist, Doctoral Student
School of Nursing
University of California, Davis
Sacramento, CA*

PROJECT TO INTRODUCE INTEGRATIVE HEALTH: AN UNDERGRADUATE REIKI ELECTIVE

Pamela Potter, Sally Rothaker-Peyton

DIFFERENTIATED LEARNING WITH TECHNOLOGY IN GRADUATE AND UNDERGRADUATE NURSING CLASSES

Patricia Frohock Hanes

INTEGRATING SOCIAL JUSTICE IN NURSING EDUCATION

Katrina Einhellig, Faye Hummel

CAN A MATERNAL-NEWBORN SIMULATION REPLICATE CLINICAL LEARNING?

Linda M. Veltri, Joanna Rowe, Kathleen Bell, Ellyn Arwood, Lindsay Kindler

IDAHO SCHOOLS OF NURSING UNITE TO PROTECT COLLEGE STUDENTS FROM MENINGITIS DISEASE

*Pamela Strohfus, Cathy Deckys, Sherry Sweikert, Terri Blackburn,
Kelly Fanning Pesnell, Debrah Reiland, Jan Crabill, Marilyn Walker; Patricia Herman*

ENHANCING NURSING EDUCATION

Project to Introduce Integrative Health: An Undergraduate Reiki Elective

Pamela Potter, DNSc, RN, CNS
Assistant Professor, School of Nursing
University of Portland
Portland, OR
potter@up.edu

Sally Rothaker-Peyton, MSN, PMHNP
Adjunct Faculty, School of Nursing
University of Portland
Portland, OR

Purposes/Aims: The two purposes of this project were (1) to provide students an opportunity to experience learning and implementing Reiki—a noninvasive non-pharmacological energy field therapy, for self-care and care of others, and (2) to gain knowledge for teaching integrative health therapies within the undergraduate nursing curriculum. We asked: What is the student experience of implementing Reiki for self-care and for care of others in a variety of settings? What are the best pedagogic practices for teaching Reiki?

Rationale/Conceptual Basis/Background: With the increased interest and utilization of complementary therapies, students are interested in courses about modalities offering comfort and relaxation (high touch in a high tech environment). Our school of nursing has adopted an Integrative Health (IH) philosophy. Our consensus is that “Integrative Health, a holistic approach, honors the innate ability of the body to heal, values the relationship between patient and health care provider, and integrates complementary and alternative medicine when appropriate to facilitate healing.” Currently, undergraduate nursing students are offered four IH elective courses (Complementary Therapies, Aromatherapy, Brain-Body Connection and Reiki).

Process: Over the course of four semesters, students enrolled in the Reiki elective. Required hours included: two 2-hour classroom sessions, two 2-hour Reiki clinics on campus, and four 2-hour field visits to offer Reiki at a local extended care facility. Working in pairs, each student documented at least four sessions given to residents. Additional optional 2-hour “Reiki Share” sessions on campus allowed students to practice with each other. They were also instructed to treat with self-Reiki daily. Students read current literature, documented treatments given and reflected on their Reiki experience. They provided feedback used to refine and improve the course.

Outcomes: Forty-five students enrolled in and completed the course. Two themes emerged from student comments: Applicability of Reiki for nursing practice and benefits of Reiki for self-care. They praised the empowering experience of giving Reiki to residents of an extended care facility, describing Reiki as a nursing intervention that allowed them to be genuinely present. They valued Reiki for self-care, an essential component for being able to offer nursing care. Course attendance was high. Combining didactic classroom time and reading assignments with experiential through student practice sessions and actual clinical encounter provided a range of learning from concept to application.

Implications: Learning and practicing Reiki created an opportunity for students to experience the essence of nursing through patient contact with a focus on healing presence. Teaching this course offered an opportunity for innovative curriculum development and afforded an opportunity for students and professor to meet on common compassionate ground. We are exploring options for integrating modalities like Reiki into our required coursework.

ENHANCING NURSING EDUCATION

Differentiated Learning with Technology in Graduate and Undergraduate Nursing Classes

Patricia Frohock Hanes, PhD, MSN, MAED, RN, CNE
Professor
School of Nursing
Azusa Pacific University
Azusa, CA
[*phanes@apu.edu*](mailto:phanes@apu.edu)

Background: Graduate nurse educator students must model facilitative strategies that are responsive to the needs of future students; however, older students come to class with different skill/comfort levels with technology than many of their undergraduate counterparts. Undergraduate students are comfortable using technology but are resistant to nontraditional teaching strategies.

Purpose/Conceptual Frameworks: To introduce the use of technology as facilitative modalities to graduate nurse educator students and undergraduate students and to measure the effectiveness of this approach using participatory educational action research, diffusion of innovation theory, theories of learning styles and adult education, and Mayer's theory of multimedia learning.

Methods: As part of requirements for class, students used different technologies for course assignments (e.g., social media, e-platforms, google for education/sophia) in conjunction with flipped and traditional teaching delivery models. Students identified barriers to their own participation, comfort with technology, and satisfaction using diffusion of innovation theory and theories of learning styles and adult education. Part of the class involved using social media to communicate with/between graduate and undergraduate students in different classes.

Results/Implications/Conclusions: Over four semesters, approximately 66% of graduate and 95% of undergraduate students used some existing technology, at least personally. Evaluation of technology usage in graduate classes revealed: 11% innovators, 22% early adopters, 50% mid-late majority, 3% laggards (one student refused to use technology). Formative and summative evaluations showed 95% of graduate students were excited but uncertain of their own ability to use technology in their teaching. In undergraduate classes, students evaluated their experience and comfort with technology using a likert scale. Although some undergraduate students felt uncomfortable with different teaching strategies (rather than the technology), 100% of undergraduate students reported increased satisfaction with and understanding of course materials, which was reflected in their scores on assessments. Innovative teaching strategies, including technology, are required for differentiated learning in nursing classes across undergraduate and graduate programs. Preparing nurse educators requires an understanding of teaching/learning technologies and strategies and the ability to teach in nontraditional and distance formats. Instructor, peer, and university support systems are essential in assisting students to feel comfortable using technology.

ENHANCING NURSING EDUCATION

Integrating Social Justice in Nursing Education

Katrina Einhellig, PhD, RN, CNE
Assistant Professor
School of Nursing
University of Northern Colorado
Greeley, CO

Faye Hummel, PhD, RN, CTN-A
Professor
School of Nursing
University of Northern Colorado
Greeley, CO

Purpose/Aims: Nursing students must be aware of the influence of poverty on equity and health. The purpose of this study was to examine attitudes about poverty and poor people held by undergraduate nursing students and to explore the impact of a poverty simulation on the development of social justice as an essential professional value.

Rationale/Background: Social justice is a cornerstone of nursing education and practice. Social justice “is acting in accordance with fair treatment regardless of economic status, race, ethnicity, age, citizenship, disability, or sexual orientation” (AACN, 2008, p. 28). Understanding the social forces and structures that impede and facilitate social justice are essential for development of professional nursing values and behavior. This necessitates that nursing students understand the complexities of clinical practice with a focus on patient centered care as well as advocacy for marginalized individuals.

Poverty is a global concern that affects the health and quality of life. The literature regarding stereotypes and attitudes toward poor people held by health care professionals is troubling. Medical students’ knowledge and attitudes toward the poor erode over the course of their medical education (Wear & Kuczewski, 2008). Despite an expected positive response, nursing students’ attitudes toward poverty are neutral (Kovarna, 2006; Sword, Teutter, Meagher-Steward, & Rideout, 2004). However, experience with those who are poor makes a difference. Nursing students enhanced their awareness and understanding of the multifaceted aspects of poverty with personal experiences with poverty or interactions with impoverished individuals (Nickols & Nielsen, 2011).

Methods: This was a pre-post test intervention design using a convenience sample of 184 undergraduate nursing students in their final year of nursing school. The instruments included a 10-item demographic survey and a 37-item Attitudes Toward Poverty survey (Atherton & Gemmel, 1993).

The intervention was a poverty simulation that included a debriefing. The nursing students reflected on their experiences, interactions, feelings, and responses as well as lessons learned from the simulation and potential application to their professional practice.

Results: Data collection took place between September 2011 and January 2013. Correlations and regression were used to examine the relationships between attitudes and demographics. Pre-post change in attitudes will be reported. Themes that emerged from the debriefing sessions will be discussed.

Implications: This research demonstrates the potential of simulation to change the attitudes of nursing students toward poverty and poor people. By increasing the personal awareness of nursing students to the myriad of challenges faced by this population, there is hope to enhance their development of social justice and create a nursing profession that is increasingly equipped to care for poor people within our country, and globally.

ENHANCING NURSING EDUCATION

Can a Maternal-Newborn Simulation Replicate Clinical Learning?

Linda M. Veltri, PhD, RN

*Clinical Assistant Professor, School of Nursing
Oregon Health & Science University
Ashland, OR*

*Joanna Rowe, PhD, RN
Professor, College of Nursing
Linfield College
Portland, OR*

*Kathleen Bell, RN, MSN, CNM, AHN-BC, MSI-BC,
Advanced Holistic Nurse, Meditation Specialist
Northern Light
Cannon Beach, OR*

*Ellyn Arwood, EdD
Professor, School of Education
University of Portland
Portland, OR*

*Lindsay Kindler, PhD, RN, CNS
Assistant Researcher, Center for Health Research
Kaiser Permanente Northwest
Portland, OR*

Purpose: To determine the effect of high fidelity simulation and practice in the clinical laboratory compared to hospital based clinical learning on the ability of undergraduate nursing students to assess, intervene, and critically think in the obstetrical setting.

Background: Simulation is a widely used teaching strategy. Researchers have found that simulation increases undergraduate nursing students' knowledge, skills, self-efficacy, and confidence. Many simulation researchers have assessed students' knowledge and skills in group settings, by rotating students through skill stations, or by having students assume non-nursing roles. Self-report was a common way researchers assessed simulation outcomes. Few have described simulation scenarios requiring students to put individual skills learned into a comprehensive practice. No studies were uncovered that evaluated formal knowledge, which this study is designed to test.

Methods: A quasi experimental, non-equivalent comparison groups, post-test only design was used to answer this study's research question. Power analysis for three variables, medium effect size, indicated the need for 76 student participants for each of the two comparison groups for a total of 152 participants; Alpha level .05 and power of .8. This study was conducted at a private university in Pacific Northwest. Study sample included 82 undergraduate, senior nursing students enrolled in a Maternal-Child course; two students withdrew for personal reasons. 39 students who completed a maternal-newborn hospital rotation and 41 students in a Pediatric clinical rotation voluntarily participated. The two comparison groups were comprised of students enrolled in these specialty clinical groups. Each student demonstrated simulated postpartum and newborn assessments while a faculty member, who was a maternal-child nurse expert and trained as an observer evaluated performance using the maternal and newborn check-off forms. Following and prior to debriefing, students provided written responses to questions designed to assess critical thinking during the simulation. Questions and items on these check-off forms were assigned points to obtain an assessment, written and total simulation scores. A remediation plan was implemented for students scoring < 92%. The maternal and newborn check-off forms, developed by study researchers were tested for inter-rater reliability and content validity. The check off forms and written questions were pilot tested. *T*-tests were used to compare scores of students completing an Obstetrical clinical rotation vs. those in Pediatric clinical and frequencies for passing assessments calculated.

Results: No significant difference was detected between students in a Pediatric clinical who only practiced assessments in the laboratory setting and students completing a hospital based maternal-newborn clinical rotation in their ability to assess, intervene or critically think. The *p* value for comparisons ranged from .41 to .93 (all *n.s.*); <1/3 of students passed the assessments.

Implications: Findings indicate simulation was as effective as clinical practice in terms of students' performance outcomes. Well-designed simulations can replace a portion of nursing students' hands-on clinical time with positive learning outcomes. Evaluating individual student performance facilitates design of remediation activities targeting identified areas of weakness. Future researchers should combine simulation with hospital-based clinical experience to determine if student competency improves.

Funding: In part by Terry R. Misener Innovation Grant.

ENHANCING NURSING EDUCATION

Idaho Schools of Nursing Unite to Protect College Students from Meningitis Disease

*Pamela Strohfus, MA, DNP,
RN, CNE
Assistant Professor
School of Nursing
Boise State University
Boise, ID*

*Cathy Deckys, MS, RN
Clinical Instructor
School of Nursing
Boise State University
Boise, ID*

*Sherry Sweikert, RN
Staff Nurse
Health Clinic
Lewis-Clark State College
Lewiston, ID*

*Terri Blackburn, BS
Health/Wellness Counselor
Health Clinic
Northwest Nazarene University
Nampa, ID*

*Kelly Fanning Pesnell, DNP,
APRN, FNP-C
Clinical Assistant Professor
School of Nursing
Idaho State University
Meridian, ID*

*Debrah Reiland, MS, RN,
ACNS-BC
Clinical Assistant Professor
School of Nursing
Idaho State University
Pocatello, ID*

*Jan Crabill, MSN
Associate Professor
School of Nursing
Northwest Nazarene University
Nampa, ID*

*Marilyn Walker, RN
Director of Nursing
Health Clinic
Brigham Young University, Idaho
Rexburg, ID*

*Patricia Herman, LPN
Idaho Immunization Coalition
Caldwell, ID*

Purpose: In order to protect Idaho college students from meningitis, the purpose was threefold: 1. Secure free meningitis vaccine, 2. Organize nursing students, faculty, and staff at six schools of nursing/health clinics, and 3. Administer the meningitis vaccine.

Background: Meningitis is a deadly disease, and those who survive, one in five have serious medical problems like brain damage or limb loss. Risk of infection is six times higher for those living in college dorms. Thirty states require meningitis vaccine for college students; but Idaho has no such requirement. The Idaho Immunization Coalition (IIC) wanted to protect college students from this dangerous preventable disease and asked Schools of Nursing faculty, students, and health clinic staff at six Idaho colleges to help administer the meningitis vaccine.

Brief Description: Boise State nursing faculty and students initiated the Meningitis Campaign in partnership with the IIC. Schools of Nursing and university health clinics were recruited to join through phone and email communication. Free meningitis vaccines were secured from Idaho State Health and Welfare Department and the CDC. Faculty, student nurses, staff and volunteers organized at each campus. The Meningitis Clinic Toolkit was created to secure high quality vaccine delivery. Dropbox, emails, and telephone conferences enabled coordination and distribution of resources statewide.

Outcomes Achieved: Over 1400 Idaho college students received the meningitis vaccines from clinics at Lewis-Clark College, Boise State University, Brigham Young University, Idaho, Idaho State University, Northwest Nazarene University, and University of Idaho. The Meningitis Clinic Toolkit was effective in ensuring accurate and efficient vaccine administration.

Conclusions: Nursing faculty and students coordinated a first time effort to deliver preventive health care. This statewide strategic project engaged stakeholders, communities, and organizations through a nursing lens which can be replicated for future academic/practice undertakings.

Abstracts of Podium Presentations

FAMILY HEALTH

Moderator:

Schola N. Matovu, RN, BSN

Doctoral Student

Medical/Surgical/Oncology

Kaiser Permanente Oakland Medical Center

Oakland, CA

PREDICTING STRESS IN PARENTS OF CHILDREN WITH MITOCHONDRIAL DISEASE

Brenda Senger, Celestina Barbosa-Leiker, Linda Ward

CHILD'S ETHNICITY AS A FACTOR IN PARENTAL SATISFACTION WITH CARE

Bonnie Gance-Cleveland, Lynn Gilbert, Danielle Dandreaux, Heather Aldrich,

Paul Cook, Sarah Schmiege, Diane Skiba, Kevin Gilbert, Gabriel Shaibi,

Jinnette Senecal, Keri Bolton Oetzel, Rabah Kamal

A CORRELATION STUDY OF CAREGIVER BURDEN AND COPING STYLE IN PARENTS OF CHILDREN WITH EPILEPSY

Minhui Liu, Hongling Hu, Siyuan Tang

SUPPORTING HOME HOSPICE FAMILY CAREGIVERS: INSIGHT ACROSS PERSPECTIVES

Kristin G. Cloyes, Lanell Bellury, Patricia H. Berry, Lee Ellington,

Margaret F. Clayton, Maija Reblin

GLOBAL HEALTH IN THE BORDERLANDS: CAREGIVING UPDATE ON MEXICAN AMERICAN SONS

Bronwynne C. Evans, Michael J. Belyea, David W. Coon, Ebere Ume

FAMILY HEALTH

Predicting Stress in Parents of Children with Mitochondrial Disease

Brenda Senger, RN, PhD(c)
PhD Student/Faculty Lecturer
College of Nursing
Washington State University
Spokane, WA

Celestina Barbosa-Leiker, PhD
Assistant Professor
College of Nursing
Washington State University
Spokane, WA

Linda Ward, PhD, ARNP
Assistant Professor
College of Nursing
Washington State University
Spokane, WA

Mitochondrial disease (mito) is a group of rare, inherited, chronic, life-limiting, incurable neurodegenerative disorders known to affect children early in life, that result from failure of the mitochondria to turn food into energy.

Purpose/Aims: This research explored the parent experience, disease-related challenges, coping strategies, and pediatric illness-related stress in parents of children with mito. The aims were to 1) identify disease-related characteristics, coping strategies, pediatric illness-related stressors, and experiences among parents of children with mitochondrial disease; 2) explore the relationships between illness-related parenting stress and family demographics, disease characteristics, coping strategies and parent experience of childhood illness; and 3) identify significant predictors of pediatric illness-related parenting stress in parents of children with mito.

Rationale/Conceptual Background: The diagnosis of mito is elusive and complex, with a variety of clinical manifestations, multisystem involvement, and the lack of a reliable biological marker for screening and diagnosis. The unpredictable prognosis and erratic nature of this illness can be overwhelming to parents who bear the daily responsibilities of managing the child's care. Little is known about the experience of parents caring for a child with mito. Reuben Hill's ABC-X Model of Family Crisis guided the exploration of parental stress and coping strategies.

Methods: Internet sampling of 231 parents of children with mito included demographic information and three questionnaires: Parent Experience of Childhood Illness (PECI), Coping Inventory for Parents (CHIP) and Pediatric Inventory for Parents (PIP).

Results: Significant correlations were found ($p \leq 0.01$, $p \leq 0.05$) in illness-related parenting stress associated with parent age, parent income, parent education, child age, child age at diagnosis, presence of developmental delays, frequency of hospitalizations, number of medical visits, number of organs involved, and number of specialists seen. Regression analysis of 10 models found that significant ($p \leq 0.01$, $p \leq 0.05$) predictors of pediatric illness-related stress to be: frequency of hospitalization over past year, parent income, number of medical visits per year, guilt & worry, emotional resources, unresolved sorrow & anger, long-term uncertainty, and understanding health care.

Implications: The ability to identify disease-related challenges, coping strategies and parent experiences in assessing psychosocial stressors in parents of children with mitochondrial disease is novel and can assist health care professionals to provide disease-sensitive, family-focused care.

FAMILY HEALTH

Child's Ethnicity as a Factor in Parental Satisfaction with Care

Bonnie Gance-Cleveland, PhD, RNC, PNP, FAAN¹; Lynn Gilbert, RN, PhD, PNP-BC¹;
Danielle Dandreaux, PhD²; Heather Aldrich, PhD¹; Paul Cook, PhD¹;
Sarah Schmiege, PhD¹; Diane Skiba, PhD¹; Kevin Gilbert, PhD³; Gabriel Shaibi,
PhD²; Jinnette Senecal, BSBA²; Keri Bolton Oetzel, PhD⁴; Rabah Kamal, BA¹

¹College of Nursing, University of Colorado, Aurora, CO; ²College of Nursing & Health Innovation, Arizona State University, Phoenix, AZ; ³Heart Smart Kids, Boulder, CO; ⁴Waikato Management School, University of Waikato, Raglan, New Zealand

Purpose: The AHRQ-funded study is a comparative effectiveness trial assessing use of technology decision support for translation of obesity guidelines into practice. This presentation presents child's ethnicity as a factor in parent satisfaction with clinician communication, decision-making, and interpersonal style during well-child checks at school-based health centers (SBHCs).

Background: There is a current childhood obesity epidemic in the U.S. that suggests this generation of children may be the first to have a shorter lifespan than their parents. Ethnic minority youth face significant health disparities and are the most affected by childhood obesity and related health consequences. SBHCs provide primary care for many underserved, minority youth, providing an avenue for addressing these health disparities and translating obesity guidelines into practice.

Method: Providers (n=30) from SBHCs in 6 states (AZ, CO, NM, MI, NY, NC) were enrolled in the study. Each site completed a convenience sample of 32 parent satisfaction surveys. Two measures were given to parents: the Interpersonal Processes of Care (IPC) and the Health Care Climate Questionnaire (HCCQ). The IPC is a 29-item survey that measures the patient-clinician relationship, quality, and satisfaction with care. The HCCQ is measured with 6 items for eating and 6 items for regular exercise and assesses the degree of support from healthcare providers for healthy behaviors.

Results: Mean differences in subscale scores were examined across three groups using one-way ANOVA models: White, Hispanic English speaking, and Hispanic Spanish speaking. Significant differences between groups were observed for several of the IPC subscales (Hurried Communication, $F = 5.85, p < .01$; Compassionate, Respectful, $F = 7.13, p < .01$; Discrimination, $F = 12.13, p < .001$; and Disrespectful Office Staff, $F = 3.54, p < .05$). Post-hoc comparisons showed that, for each variable, satisfaction was greatest among parents of White children and lowest among Spanish speaking parents of Hispanic children (all $ps < .05$). English-speaking parents of Hispanic children scored between the two other groups, but mean scores were often more in line with those of parents of White children. There were also group differences on both the Diet ($F = 2.54, p < .05$) and Exercise ($F = 4.97, p < .01$) subscales of the HCCQ, where Spanish-speaking parents of Hispanic children scored significantly lower than parents of White children.

Implications: Parents of White and Hispanic children with English-speaking parents had no significant differences in their perception of care. There were significant differences, however, in parental perception of care between White and Hispanic Spanish-speaking children seen in SBHCs. Clinicians in SBHCs need to be aware that Spanish speaking parents' perceptions of care differ significantly from English-speaking parents. Steps to communicate and show respect need special attention.

Funding: This project was supported by grant number R18HS018646 for the Agency of Healthcare Research and Quality.

FAMILY HEALTH

A Correlation Study of Caregiver Burden and Coping Style in Parents of Children with Epilepsy

*Minhui Liu, BSN, BS
PhD Student*

*Biobehavioral Nursing and Health Systems
University of Washington
Seattle, WA*

*Hongling Hu, BSN, MSN
Head Nurse
Pediatric Ward
Xiangya Hospital
Changsha, China*

*Siyuan Tang, MD
Dean and Professor
School of Nursing
Central South University
Changsha, China*

Purpose: To investigate caregiver burden in parents of children with epilepsy, coping styles and their correlation.

Background: Epilepsy is one of the most common chronic diseases in nervous system of child, with a prevalence of 5%, characterized by recurrent seizures. Long-term, frequent or severe seizures can lead to brain damage. This not only seriously harms the physical and mental health of the child, but also causes a heavy burden to the family and society. Coping style is the way in which or the strategies used by people to deal with requirements of their internal and external environment as well as the related emotional distress. Previous studies showed that coping style is an important regulator of psychological stress and pressure that affects individual mental health. However, the function of coping style adopted by parents of children with epilepsy in addressing the care burden is rarely reported. This study aimed to measure the level of parents' caregiver burden in children with epilepsy, and its relationship with coping styles adopted by the parents, in order to seek ways to effectively relieve the caregiver burden of parents of children with epilepsy and promote its treatment by nursing.

Methods: A survey was conducted with 101 parents of children with epilepsy using the Caregivers Burden Inventory (CBI) and Coping Health Inventory for Parents (CHIP) to analyse the characteristics of their caregiver burden and coping styles. Correlational analyses were performed.

Results: Most parents reported high levels of caregiver burden (father= 48.48±14.35, mother= 51.84±12.66). Most frequent coping styles adopted by the parents were to maintain family unity, cooperation and an optimistic attitude. Coping styles that included maintaining family unity, cooperation, an optimistic attitude, seeking social support, the maintenance of self-esteem and psychological stability were negatively correlated with caregiver burden of mothers ($P<0.01$).

Implications: The perceived caregiver burden in patients of children with epilepsy is related to their coping style. In the aspect of nursing activity, parents should be encouraged to adopt positive coping styles to relieve caregiver burden.

FAMILY HEALTH

Supporting Home Hospice Family Caregivers: Insight across Perspectives

Kristin G. Cloyes, PhD, MN, RN
Associate Professor¹

Janell Bellury, PhD, RN, AOCNS
Associate Professor²

Patricia H. Berry, PhD, APRN, FAAN
Associate Professor¹

Lee Ellington, PhD
Associate Professor¹

Margaret F. Clayton, PhD, APRN
Associate Professor¹

Maija Reblin, PhD
Assistant Research Professor¹

¹*University of Utah College of Nursing, Salt Lake City, UT*

²*Georgia Baptist College of Nursing, Atlanta, GA*

Purpose: The purpose of this mixed method comparative content analysis was to triangulate and describe perspectives of national hospice thought leaders, hospice nurses, and family caregivers on factors that promote or threaten family caregiver perceptions of support.

Background: Over one million people die using hospice services each year; 42% receive hospice services in their homes, most often with a family member also providing care. Caregivers' perceptions of support vary based on experience and situation, and lack of perceived support can lead to poor health, emotional distress and decreased quality of life.

Methods: A purposive sample of nationally recognized thought leaders (TL) including nurse researchers, clinical leaders, and educators were selected (n = 11). Semi-structured interviews were conducted by phone (n = 10) and in person (n = 1), audio recorded and transcribed. Two focus groups with hospice nurses (n = 13) and two with former family caregivers (n = 14) were audio recorded and transcribed. Selections specific to the study aim were aggregated for each group. Participants were asked to discuss what promotes or threatens caregiver support. Data were inductively coded line-by-line (384 unique codes), and codes were grouped into broader hierarchical categories. Four main categories that cross-cut all the data were developed, capturing 95% (366) of the codes. Z tests compared the three groups for significant differences on what portion of their codes fell into each category. Categories were then interpreted, described and compared.

Results: The four categories were: 1) Essentials of Skilled Communication (30.6%); 2) Importance of Building Authentic Relationships (28%); 3) Value of Expert Teaching (22.4%); and 4) Critical Role of Teamwork (18.3%). Thought leaders most often discussed communication and teamwork (44.6% and 37.3%); Caregivers highlighted expert teaching (51%) and relationship building (39.8%). Teamwork was the category most talked about by the nurses (35.8%). Thought leaders mentioned communication more than caregivers (z = 2.8551), nurses talked about teamwork more than caregivers (z = 2.2786), and caregivers focused on expert teaching more than TL (z = 2.1693) and nurses (z = 2.4718; all *p values* < .05). Together, these categories comprise what caregivers describe as effective support, and barriers in one category could be overcome by expert delivery in another. For example, lack of teamwork such as inadequate coordination or lack of clarity about hospice team roles could be compensated by timely and expert communication by the nurse. Moreover, these categories were linked across the levels of individual home hospice encounters, nurse practice and preparation, practices and policies at the hospice agency level and beyond to issues of integration, transition and continuity of care.

Implications: Interpretation of results suggests that interpersonal interactions at multiple levels (among team members, between nurses, and across the care continuum) contribute to perceptions of support. From a systems perspective, challenges at higher levels manifested in specific instances of caregivers feeling more or less supported in their homes. Effective communication at practice levels can compensate for challenges at higher system levels but at every level, more effective communication would improve caregiver perceived support.

FAMILY HEALTH

Global Health in the Borderlands: Caregiving Update on Mexican American Sons

Bronwynne C. Evans, RN, PhD, FAAN, Professor¹

Michael J. Belyea, PhD, Research Professor¹

David W. Coon, PhD, Professor¹

Ebere Ume, RN, PhD, Faculty²

¹*College of Nursing & Health Innovation, Arizona State University, Phoenix, AZ*

²*Mervyn M. Dymally School of Nursing, Charles Drew University, Los Angeles CA*

Purposes/Aims: First reported by our team in 2007 and again in 2011, personal care by Mexican-American (MA) sons for their aging mothers is an emerging trend in border health. Ours is the only empirical work, however, addressing this phenomenon. The purpose of this presentation is to describe caregiving sons (8 MA sons/116 caregivers in our mixed methods study; about 7%), how they shoulder and fulfill that responsibility, and how that experience unfolds over time.

Rationale/Conceptual Basis/Background: MAs remain the largest ethnic minority in the U.S. but families may be splintered by distance, divorce, or economic necessity. Currently, we know little about their caregiving, and literature is particularly sparse in regard to the culturally taboo replacement of daughters as personal caregivers by sons. By necessity, sons do, in what we believe may be increasing numbers, provide informal personal care for aging mothers. This constitutes a major turning point in the caregiving experience explored in our study, *Momento Crucial*, using *life course perspective* (LCP). A leading theoretical approach for the longitudinal study of health and behavior, LCP examines cultural and contextual differences, timing of life events, adaptive strategies, trajectories, transitions, and turning points to identify caregiver stressors, rewards of care, and cultural expectations, and facilitate derivation of testable propositions.

Methods: A comparative-historical case method offered the opportunity to examine our 8 cases over time. All cases of MA sons providing care for their mothers were identified from our longitudinal study of 116 MA caregivers (visits every 10 weeks for 15 months). Of these 8 cases, 4 sons were currently providing personal care and 4 were confronting the imminent need to do so. These men varied in acculturation, age, socioeconomic status, education, and caregiving intensity. Combining semi-structured interview data with results from corresponding variable-oriented instruments including the CES-D, Zarit Burden Index, Penn State Worry Questionnaire, Positive Aspects of Caregiving, Caregiver Vigilance Scale, and General Well-Being Inventory, we examined each case individually, plotted the results, and compared them over time. Using LCP constructs, we identified commonalities and differences across cases, compared them to propositions previously derived from our work in this area, and refined/generated propositions for future testing.

Results: Although quite different on demographic variables and caregiving intensity, all 8 sons maintained a relatively steady course over time in depression, caregiver burden, and worry. Two, however, responded to their mothers' serious hospitalizations with a dramatic dip in their own well-being scores, and caregiver reward was also affected by relinquishing care temporarily. The previously generated proposition, "MA males providing personal care for their mothers adopt a matter-of-fact approach as they act 'against taboo'" was supported.

Implications: Using the framework of LCP, it appears that teaching a matter-of-fact approach could assist MA sons in provision of personal care for mothers. Further research is needed to determine if the approach is common across MA caregiving sons and if nurses could effectively teach that approach to men engaged in this caregiving activity.

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Abstracts of Podium Presentations

HEALTH AND RURALITY

Moderator:

Rebekah J. Salt, PhD, RN

Assistant Professor

School of Nursing

University of Texas Health Science Center at San Antonio,

San Antonio, TX

CHILDREN'S SELF-PERCEPTIONS OF WEIGHT IN A RURAL HISPANIC COMMUNITY

Carolyn Montoya, Marie L. Lobo, Beth B. Tigges, Blake Boursaw

APPLICATION OF TRANSLATIONAL APPROACHES FOR THE ADVANCEMENT OF HEALTH IN RURAL AFRICA

Diane Magyary

STRATEGIES TO ENCOURAGE RURAL PRACTICE BY NURSE PRACTITIONERS

Louise Kaplan, Susan Skillman, Stefanie Sanders, Holly Andrilla

EFFICACY OF A MULTI-COMPONENT INTERVENTION ON QOL AMONG RURAL ELDERLY

Shirley Joseph, Ardith Doorenbos

CPHC SCREENING DATA: FOLLOW UP TRENDS BETWEEN MEN AND WOMEN IN KERN COUNTY

Judy H. Pedro, Valerie Valdez, Jenny Trinh, Nancy Castellanos

HEALTH AND RURALITY

Children's Self-Perceptions of Weight in a Rural Hispanic Community

Carolyn Montoya, PhD, CPNP
Assistant Professor
cjmontoya@salud.unm.edu

Marie L. Lobo, PhD, RN, FAAN
Professor

Beth B. Tigges, PhD, CPNP
Associate Professor

Blake Boursaw, MS, PhD(c)
Instructor

College of Nursing
University of New Mexico
Albuquerque, NM

Purposes/Aims: To determine whether there are differences in children's self-perceptions of weight based on age, gender, actual body mass index (BMI) category, grade level, and ethnicity compared with their clinically measured BMI and to determine the association of gender, age, grade level, ethnicity, and actual BMI category with their perception of ideal BMI category.

Rationale/Conceptual Basis/Background: Although prevalence rates of obesity in children appear to be leveling off, it is estimated that 32% of children in the U.S. are obese or overweight. Rates among minority populations are even higher. Many parents, including Hispanic parents, underestimate their children's weight status. Studies involving the accuracy of prepubertal children's weight perceptions have had mixed findings and few studies have included a significant number of Hispanic children.

Methods: A total of 424 children (70% Hispanic) from a rural community in New Mexico, aged 8 to 11 years and in Grades 3 through 5, participated in this study. Children were assigned to one of the Centers for Disease Control and Prevention BMI categories: underweight, healthy weight, overweight, and obese. Using the Children's Body Image Scale[®], the children were asked to select a figure representing their actual body perception and a figure representing their ideal body perception. The children were then weighed and measured.

Results: Only clinically measured BMI category was found to be significantly associated with accurate perception, $\chi^2(3) = 201.4$, $P < 0.001$, with only 9.0% of overweight or obese children selecting figures representing their clinically measured BMI category. Clinically measured BMI category, $\chi^2(3) = 8.8$, $P = 0.032$, and grade level, $\chi^2(2) = 6.7$, $P = 0.036$, had a significant association with selection of an underweight ideal, although only clinically measured BMI remained significant in follow-up regression analyses. Overall, 32% of children selected an underweight figure as ideal.

Implications: Regardless of gender, age, grade level, and ethnicity, prepubertal children who are either overweight or obese do not accurately perceive their weight status. Recognition by practicing clinicians that overweight/obese children do not recognize themselves as being overweight or obese is imperative in terms of approaching this topic with families. These findings have implications for the development of obesity prevention and intervention programs. Programs should emphasize healthy habits (nutrition and exercise) for all children, rather than targeting overweight and obese children exclusively. The finding that 1/3 of this sample chose an underweight figure as ideal underscores the need that such programs should focus on health rather than weight.

Funding: CON-UNM: RWJF Nursing & Health Policy Collaborative & Dean's Scholar; NPHF/Astellas Promoting Heart Health Across the Lifespan.

HEALTH AND RURALITY

Application of Translational Approaches for the Advancement of Health in Rural Africa

Diane Magyary, PhD, RN, ARNP
Professor
Psychosocial and Community Health Department
University of Washington
Seattle, WA

Purpose: The pilot project's purpose was to identify effective dissemination and implementation approaches designed for the rapid uptake of innovative practices to advance health in rural African farming villages.

Rationale: Malawi is one of the poorest countries in Africa and has one of the highest mortality, chronic starvation and malnutrition rates. Community health practices are well documented to reverse the rates of mortality and malnutrition, but very little is known about how best to introduce and sustain innovative practices in African rural villages. Although the science of translation has advanced over the years, very little is known about dissemination and implementation approaches that are culturally relevant and effective in developing countries such as Malawi.

Undertaking: During 2007 - 2011, the pilot project was conducted in the Namitembo area of Malawi. Namitembo consists of seventy-four small farming communities that interface with each other through a network of eight decision-making councils. The project entailed a collaborative partnership with the rural farming communities, an African NGO and a faith-based organization. The common goal was to disseminate and implement innovative and evidence-based nutritional, safe water and sanitation practices throughout rural farming communities. Information about culturally relevant and effective dissemination and implementation approaches was collected through interviews with eight decision-making councils and fifty farming communities. In addition, observations were completed to verify fifty farming communities' adoption of the newly introduced evidence-based nutritional, safe water and sanitation practices.

Outcomes: Eleven dissemination and implementation approaches were identified as culturally relevant and effective in the adoption of nutritional, safe water and sanitation practices. The rapid uptake of new health related practices by communities was evident when eleven dissemination and implementation approaches were used. The eleven approaches involved 1.) a community culture of optimism & innovation, 2.) endorsement by key champions, leaders & community members, 3.) fellowship among all participants, 4.) spirit of inclusion and collaboration, 5.) infrastructure for local decision-making and accountability, 6.) pre-training stage setting and credibility, 7.) initial training program with instructional and interactive learning opportunities, 8.) follow-up training program with on-site supervision and timely constructive feedback, 9.) neighbor-to-neighbor spread, 10.) incentives and 11.) immediate and visible outcomes.

Conclusions: This pilot data results suggest that rural community health is advanced through a collaborative translational process that entails specific dissemination and implementation approaches viewed as culturally relevant and effective by the community. Community nursing has a long tradition of engaging in collaborative partnerships with local communities to address basic health needs. Translational science offers community health nurses and other professionals a comprehensive understanding of how to collaboratively introduce and sustain new health practices in local communities. The replication of this translational project in other African areas is desirable to determine the generalizability of the results. In addition, a more rigorous endeavor to systematically compare and analyzes communities who do and do not adopt innovative health practices would lend to a more enriched understanding of culturally relevant and effective translational approaches.

HEALTH AND RURALITY

Strategies to Encourage Rural Practice by Nurse Practitioners

*Louise Kaplan, PhD, ARNP, FNP-BC,
FAANP, Associate Professor and Director
Nursing Program, Saint Martin's University
Lacey, WA
lkaplan@stmartin.edu*

*Susan Skillman, MS
Deputy Director
WWAMI Rural Health Research Center
University of Washington
Seattle, WA*

*Stefanie Sanders, BA, ADN, RN
Research Coordinator
WWAMI Rural Health Research Center
University of Washington
Seattle, WA*

*Holly Andrilla, MS
Research Scientist
WWAMI Rural Health Research Center
University of Washington
Seattle, WA*

Purpose: The purpose of the study is to quantify and describe nurse practitioner (NP) education programs that encourage NPs to practice in rural areas. The study estimates the number and distribution of NP education programs that actively promote rural NP practice; assesses curricula, recruitment strategies and other initiatives used to promote rural practice; and identifies barriers to providing NP education that supports practice in rural areas.

Background: Most studies focus on factors associated with promoting rural practice by physicians. Less is known about factors associated with rural NP practice. Daniels and colleagues surveyed graduates in New Mexico from 12 health professional programs, including NPs. Rural choice was associated with the size of one's childhood town and rural practicum completion. Age at graduation, rural background and preference for living in smaller communities were associated with recruitment and retention, as were loan forgiveness and rural education programs. A study of 30 graduates of the Northern Arizona University School of Nursing program that prepares NPs to work in rural areas found that 87% were working in rural practices.

Methods: The study surveyed all 354 NP education schools using a questionnaire developed with expert input from NP educators. Respondents had the option to respond using a web-hosted instrument or using a mailed paper questionnaire.

Results: The survey response rate was 74%. Nearly two-thirds (62%) of responding NP schools reported it was very important to the school's mission to prepare NPs for practice in rural areas. While 21% of programs had a stand-alone course on providing care to underserved populations, only 11% have a stand-alone class on providing care to rural populations. Many (69.5%) programs had integrated content about underserved and rural (36.9%) health care. More programs offered clinical opportunities working with underserved populations than rural populations. Family NP programs were more frequently reported these clinical experiences with 86% offering a rotation with underserved populations and 56% in rural areas. Overall, less than half of the programs (26%) offer face-to-face only courses; 57% offer hybrid courses, and only 17% offer distance only courses. Barriers to recruiting students from rural areas include student difficulty to relocate to a campus based program, the cost of NP programs and limited clinical opportunities in rural areas. Schools reported using a wide variety of strategies to recruit students from rural areas including word of mouth, partnering with local communities, recruiting at rural hospitals, and use of a distance learning environment.

Implications: Findings from this study describing how NP programs promote rural NP practice will assist policymakers to develop policies to support and expand rural-relevant education programs. Information about educational strategies used to encourage NP graduates to work in rural and other underserved areas is critical to help alleviate workforce shortages.

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HEALTH AND RURALITY

Efficacy of a Multi-Component Intervention on QOL among Rural Elderly

Shirley Joseph, PhD, RN
Professor
College of Nursing
CMC Vellore
Tamil Nadu, India

Ardith Doorenbos, PhD, RN, FAAN
Associate Professor, School of Nursing
Biobehavioral Nursing and Health
University of Washington
Seattle, WA

Aims: The aims of this study were 1) to identify the existing health promotion practices among the rural elderly and promote healthy life styles, and 2) to evaluate the efficacy of a multi component intervention strategy on the quality of life of rural elderly.

Background: The number of elderly people in the Indian population is rapidly rising and it is estimated that it will reach 10.7% in 2021. As their life span is lengthened, maintaining a satisfactory quality of life free of major ailments is a challenge to the individual, family, community and country. If the elder can be encouraged to follow simple health promotion practices, they can enjoy a healthier life. Making them aware of healthy practices in relation to nutrition, exercise, rest and relaxation, safe home environment, while encouraging them to be independent, will serve to ensure that they also enjoy a better quality of life.

Methods: The design for this study is Community Randomized Control trial where the villages were randomized into Experiment and Control groups. The study population consisted of all elderly men and women in the age group 60 years and above and the total sample size was 146. A specific meeting place (study centre) was identified in each village and equipped with charts depicting Isometric exercises, Relaxation exercises and daily time/Activity schedule. Both groups were administered the health promotion and QOL questionnaires at baseline and each subsequent month for 6 months. Anthropometric measures of Height & Weight were checked and BMI was calculated. The Experiment group elders were administered the intervention, by a local village volunteer, every week for six months. The intervention included: regular isometric exercise, progressive muscle relaxation exercises, dietary counseling, daily social interaction and recreational activities involving playing of indoor and outdoor games.

Results: The majority 121 (82.9%) of participants were above the age of 65. BMI in the optimal range of 18.5 – 24.9 was noted in 70 (47.9%) of the elders. The data regarding the prevalence of health promotion practices among the rural elderly revealed: 60 (41.1%) had 'poor' diet, 70 (47.9%) had mild to moderate exercise, 43 (29.5%) had 'good' injury prevention, 55 (37.7%) had 'poor' activities of daily living, 64 (43.8%) had 'poor' sleep and relaxation and 69 (47.3%) had 'poor' chemoprophylaxis. The findings also showed that there was increase in mean quality of life scores from 11.69 in the pre stage to 17.30 in the post stage for experiment group, where as in the control group the scores were 12.76 in the pre to 12.34 in the post ($p < .000$).

Implications: The findings showed that the intervention made a big difference in how the elders perceived their QOL. They also voiced better appetite, sleep, frame of mind and ability to cope with stress, anger and disappointment. As a result nurses have taken over to run the elder care centers in the experiment villages, with plans to start similar centers in more villages. This model of supporting rural elders can also be applied to other villages.

HEALTH AND RURALITY

CPHC Screening Data: Follow up Trends between Men and Women in Kern County

Judy H. Pedro, MSN, RN, PHN, CNS
Assistant Professor
Department of Nursing
California State University, Bakersfield
Bakersfield, CA

Valerie Valdez, RN
Staff Nurse
Mercy Hospital
Bakersfield, CA

Jenny Trinh, RN
Staff Nurse
San Joaquin
Community Hospital
Bakersfield, CA

Nancy Castellanos, RN
Staff Nurse
Providence Holy Cross
Medical Center
Mission Hills, CA

Purpose: The purpose of this research study was to examine the variations in follow-up trends between men and women that received medical referrals for elevated health screening test results provided by Community Preventive Health Collaborative (CPHC).

Background: Residents of Kern County are afflicted by a high prevalence of diabetes, hypertension, heart disease, and obesity (Healthy Kern, 2013). In addition, 89% of women and 80.6% of men report having a usual source of healthcare (Healthy Kern, 2013). CPHC allows student nurses at California State University, Bakersfield (CSUB) to perform health screenings including blood pressure, blood sugar, total cholesterol, and body mass index (BMI), for the underserved in Kern County. Individuals with elevated screening test results are provided with a medical referral for follow up with a primary health care provider. Early diagnosis and treatment of chronic health conditions will lead to decreased costly complications and improved health outcomes.

Methods: Permission to conduct the study was obtained by the CSUB Institutional Review Board. CPHC program data was gathered from participants during health screening clinics and entered onto an excel spreadsheet without indicating the individual's name. Data gathered included the patient's report of health history indicators as well as biometric screening test results. The variables examined included the following for men and women: number with and without insurance, number with insurance that received a medical referral, number without insurance that received a medical referral, number with insurance that received follow up care, and number without insurance that received follow-up care.

Results: During academic year 2012 - 2013, 143 (36.8%) out of 388 men had insurance while 181 (46.6%) had no insurance. Forty-six men (32.1%) received a medical referral and had insurance while 53 (29.2%) received a referral and had no insurance. Only 5 (10.9%) men with insurance successfully received primary medical care compared to 10 (18.9%) men without insurance. There were 214 (37.7%) out of 568 women that had insurance and 222 (39.1%) women without insurance. Forty-six (21.5%) women with insurance received a medical referral while 58 (26.1%) women without insurance received a medical referral. Ten (21.7%) women with insurance successfully received primary medical care compared to 8 (13.8%) women without insurance. Both men and women had a low level of successful follow-up with a primary medical care provider.

Implications: Community preventive health programs can provide men and women with needed education, screenings, and linkage to health services. Reasons for the inability of insured and uninsured populations to access primary health care services needs to be examined in order to address the needs of these under-served populations. Nurses can partner with community agencies to implement health services for populations in need.

Funding: CPHC funded by a grant from The California Wellness Foundation.

Abstracts of Podium Presentations

HEALTH PROMOTION ACROSS POPULATIONS

Moderator:

*Kelly W. Marley, MSN, RN
Associate Dean
School of Health Sciences
Seattle Pacific University
Seattle, WA*

OHAHA MANA CHALLENGE: A DIET/ACTIVITY INTERVENTION WITH PACIFIC ISLANDERS

*Jane H. Lassetter, Jake Fitisemanu, Lauren Clark,
Lora Beth Brown, Kristin Van Tassell, Amanda Beukers,
Jessica Clark, Amy Dalton, Jeanie Driggs, Rachel Jardine,
Olivia Lessard, Diana Mitchell, Kara Moscon, Kylie Richmond,
Paige Romero, Brenda Yan, Natalie Young*

DIABETES AND HEARING LOSS AMONG MEXICAN AMERICAN ELDERLY AGED 65-75

Elizabeth Anne Thomas, Oisaeng Hong, Dal Lae Chin

POOR DIETARY INTAKE AND MALNUTRITION IN OBESE PATIENTS WITH HEART FAILURE

Lorraine S. Evangelista, Marjan Motie

BELIEFS OF LATINA WOMEN: DO PROMOTORAS MAKE A DIFFERENCE IN LIFESTYLE INTERVENTIONS?

Deborah Koniak-Griffin, Cynthia R. Albarran, MarySue V. Heilemann

HEALTH PROMOTION ACROSS POPULATIONS

Ohaha MANA Challenge: A Diet/Activity Intervention with Pacific Islanders

Jane H. Lassetter, PhD, RN¹; Jake Fitisemanu, MPH²; Lauren Clark, PhD, RN, FAAN²; Lora Beth Brown, EdD, RDN¹; Kristin Van Tassell, RN, FNP-S¹; Amanda Beukers, SN¹; Jessica Clark, SN¹; Amy Dalton, SN¹; Jeanie Driggs, SN¹; Rachel Jardine, SN¹; Olivia Lessard, SN¹; Diana Mitchell, SN¹; Kara Moscon, SN¹; Kylie Richmond, SN¹; Paige Romero, SN¹; Brenda Yan, SN¹; Natalie Young, SN¹

¹Brigham Young University, Provo, UT; ²University of Utah, Salt Lake City, UT

Purpose: We assessed the effect of a family-focused, pilot intervention on activity, nutrition, and weight loss promotion, as needed, in Native Hawaiian and Pacific Islander (NHPI) families.

Background: In our recent study, 84.4% of NHPI adults were overweight or obese, putting them at increased risk for obesity-related diseases. Grass-root efforts are occurring within NHPI communities to reverse the obesity trend. However, little research on these efforts has been done. With NHPI community leaders, we modified an NHPI community intervention to include nutrition content and involve families.

Methods: Seven NHPI families (10 children [7 females, 3 males], 7 mothers, 3 fathers and 1 grandmother), participated in the Ohana MANA Challenge held at the Hawaiian Cultural Center in Midvale, Utah on four consecutive Saturdays, with a reunion four weeks later. Sessions lasted 90 minutes with the first 30 minutes on nutrition activities (children and adults separate), the next 30 minutes on a physical activity for the whole family, and the last 30 minutes eating healthy foods together. We collected data at each session and at the reunion. Participants were weighed, measured, and responded to questionnaires on the first and fourth sessions and to weekly recall questionnaires. Measures of central tendency were used to describe the sample and their performance on the questionnaires.

Results: 9 adult participants were married, and 2 were single. 6 participants had attended some college, and 5 graduated from college. Based on BMI calculations, 73% of adults were overweight, obese, or morbidly obese. At baseline, 2 perceived their weight as healthy, and 9 perceived their weight as unhealthy. In an effort to lose weight in the last two years, one had participated in a weight loss program; 8 had dieted on their own; and 7 had exercised at home or in a fitness facility/gym. Their highest rated motivations for participating in the intervention were a desire to be healthier and that the intervention was designed for the whole family. According to their Newest Vital Sign scores, 10 had adequate health literacy, and 1 had a possibility of limited health literacy. According to their scores on the American Diabetes Association Type 2 Diabetes Risk Test, 2 were in the higher risk category and 9 were in the lower risk category. From baseline to post intervention, the adult participants' mean self-efficacy scores increased slightly ($M = 15.1$ to $M = 16.44$).

Implications: For this relatively educated sample, health literacy was adequate and did not seem related to their high percentage of obesity. Although most had not previously participated in formal weight loss programs, more than half had attempted to diet on their own and to be more active. They were motivated to participate in the intervention as families and by a desire to be healthy. This suggests family involvement and a focus on improving health, rather than on weight loss, are important components for NHPI interventions. We recommend extending the intervention length to at least 6 weeks.

Funding: A Mentoring Environment Grant from Brigham Young University.

HEALTH PROMOTION ACROSS POPULATIONS

Diabetes and Hearing Loss among Mexican American Elderly Aged 65-75

*Elizabeth Anne Thomas, PhD, ANP-BC, COHN-S, CNL
Assistant Professor, School of Nursing
University of California, Los Angeles
Los Angeles, CA*

*Oisaeng Hong, PhD, RN
Professor, School of Nursing
University of California, San Francisco
San Francisco, CA*

*Dal Lae Chin, PhD, RN
Postdoctoral Research Scholar
University of California, San Francisco
San Francisco, CA*

Purpose: The purpose of this study was to determine the relationship between diabetes and hearing loss among Mexican American elderly.

Background: Research conducted over the past several decades has brought attention to sensorineural hearing loss among individuals with diabetes. Mexican Americans have a higher prevalence of diabetes and diabetes complications than non-Hispanic whites. However, to date, no study has examined the effect of diabetes on auditory impairment among elderly Mexican American adults.

Methods: The study used cross-sectional data from the Sacramento Area Latino Study on Aging (SALSA) project. SALSA is a large longitudinal cohort study including 1,789 Mexican Americans who were aged 60 or greater and living in a six-county area of the greater Sacramento area in California. A total of 547 participants aged from 65 to 75 (mean age = 71.2 years, 43.5 % male) were included in this study. Hearing threshold levels (HTLs) were assessed for both low (0.5, 1, 2, and 3 kHz) and high (4, 6, and 8 kHz) frequencies. The unit of analysis was the individual ear, modeled as worse and better hearing ears. Hearing loss was determined based on HTLs in the better hearing ear with >25dB.

Results: Forty three percent of the participants reported having type 2 diabetes. About 65% and 91% showed hearing loss (>25 db) at low and high frequencies, respectively. In logistic regression models, elderly Mexican Americans with diabetes were significantly more likely to have hearing loss at both low (OR=1.5; 95% CI: 1.01-2.3) and high frequencies (OR=2.6; 95% CI: 1.3-5.5), controlling for other risk factors (Age, gender, income, smoking, and occupational exposure history). Age (low OR=1.1; 95% CI: 1.1-1.2; high OR=1.3; 95% CI: 1.1-1.4) and male gender (low OR=3.4; 95% CI: 2.1-5.3; high OR=6.6; 95% CI: 2.4-18.3) were additional significant predictors of both low frequency and high frequency loss while current smoking was a predictor only for low frequency loss (OR=2.7; 95%CI: 1.2-5.9).

Implications: Diabetes was significantly associated with hearing loss. When diabetes and hearing loss are present in the older adult, the potential for decreased quality of life, reduced functional capacity and possibly depression must be considered. Evaluating older adults for these conditions and intervening with nursing measures and appropriate referrals should be part of our quality nursing practice. Currently, audiometric screening is not a part of routine primary care. It is important to consider periodic hearing tests for individuals with diabetes, especially the elderly. Use of the Hearing Handicap Inventory for the Elderly - Screening version (HHIE-S), which has been validated against pure tone audiometry and assesses functional impairment related to difficulty hearing, would be a viable screening tool to implement when audiometry is not feasible or to help prioritize which patients are most in need of audiometry.

HEALTH PROMOTION ACROSS POPULATIONS

Poor Dietary Intake and Malnutrition in Obese Patients with Heart Failure

Lorraine S. Evangelista, PhD, RN, FAAN
Associate Professor, Nursing Science
University of California, Irvine
Irvine, CA

Marjan Motie, PhD
Project Director, Nursing Science
University of California, Irvine
Irvine, CA

Purpose: This study was done to identify the food and nutrient intake of the Pro-HEART trial participants and compare participant intake to national guidelines.

Background: Poor nutritional status and unintentional cachexia have been shown to have a strong association with survival in patients with heart failure (HF). However, there is a paucity of research describing the diet patterns of obese patients with chronic HF.

Methods: Pro-HEART is a clinical trial designed to evaluate the short-term and long-term effects of a high protein vs. standard protein diet on body weight and adiposity and other health outcomes in overweight and obese patients with HF, complicated with diabetes and/or metabolic syndrome. Baseline food consumption of 77 participants was analyzed using a validated 3-Day Food Record.

Results: On average, the participants were 58.1 ± 10.3 years, male (74%), married (65%), and Caucasian (49%). The average energy intake was 1358.6 ± 478.9 ; 58% exceeded the recommended amount of percent calories from fat (of 20-35% of daily calories), 73% exceeded the saturated fat recommendation (of 10% of daily calories), and 92% consumed too much sodium (2300 mg). Only 40% consumed the recommended amount of 45-65% of daily calories from carbohydrates. On average, participants consumed 0.68 ± 0.21 gm/kg of protein; only 9% consumed at least 1 gm/kg of protein as recommended. Less than 50% met the minimum recommended servings for folate, vitamin E, calcium and sodium (Table).

Implications: Our findings showed that overweight and obese patients with HF exceeded recommended intake of fat, saturated fats, and sodium. Likewise, data suggest that overweight and obese patients with HF are at risk for poor nutritional intake of key micronutrients and minerals essential for reducing the inflammatory and metabolic abnormalities associated with HF and confirm that patients who do not appear cachectic may still be at risk for malnutrition. Thus, the risk for poor nutritional intake should be considered in all HF patients, regardless of whether they appear malnourished or not.

Macro-/Micronutrient	Mean \pm SD	% Who Met National Rec.	National Recommendations ²
Protein intake, (gm.)	73.7 ± 20.5	9.1	1 g/kg
CHO intake, (gm.)	155.5 ± 69.5	40.3	45-65% of daily calories
Fat intake, (gm.)	48.3 ± 20.7	41.6	20-35% of daily calories
Folate (ug)	364.3 ± 200.9	33.8	400 ug
Vitamin E (ug)	7.7 ± 5.3	13.0	15 mg
Calcium (mg)	565.6 ± 236.8	0	1,200 mg
Sodium (mg)	2653.3 ± 838.8	7.8	< 2300 mg

²Institute of Medicine. *Dietary Reference Intake. App Diet Assess.* Washington DC: Natl Acad Press; 2001.

Funding: Received from the Heart, Lung, and Blood Institute (1R01HL093466-01).

HEALTH PROMOTION ACROSS POPULATIONS

Beliefs of Latina Women: Do Promotoras Make a Difference in Lifestyle Interventions?

Deborah Koniak-Griffin, RNC, EdD, FAAN

Professor and Audrienne H. Moseley Endowed Chair, Women's Health Research

Cynthia R. Albarran, RN, CNS, PhD
Doctoral Candidate

MarySue V. Heilemann, RN, PhD
Associate Professor

University of California, Los Angeles, School of Nursing
Los Angeles, CA

Purpose: The purpose of this study was to examine Latina women's perspectives of a lifestyle behavior intervention (LSBI), focusing on their interactions with and perceptions of the promotoras who facilitated the program.

Background: In Latino communities, promotoras are well accepted and respected community health workers (CHWs) who often engage in health promotion aimed at reducing risk of heart disease by improving lifestyle behaviors (diet and physical activity). Surprisingly, there has been little or no post-intervention inquiry from the perspective of Latina participants into how LSBIs and promotoras facilitate behavior change. A significant need exists for further nursing research in this area, particularly in light of the call for greater roles and responsibilities for CHWs by the Institute of Medicine and advocacy efforts to integrate CHWs into community-based prevention efforts.

Methods: This qualitative study was conducted with overweight, immigrant Latina women who participated in the treatment group of a larger community-based, randomized clinical trial (RCT) evaluating the effects of a 6-month LSBI that focused on healthy eating and physical activity. A team of nurses trained the promotoras to facilitate a culturally-tailored LSBI involving group education and individual teaching and coaching. After completion of the RCT, a convenience sample of 18 women was recruited and provided written informed consent to participate in this follow-up study. Grounded theory guided data collection and analysis. Four focus groups with 3 to 5 women per group were conducted, involving a total of 14 participants. Individual interviews also were conducted with 7 women; three women had previously participated in the focus groups. Activities were conducted in Spanish. Data analysis involved line-by-line initial coding; comparison across transcripts of the most frequently occurring and/or significant codes identified; creation of memos to analyze meaning of clusters of codes and data; and identification of themes and subsequent formation of categories. Data analysis was enhanced through use of diagrams and other analytic techniques.

Results: The low-income Latinas were predominantly of Mexican descent, married and had a mean age of 45 years. Promotoras helped women to change by motivating them through three interconnected elements: self-management tools (e.g., pedometers, health assessments), support, and new knowledge. The women recounted how promotoras served as teachers who imparted knowledge which was described as both product (i.e. facts, ideas) and process (i.e. engaging in dialogue that enhanced understanding). Women's ability to make lifestyle changes was viewed as connected with their emotional and psychological health, and promotoras served as counselors who provided support. In this respect, the LSBI was emotionally therapeutic for Latinas, although this was not the original intent. Promotoras facilitated contact with other women and also supported emotional well-being.

Implications: Our findings provide key insights into the important and powerful role that promotoras play in making LSBIs effective and motivating Latina women to make lifestyle changes. Given the women's expressed need for emotional support, future LSBIs should incorporate a strong mental health component and specialized training of promotoras by professional nurses.

Funding: This study was supported in part by NHLBI (R01 HL086931).

Abstracts of Podium Presentations

IMPLEMENTING STANDARDS AND IMPROVING QUALITY IN NURSING PRACTICE

Moderator:

Shelly A. Fischer, PhD, RN, NEA-BC, FACHE

Assistant Professor

Fay W. Whitney School of Nursing

University of Wyoming

Laramie, WY

QUALITY IMPROVEMENT IN NURSING HOMES: TESTING OF AN ALARM ELIMINATION PROGRAM

Neva L. Crogan, Alice E. Dupler

IMPLEMENTING THE IOM RECOMMENDATIONS FOR WOMEN'S PREVENTIVE HEALTH SERVICES

Melinda Tinkle, Beth Tigges, Deborah McFarlane, Blake Boursaw, Brittany Ortiz

STATE CERTIFICATION OF COMMUNITY HEALTH WORKERS AND NURSES' PERCEPTION OF TEAM CLIMATE

Mark Siemon, Geoff Shuster, Blake Boursaw

A COMPLEX PATIENT MODEL: UNDERSTANDING STRUCTURE, PROCESS AND OUTCOMES

*Mustafa Ozkaynak, Sharon Johnson, Bengisu Tulu, Adam Rose, Abir Kanaan,
Jennifer Donovan*

IMPLEMENTING STANDARDS AND IMPROVING QUALITY IN NURSING PRACTICE

Quality Improvement in Nursing Homes: Testing of an Alarm Elimination Program

Neva L. Crogan, PhD, GCNS-BC, GNP-BC, FNGNA, FAAN
Professor
Gonzaga University
Spokane, WA

Alice E. Dupler, JD, APRN-BC, ANP-BC, GCNS-BC
Associate Professor
Gonzaga University
Spokane, WA

Falls are the most common cause of injury deaths and nonfatal injuries in older adults. In an effort to detect a resident's movement, many nursing homes use bed or chair alarms to alert staff that the resident may get up and possibly fall. However, there is little evidence that bed or chair alarms prevent falls, and mounting evidence that alarms can impede the functional status and negatively impact feelings of dignity among older adults in nursing homes.

The purpose of this presentation is to describe the development and pilot testing of an alarm elimination program for nursing homes. The questions of interest included the following: (1) will an alarm elimination training program lead to improved staff knowledge regarding the use of alarms? and (2) will an alarm elimination program lead to the reduction or elimination of alarms used within a targeted nursing home?

The program arose during discussions within a geriatric advisory group comprised of administrators and nursing directors who identified the reduction or elimination of alarms as a potential quality initiative to be addressed in 2012. The nursing homes represented within the geriatric advisory group reported that 21.5% – 49.4% of their residents were using at least one alarm, some more than one. Preliminary efforts to reduce the number of alarms were partially effective. However, it was determined that a formal alarm elimination program was needed. The researchers reviewed falls/ alarm use literature and developed the alarm elimination program based on published research findings (Evidence-based practice), the barriers or challenges identified earlier by nursing homes represented within the advisory group and successful alternative approaches identified by nursing staff during preliminary efforts. The program was split into two 30 minute sections or parts: (1) Nursing home safety, and (2) Assessment and intervention.

An evaluation of the program found that an evidence-based alarm elimination program was effective in improving staff knowledge about alarms and led to the elimination of alarms within one targeted nursing home. Alternative approaches were selected, based on the individualized assessment and staff/resident/family buy-in. A program aimed at decreasing or eliminating the use of alarms may enhance quality of life of older adults in nursing homes.

IMPLEMENTING STANDARDS AND IMPROVING QUALITY IN NURSING PRACTICE

Implementing the IOM Recommendations for Women's Preventive Health Services

*Melinda Tinkle, PhD, RN, WHNP-BC
Associate Professor and Chair, Research and PhD Studies
College of Nursing*

*Beth Tigges, PhD, RN, PNP, BC
Associate Professor, College of Nursing*

*Deborah McFarlane, DrPH, MPA
Professor, Political Science*

*Blake Boursaw, MS
Instructor, College of Nursing*

*Brittany Ortiz, MA
Doctoral Student, Political Science*

*University of New Mexico
Albuquerque, NM*

Study Purpose: The purpose of this interdisciplinary study was to describe the attitudes and reported behaviors of women's health care providers in New Mexico related to the 2011 Institute of Medicine's (IOM) recommendations for women's preventive health services and their inclusion in the Affordable Care Act (ACA).

Background: On August 1, 2011, the U.S. Department of Health and Human Services adopted in full the July 2011 IOM recommendations for preventive health care for women. The IOM report contained 8 recommendations related to screening and counseling for gestational diabetes, HPV, HIV and domestic violence; provision of full-range contraceptive care and lactation support; and annual well woman care and counseling related to STI. Under the ACA, Medicaid, Medicare and new private insurance plans are required to cover these 8 services without co-pay or additional charges. While this law mandates the coverage of these services, health care providers are critical in terms of the adoption and delivery of these preventive services in clinical practice.

Methods: An anonymous, structured, self-administered survey was mailed to 1,798 women's health care providers in New Mexico, with the option of paper or electronic completion.

Results: 368 (21%) providers completed surveys (56% NPs, 31% MDs, 12% CNMs; 83% female; M age=53.0; 18% Hispanic; 34% Spanish-speaking; 50% urban, 40% rural practice; 87% > 20 hours/week of clinical). 55% reported that they had skimmed through the IOM guidelines, 52% reported using them in the past 6 months, and 37% had discussed with colleagues. Providers had favorable attitudes toward clinical practice guidelines (CPGs) in general [M (SD) = 4.4 (.85) Range 1-6], perceived that patients/peers thought it was somewhat important that they follow CPGs [M (SD) = 3.4 (.80) Range 1-5], and were somewhat favorable to the ACA [M (SD) = 3.3 (1.4) Range 1-5]. Providers' reported behavior related to each of the 8 practice guidelines was significantly positively associated with general attitudes toward CPGs, perceived norms, familiarity, agreement, self-efficacy, and outcome expectancy for each guideline; and negatively associated with practice barriers (lack of equipment, educational materials, support staff, time, reimbursement, acceptability to patients). Providers' favorability to the ACA was associated with agreement regarding the inclusion of the guidelines in the ACA ($r = .23-.69$; $p \leq .001$).

Implications: The study identified a number of points for intervention for assisting providers to implement the IOM's clinical practice guidelines that are now mandated by law.

IMPLEMENTING STANDARDS AND IMPROVING QUALITY IN NURSING PRACTICE

State Certification of Community Health Workers and Nurses' Perception of Team Climate

Mark Siemon, RN, MSN, MPH
Assistant Professor, School of Nursing
Boise State University
Boise, ID

Geoff Shuster, DNSc, RN
Associate Professor, College of Nursing
University of New Mexico
Albuquerque, NM

Blake Boursaw, MS, BSM
Instructor, College of Nursing
University of New Mexico
Albuquerque, NM

Purpose/Aims: The purpose of this research was to determine if there is a difference in the team climate between registered nurses (RNs) who work with state-certified community health workers (CHWs) and RNs who work with non-state-certified CHWs. A number of states have developed certification programs for CHWs to increase oversight, allow for direct funding, and improve recognition of CHWs as members of the health care team. More states are considering CHW certification to increase the use of CHWs by health care organizations with the hopes of improving health outcomes and decreasing health disparities. There has been little research about impact of state CHW certification on the adoption and diffusion of CHWs into the existing health care system.

Conceptual Basis: The impact of state certification of CHWs on team climate was examined within a conceptual model for the dissemination of innovations in health and service organizations. The model includes both inner and outer contexts related to organizations that promote or inhibit the adoption of innovations in health care organizations (Greenhalgh, Robert, Bate, Macfarlane, & Kyriakidou, 2005).

Methods: An Internet-based survey using SurveyMonkey® was distributed nationally using snowball sampling technique. Study participants completed the Team Climate Inventory (TCI)-short form questionnaire and demographic questions about themselves and their organizations. The online survey was accessed 322 times between November 13, 2012 and May 21, 2013.

Results: Analysis of survey responses using independent t-tests found no significant difference between mean TCI scores and TCI subscale scores for RNs from states with CHW certification (n = 81) and RNs from states without CHW certification programs (n = 115). Multiple regression analysis of TCI and TCI subscale scores found significant, $p < 0.05$, beta coefficients between TCI and TCI subscale scores and independent variables including organizational type, metropolitan or non-metropolitan work sites, and team member type.

Implications: This research adds information on one factor of organizational change that may assist in developing innovative polices for health care delivery reform. The Patient Protection and Affordable Care Act of 2010 includes funding for the development of innovative health care workforce and care programs through area health education centers that would develop interdisciplinary training programs involving licensed health care providers and CHWs. Registered nurses are the largest part of the professional health care workforce; their ability to collaborate and work with CHWs is critical to the integration of CHWs into existing health care organizations.

Funding: This research was funded by the Robert Wood Johnson Foundation Nursing and Health Policy Collaborative at the University of New Mexico, College of Nursing.

Reference:

Greenhalgh, T., Robert, G., Bate, P., Macfarlane, F., & Kyriakidou, O. (2005). *Diffusion of innovations in health service organizations*. Malden, MA: Blackwell Publishing.

IMPLEMENTING STANDARDS AND IMPROVING QUALITY IN NURSING PRACTICE

A Complex Patient Model: Understanding Structure, Process and Outcomes

Mustafa Ozkaynak, PhD, Assistant Prof., College of Nursing, U. of Colorado, Aurora, CO
Sharon Johnson, PhD, Associate Professor, Business, Worcester Polytechnic Institute, MA
Bengisu Tulu, PhD, Associate Professor, Business, Worcester Polytechnic Institute, MA
Adam Rose, MD, Associate Professor, CHQOER, Bedford VAMC, Bedford, MA
Abir Kanaan, PharmD, Associate Professor, MCPHS University, Worcester, MA
Jennifer Donovan, PharmD, Professor, MCPHS University, Worcester, MA

Purpose and Background: Delivering care to complex patients is challenging, often due to increased safety concerns and high demands for resources. By identifying complex patients and understanding specific needs, we can improve care delivery systems by anticipating care delivery and by standardizing clinical responses. Conceptual models have been developed to define complexity; however the focus has been primarily on underlying structural factors that explain main characteristics of complex patients and what makes their care challenging. Based on a field study of anticoagulation care, we developed a complex patient model (Figure 1) that extends beyond structure to include processes and outcomes.

Methods: We analyzed fifty-five interviews with staff members from six Veterans Health Administration affiliated anticoagulation clinics. The semi-structured interview protocol included questions about clinic rules and policies, staffing, tools and technologies, relationships with other providers, and patient characteristics. An interdisciplinary research team analyzed the data to better capture different aspects of care delivery, for both complex and noncomplex patients.

Results: We identified three structural issues (medical factors, social factors and behavioral factors) that affect three process issues (medical decision making, coordination of care, and self-management and monitoring), which consequently affect adherence to therapy and clinical outcomes (e.g. INR).

Implications: This model provides a holistic approach that is important for (1) designing organizationally-based informatics and policy interventions to improve the quality of care; and (2) advancing nursing care and research by better linking patient outcomes to underlying structure and processes.

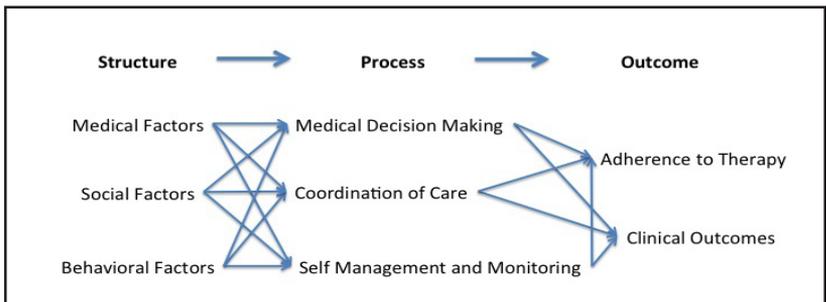


Figure 1: Complex Patient Model

Abstracts of Podium Presentations

ISSUES IN CHRONIC ILLNESS MANAGEMENT

Moderator:

Perry M. Gee, MSN, RN, CPEHR

PhD Candidate

Betty Irene Moore School of Nursing

University of California, Davis

Sacramento, CA

EXERCISE TRAINING AFTER AN ICD: ANTI-ARRHYTHMIC EFFECTS OF EXERCISE AFTER AN ICD TRIAL

Cynthia M. Dougherty, Peter J. Kudenchuk, Robb Glenny, Robert L. Burr

CAREGIVER HYPERVIGILANCE: LIVING A LIFE WITH BATTERIES

Jacqueline Jones

ADHERENCE TO USE OF REMOTE HEALTH MONITORING SYSTEMS IN PATIENTS WITH HEART FAILURE

*Lorraine S. Evangelista, Marjan Motie, Hassan Ghasemzadeh, Majid Sarrafzadeh,
Jung-Ah Lee, Carol M. Mangione*

AMERICAN INDIANS' EXPERIENCES OF LIFE-THREATENING ILLNESS AND END OF LIFE

Gary M. Brown, Yoshiko Y. Colclough

END OF LIFE SYMPTOM PREVALENCE IN PRISON HOSPICE PATIENTS

Kristin G. Cloyes, Patricia H. Berry, Kim Martz, Katherine P. Supiano

ISSUES IN CHRONIC ILLNESS MANAGEMENT

Exercise Training after an ICD: Anti-Arrhythmic Effects of Exercise after an ICD Trial

Cynthia M. Dougherty
School of Nursing
cindyd@uw.edu

Peter J. Kudenchuk
School of Medicine

Robb Glenny
School of Medicine

Robert L. Burr
School of Nursing

University of Washington
Seattle, WA

Background and Purpose: Aerobic exercise programs after an implantable cardioverter defibrillator (ICD) have not been extensively studied for efficacy and safety in large randomized trials. Health care providers are reluctant to prescribe exercise because of concern for provocation of arrhythmias. ICD patients are afraid to exercise because of fear in getting an ICD shock. The purpose was to determine the effects of 8 weeks of aerobic exercise training on the primary outcome of cardiopulmonary function [peak VO_2 , EX time, VO_2 at AT, O_2 pulse, METS, Maximum HR], and to determine if exercise would increase ICD shocks or hospitalizations.

Methods: 160 subjects (80/group) with a prior ICD implant (40% primary and 60% secondary prevention), mean age 55 ± 12 years, 77.5% male, 84% Caucasian, 100% beta-blocked, and $EF\%=40\%$, entered a RCT comparing aerobic exercise to usual care after an ICD. At baseline and 8 weeks, participants completed cardiopulmonary exercise testing using a modified Balke treadmill protocol. Aerobic exercise (EX) = 8 weeks of home walking 1 hour/day on 5 days/week at 60-80% of maximum HR using the Karvonen formula vs. usual care (UC). ICD shocks were monitored using monthly ICD interrogations or after an ICD shock. Hospitalizations were verified with medical records. Exercise was monitored using a Polar HR monitor™, pedometers, and exercise logs. Analysis of variance was used to determine group x time effects on study outcomes.

Results: Exercise significantly increased peak VO_2 ml/kg/min $p=0.01$ (EX 26.4 ± 7.1 , UC 24.0 ± 6.6), EX minutes, $p=0.001$ (EX $16:03 \pm 6:13$; UC $13:37 \pm 6:03$), VO_2 at AT ml/kg/min, $p=0.008$ (EX 22.4 ± 6.1 ; UC 20.0 ± 5.5), O_2 pulse $p=0.054$ (EX 18.4 ± 5.2 ; UC 17.1 ± 5.0), and METS, $p=0.005$ (EX 7.6 ± 2.0 ; UC 6.8 ± 1.9). Maximum HR was not significantly changed. Average RPR achieved by group was 1.12. The number of ICD shocks related to exercise training was =0: 3 in UC and 0 in exercise received an ICD shock or ATP during the 8 weeks. There were 11 hospitalizations in each group, none of which were related to exercise. Of these 11: 0 in EX and 1 in UC were due to heart failure, 2 in EX and 1 in UC to chest pain, 0 in EX and 1 in UC got PCI, and 1 in EX and 0 in UC were due to VT.

Conclusions: Exercise that is strenuous enough to achieve significant impact on cardiopulmonary function after an ICD is safe to complete without increasing ICD shocks, cardiac hospitalizations, or mortality. This study outlines safe parameters for clinician use in prescribing exercise after an ICD. Patients can be assured that participation in aerobic exercise is safe and improves their overall CV health.

ISSUES IN CHRONIC ILLNESS MANAGEMENT

Caregiver Hypervigilance: Living a Life with Batteries

*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 hypervigilance as a system of surveillance used by adult caregivers of older adults living with a left ventricular assist device (LVAD).

Rationale: Patients with end stage heart failure have a mortality rate of ~80% at five years. Mechanical circulatory support is by implantation of an LVAD with an external pump. The presence of a constant caregiver is an essential component of therapy. Very little is known about the experience of safety provision by such caregivers and its impact on them.

Methods: A metasynthesis, as an interpretive study of qualitative interpretive studies^{1,2} was conducted to answer: How do adult caregivers keep their older adult loved one safe in the context of living with an LVAD? Three levels of qualitative theme analysis and reciprocal translation² was applied to the textual data.

Results: A search strategy included PubMed, Embase and FindIt databases; search terms were left ventricular assist device, LVAD, caregiver, caregiving, family, spouse, close relative; qualitative and hand searching of reference lists. Inclusion criteria: caregivers of older adult (>65yrs) LVAD patients; in English; primary qualitative studies only with no time limitation. A total yield of 102 articles were identified; 15 duplicates were removed; 87 abstracts and titles were reviewed for relevance; 73 studies were excluded. 14 studies were read in full. Eight primary qualitative studies about caregivers (n=70) of LVAD patients either as destination (permanent) therapy or a bridge to transplant therapy formed the final sample and subjected to quality review.

Iterative interpretive analysis identified four safety domains across the eight studies: 1) self-preservation amidst the emotional turbulence, 2) keeping them alive by reducing risk, 3) finding a way to live with batteries and 4) looking for the finish line. Sub-themes highlight similarities to caring for a vulnerable 'new born' and learning new skills to prevent infection or battery failure which could result in sudden death. The emotional turbulence intensified hypervigilance with fear, anxiety and sleep deprivation. There was a tension between caring for the patient and self-preservation. Caregivers adapted over time but remained constantly watchful and aware of the risk of death. For patients with LVAD as destination therapy the caregiver could never see the finish line, hypervigilance was omnipresent and never ending. LVAD pump failure or an active turning off was needed for the patient to die. Those with bridge to transplant experienced relief post transplantation as life without batteries became the norm again.

Implications: The findings augment perspectives on how caregivers provide an integral safety surveillance system for older adults living at home with an LVAD. Caregivers interface with the health system by paying attention to their hypervigilance role and knowing when to seek assistance. They are activated through patient and provider responses to their mindful concern but they experienced limited freedom over a 24 hour period. The study raises questions of how health professionals need to care for the caregiver in this setting to limit caregiver stress, sleep deprivation and facilitate overall positive patient outcomes and goal achievement.

References:

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2. Paterson, B. L., Dubouloz, C. J., Chevrier, J., Ashe, B., King, J., & Moldoveanu, M. (2009). Conducting qualitative metasynthesis research: Insights from a metasynthesis project. *International Journal of Qualitative Methods*, 8(3), 22-33.

ISSUES IN CHRONIC ILLNESS MANAGEMENT

Adherence to Use of Remote Health Monitoring Systems in Patients with Heart Failure

Lorraine S. Evangelista, PhD, RN, FAAN
Associate Professor
Program in Nursing Science
University of California, Irvine
Irvine, CA

Hassan Ghasemzadeh, PhD
Research Manager
Computer Science Department
University of California, Los Angeles
Los Angeles, CA

Jung-Ah Lee, PhD, RN
Assistant Professor
Program of Nursing Science
University of California, Irvine
Irvine, CA

Marjan Motie, PhD
Project Director
Program in Nursing Science
University of California, Irvine
Irvine, CA

Majid Sarrafzadeh, PhD
Professor
Computer Science Department
University of California, Los Angeles
Los Angeles, CA

Carol M. Mangione, MD, MSPH
Program Director
RCMAR/CHIM
University of California, Los Angeles
Los Angeles, CA

Purpose: The study was conducted to: 1) examine the predictors of accessing (first-use) of remote health monitoring; and 2) distinguish between users and non-users of remote health monitoring using advanced data analytics in a cohort of patients with systolic heart failure (HF).

Background: The use of remote monitoring systems (RMS) has grown exponentially and has improved patient-provider communication, shared decision making, and self-management in patients with systolic HF. However, actual exposure to RMS-based technologies remains fairly low in patients with systolic HF. Furthermore, it is unclear whether subgroups of patients may benefit from these technologies and what user characteristics and contextual factors determine effective use of RMS.

Methods: This pilot study was a single-arm experimental study with a pre- (baseline) and post- (3 months) design; data from the baseline measures were used for the current data analyses. Sixteen patients (mean age 65.8 ± 6.1 , range 58-83) provided consent; only 7 patients accessed the RMS and transmitted daily data (e.g. weight, blood pressure) as instructed within one week of hospital discharge.

Results: Baseline demographic and clinical characteristics of users and non-users were comparable. Non-users were less likely to have CHF specialty based care, an automatic internal cardioverter defibrillator, and a history of alcohol use; these characteristics were identified by our attribute selection algorithm. The decision table classifier had both precision and recall of 87.5%, and an F-score of 76.2% for predicting access to RMS.

Implications: Our preliminary data show that a small set of baseline attributes is sufficient to predict subgroups of patients who had a higher likelihood of using RMS. While our findings shed light on potential end-users more likely to benefit from RMS-based interventions, additional research in a larger sample is warranted to better explicate the impact of user characteristics on actual exposure to the use of these technologies.

Funding: Received from the University of California, Los Angeles, Resource Centers for Minority Aging Research/Center for Health Improvement of Minority Elderly (RCMAR/CHIME) under National Institute in Aging (P30-AG02-1684, PI, C. Mangione).

ISSUES IN CHRONIC ILLNESS MANAGEMENT

American Indians' Experiences of Life-Threatening Illness and End of Life

Gary M. Brown, MED
American Indian Nation
Montana Resident

Yoshiko Y. Colclough, PhD, RN
Associate Professor
College of Nursing
Montana State University
Bozeman, MT

Aim: To identify the tribal values and contributing factors that influenced end-of-life care and decision making of American Indians.

Background: Hospice disparity exists for the American Indian/Alaska Native people. Two facts challenge them to hospice use. One is from their tradition—taboo to discuss about end of life and death. Another is a lack of access to hospice service on their reservation. These facts prevent them from experiencing possible optimal life ending of their own or family members.

Methods: Using a community-based participatory research approach, a partnership between a tribe and a university was established. The partnered team conducted an assessment study to understand end-of-life experiences by American Indians. Potential participants were in one or more of the four cohort groups: (1) family members who lost their loved ones, (2) patients with a chronic life-threatening illness, (3) family members who were taking care of their ill family member, and (4) health care providers. One-time, semi-structured interview data were collected and analyzed with the grounded theory method using symbolic interactionism.

Results: Fifty-eight participants contributed to data to be analyzed. Data consisted of 65 patients' stories since the participants often shared multiple patients' stories. The results of data analysis indicated that end-of-life experiences by the participants were recapitulated with *Struggle* and that they tried to cope with the situations by seeking *Knowledge* and applying *Connectedness* to family, community, spirituality, and health care providers. The majority of the participants coped with the *Struggle* through their traditional cultural values and ceremonies to reach *Living*, and the minority had *Stayed in Struggle*. Their *Culturally Ideal End of Life* was identified as being a proud Indian and living the Indian way of life to the end.

Implications: The Indian way of life emphasizes both traditional values of family and two types of connectedness (relational & internal) within a current living condition. Further, the land-based philosophy of American Indians would lead to a special meaning of being on the reservation near life is ending. Currently, the partner tribe, the tribal community college, and a contract health service agency collaborated and planned a home hospice project, waiting for funding. To complement the project, the research team is planning a study to educate the community to help overcome the stigma of discussing end-of-life issues. The team would train lay people (*Knowledge*) from several regions to be contact persons who can share the hospice concept to the tribal public (*Connectedness*). Culturally sensitive, trusted relationship among community people, use of oral tradition, and regularly held workshops would be conducive to ease American Indians discussing about end-of-life care and increase the knowledge of resources available for the care.

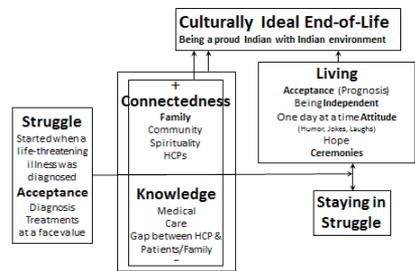


Figure 1. Struggle end-of-life experience by American Indians was influenced by Knowledge and Connectedness to cope with a life-threatening chronic illness and proceeded to Living or Staying in Struggle, ultimately wishing to have Culturally Ideal End of Life.

Funding: 1P20MD0002317-01 from the National Center on Minority Health and Health Disparities: pilot grant and the LIVESTRONG Foundation.

ISSUES IN CHRONIC ILLNESS MANAGEMENT

End of Life Symptom Prevalence in Prison Hospice Patients

Kristin G. Cloyes, PhD, MN, RN
Associate Professor

University of Utah College of Nursing
Salt Lake City, UT

Patricia H. Berry, PhD, RN, ACHPN,
FAAN, Associate Professor

University of Utah College of Nursing
Salt Lake City, UT

Kim Martz, MSN, RN
Assistant Professor

Boise State University
Boise, ID

Katherine P. Supiano, PhD, LCSW
Associate Professor

University of Utah College of Nursing
Salt Lake City, UT

Purpose: This descriptive retrospective study documents demographic and clinical characteristics and end of life (EOL) symptom prevalence in a group of prison hospice patients, and compares key variables with community-based EOL patients.

Background: More US prisoners die from age-related or long-term chronic illness while incarcerated than ever. Inmates over age 65 are now the fastest growing segment of the US prison population and overall inmates experience higher rates of infectious disease, chronic and comorbid illness, and age-related disability than their community-dwelling counterparts. As a result, prisons are struggling to meet the growing demand for EOL care for a patient population with complex needs.

Methods: Medical records were reviewed for all patients admitted to the Louisiana State Penitentiary (LSP) Prison Hospice Program between 1/1/2004 and 5/31/2012 (N = 79). Data included demographics, medical history, length of stay, ADL scores, medications, narrative notes, and EOL symptoms and severity (i.e. pain, anxiety, delirium, restlessness/agitation, and dyspnea) on admission and in the final days before death. Demographic and symptom data were benchmarked against National Hospice and Palliative Care Organization's 2012 report on symptom prevalence data for EOL patients in community-based EOL care and peer-reviewed reports in the hospice and palliative care literature.

Results: LSP patients had higher rates of cancer than community patients (68% vs. 38%). Fourteen percent were admitted with end-stage liver disease vs. 2% of community patients. Ten percent were admitted for end-stage HIV/AIDS vs. < 1% of community patients. Sixty percent of community admissions were for non-cancer diagnoses (heart disease, dementia, stroke, respiratory illness) vs. only 6% among prison patients. LSP patients were significantly younger, averaging 56 years at time of death; 82% were younger than age 64 years vs. < 16% of community patients. Median length of hospice service for prison hospice patients was 40 days vs. 19 days for community patients; 14% of LSP hospice patients and 35% percent of community patients died within 7 days of admission. Our prison hospice records review showed lower prevalence of pain, dyspnea, anxiety, restlessness/ agitation and delirium than reported for community patients.

Implications: This study is among the first to document clinical and EOL characteristics of prison hospice patients. Differences between prison and community-based patients are notable, but also reveal challenges in comparing EOL data across settings. For example, our data was collected through extensive chart review while the community data was largely based on patient or caregiver report. While these results demonstrate critical differences, more research is needed to fully describe the sources of these differences and their relation to patient outcomes. Our ongoing field research, conducted with the LSP Hospice Program, indicates that LSP Prison Hospice volunteer program—which involves 1:1 direct EOL peer-care provided by skilled and motivated inmate hospice volunteers—is a central factor in reducing suffering among LSP hospice patients. Increasing our knowledge regarding the unique characteristics and needs of prison hospice patients, and disseminating promising models of care, will support efforts to develop effective and sustainable hospice and EOL care in prisons.

Abstracts of Podium Presentations

MENTAL AND PHYSICAL HEALTH IN CANCER

Moderator:

Mary Lopez, PhD

Assistant Dean, Research and Administration

College of Graduate Nursing

Western University of Health Sciences

Pomona, CA

PROFILES OF INTENSITY AND IMPACT IN ADULT CANCER SURVIVORS

Julie McNulty, Wonsun Sunny Kim, Lillian Nail

ETHICAL IMPLICATIONS OF METAPHORS FOR HOPE IN ONCOLOGY RESEARCH DISCOURSE

Kathleen Shannon Dorcy, Kristin Cloyes

PHYSICAL WELL-BEING IN PROSTATE CANCER PATIENTS: PREDICTORS OF A RESPONSE SHIFT

Shannon R. Dirksen, Michael J. Belyea

REASONS LATINAS WITH CANCER SELECT SUPPORTIVE OTHERS FOR INTERVENTIONS

Terry Badger, Chris Segrin

EFFECT OF EXERCISE ON HEMOGLOBIN AND VO2MAX DURING CHEMOTHERAPY FOR BREAST CANCER

Sadeeka Al-Majid, Lori Wilson, Jared W. Coburn, Cyril Rakovski

MENTAL AND PHYSICAL HEALTH IN CANCER

Profiles of Intensity and Impact in Adult Cancer Survivors

Julie McNulty, RN, PhD, CPHQ
Francis Fellow in Bio-behavioral Oncology
Arizona State University
College of Nursing & Health Innovation
Phoenix, AZ

Wonsun Sunny Kim, PhD
Assistant Professor
Arizona State University
College of Nursing & Health Innovation
Phoenix, AZ

Lillian Nail, RN, PhD, FAAN
Interim Dean, Research
Oregon Health & Science University School of Nursing
Portland, OR

Purposes/Aims: To describe profiles of intensity and impact in adult cancer survivors, including psychosocial impact and symptoms.

Rationale/Conceptual Basis/Background: Cancer survivors (CSs) are living longer, growing in number as the proportion of older adults in the population increases and are now being recognized as being at risk for decrements in health and well-being due to cancer and cancer treatment. Challenges that confront CSs are not simply a continuation of experiences that occur during the cancer treatment phase; they are unique problems in the cancer illness trajectory, as the person treated for cancer transitions from the acute to the chronic phases of the illness. Persistent effects, which can continue many years after treatment, include physical and psychological symptoms, and social and spiritual impact. There is a range of impact, from those who are doing well to those who are struggling with significant negative sequelae. Profiles of intensity and impact can be a useful tool to predict CSs who are at risk for challenges and decreased quality of life (QOL), extending into later stages of survivorship.

Methods: This investigation was part of a larger study that examined the impact of cancer in rural and urban CSs utilizing mixed methods. The convenience sample (N=132) consisted of adult CSs of all types and sites, who had completed primary treatment and were cancer free. The sample included 84% women (mean age- 58, and mean time since treatment completed-6.7 years). Quantitative instruments included the Impact of Cancer version 2 (IOCv2) and the Memorial Symptom Assessment Scale-Short Form (MSAS-SF). The IOCv2 measures positive and negative impact. High and low scorers on the IOCv2 were invited to participate in an in-depth interview (n=19). The qualitative sub-sample was 79% female (mean age- 60, mean time since treatment completed-4.2 years). Utilizing a qualitative descriptive approach, content and thematic analysis was conducted to analyze the interview data.

Results: During the course of the qualitative analysis, 3 distinct profiles of intensity and impact emerged serendipitously from the interview data. The 3 profiles identified were (a) less intense treatment experience/none or minimal prolonged impact, (b) intense treatment experience/minimal prolonged impact, and (c) intense treatment experience/extensive prolonged impact. After participants were classified in each group, descriptive statistics were compiled to further complete the profiles. A qualitative and quantitative profile for each category was created, and includes the positive and negative impact scores, patterns of symptoms, time since treatment, cancer treatment profile, and number of co-morbidities.

Implications: CSs experiencing a high-intensity treatment experience, yet positive outcomes during survivorship can provide a learning opportunity for healthcare providers who are concerned about CSs at risk for negative outcomes. The profiles provide preliminary evidence that the IOCv2 is tapping into the overall impact of the survivorship experience, and is a useful tool, when combined with symptom and QOL measures, to predict CSs who are at risk for challenges and decreased QOL extending into later survivorship, and could be tested in future research with a larger sample size.

MENTAL AND PHYSICAL HEALTH IN CANCER

Ethical Implications of Metaphors for Hope in Oncology Research Discourse

Kathleen Shannon Dorcy, RN, MN PhD
Research Scientist
Fred Hutchinson Cancer Research Center
Seattle, WA

Kristin Cloyes, RN, PhD
Associate Professor
University of Utah
Salt Lake City, UT

Purposes/Aims: “It is the first time in 9 years I feel like there’s a light at the end of the tunnel and so does he.” These words spoken by the wife of lymphoma patient getting ready for transplant demonstrate the use of metaphorical language to frame the experience of clinical research intervention. The use of metaphorical language is frequent and can provide concrete understanding of complex abstractions for patients with cancer, their families, and oncology professionals. The purpose of this study is to explore the use of metaphors and to understand how metaphorical language constructs meaning, specifically hope, for people with cancer, their family members, and informs decision making for clinical research participation.

Rationale /Conceptual Basis /Background: The concept of hope is often expressed metaphorically, so necessitating the examination of metaphorical language in cancer conversations and clinical research decision making, where the articulation of hope is commonplace. Metaphors are technically understood to be correspondences or mappings between the source domain and the target domain, with understanding moving from the concrete to the more abstract. Metaphors are not just words; they are ideas that map complex abstractions to other more familiar structures so that meaning is conveyed. Methods: The Institutional Review Board approved a secondary analysis of transcripts in a sample of 109 transcripts of 55 people: 25 cancer patients enrolled in Phase 2 clinical trials for hematopoietic stem cell transplants, 20 family members, and 10 physicians. The transcripts were entered into HyperRESEARCH™, and inductively coded to identify unique metaphors and patterns of metaphoric speech. Applying a cognitive linguistic model to these data, metaphor was defined as coming to know or understand one conceptual domain in terms of another conceptual domain.

Results: Five metaphors were identified as most commonly used: time, journey, hands, war, and faith. All the metaphors were linked to the hope-for-cure. Journey was the most commonly used metaphor at 60% and included the expectation that the destination of the journey was amelioration of the disease and survival. Hands was next in usage, at 40%, and implied a sense of trust in whose hands the patients’ life was held. Faith was the next most utilized metaphor at 40% and referred to expectations of miracles and cure. Time, at 30%, represented being given a longer time to live; and war at 30%, referred to treatment of the disease.

Implications: The frequency in usage of metaphors may indicate a shared understanding of meaning. Differences may demonstrate a significant disconnect between providers and patients. Findings indicate that hope-for-cure is the target domain of all five of the structural conceptual metaphors in the transcripts. Hope-for-cure is a powerful and perhaps coercive dynamic for participants in clinical trials and so has definite ethical implications for oncology professionals facilitating decision-making relative to cancer research participation. A primary goal of further study will be how to honor the power of hope in the presence of cancer diagnoses while simultaneously avoiding the unintended coercive influences in decision making for research participation.

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MENTAL AND PHYSICAL HEALTH IN CANCER

Physical Well-Being in Prostate Cancer Patients: Predictors of a Response Shift

Shannon R. Dirksen, PhD, RN, FAAN
Associate Professor

College of Nursing & Health Innovation
Arizona State University
Phoenix, AZ

Michael J. Belyea, PhD
Research Professor

College of Nursing & Health Innovation
Arizona State University
Phoenix, AZ

Background/Purpose: Illness can serve as a catalyst that causes individuals to adjust to changes in health status through behavioral, cognitive, or affective mechanisms. Individual characteristics (antecedents) may affect these mechanisms in facilitating adjustment to the health threat. Shifts in perceived physical well-being (PWB) may be noted over time as an individual's definition of health changes (response shift). Catalysts, mechanisms, and antecedents are postulated to have significant relationships with a response shift in PWB. The purpose of this study was to examine the extent to which a PWB response shift was predicted by catalysts, mechanisms, and antecedents in men with prostate cancer.

Methods: Participants (n=78) were men who had been diagnosed with non-metastatic prostate cancer who were beginning radiation treatment. At pre-and post-treatment men completed questionnaires measuring the study variables including catalysts (Gleason score and PSA level), mechanisms (change and magnitude of change in pain, fatigue, insomnia, depression, and anxiety), and antecedents (age, education, co-morbidities, and prior prostatectomy). PWB was also measured at these time points to assess for a response shift. Most participants were white (84%) with a mean age of 68 years old. Gleason scores ranged from 5 to 10 (M=7.16), with mean PSA level at diagnosis of 8.6 ng/mL. Hierarchical regression analysis was conducted with catalysts entering first, followed by mechanisms and antecedents. Dependent variables were direction and magnitude of the response shift.

Results: PWB decreased from pre to post-treatment which demonstrated that a moderate response shift had occurred. In the final model for response shift direction, the strongest predictors were change in depression, followed by prior radical prostatectomy, PSA level, and changes in pain and fatigue. Changes in the mechanism variables were related to a negative response shift. The model explained 54% of the variance in response shift direction. The final model for the magnitude of response shift indicated that the magnitude of change in fatigue, followed by depression, and PSA were the strongest predictors. The model explained 43% of variance in response shift magnitude.

Implications: A re-evaluation of PWB upon completion of prostate cancer radiation treatment is significantly affected by changes in depression, pain, and fatigue. Shifts in PWB can be attributed to these mechanisms with prior prostatectomy being an important antecedent in predicting response shift direction and magnitude. This study adds to our understanding of the impact of prostate cancer treatment on PWB, and how specific mechanisms may influence the process by which men shift their internal standards in perceiving PWB.

MENTAL AND PHYSICAL HEALTH IN CANCER

Reasons Latinas with Cancer Select Supportive Others for Interventions

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

Chris Segrin, PhD
Professor
Department of Communications
The University of Arizona
Tucson, AZ

Purpose: The purpose of this paper is to describe who and why Latinas select a specific supportive partner to participate in a psychosocial intervention with them.

Rationale: Understanding the reasoning behind why a particular person was selected will help us tailor interventions in the future.

Methods: This study is part of a larger randomized clinical trial to test the effectiveness of psychosocial interventions with Latinas with breast cancer and their supportive partners (i.e., close social network members). To obtain data for this analysis, each Latina was asked during a baseline assessment for her reasons for selecting the person she did to participate in the study with her. Answers were recorded verbatim and transcribed in English or in Spanish, depending upon the language used by the participant. Two independent bilingual, bicultural staff translated the answers, comparing results after the translation to ensure accuracy. Content analysis was performed on the results.

Sample: Forty-nine Latinas with breast cancer participated in the study. Average age was 49 years, 52% were married, 67% had a high school education or less, 80% had incomes less than or equal to \$30,000/year, 42% were disabled, and 32% were unable to find employment. Forty percent of Latinas were Stage III and IV, 42% had complete mastectomy with only 2% breast reconstruction. The majority had combinations of chemotherapy, radiation, Tamoxifen, with 58% in chemotherapy at the time of the baseline assessment. Among the supportive partners, 64% were female relatives with an average age 41 years, and with similar education and income to the Latinas with cancer. More (64%) of these SPs were employed.

Results: Although the majority of Latinas were married, only 15 Latinas selected their spouses, 12 selected daughters, 7 siblings (sisters), 7 friends, 6 mothers, 1 selected her son, and the rest other relatives. There were two consistent themes in the data about why someone was selected to participate in the intervention: *Emotional and Instrumental Support*, *Concern for SP's Need to know more about Cancer*. *Emotional and Instrumental Support* statements reflected provision of these two types of support. Examples include, "is always there for me" or "knows what questions to ask and what to do". *Concern for SP's Need to Know more about cancer* statements reflected concern for another person needing the cancer information to learn what to do about cancer, reduce anxiety and prevention strategies. Examples include "daughter may have more risk of developing this too," or "might be a cancer carrier".

Implications: Most SPs were female relatives of the survivor, which is not surprising given the role of females in Hispanic culture and health care. There were clear reasons for selected the SPs documenting the importance of the closeness of the relationship and concern for the welfare of the person selected. The Latina with cancer wanted her female relatives to know more about cancer to reduce uncertainty and prevent cancer. These findings also support using an expansive definition of supportive others beyond spouses and that including these relatives is important in any psychosocial intervention.

MENTAL AND PHYSICAL HEALTH IN CANCER

Effect of Exercise on Hemoglobin and VO₂max during Chemotherapy for Breast Cancer

Sadeeka Al-Majid, RN, PhD

Associate Professor

California State University, Fullerton

Lori Wilson, PhD

Lecturer

California State University, Long Beach

Jared W. Coburn, PhD, FACSM

Professor

California State University, Fullerton

Cyril Rakovski, PhD

Assistant Professor, School of Computational Sciences

Schmid College of Science and Technology

Chapman University

Orange, CA

Purpose/Aims: To examine the effect of a supervised endurance exercise program on aerobic fitness (VO_{2 max}) and hemoglobin concentration (Hb) in women undergoing chemotherapy for stage 1 or stage 2 breast cancer. Specific aims were to: (a) determine feasibility of the exercise in terms of recruitment, retention, adherence to the exercise protocol, tolerance of exercise testing and completion of data collection; (b) explore if changes in Hb and VO_{2 max} are associated with changes in cancer-related fatigue (CRF); (c) explore effect of the exercise program on selected inflammatory markers.

Background: Cancer treatment is associated with decreased hemoglobin concentration (Hb) and aerobic fitness (VO_{2 max}), which may contribute to cancer-related fatigue (CRF). Endurance exercise has been suggested to attenuate CRF. However, mechanisms by which exercise produces these favorable effects have not been consistently investigated.

Design and Methods: Repeated measures, randomized feasibility trial. Fourteen women receiving chemotherapy for Stage 1 and 2 breast cancer were randomly assigned to exercise (n=7) or usual care (n=7). Supervised individualized treadmill exercise was performed 2-3 times/week for the duration of chemotherapy (9-12 weeks). Data was collected 4 times over 15-16 weeks (baseline, 6).

Results: Recruitment rate was 45.7%. Sixteen women consented and 14 completed the trial for a retention rate of 87.5%. Adherence to exercise protocol ranged between 95% and 97% and completion of data collection ranged between 87.5% and 100%. Exercise testing was well tolerated. All exercise participants were able to follow the exercise protocol and achieve target exercise intensity by week 5. VO_{2 max} was maintained to pre-chemotherapy levels in exercisers but declined in usual care group ($p < .05$). Hb decreased ($p < .001$) in all participants as they progressed through chemotherapy. Exercise did not have significant effects on CRF. Changes in inflammatory markers favored the exercise group.

The small sample size precluded statistical analyses of the immune marker findings. However, percent change from pre chemotherapy to end of chemotherapy favored the exercise group in all of the measured immune markers.

Conclusions: Exercise during chemotherapy may have a protective effect on VO_{2 max} but not on hemoglobin concentration.

Implications: Further evaluation of the exercise program in a larger sample is warranted. Additional data may further support the benefits of exercise during chemotherapy.

Funding: The Oncology Nursing Society.

Abstracts of Podium Presentations

MENTAL HEALTH ISSUES ACROSS THE LIFESPAN

Moderator:

Linda M. Veltri, PhD, RN

Assistant Professor

School of Nursing

Oregon Health & Science University

Ashland, OR

**“A HUGE WEIGHT OFF MY BACK”:
LATINAS’ PERCEPTIONS OF DEPRESSION TREATMENT**

MarySue V. Heilemann, Katrina Dornig, Huibrie Pieters

**IMPACT OF MATERNAL MENTAL HEALTH
ON CHILD WELL-BEING AND RESILIENCE**

Ellen Goldstein

**SELF-MANAGEMENT INTERVENTION FOR SIBLINGS
OF YOUTH WITH SCHIZOPHRENIA**

Karen G. Schepp, Heeyoung Lee

**SYMPTOM MANIFESTATIONS AND TRAJECTORIES
OF SCHIZOPHRENIA: A CASE STUDY OF FIVE TEENS**

Hyun Jung Kim, Karen G. Schepp

**EFFECTS OF MULTISENSORY THERAPY
FOR PEOPLE WITH CHRONIC SCHIZOPHRENIA**

Chieh Cheng, Mei-Feng Lin

MENTAL HEALTH ISSUES ACROSS THE LIFESPAN

“A Huge Weight off My Back”: Latinas’ Perceptions of Depression Treatment

MarySue V. Heilemann, PhD, RN, Associate Professor, School of Nursing

Katrina Dornig, PhD, MFT, Lecturer, Social Welfare

Huibrie Pieters, DPhil, PhD, RN, Assistant Professor, School of Nursing

University of California, Los Angeles

Los Angeles, CA

Purpose: The goal of this qualitative analysis is to describe the experiences and perceptions of a sample of eight low income second generation Latinas about “being in therapy” three months after they completed an eight-week program of depression treatment.

Rationale/Background: US-born Latinos report significantly more depression than foreign-born Latinos living in the US. Among them, more women than men are depressed and very few get treatment for depression. Because stigma is high in Latino communities in relation to depression and depression treatment, this sample received a unique program of treatment over an eight week period. For example, it was delivered by a Nurse Therapist rather than a psychologist or mental health counselor and sessions were held in a non-traditional setting specifically chosen to reduce stigma. Rather than in a mental health center or clinic, sessions were held in a community-based childcare center. All women were clinically depressed at the beginning of treatment but had attained sub-threshold levels by the end of the eight week program and also scored below threshold for depression (measured with the Beck Depression Inventory II) at the time of the interview three months after treatment completion. The program of treatment had an explicit focus on resilience and integrated techniques from Schema Therapy, Cognitive Therapy, and Motivational Interviewing.

Methodology: Constructivist Grounded Theory (CGT) guided data collection and analysis of Latinas’ reflections on their experiences in interviews after completion of a therapy program. All interviews were conducted by a researcher previously unknown to the participants who was a psychotherapist trained in CGT. Initial, focused, and theoretical coding was done by three researchers independently and then analyzed together. Memos were written to identify properties and dimensions of categories and to explore both hunches and biases. Diagrams helped clarify the relationships between categories and subcategories.

Results: Analysis revealed that, in addition to the flexible structure of the sessions and unique aspects that facilitated engagement in treatment, four simultaneous processes were experienced as part of “being in therapy”: 1) understanding why things happened to me, 2) accepting myself and life, 3) seeing patterns that make sense, and 4) breaking family patterns but still being “family”. Each process was related to the others (there was no particular sequence) and brought benefits such as increased clarity and confidence and, relief from burdens. Each process was described as key to the women’s ability to overcome the symptoms of depression.

Implications for Nursing and Nursing Practice: Because Latinas’ experiences involved greater understanding and acceptance of painful events from the past, this sample of Latinas gained valuable insight into recurring patterns which allowed them to identify those they wanted to break. Grounded in quotes from the women themselves, the results of this study provide nurses with tools for discussing therapy with prospective Latina patients who may be reluctant to enter treatment. Results also provide clarification of the issues that participants valued which can help nurse therapists tailor future interventions specifically to decrease depression and increase resilience among second generation low income Latinas.

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MENTAL HEALTH ISSUES ACROSS THE LIFESPAN

Impact of Maternal Mental Health on Child Well-Being and Resilience

Ellen Goldstein, MA, LMFT
Licensed Marriage and Family Therapist, Doctoral Student
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA
ellen.goldstein@ucdmc.ucdavis.edu

Objectives: The purpose of this study was to test associations between maternal mental health (MMH) and child-adolescent flourishing in a national sample. Along with poverty and single parenting, poor maternal mental health (MMH), especially with depressive symptoms, can lead to problems with emotional and behavior problems in children, and can negatively affect learning and school performance. Child-parent interactions are the basis for attention, motivation, cognition and perception- all of which critically shape a child's current and future behaviors. Children whose mothers display poor mental health can have difficulties with emotional and behavior regulation, which increases vulnerability to stress reactivity. Sustained stress predicts the emergence of mental and physical health issues, as a result of its enduring effects on brain and body development. Excessive cortisol excretion as a consequence of prior traumatic events creates a perpetual state of affect dysregulation and concomitant relationship difficulties, which contribute substantially to functioning. Given that 21.3% of women face a lifetime prevalence of major depression, these findings have important intergenerational implications that warrant public health attention.

Methods: A cross-sectional secondary analysis of the 2011-2012 National Survey Children's Health (NSCH) data was performed using Poisson regression to test the associations between MMH and three measures of flourishing; task completion, remaining calm and in control when faced with a challenge, and showing interest and curiosity to learn new things in a representative sample of US children and adolescents aged 6-17 (n~65,680).

Results: Maternal mental health was found to be statistically significant across all three measures of child-adolescent flourishing. Children of mothers with fair or poor mental health were less likely to complete tasks IRR:.82(95%CI:.76-.89), less likely to remain calm and in control when faced with a challenge IRR:.79(95%CI:.73-.86), and less likely to show interest and curiosity in learning new things IRR:.94(95%CI:.91-.98).

Implications: Our findings add to a growing body of literature of emotional and behavior problems in youth by highlighting the criticality of considering the intergenerational aspects of MMH on child-adolescent flourishing. Measures of flourishing may provide reliable indicators of risk and resilience to stress that could be used by providers to assess the need for family mental health supports. Pediatrics and primary care play promising roles in the early identification of persistent difficulties and can help to support families to access further assistance. Implications for further research help to shape our thinking regarding the neurobiological impact of trauma and the design of matching interventions to increase capacity for affect regulation in both parents and their offspring.

MENTAL HEALTH ISSUES ACROSS THE LIFESPAN

Self-Management Intervention for Siblings of Youth with Schizophrenia

Karen G. Schepp, PhD, PMHCNS-BC
Professor
University of Washington
School of Nursing
Seattle, WA

Heeyoung Lee, PhD, PMHNP-BC
Assistant Professor
University of Pittsburgh
School of Nursing
Pittsburgh, PA

Purpose: The purpose of this study was to examine the effectiveness of a self-management intervention on stress, coping, and family functioning among siblings of youth with schizophrenia.

Background: Siblings of youth with schizophrenia are involved in the care of their mentally ill siblings. Along with the parents, who are the primary caregivers, these siblings experience a significant care burden. Although research has addressed the need for intervention that focuses directly on these siblings to relieve the aforementioned care burden and improve their own health and well-being, few studies have actually studied the effectiveness of direct psychosocial interventions for siblings of youth with schizophrenia.

Methods: A total of 40 siblings of youth with schizophrenia were drawn from a randomized clinical trial that was designed to test the effectiveness of a self-management intervention on the functioning of youth with schizophrenia and their families over 54 weeks. The intervention was composed of 6 weekly intensive self-management training sessions (6 weeks), 6 monthly reinforcement sessions (30 weeks), and 6 months of post intervention (54 weeks). The measures used were the Hassles Scale, the Ways of Coping Scale, and the FACES II. Descriptive statistics were used to analyze data collected at baseline, 6 weeks, 30 weeks, and 54 weeks.

Results: Among the 40 siblings of youth with schizophrenia, 24 (60%) were female and 16 (40%) were male. The mean age was 16.38 years ($SD = 4.79$; range = 5.26) at the first entry. Eighteen (45%) were Caucasian, 3 (7.5%) were Hispanic, and 18 (45%) represented other backgrounds. These 40 participants were assigned randomly to either a treatment group ($n = 20$) that received the intervention or a control group ($n = 20$) that received no care. There were not significant differences in stress and family functioning between the two groups at each assessment ($P_s > .05$), except for the way of coping at 30 weeks; specifically, siblings in the control group more frequently used emotional-focused coping strategies than those in the treatment group (e.g., sleeping more than usual; $t = -2.75$, $p = 0.11$) at 30 weeks. In terms of outcomes within a group, siblings in the treatment group reported decreased stress between baseline and 6 weeks ($t = 3.25$, $p = 0.004$), 30 weeks ($t = 3.03$, $p = 0.007$), and 54 weeks ($t = 1.880$, $t = 0.08$). Additionally, the treatment group also exhibited increased family functioning between baseline and 54 weeks ($t = -2.552$, $p = .024$). In contrast, the control group did not report any changes except for decreased stress between baseline and 54 weeks ($t = 2.283$, $p = 0.34$).

Implications: Study results suggest that self-management interventions may be effective in managing the stress, coping skills, and family functioning among siblings of youth with schizophrenia. An intervention for these siblings can help them manage the care burden from their mentally ill sibling as well as manage their own health and well-being. Our results also demonstrate that further research regarding the siblings' perspective on stress, coping, and family functioning is warranted.

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MENTAL HEALTH ISSUES ACROSS THE LIFESPAN

Symptom Manifestations and Trajectories of Schizophrenia: A Case Study of Five Teens

Hyun Jung Kim, PhD, RN, PMHNP-BC
Assistant Professor
Psychosocial and Community Health
Seattle University, College of Nursing
Seattle, WA

Karen G. Schepp, PhD, PMHCNS-BC
Professor
University of Washington
School of Nursing
Seattle, WA

Purpose: The purpose of this presentation is to describe symptom manifestations and illness trajectories of schizophrenia by reviewing the cases of five adolescents with schizophrenia, specifically during the early phase of the illness including the prodromal phase.

Background: Schizophrenia is a chronic illness with an early onset of symptoms mostly in late adolescence and young adulthood. The illness gradually develops starting with the prodromal phase with unspecific and general symptoms. It progresses to attenuated psychotic symptoms and eventually to the first onset of psychotic episode. The length of the prodromal phase is known to be different for each individual. Schizophrenia is also referred to as a syndrome because its symptomatology involves a wide array of clinical phenomena. Individuals with schizophrenia display different symptoms, outcomes, and courses of illness. Studies have addressed the chronicity and the aging process of the illness by following up the individuals with schizophrenia. However, it has been challenging for the outcome-oriented longitudinal studies to attend to the individual symptom manifestations and courses of illness starting from the very beginning of the prodromal phase.

Methods: This case study is based on a secondary data analysis from a two-group randomized clinical trial (RCT). Five teens were selected from the parent study intervention group. Multiple sources of data from parents, siblings, adult relatives and adolescents with schizophrenia ages between 16 and 19 were analyzed. The data included about a hundred hours worth videotapes of 12 2-hour intervention sessions from the RCT, initial screening interviews, and self-administered questionnaires. The self-administered questionnaires were submitted by participants at 4 different time points over the 14-month period and included outcomes measures of coping, functioning, social support, symptom management, and early signs of symptoms.

Results: The age of onset of the first psychotic episode for the five adolescents was between 15 and 18 years. Two females had earlier onset than the usual age indication and both teens had one of the biological parents affected by schizophrenia. All five teens experienced the prodromal phase, which was initially misunderstood as adolescent rebellion. Three teens indicated trouble with academic performance as the first sign. Changes in mood/affect, cognition, behavior, and activities of daily living were reported. However, the length of the prodromal phase varied from 9 months to 3 years. The teen with the longest prodromal phase displayed the lowest level of functioning, more number of hospitalization, and longer stay. The other teen with the highest functioning adhered to her medication regimen and responded well to the medications. She went back to regular classes at school by the time of last data collection. Two teens ultimately moved out of their parents' houses to group homes.

Implications: The findings showed that each individual had different symptom presentations, unique trajectories of the illness, and multiple factors for health care providers to consider when developing care plans. Having a general understanding of schizophrenia is important. However, understanding individual factors and history is as much important for providers to offer effective and customized care for the individuals with schizophrenia.

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MENTAL HEALTH ISSUES ACROSS THE LIFESPAN

Effects of Multisensory Therapy for People with Chronic Schizophrenia

*Chieh Cheng, MSN, RN
PhD Student
University of Washington
School of Nursing
Seattle, WA*

*Mei-Feng Lin, PhD, RN
Associate Professor
National Cheng Kung University
Department of Nursing
Tainan City, Taiwan*

Purpose: This presentation summarizes an intervention study designed to validate clinical effects of a multisensory therapy in decreasing severity of psychotic symptoms and relieving negative mood reactions such as anxiety and depression level, and as manifested in physiological responses among individuals with chronic schizophrenia.

Background: Developed in the Netherlands in the 1970s, multisensory therapy is a treatment modality that stimulates multiple sensory perceptions for patients with neurodegenerative or cognitive disorders to promote positive emotional reactions, improve cognitive deficit symptoms, subsequently reduce caregiver stress and enhance patients' quality of life. Due to low degree of stimuli in long-term rehabilitation settings and the disturbance of psychotic symptoms, people with chronic schizophrenia experience sensory deprivation and become easily be induced to show negative mood reactions. However, current psychiatric treatment modalities mainly use antipsychotic medications and the side effects tremendously influence patients' well-being status. Rehabilitation therapies such as multisensory therapy help to reduce the negative impact of the symptoms on maintaining patient's life and psychosocial functions.

Methods: A crossover design was performed. Patients who met the inclusion criteria: patients who (1) had been diagnosed according to the DSM-IV diagnosis of schizophrenia for more than 5 years. (2) were without alcohol and drug abuse history. (3) could concentrate on activities at least 30 minutes. (4) were literate and express themselves in Mandarin or Taiwanese. and whose referrals were approved by the ward doctors or nurses were enrolled. Sixty participants (power = 0.87, effect size $F(1, 58) = 4.000$) were recruited. Participants were randomly assigned to an intervention ($n=30$) or a control group ($n=30$). The intervention was offered twice a week for 3 consecutive weeks for a total of 6 sessions; whereas the control group received routine nursing care in a long-term rehabilitation setting. Based on participants' preferences, they were instructed to view picture books (vision), listen to music (hearing), sniff essential oils (smell), touch blankets (tactile), taste sweetness (taste), and/or shake a rocking chair (proprioception) in a stress-free room. Psychotic symptom level values were measured using the Brief Psychiatric Rating Scale (Cronbach's $\alpha=.81$); mood status levels were appraised by the Hospital Anxiety and Depression Scale (Cronbach's $\alpha=.82$) at the baseline and post-intervention. The NeXus-4 model biofeedback system was used to collect heart and respiration rates. This system was performed at a rate of 400 signals per minute, and regularly calibrated to maintain reliability and validity. The Generalized Equation Estimation was used to examine intervention effects over time.

Results: There were 33 women (55%) and 27 men in this study, with ages ranging from 22 to 46 years ($mean=42.3$, $SD=1.35$), and age of onset ranging from 13 to 47 years old ($mean=23.86$, $SD=0.94$). Analysis revealed that the multisensory intervention significantly decreased in anxiety subscores ($p<0.01$), respiration and heart rates ($p<0.01$) in the intervention group at the end of the 3-week period. However, the severity of psychotic symptoms was not decreased ($p=0.33$).

Implications: This study shows promises of sensory stimulation interventions with individuals with chronic schizophrenia, especially for their anxiety tone changes. Future studies can further discuss nurses' satisfactions, caregivers' perceived stress and patients' violence rates as the correspondence variables with patients' negative mood reactions.

Funding: This project was funded by the Taiwan Nurses Association (TWNA-1012023).

Abstracts of Podium Presentations

NURSES' HEALTH

Moderator:

Kupiri Ackerman-Barger, PhD, RN

Assistant Adjunct Professor

Betty Irene School of Nursing

University of California, Davis

Sacramento, CA

THE LIVED EXPERIENCE OF NURSES WORKING IN THE OCCUPIED TERRITORY OF THE WEST BANK

Asma A. Taha, Cheryl Westlake

COMPASSION FATIGUE AMONG REGISTERED NURSES: IN THEIR OWN WORDS

Kate G. Sheppard

SAFE PATIENT HANDLING AND MUSCULOSKELETAL SYMPTOMS AMONG CALIFORNIA NURSES

Soo-Jeong Lee

NURSES' HEALTH

The Lived Experience of Nurses Working in the Occupied Territory of the West Bank

*Asma A. Taha, RN, PhD, CPNP, CNS,
CCRN, Associate Professor
Department of Nursing
California State University,
San Bernardino Loma Linda University
Medical Center
San Bernardino, CA*

*Cheryl Westlake, RN, PhD, ACNS-BC
Professor and Associate Dean
International and Community Programs
School of Nursing
Azusa Pacific University
Azusa, CA*

Purpose: The purpose of the study was to explore the lived experience of nurses' (RN) working in the occupied territory of the West Bank and identify challenges faced by these RNs in their daily work life as an RN.

Background: According to the World Health Organization, (2013) critical nursing shortages and an inadequate skill mix contribute to our inability to achieve the health-related Millennium Development Goals thus limiting access to life-saving interventions and services. The Ministry of Health of the Palestinian Authority has sole responsible for regulating health care in the West Bank. There are different non-governmental organizations and relief agencies that contribute to, but are not involved in, licensing and supervision of the public health sector. Since 2000, the Palestinian population living in the West Bank has endured intense conflict characterized by severe movement restrictions of the Palestinian people, limited trade of goods and access to health care imposed by multiple checkpoints, and spiraling poverty resulting in impoverished living conditions and health status (Giacaman, 2002 & World Bank, 2004). Nurses in the West Bank face challenges related, at least in part, to 60 years of conflict. However lived experience of nurses' working in the occupied West Bank is not well understood.

Methods: A descriptive, phenomenological approach and purposeful sampling strategy was used to recruit and interview 17 eligible participants (RNs working for the Palestinian Authority Ministry of Health and participation consent). Sample size was determined by saturation of emerging themes from the data collected (Rossman & Rallis, 2003). Semi-structured, audio-recorded interviews were used. Two primary questions were: 1) "Please share with me what is like to be a nurse in the West bank? And 2) "Would you share with me memorable or challenging experiences?" Probing questions were posed such as "Would you describe an event that you felt helpless or felt good about your actions?" Thematic coding and content analysis was conducted using the guidelines outlined by Krippendorff (2004).

Results: Two themes were revealed: psychological trauma; and professional practice issues. Psychological trauma content included traumatizing death experiences with patients/others and helplessness/powerlessness. Barriers included lack of compensation/financial issues, respect, continuing education, and resources (supplies, personnel); preferential treatment of doctors over RNs; no nursing practice standards /job descriptions; and micromanagement/higher administrative and politics issues. Positive professional practice impressions included a sense of duty and accomplishment.

Implications: Challenges faced by these RNs include psychological trauma and professional practice issues, barriers were professional practice issues, and positive professional perceptions elucidated were a sense of duty and accomplishment. Knowledge gained about the lived experience of nurses' (RN) working in the West Bank will be shared with the Ministry of Health and may result in practice improvements.

NURSES' HEALTH

Compassion Fatigue among Registered Nurses: In Their Own Words

Kate G. Sheppard, PhD, RN, FNP, PMHNP-BC, FAANP
Clinical Associate Professor
The University of Arizona
College of Nursing
Tucson, AZ
kbs1@email.arizona.edu

Purpose: Elucidate the experience and meaning of compassion fatigue, from the perspectives of Registered Nurses (RNs).

Background: Compassion fatigue is defined as loss of professional satisfaction, and feeling more work distress than satisfaction. It is conceptualized as a composite of burnout and secondary traumatic stress. Burnout is a negative emotional reaction to external work/environmental stressors such as workplace incivility, conflict, or workload demand. Secondary traumatic stress stems from the negative emotions and behaviors resulting from exposure to traumatic or distressing experiences. Triggers include witnessing a patient or family's despair or trauma, and feeling powerless to alleviate suffering. Outcomes of unresolved compassion fatigue include low morale, physical and emotional exhaustion, substance abuse, medication errors, impaired job performance, absenteeism, and turnover.

Method: Semi-structured interviews were conducted with 16 hospital-based RNs. Interpretive phenomenology was used to guide the interviews and analysis. Interviews lasted an hour each. Each interview began with an open-ended question such as, "Tell me about compassion fatigue." Participants were asked to describe their meaning of compassion fatigue, and events or experiences that may have precipitated it. Narratives were generated from text, which led to thematic analysis and meaning.

Results: Shared emotions and experiences among participants led to six themes. 1) *Life is fragile and unfair* was defined as a fatalistic interpretation of colds, coughs, or headache, believing trauma and disaster more frequently happens to good people, and trying to put the self and loved ones in a bubble for protection. 2) *Forming connections* was defined as relating to patients and family members on a deeply personal level. 3) *Grief, loss, and endless suffering* was defined as seeing pain and grief daily, feeling the pain, being the bearer of painful news, and experiencing a patient's death as the "worst day of my life". 4) *Time off but not time away* was defined as never being able to let go of painful thoughts or memories, forsaking breaks, checking on a patient's status on days off, and pushing friends and family away to sit alone and grieve. 5) *All in a day's work: Expectations, conflict, disappointment* was defined as feeling caught in conflicts between patient and professionals, failing to meet patient expectations, failing to alleviate pain and suffering, and feeling disappointed in health care and in nursing. 6) *Compassion fatigue* was defined as a loss of hope, feeling disconnected, going through the motions, feeling superficial, feeling overwhelmed, feeling a constant sadness, feeling debilitated, and not knowing a way out.

Implications: Mental stress associated with compassion fatigue has been identified as the leading determinant of intent to leave the nursing profession. It is therefore imperative that RNs are educated about compassion fatigue, including precipitating factors, signs, symptoms, and possible outcomes. Primary prevention strategies such as self-awareness and self-care can mitigate the risk factors. Additional self-care activities such as taking regular breaks, obtaining social support, utilizing relaxation techniques, and working toward a balanced professional and personal life can help to ameliorate symptoms.

Funding: The University Arizona College of Nursing Laurence B. Emmons Research Award.

NURSES' HEALTH

Safe Patient Handling and Musculoskeletal Symptoms among California Nurses

Soo-Jeong Lee, RN, PhD

Assistant Professor

School of Nursing

University of California, San Francisco

San Francisco, CA

Purposes: The purpose of this study was to describe the prevalence of work-related musculoskeletal symptoms, organizational safety practices and programs, and work practices and perceptions among hospital nurses in California at the inception phase of the safe patient handling (SPH) legislation.

Background: Patient handling is the primary risk factor for musculoskeletal injuries among nurses. In California, the Hospital Patient and Health Care Worker Injury Protection Act (AB1136), which requires acute care hospitals to adopt and implement SPH policies and programs, became effective in 2012. Research is needed to evaluate the impact of the SPH law on musculoskeletal injury prevention, and obtaining baseline data is the first step.

Methods: A cross-sectional survey was conducted among a random sample of 2,000 actively licensed nurses selected from the California Board of Registered Nursing list. Both postal and on-line surveys were used for data collection. Among 526 respondents (response rate: 26%), data analysis included 268 hospital nurses who met the inclusion criteria. Work-related symptoms were defined as symptoms caused or worsened by work. Associations of work-related musculoskeletal symptoms with SPH variables and organizational safety practices were examined by multiple logistic regression.

Results: The 12-month prevalence of work-related musculoskeletal symptoms was 49% for low back, 39% for neck, 31% for shoulders, and 27% for hands/wrists. Of hospital nurse participants, 83% performed patient handling tasks and these nurses reported having no-lifting policy (22%), lift teams (37%), and mechanical lift equipment (61%) in their workplaces. Also, 24% and 59% of these nurses reported high availability (>75% of the time) for a lift team and lift equipment, respectively and 20% reported high-level lift use (>75% of the time). Nurses with lift teams were significantly less likely to experience low back pain than nurses without lift teams (OR=0.54, 95% CIs, 0.31-0.96). Positive safety climate, people-oriented culture, and better ergonomic practices were associated with less low back pain experiences ($p<0.05$). About 60% of hospital nurses were aware of the SPH law and 37% anticipated that the SPH law would be very or somewhat effective for worker protection. Regarding patient handling policy or programs in the workplace, 33% reported having noticed some changes since 2012.

Implications: This study obtained baseline data to evaluate the impact of the California's SPH law on the prevalence of work-related musculoskeletal symptoms among hospital nurses, workplace SPH policies and programs, safety climate and safety practices. The baseline findings suggest the need to improve the availability of lift teams and lift equipment and the actual use of lift equipment. Findings also suggest that providing lift teams and establishing strong organizational safety climate and practices are important elements in the SPH program for musculoskeletal injury prevention. Future research is needed to examine the effectiveness of the SPH law.

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Abstracts of Podium Presentations

PREVENTION AND MANAGEMENT ACROSS DISEASE TYPES

Moderator:

*Shelley Y. Hawkins, PhD, FNP-BC, GNP, FAANP
Associate Professor and Director of DNP and MSN NP Programs
University of San Diego
Hahn School of Nursing & Health Science
San Diego, CA*

USE OF ELECTRONIC PERSONAL HEALTH RECORDS: PERCEPTIONS OF THE CHRONICALLY ILL ADULT

Perry M. Gee

EFFECT OF OSTEOPOROSIS PREVENTION PROGRAM

*Bhaskara Kurup Sreelekha, Singaravelu Rajeswari, Anita David,
Ganapathy Neelakshi, Linda H. Eaton, Ardith Z. Doorenbos*

EFFECTS OF CRYOTHERAPY, CONTINUOUS PASSIVE MOTION IN TOTAL KNEE REPLACEMENT PATIENTS

Mei-Chu Chen, F. Sarah Lee, Chiu-Ping Han, Jih-Yang Ko

MOTIVATIONAL INTERVIEWING IMPROVES ADHERENCE IN GLAUCOMA: RESULTS OF A MULTI-SITE RCT

Paul F. Cook, Sarah J. Schmiede, Jeffrey Kammer, Steven L. Mansberger, Malik Kahook

PREVENTION AND MANAGEMENT ACROSS DISEASE TYPES

Use of Electronic Personal Health Records: Perceptions of the Chronically Ill Adult

*Perry M. Gee, MSN, RN, CPEHR
PhD Student*

*Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA*

Background: Chronic illnesses are costly to older adults and society. One tool that has been promoted to facilitate self-management support of chronic illness by policy makers, health advocates, providers and consumers is the electronic personal health record or patient portal (PHR). Federal incentives are in place to mandate that providers and health care organizations offer PHR's to patients and caregivers. However, little is known how consumers actually use these systems for self-management support and productive patient-provider interactions.

Aims: The aim of this study is to investigate why and how experienced adult healthcare consumers with chronic illness use PHR's for self-management support and productive patient-provider interactions as defined by the Chronic Care Model. Findings of this study will describe experiences of the chronically ill who are users of the system, identify knowledge gaps and set direction for future research.

Methods: This qualitative descriptive study following a grounded theory approach used a homogeneous group of chronically ill adults who were identified by their providers as skilled and experienced PHR users. Eighteen purposively selected research participants ages 50-65 were interviewed in two Northern California communities.

Results: The 18 participants included English-speaking adults with a mean age of 60 and included 7 females and 11 males who have an average of 3.0 chronic illnesses. The majority of the participants were working adults who had a minimum education level of a bachelor's degree. All participants were identified by providers as those having a tethered PHR/patient portal through their primary healthcare provider and reported a mean of 19.8 PHR use episodes per year. The participants had a mean of 2.9 years of experience with the system and reported that averages of 2.5 of their providers were using PHR's and 2.5 of their providers were not. There were four major thematic categories that describe the perceptions of the chronically ill using PHR's identified through an analysis of the transcripts: (a) patient-based factors (b) system-based factors (c) interaction factors and (d) training opportunities. The participants were very positive about using PHR's for self-management support, preparation for appointments and communication with the health care team. Participants did raise concerns about provider messaging confusion, inadequate system design, PHR navigation concerns and the desire for greater access to the comprehensive electronic health record.

Implications: The study identified factors that are facilitators and barriers for using the PHR for self-management support and for patient-provider interaction. Knowledge gained from the experienced PHR users suggest that improvements to the system and providing PHR use education to patients and the provider team will increase the utility of the system among the experienced users and encourage new users to embrace adoption and use.

PREVENTION AND MANAGEMENT ACROSS DISEASE TYPES

Effect of Osteoporosis Prevention Program

*Bhaskara Kurup Sreelekha, PhD, RN, Reader, Dept. of Medical Surgical Nursing¹
Singaravelu Rajeswari, PhD, RN, Reader, Dept. of Obstetrics & Gynaecological
Nursing¹*

Anita David, PhD, RN, Reader, Dept. of Pediatric Nursing¹

Ganapathy Neelakshi, PhD, RN, Professor, Dept. of Pediatric Nursing¹

Linda H. Eaton, MN, RN, AOCN, Biobehavioral Nursing and Health Systems²

Ardith Z. Doorenbos, PhD, RN, FAAN, Biobehavioral Nursing and Health Systems²

¹Sri Ramachandra University, Chennai, India

²University of Washington, Seattle, WA

Purpose/Aim: To determine the effectiveness of an osteoporosis prevention program on knowledge and bone mineral density among female school teachers.

Rationale/ Background: Osteoporosis afflicts millions of people particularly women around the world and it is on the steady rise in India. Unfortunately, osteoporosis shows no symptoms and is often diagnosed only after a fracture, by which time the patient may have suffered considerable bone loss. Adequate knowledge about the disease may promote behavioral modification that improves bone mineral density (BMD), curtailing the disease in its beginning and prevent associated complications increasing quality life.

Methods: A randomized controlled trial involving 12 Government Schools in South India (intervention group-6; control group-6) from which 170 female teachers with left calcaneal BMD T- score ranging from -1 to -2.5 as per Quantitative Ultra Sound (n = 85 in intervention group; n = 85 in control group) was used. After obtaining institutional ethics committee approval and informed consent, the pretest was completed that included: assessment of background variables and 'Osteoporosis knowledge test' a questionnaire that measures knowledge on risk factors, exercises and calcium intake. The osteoporosis prevention program was carried out as a group teaching with 10-12 teachers in a group for 30-40 minutes on disease, management and prevention emphasizing on dietary calcium intake and exercises to the intervention group. The control group carried out their routine activities. Additionally, a booklet 'Invest on your bones' was given to the intervention group and as well as another booklet on general health tips 'Healthy life-Happy life' that was given to both the groups. In-person reinforcement was provided to the intervention group on the 15th day after intervention and 1st week of every month after the posttest-I. The posttest measures were collected at 30 days, six months and one year post intervention. Also, BMD was measured at one year post intervention. The control group participants received the booklet 'Invest on your bones' after posttest-III. Data were analyzed using Repeated Measures ANOVA.

Results: The RMANOVA revealed an improvement in the knowledge on osteoporosis for intervention group compared to control group (p <0.001) and a decreased BMD mean scores in both the groups with less reduction in intervention group compared to control group (p<0.001).

Implications: The findings from this study suggest that a multidisciplinary education program which encompasses BMD sensitization, teaching, issuing of booklets and reinforcements may be implemented in hospitals and community to have an impact on knowledge and behaviors which in turn help to delay the development of osteoporosis. The booklet 'Invest on your bones' prepared by the investigator could be utilized by nurses in the hospital and community settings as a preventive strategy.

PREVENTION AND MANAGEMENT ACROSS DISEASE TYPES

Effects of Cryotherapy, Continuous Passive Motion in Total Knee Replacement Patients

Mei-Chu Chen, MSN, RN

Head Nurse

Department of Nursing

Chang-Gung Memorial Hospital

Kaohsiung City, TAIWAN, R.O.C.

F. Sarah Lee, PhD, RN

Assistant Professor

School of Nursing

CSULA

Los Angeles, CA

Chiu-Ping Han, RN

Nursing Supervisor

Department of Nursing

Chang-Gung Memorial

Hospital, Kaohsiung City,

TAIWAN

Jih-Yang Ko, MD

Director and Vice President

Department of Orthopaedic

Chang-Gung Memorial

Hospital, Kaohsiung City,

TAIWAN

Aims: This randomized controlled trial aimed to investigate effects of a postoperative nursing intervention on relieving pain, joint swelling and joint flexion level in patients receiving total knee replacement.

Background: Musculoskeletal disability is the most prevalent of the major health problems of aging population around the world. Total knee replacement (TKR) is a highly effective intervention for end stage knee arthritis. However, the immediate postoperative period and early recovery is hindered by significant pain, swelling and stiffness. Even with extensive complications, analgesics are the common pain management strategies for TKR patients. Cryotherapy and continuous passive motion (CPM) are common non-pharmacological methods to reduce pain, but their effects remain unclear.

Design: A randomized controlled trial with a purposive sampling method was utilized.

Methods: Subjects recruiting from orthopedic units in a teaching hospital in southern Taiwan were randomly assigned to experimental group (n=30) applying cryotherapy and continuous passive motion immediately returning back to the unit after receiving the surgery and control group (n=30) with routine care from March 2012 to June 2013. A 0-10 Numeric Pain Rating scale, Short Form McGill Pain Questionnaire, and universal goniometric for measuring knee flexion level served as outcome measurements. Data were analyzed using mixed models to compare changes over time at 1st day and 4th day following the surgery.

Results: There was no significant difference in pain between groups ($F=1.98, p=.168$). Experimental group had significantly higher joint flexion level ($F=11.4, p=.002$). Although no significant difference in joint swelling was found between groups ($F=2.09, p=.157$), experimental group had lower joint swelling after measurement ($M=32.15$) than control group ($M=33.93$).

Conclusion: Results of this study indicated that elderly patients should start to use continuous passive motion immediately after receiving total knee replacement and cryotherapy 2 hours after the surgery.

Funding: This research received grant from Chang Gung Medical Foundation (CMRPG 8A1101).

PREVENTION AND MANAGEMENT ACROSS DISEASE TYPES

Motivational Interviewing Improves Adherence in Glaucoma: Results of a Multi-Site RCT

Paul F. Cook, PhD, Associate Professor, U. of Colorado College of Nursing, Aurora, CO
Sarah J. Schmiege, Assistant Professor, U. of Colorado College of Nursing, Aurora, CO
Jeffrey Kammer, MD, Assistant Professor, Vanderbilt University, Nashville, TN
Steven L. Mansberger, MD, Assoc. Scientist, Devers Eye Institute, Portland, OR
Malik Kahook, MD, Professor, U. of Colorado School of Medicine, Aurora, CO

Purpose/Aims: In a 3-site randomized controlled trial (RCT), we tested the prospective effect of motivational interviewing (MI) on medication adherence among older patients living with glaucoma, compared to either non-theory-based reminder calls or standard care.

Background: Although untreated glaucoma can lead to gradual blindness and results in significant disability, many patients do not take their eye drops for glaucoma as prescribed. Adherence falls to 50%-70% within the first year of treatment. MI is a counseling approach that has been used to improve adherence in other chronic diseases, but has not been tested for glaucoma adherence using a rigorous RCT design.

Methods: We recruited 201 patients with glaucoma from 3 specialty ophthalmology clinics across the United States, 64% women, with an average age of 65.0 years ($SD = 11.2$ years). Eligibility criteria were: (a) community-dwelling adults with open-angle glaucoma, (b) monotherapy glaucoma treatment, (c) visual field data available, (d) no plan for surgery within 6 months, and (e) no comorbidity that the patient's physician believed would interfere with participation. We urn-randomized participants to receive standard care that includes minimal patient counseling, reminder calls that provided three extra patient contacts and the opportunity to ask questions about treatment, or MI counseling that explored the patient's own reasons for and barriers to treatment. The MI condition included three telephone contacts plus three in-person sessions. The two active interventions were delivered by trained medical assistants with glaucoma clinic experience. We measured adherence using two validated self-reports and a clinician rating, and by asking participants to store their eye droppers inside MEMS bottles, an electronic monitoring tool that tracks daily dosing of medication and has been used in glaucoma.

Results: Participants received an average of $M = 2.32$ phone calls in the MI group (similar to the reminder call group), plus $M = 2.47$ in-person visits; treatment fidelity was evaluated, with behavioral coding showing good adherence to MI techniques. Compared to prior literature on glaucoma, our participants had a high level of baseline adherence ($> 90\%$), which was similar across all groups. This may be due to recruitment from specialty clinics rather than from general ophthalmology practice. Nevertheless, clinician adherence ratings showed that adherence decreased over time for participants in the standard care and reminder call groups, while adherence was maintained at a higher level over time for participants in the MI group; the interaction between group and time was nonsignificant but in the expected direction, $F(2, 67) = 1.98, p = .14$. There were significant between-group differences on a recall adherence measure post-treatment, $F(2, 167) = 4.22, p = .016$.

Implications: Results support the use of MI by non-physician clinic staff to prevent medication nonadherence in glaucoma. Comparison to reminder calls suggests that results were not due to mere contact or patient support, although potential confounds are the longer duration of MI calls and additional in-person contacts. Interventionists believed that an initial in-person contact was helpful, but that phone contacts were equally beneficial.

Reference: Cook PF, Bremer RW, Ayala AJ, Kahook MY. Clin Ophthalmol 2010;4:1091-1101.

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Abstracts of Podium Presentations

PROMOTING HEALTH IN YOUNG AND OLD

Moderator:

*Cynthia M. Dougherty, ARNP, PhD
Professor, Biobehavioral Nursing and Health Systems
School of Nursing
University of Washington
Seattle, WA*

MEASURES OF ACCULTURATION: ASSOCIATION
WITH FOOD INTAKE AND BMI OF ADULTS AND CHILDREN
Elizabeth Reifsnider, Cristina Barroso, Angelica M. Roncancio, Martha B. Hinojosa

AFRICAN- AND EUROPEAN-AMERICAN ATTITUDES
AND CHILDREN'S SELF-REGULATION
Elizabeth A. LeCuyer, Dena P. Swanson, Robert Cole, Harriet Kitzman

CHILD HEALTH PROMOTION: CONCEPT ANALYSIS
Ipuna Estavillo Black

SEXUAL AND STI TESTING BEHAVIORS IN ASIAN
AND PACIFIC ISLANDERS AMERICAN AND LATINOS
Angela Chia-Chen Chen, Cindy Sangalang, Usha Menon, Laura A. Szalacha

PROMOTING HEALTH IN YOUNG AND OLD

Measures of Acculturation: Association with Food Intake and BMI of Adults and Children

*Elizabeth Reifsnider, PhD, WHNP-BC,
PHCNS-BC, FAAN
Associate Dean and Professor
College of Nursing and Health Innovation
Arizona State University*

*Cristina Barroso, PhD
Assistant Professor
School of Nutrition & Health Promotion
Arizona State University*

*Angelica M. Roncancio, PhD
Post-Doctoral Fellow
School of Public Health
University of Texas*

*Martha B. Hinojosa, PhD, FNP
FNP/Researcher
Michael E. DeBakey VA Medical Center
Houston, TX*

Purpose: The purpose of this study was to examine the associations between maternal and paternal acculturation, as measured by ARSMA, country of origin, and language with: BMI of mother, father, and child and food eaten by the child, including type of infant feeding (breast, bottle). The objectives of the presentation are to describe three measures of acculturation that are commonly used in clinical practice as well as research for their associations with common health outcomes such as weight of adults and children and the food intake of children.

Background: There has been a dramatic increase in prevalence of overweight/obesity in 40 years. According to the Centers for Disease Control and Prevention, in 2008, 18.5 percent of Hispanic children were obese compared to 12.6 percent of white children and 11.8 percent of African American children. In 2012, the percentages of children age 6-11 years who are obese is relatively stable: 18.0% (2009-2010) and children age 2-5 years who are obese: 12.1% (2009-2010). Obesity increases the risk of a number of health conditions including hypertension, adverse lipid concentrations, and type 2 diabetes. Given the health risks of obesity and its high prevalence, it is important to continue to examine the associations of obesity among U.S. adults and children with potentially explanatory variables.

Methods: The sample consisted of 300 children from a Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) clinic in a southwest city and their parents. The children were between the ages of 12 and 24 months, and all children were identified by their mothers as being of Hispanic ethnicity. Of the 300 children, 100 were below the 5th percentile for height (growth stunted), 100 were of normal weight for height (between 10th % and 85th %) and 100 were above the 95th % weight/height (obese). The measures for acculturation were the Acculturation Rating Scale for Mexican Americans (ARSMA), the language preferred by the mother, the country of origin and generation in the US for the mother and the father. The food items were collected by 24 hour diet recall and grouped by food types and analyzed with Food Processor II dietary analysis program. Data were analyzed with descriptive and correlational statistics.

Results: The length of time breastfed was significantly associated with language and maternal and paternal countries of origin and trended with the ARSMA score. The ARSMA was most associated with the types of foods eaten by the children with language and parental country of origin less associated.

Conclusions: ARSMA, country of origin, and language all are associated with each other, but have different associations with other variables studied. All three measures of acculturation (ARSMA, language, origin) are highly and strongly associated with length of time breastfeeding. Mother's Mexican origin is negatively associated with child, maternal and paternal BMI but paternal origin has no relationship with child BMI. Nurses can use these findings when working with global populations.

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PROMOTING HEALTH IN YOUNG AND OLD

African- and European-American Attitudes and Children's Self-Regulation

Elizabeth A. LeCuyer, RN, PhD

Clinical Associate Professor

School of Nursing

Oregon Health & Science University

Portland, OR

Dena P. Swanson, PhD

Associate Professor

Warner School of Education

University of Rochester

Rochester, NY

Robert Cole, PhD

Associate Professor

of Clinical Nursing

University of Rochester

School of Nursing

Rochester, NY

Harriet Kitzman, RN, PhD

Professor

University of Rochester

School of Nursing

Rochester, NY

Purpose: Using a developmental-contextual perspective, data from 2 studies were examined for between- and within-group associations with authoritarian attitudes and children's self-regulation, in AA mothers and EA mothers with three-year-old children.

Background: Research suggests that higher levels of authoritarian parenting exist in African-American (AA) families than European-American (EA) families, but less is known about ranges of authoritarian attitudes and how they affect children's self-regulation.

Methods: Sample and Procedures. In Study 1, 108 EA and 149 AA dyads were observed during 30-minute limit-setting interactions. In Study 2, 50 AA dyads were observed during 3-minute limit-setting interactions. Mothers were asked to prevent their child from touching or playing with prohibited objects. Age ($m = 29.37$), education ($m = 13.50$), and income-to-poverty threshold were covariates. **Measures.** *Children's self-regulation:* Kochanska and colleagues' (1995) observation paradigm in Study 1 (average intra-class correlation = .89); Prohibition Coding Scheme (LeCuyer & Houck, 2006) in Study 2 ($kappa = .97-.82$). *Maternal authoritarian attitudes:* Child Rearing Practices Report authoritarian attitudes subscale (Dekovic, Janssens, & Gerris, 1991; $\alpha = .80$).

Results: Comparing EA and AA authoritarian attitudes and self-regulation (between group comparisons): In Study 1, AA mothers had *more* authoritarian attitudes than EA mothers (AA $m = 68.15$; EA $m = 55.51$; $F(1,248) = 45.54$; $p = .000$). Ethnicity moderated the effect of authoritarian attitudes on children's self-regulation. In AA dyads, authoritarian attitudes associated *positively* with children's self-regulation; in EA mothers, authoritarian attitudes associated *negatively* with self-regulation ($r^2 = .07$; interaction $Beta = 1.17$; $p = .019$). **Examining just AA mothers and children (within group comparisons):** AA mothers' scored very similarly on authoritarian attitudes in Study 1 and Study 2 ($m = 69.95$, $sd = 13.9$; $m = 71.8$, $sd = 14.2$; $t = -.79$, $p = .42$). Examining AA dyads in Study 2 however, *lower* authoritarian attitudes were associated with *more* optimal children's self-regulation, and *higher* authoritarian attitudes were associated with *less* optimal self-regulation (Logistic regression $\chi^2 = 22.9$, $df = 2$, $p = .000$).

Implications: Examining parenting processes between- and within-groups detailed ethnic similarities and differences in the range and effects of authoritarian attitudes. *Relative to EA mothers*, AA mothers' *higher* authoritarian attitudes predicted *more* optimal children's self-regulation. However, *within AA mothers*, *higher* authoritarian attitudes predicted *less* optimal children's self-regulation. That is, AA mothers' highest authoritarian attitudes had more negative effects. Understanding parental perceptions about nurturance and protection of children in different socio-cultural contexts may clarify the meaning and purpose of authoritarian attitudes, to address the question of "how much is too much?" for children's self-regulation.

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PROMOTING HEALTH IN YOUNG AND OLD

Child Health Promotion: Concept Analysis

*Ipuna Estavillo Black, MSN, APN, RN
PhD Student
School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV*

Purpose: The purpose of this presentation is to present a concept analysis on health promotion as it relates to children.

Description of the Definition of Concept: A key human health concept that has been widely used in the nursing profession is health promotion. Health promotion in children plays an integral role in sustainability because they are the future contributors, decision makers, and citizens of the world. The concept of child health promotion is not well understood. This presentation will help nurses better understand the concept of child health promotion, which in turn, could provide our children with better health outcomes.

Concept Analysis Process Used: Walker and Avant's eight step concept analysis process was used to better understand the concept of child health promotion. The eight steps are: select a concept; determine the purpose of the analysis; identify all uses of the concept; determine the defining attributes; construct a model case; construct a borderline, contrary, related, invented, and illegitimate case; identify antecedents and consequences; and define empirical referents.

Logic Linking the Concept to Nursing Practice: Nurses have greatly been influenced by the foundation that Nightingale laid. Nightingale changed the focus of nursing from the treatment of sickness to a new environment where the determinants of health were promoted. This concept is important for nurses working with children because keeping our children healthy will sustain future resources and provide our children with better health outcomes.

Conclusions: Because nurses are health promoters, it is imperative to understand the concept in order to promote health effectively. This presentation will be of interest to nurses working with children, families, and systems. The defining attributes for child health promotion include: empowerment, advocacy, and improving health at multiple levels. Some of the attributes that fit under the umbrella of empowerment include encouraging decision-making, fostering self-care, promoting self-awareness, and changing self-behaviors. Providing information or educating the client and family, encouraging policy change, and using the media for health promotion are some attributes that fit under the defining attribute of advocacy. Educating can also be found under the defining attribute of improving health. The multiple levels of improving health can be defined as intrapersonal, interpersonal, organizational, community, and policy level. Additionally, the developmental levels of children need to be considered with each defining attribute.

PROMOTING HEALTH IN YOUNG AND OLD

Sexual and STI Testing Behaviors in Asian and Pacific Islanders American and Latinos

Angela Chia-Chen Chen, PhD, RN,
PMHNP-BC, Associate Professor¹
angela.ccchen@asu.edu

Cindy Sangalang, MSW, PhD
Postdoctoral Scholar²
cindy.sangalang@asu.edu

Usha Menon, PhD, RN, FAAN
Vice Dean and Professor³
menon.48@osu.edu

Laura A. Szalacha, EdD
Associate Research Professor³
szalacha.1@osu.edu

¹Arizona State University, College of Nursing & Health Innovation, Phoenix, AZ

²Arizona State University, School of Social Work, Phoenix, AZ

³The Ohio State University, College of Nursing, Columbus, OH

Purpose: This study examined patterns and correlates of sexual and sexually transmitted infections (STI) testing behaviors among Asian & Pacific Islanders American (API) and Latino young adults.

Background: Evidence shows that sexually active APIs engage in sex as frequently as other racial/ethnic groups and use condoms inconsistently. Latinos are the second largest ethnic group affected by the HIV/AIDS epidemic, primarily due to their unprotected sexual behaviors. Little evidence documents STI testing among API and Latino young adults. It is important to understand patterns and correlates of these behaviors to promote sexual health in these two fast-growing ethnic minority groups.

Methods: A cross-sectional survey was conducted in 2011-2012. We recruited participants through randomly selected students' emails from a public university. Eligible students filled out an informed consent and anonymous survey online. Descriptive and inferential statistics were conducted to examine patterns and correlates of these behaviors.

Results: About 74.2% of APIs ($n = 137$, mean age = 25.3, $SD = 4.3$, 48.5% male) and 80.6% of Latinos ($n = 123$, mean age = 25.9, $SD = 4.2$, 43.1% male) in the sample were sexually experienced. Compared with APIs, Latinos had their first sexual experience at a younger age, held a more favorable attitude towards condom use, reported more lifetime steady sexual partners, and had more casual sexual partners both during their lifetime and in the past 30 days. Latinos also reported a higher incidence rate of STIs and used STI testing services more often than APIs.

In the regression analyses, illicit drug use in the past 30 days predicted the number of days these young adults had sexual intercourse with a steady sexual partner ($\beta = .35$, $t = 3.58$, $p = .001$) and with a casual sexual partner ($\beta = .41$, $t = 3.95$, $p = .000$) while high on drugs or alcohol, after controlling for age, gender, and ever failed a grade. Controlling for the same variables, the number of lifetime steady sexual partner ($\beta = .30$, $t = 3.47$, $p = .001$) and being Latino ($\beta = .23$, $t = 3.19$, $p = .002$) predicted STIs testing. The number of lifetime steady sexual partner ($\beta = .24$, $t = 2.76$, $p = .007$) and being Latino ($\beta = .25$, $t = 3.56$, $p = .000$) also predicted the usage of STIs treatments.

Implications: These results suggest that APIs and Latinos who used illicit drugs had engaged in sex under the influence, a behavior that puts individuals at risk for STIs. Latinos engaged in greater risky sexual behaviors and were more likely to get tested and receive treatments for STIs than APIs. Interventions aimed at promoting sexual health need to address the critical role that substance use plays in sexual behaviors. It is also important to encourage sexually experienced young adults, especially APIs, to get tested for STIs and receive treatments when indicated.

Funding: Arizona State University College of Nursing and Health Innovation.

Abstracts of Podium Presentations

RESEARCH MEASURES AND METHODS

Moderator:

Anthony McGuire, PhD, CCRN, ACNP-BC, FAHA

Assistant Professor

School of Nursing

California State University, Long Beach

Long Beach, CA

A PARTICIPATORY APPROACH TO GAIN ENTRY IN A HEALTH SYSTEM FOR NEONATAL RESEARCH

Sheila M. Gephart, Michelle Fleiner, Karen Johnson

CHARACTERIZING TRAJECTORIES OF DAILY ROUTINES OF OLDER ADULTS WITH SENSOR TECHNOLOGY

Maria Yefimova, Zahra Hajihashemi, Mihail Popescu,

Tanvi Banerjee, Marjorie Skubic, James M. Keller,

Diana Lynn Woods, Marilyn Rantz

EXAMINATION OF THE FACTOR STRUCTURE AND RELIABILITY OF THE DIABETES SYMPTOM CHECKLIST

Elizabeth Anne Thomas, Oisaeng Hong

FACTOR ANALYSIS OF A SPIRITUAL WELLBEING SCALE IN VETERANS WITH PTSD

Brian Johnson, Jill Bormann, Dale Glaser

RESEARCH MEASURES AND METHODS

A Participatory Approach to Gain Entry in a Health System for Neonatal Research

*Sheila M. Gephart, PhD, RN
Assistant Professor
The University of Arizona
College of Nursing
Tucson, AZ*

*Michelle Fleiner, DNP, RNC-NIC, CCNS
Neonatal Intensive Care CNS
Cardon Children's Medical Center
Banner Health
Mesa, AZ*

*Karen Johnson, PhD, RN
Director of Nursing Research
Banner Health
Phoenix, AZ*

Purpose: To present how a PhD prepared academic early career nurse scientist (ECNS) used a participatory approach to gain entry in a non-academic health system (NAHS) to conduct collaborative clinical research. Steps for initiating and maintaining the collaborative process, barriers, facilitators and lessons learned will be described.

Background/Relevance: Amid uncertainty for national research funding, ECNSs strive to find non-traditional ways to conduct research and obtain necessary pilot data for competitive grant submissions. Concurrently NAHS nurse leaders strive to attain external accreditations, nurture professional practice environments and answer burning clinical questions of frontline direct nursing staff. The academic clinical partnership is a solution to bridge the two, but rarely are NAHSs involved. As a practice discipline, valuing direct nurses' knowledge for research is essential to speed diffusion into practice but direct care nurses may not relate to or regularly engage with the nursing research process. By engaging direct care nurses early using participatory approaches, research is best positioned to impact their clinical world. Participatory research involves identifying stakeholders, selecting key informants and including natural leaders throughout the process.

Approach: In this instance, a mutual partnership between the system director of nursing research, ECNS PhD and clinical nurse specialist DNP paved the way. The DNP recruited significant administrative and financial support from the organization. The Director of Nursing research enabled navigation to prepare legal agreements, formalize publication expectations, identify training requirements, facilitate onsite meetings, and complete system requirements (IRB, internal review, compliance).

Outcomes Achieved: System complexity was a potential barrier but the Director of Nursing Research was key to helping the ECNS navigate the organization. System integration promoted the ability to deploy the project across multiple sites on a limited budget. For internal tasks, the DNP was embedded in the system and was critical to eliciting stakeholder support, including funding and training 10 RN members of the research team. Lessons learned included the need to: 1) allow for time, 2) be clear about aims of project but willing to negotiate on the details, 3) involve clinical leaders at the proposal stage, 4) be timely and responsive to clinical expert's concerns, and 5) respect system constraints. Addressing a high priority issue for the system, reduction of the costly complication of necrotizing enterocolitis in premature infants, made the project clinically relevant to fit organizational priorities.

Conclusion: Entering the clinical world with respect and eliciting administrative support early in the process through a natural leader (DNP) facilitated the process. The project is ongoing and future research studies are being planned.

RESEARCH MEASURES AND METHODS

Characterizing Trajectories of Daily Routines of Older Adults with Sensor Technology

Maria Yefimova, RN, BS, Doctoral Student, School of Nursing¹

Zahra Hajihashemi, MS, Doctoral Candidate, Computer Science²

Mihail Popescu, PhD, Associate Professor, Health Management and Informatics²

Tanvi Banerjee, MS, Doctoral Student²

Marjorie Skubic, PhD, Professor²

James M. Keller, PhD, Professor, Electrical and Computer Engineering²

Diana Lynn Woods, PhD, RN, APRN-BC, Associate Professor, School of Nursing³

Marilyn Rantz, PhD, RN, FAAN, Professor, School of Nursing²

¹University of California, Los Angeles

Los Angeles, CA

²University of Missouri, Columbia

Columbia, MO

³Azusa Pacific University

Azusa, CA

Background: Characterizing health changes over time will contribute to the ability to predict older adults at the greatest risk for decline and adverse events. The trajectory of functional health can be potentially reflected in the changes of daily routine activities. “Smart home” technology, living environments equipped with a variety of sensors, may provide continuous and unobtrusive assessment of these changes in older adults living independently.

Purpose: To test the feasibility of using a currently developed environmental sensor network to measure changes in daily routine activities of an older adult.

Methods: A collaborative, multi-campus project between the Schools of Nursing and Department of Engineering and Computer Science focused on analyzing sensor data collected at a retirement community. The resident apartments were equipped with a wireless network consisting of motion and depth sensors. A descriptive retrospective case study of one 98-year-old male resident was employed to analyze the stability of daily living room and bathroom activity over a period of 1 month. Sitting activity (time spent sitting, sit-to-stand [STS] time) was extracted using a Kinect depth sensor positioned in the living room. A motion sensor captured activity in the bathroom (time, frequency, duration of each visit). Data was visually inspected for trends.

Results: Comparing first week of the month to the last week, the time spent sitting (duration) increased from mean=3.4 hour per day (SD=2.02) to 4.2 hour per day (SD=2.71). Average STS time did not change, with mean=2.0 sec (SD=0.3). Bathroom visit frequency increased from 8.5 visits per day to 9.6 visits per day and time spent in the bathroom (duration) decreased from mean 5.1 min per visit (SD=2.03) to 3.6 min per visit (SD=2.51).

Implications: Changes in the time spent sitting and time spent in the bathroom may reflect the decreasing energy of the resident. Continuous and unobtrusive monitoring of routine activities by an environmental sensor network may be able to capture progressive functional decline of the older adult over time. Future work will explore the relationship of daily routines to health outcomes. This relationship may be instrumental in the development and timing of interventions that may modify health trajectories and prevent further deterioration.

Funding: John A. Hartford Foundation’s NHCNE Award and in part by a NSF SHWB Grant Award #IIS-1115956.

RESEARCH MEASURES AND METHODS

Examination of the Factor Structure and Reliability of the Diabetes Symptom Checklist

Elizabeth Anne Thomas, PhD, ANP-BC, COHN-S, CNL
Assistant Professor
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Oisaeng Hong, PhD, RN
Professor
School of Nursing
University of California, San Francisco
San Francisco, CA

Purpose: The purpose of this study was to determine the factor structure and examine the reliability of the Diabetes Symptom Checklist with a group of 405 elderly Mexican Americans with type 2 diabetes.

Background: Reliable and valid instruments are essential for nursing research and clinical practice. The Diabetes Symptom Checklist in this study was originally developed in 1994 by Grootenhuis, Snoek, Heine, and Bouter and subsequently revised and validated by Arbuckle and colleagues (2009). The scale has 34 items originally in 6 domains, 2 with subscales. The revised version has 8 symptom domains but two sets are closely aligned (neuropathic pain and neuropathic sensoric; psychological fatigue and psychological cognitive). Item-scale correlations were from 0.44 to 0.87 with Cronbach's alpha coefficients from 0.69 to 0.87.

Methods: Data for this study was a secondary analysis from the Sacramento Area Latino Study on Aging with 405 participants who reported type 2 diabetes answering a 33-item Checklist (one item from the original checklist was deleted [Dull head?]). Diabetes symptoms reported were rated as yes/no based on participants' subjective rating of the symptom's presence or absence, then on a 5-point Likert scale of how much they were bothered by it (present but not bothered at all, bothered a little, moderately bothered, very bothered, and extremely bothered). The principal components factor analysis with varimax orthogonal rotation was used.

Results: A six-factor structure was determined. Factor 1 (10 items) relates to lower extremity symptoms and upper and lower extremity peripheral neuropathy with Cronbach's $\alpha = .84$. Factor 2 (5 items) relates to energy and fatigue with Cronbach's $\alpha = .83$. Factor 3 (5 items) contains all symptoms of visual difficulty with Cronbach's $\alpha = .85$. Factor 4 (5 items) contains items related to mood and concentration with Cronbach's $\alpha = .74$. Factor 5 (4 items) has symptoms of cardiac origin with Cronbach's $\alpha = .71$. Factor 6 (4 items) is consistent with hyperglycemia and contains the symptoms known as the "polys" with Cronbach's $\alpha = .69$. Five of the six factors are essentially the same as found in the original factor analysis study (Grootenhuis et al., 1994). The only one differing is the original hypoglycemia scale which was most similar to Factor 2 (5 items) of energy and fatigue in this analysis.

Implications: This Checklist demonstrated a largely similar factor structure to the initial one developed by Grootenhuis and colleagues. Five of the original six factors remain essentially unchanged (with the two neuropathy subscales collapsed into one). Only the hypoglycemia factor did not perform well in this analysis. This Diabetes Symptom Checklist is still a useful tool for research and practice. The revised version may be more useful due to the terminology of the subscales.

RESEARCH MEASURES AND METHODS

Factor Analysis of a Spiritual Wellbeing Scale in Veterans with PTSD

Brian Johnson, PhD, RN
Assistant Professor
University of San Diego
Hahn School of Nursing
San Diego, CA
brianj@sandiego.edu

Jill Bormann, PhD, RN, FAAN
Associate Nurse Executive/Research
VA Center of Excellence for Stress
& Mental Health (CESAMH)
VA San Diego Healthcare System
San Diego, CA

Dale Glaser, PhD
Statistician
University of San Diego
Hahn School of Nursing
San Diego, CA

Purposes/Aims: The purpose of this study was to examine the factor structure of two versions of the Functional Assessment of Chronic Illness Therapy – Spirituality Scale (FACIT-Sp) in a sample of Veterans diagnosed with posttraumatic stress disorder (PTSD).

Rationale: The FACIT-Sp has a 12 and 23 item version that has been factor analyzed in other populations with mixed factor solutions. Spiritual wellbeing is of growing interest in military and veteran populations; therefore, valid and reliable measures are needed for research with these groups.

Methods: Data from a sample of 154 veterans diagnosed with PTSD were selected for this analysis. Confirmatory factor analysis (CFA) was used to test competing factorial structures for the 12 item FACIT-Sp in Mplus 7.0. Both a 2 Factor (Peace combined with Meaning, and Faith subscales) and 3 factors (Peace, Meaning, and Faith subscales) were compared. For the 23 item FACIT-Sp, a 3 factor (Peace combined with Meaning, Faith, and Connectedness) vs. a 4 factor model (Peace, Meaning, Faith and Connectedness) were compared. Given the ordinal nature and nonnormal distribution of the items, the robust likelihood estimator (MLR) and the default maximum likelihood estimator (ML) which assumes multivariate normality were used. Relatively rigorous standards of RMSEA < .05 - .07, CFI and TLI < .95, SRMR < .05 - .07 provided preliminary evidence of a good model fit. A chi-square difference test (χ^2_{diff}) was computed for each of the nested models when using the ML estimator. However, for the MLR estimator, the Satorra-Bentler scaled difference χ^2_{diff} test (TRd) was computed.

Results: For FACIT-12, a slightly better fit was obtained for the 3 factor model, with CFI = .894, TLI = .863 and RMSEA = .119 when compared to the 2 factor model (CFI = .877, TLI = .846, RMSEA = .125). Some items have relatively low r^2 values (e.g., items 7 & 8,) which may, in part, explain part of local model misfit. For FACIT-23, a slightly better fit was obtained for the 4 factor model, with CFI = .81, TLI = .785 and RMSEA = .116 when compared to the 3 factor model (CFI = .802, TLI = .779, RMSEA = .118). Incorporating these 11 additional items, however, did not substantively improve model fit.

Implications: The 12 item FACIT-Sp with a 3 rather than 2 factor solution (e.g., subscales of Peace, Meaning, and Faith) appears to be the better measure when studying a sample of veterans with PTSD. The advantages of using this version include lower subject burden and discriminating between the constructs “Peace” and “Meaning”.

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Abstracts of Podium Presentations

SYMPTOM MANAGEMENT IN CHRONIC ILLNESS

Moderator:

*Lauri Linder, PhD, APRN, CPON
Assistant Professor and Clinical Nurse Specialist
University of Utah College of Nursing
and Primary Children's Hospital
Salt Lake City, UT*

AUDIO-VISUAL STIMULATION FOR INSOMNIA IN PEOPLE WITH CHRONIC PAIN

Hsin-Yi (Jean) Tang, Michael Perlis, Jun James Mao, Barbara J. Riegel

OBJECTIVE AND SUBJECTIVE SLEEP PREDICT VARIATION IN IBS SYMPTOMOLOGY

*Diana Taibi Buchanan, Margaret M. Heitkemper, Monica Jarrett, Kevin Cain,
Robert Burr, Michael V. Vitiello*

DO BIOMARKERS PREDICT IBS PATIENT RESPONSE TO A COMPREHENSIVE SELF MANAGEMENT PROGRAM?

Margaret M. Heitkemper, Jungyoun Han, Kevin C. Cain, Qian Tu, Monica E. Jarrett

EFFECT OF AN ESSENTIAL OIL MIXTURE ON RADIATION-ASSOCIATED ACUTE SKIN REACTIONS

Margo Halm, Clarice Baker, Val Harshe

SYMPTOM MANAGEMENT IN CHRONIC ILLNESS

Audio-Visual Stimulation for Insomnia in People with Chronic Pain

Hsin-Yi (Jean) Tang, PhD, ARNP-BC
Assistant Professor, School of Nursing
University of Washington
Seattle, WA

Michael Perlis, PhD *Jun James Mao, MD, MSCE* *Barbara J. Riegel, DNSc,*
Associate Professor *Associate Professor* *RN, FAAN, FAHA*
School of Medicine *School of Medicine* *Professor, School of Nursing*
University of Pennsylvania *University of Pennsylvania* *University of Pennsylvania*
Philadelphia, PA *Philadelphia, PA* *Philadelphia, PA*

Purpose: The purpose of this pilot study was to test the efficacy of an audio-visual stimulation program for sleep promotion in people with chronic pain. The aim of the study was to test if an intervention that promotes sleep can reduce pain.

Background: One in every three adults in western countries experience some form of sleep disturbance on a weekly basis, whether it is difficulty initiating sleep, inability to maintain sleep or waking up feeling unrested. Chronic pain is a common physical complaint in people with chronic insomnia. A bidirectional association between chronic insomnia and chronic pain is supported by substantial clinical evidence. Insomnia patients experience constant activation of descending inhibition, which amplifies noxious inputs and increases pain sensitivity. At the same time, pain during sleep triggers a sleep awakening response that interrupts sleep. Importantly, cross-sectional studies showed that when sleep improves, pain also improves in people with chronic pain. Chronic insomnia has long been conceptualized as a hyperarousal disorder during both sleep and wakefulness. The hypothesis of this pilot study was that audio-visual stimulation (AVS) will improve sleep quality and reduce pain.

Method: This was an intervention study testing AVS using a program that provided stimulus designed to enhance slow brainwaves (delta-theta). The stimulus (from 10 to 1 Hz) was delivered through goggles (flashing light) and earphones (audio strobe). Participants self-administered a 35-minute AVS program nightly at bedtime for one month. We used a pre-post measure design. Participants were 18 years of age or older, had non-cancer related pain (e.g. headache, low back pain, arthritis pain) most days over the past 6 months (Brief Pain Inventory-BPI: Worst pain ≥ 4 and < 10) and difficulty sleeping for 3 months, confirmed with the Insomnia Severity Index (ISI, score 8 or higher). We excluded night shift workers, anyone diagnosed with a sleep disorder (Sleep Apnea or Restless Leg Syndrome) or a seizure disorder. Sleep (ISI and sleep diary) and pain (BPI) were assessed at baseline and again at the conclusion of the 4 week intervention phase.

Results: Fifteen adults enrolled and 9 (mean age 33 ± 15.8 years, range 19-63; female, 89%) completed the study. After using the AVS device for 4 weeks, significant improvement was seen in reported insomnia (ISI, $p=.003$), worst pain (BPI, $p=.004$), and ability to sleep through pain (BPI, $p=.015$), although total sleep time did not change. Large effect sizes (Partial η^2 : .54-.68) were evident in the treatment effect.

Implications: This pilot study is the first to examine the effect of AVS for sleep induction. Although the sample size was small, the significant improvement and large effect on sleep and pain suggested favorable potential of AVS as a non-pharmacological self-care intervention to promote sleep in adults with chronic pain. These pilot results warrant a future large scale randomized controlled study that further explores the use of AVS in insomnia and comorbid pain.

SYMPTOM MANAGEMENT IN CHRONIC ILLNESS

Objective and Subjective Sleep Predict Variation in IBS Symptomology

Diana Taibi Buchanan, PhD, RN, Associate Professor
Margaret M. Heitkemper, PhD, RN, FAAN, Professor
Monica Jarrett, PhD, RN, FAAN, Professor
Department of Biobehavioral Nursing & Health Systems
University of Washington
Seattle, WA

Kevin Cain, PhD, Research Scientist
Robert Burr, PhD, Research Professor
Office of Nursing Research
University of Washington
Seattle, WA

Michael V. Vitiello, PhD, Professor
Psychiatry & Behavioral Sciences
University of Washington
Seattle, WA

Purposes/Aims: The purpose of the study was to examine objective (actigraphy) and self-reported sleep parameters in women with irritable bowel syndrome (IBS). Specific aims: 1) compare IBS and healthy controls (HC) on actigraphy and 2) explore the relationships of self-reported and actigraphic sleep parameters to next day symptoms.

Background: Patients with IBS frequently report co-morbid conditions such as sleep disturbances, mood disturbances, and fatigue. Research is needed to explore whether self-reported sleep problems are also accompanied by objectively measureable sleep disturbance in persons with IBS. Furthermore, no prior studies have used objective measures to explore whether or not daily changes in sleep predict within-person fluctuations in symptoms.

Methods: A descriptive, correlational study of women (mean age 31.5 ± 7.3 years) with IBS (Rome III criteria, $n=37$) and healthy controls ($n=37$) was performed. Prior to recruitment, IRB approval was obtained. Participants completed a one-month sleep and symptom diary. During this month, they also wore an Actiwatch-64[®] actigraph for 11 nights. For all statistical analyses, $p < .05$ was considered significant.

Results: Mean scores on actigraphic total sleep time, sleep efficiency, sleep onset latency, and wake after sleep onset showed nearly identical values for the IBS and HC groups (t-tests were not significant). On symptoms diaries, the IBS group reported significantly worse sleep quality than the HC group. The relationships between sleep and next-day symptoms were analyzed using general estimating equations that included between- and within-subjects effects. Diary-reported sleep quality was strongly associated with next day abdominal pain ($p=.003$) and IBS symptoms ($p < .001$) within the IBS group, and with next day anxiety and fatigue in both IBS ($p=.001$ and $< .001$ respectively) and HC ($p=.002$ and $.006$). In contrast, the association of actigraphic sleep efficiency (SEF) with next day symptoms was weaker. The only two significant associations were in the IBS group: IBS symptom score ($p=.045$) and fatigue ($p=.006$).

Implications: In this study, we found no IBS versus HC group differences in standard sleep outcomes assessed using actigraphy. Furthermore, actigraphy values reflected a lack of substantial sleep disturbance despite reports of moderate to poor sleep quality in the symptom diaries. The association of sleep with next-day symptoms was weaker for actigraphic-measured SEF than for self-reported sleep quality. These findings suggest that much of the relationship between sleep and symptoms may be the result of an overall bias within self-report measures. However, some may be related to objectively measurable variations in sleep.

Funding: This research was funded by NIH NINR grant numbers P30 NR 011400 and R01 NR01094.

SYMPTOM MANAGEMENT IN CHRONIC ILLNESS

Do Biomarkers Predict IBS Patient Response to a Comprehensive Self Management Program?

Margaret M. Heitkemper, PhD, RN, FAAN

*Jungyoun Han, MSN, RN
Kevin C. Cain, PhD*

*Qian Tu, MSN
Monica E. Jarrett, PhD, RN*

*School of Nursing
University of Washington
Seattle, WA*

Purpose/Aims: The aim of the present study is to evaluate whether the efficacy of an 8-week nurse-delivered intervention called Comprehensive Self Management (CSM) differs in subgroups of Irritable Bowel Syndrome (IBS) patients defined by physiological measures including intestinal permeability, heart rate variability (HRV), and interleukin-10 (IL-10).

Rationale/Conceptual Basis/Background: IBS is a health care problem that affects approximately 10-17% of the US population. There are multiple factors that may contribute to IBS symptoms including altered intestinal permeability, autonomic nervous system imbalances, immune dysregulation, and/or stress. Previously we tested CSM in 2 randomized clinical trials and found it to be effective in reducing gastrointestinal (GI) and psychological distress symptoms and improving quality of life (QoL).

Methods: In the current randomized trial, women and men who met the Rome III criteria for IBS were recruited from the community and randomized to receive CSM or Usual Care (UC). We collected data at baseline on 3 physiological measures, i.e., intestinal permeability as measured by lactulose/mannitol ratio, HRV measured during the night with Holter monitor, and interleukin-10 production by unstimulated peripheral blood mononuclear (PBMC) cells which were incubated for 72 hours. Outcome variables measured at baseline, 3 months and 6 months post randomization included an IBS-specific Quality of Life scale, the Cognitive Scale for Functional Bowel Disorders (CSFBD), and an IBS summary measures computed from symptoms recorded on a daily diary for 28 days. Subjects were classified at baseline into subgroups based on each of the three physiological variables. Linear mixed models were used for analysis, with the interaction between treatment group and physiological subgroup testing whether the effect of CSM, compared to UC, differed according to physiological subgroup.

Results: Seventy-two women and 10 men (mean age 39, range 19-68) had outcome data at one or both follow-up times as well as baseline physiological data. Compared to UC, the CSM group showed significant improvements in QoL ($p=.013$), CSFBD ($p=.001$) and IBS symptoms score ($p<.001$). Tests for interactions showed no statistically significant evidence for the effectiveness of CSM versus UC differing by permeability, HRV, or IL-10 levels, for any of the three outcome measures (all tests $p>.10$).

Implications: The nurse-delivered CSM intervention was effective regardless of underlying pathophysiologic mechanisms including decreased vagal tone (HRV), IL-10 levels, or increased permeability in patients with IBS. The CSM intervention is multifaceted, including cognitive behavioral therapy (cognitive restructuring, relaxation), education and diet modification. It is possible that even IBS patients with an underlying physiological pathology can benefit from learning how to better cope with symptoms and manage diet to avoid trigger foods.

Funding: This study was supported by R01 NR004142 from the National Institutes of Health.

SYMPTOM MANAGEMENT IN CHRONIC ILLNESS

Effect of an Essential Oil Mixture on Radiation-Associated Acute Skin Reactions

Margo Halm, PhD, RN, ACNS

Director, Nursing Research, Practice & Magnet

Nursing Administration, Salem Health

Salem, OR

Clarice Baker, CCAP, OTR/L, NCTMB

Certified Aromatherapy Practitioner

United Hospital

St. Paul, MN

Val Harshe

Clinical Operations Director

University of Minnesota Physicians

Minneapolis, MN

Background: Women diagnosed with breast cancer typically undergo surgical resection, followed by radiation and chemotherapy. Almost all radiation patients develop acute skin reactions (ranging from mild erythema, moist desquamation to ulceration), adversely impacting comfort and quality of life (QOL). While many topical applications have been used to prevent and treat skin toxicity, evidence of effectiveness is limited.

Design/Sample: An experimental repeated measures design was used in a pilot study at a large urban clinical cancer center (N=24) to compare the effects of an essential oil mixture versus standard care (RadiaPlexRx™ ointment) on acute skin reactions, patient satisfaction and QOL. The essential oil mixture was composed of Helichrysum (2.5%), Frankincense (5%), Lavender (5%), and Geranium (5%) in a carrier containing Jojoba (32.5%), Aloe vera (30%), Tamanu (10%), and Evening Primrose (10%). These oils were chosen for their safety profiles, and chemical constituents reported to have anti-inflammatory, anti-allergenic, antibacterial/antiviral, antiseptic, and analgesic properties. Both groups applied the topical preparation three times a day until 1 month post-radiation. An RN completed weekly skin assessments of eight anatomical breast regions until the 1-month follow-up using the acute radiation morbidity scoring criteria from the Radiation Therapy Oncology Group. Additional aims were to estimate effect sizes to enable sample size calculations for a larger trial, and to evaluate the feasibility of this intervention. Data were analyzed using interim and follow-up assessment points for each measure, respectively: Skin and patient satisfaction (3 weeks, 6 weeks); quality of life (6 weeks, 10 weeks).

Results: Skin ratings worsened in both groups over time, indicating typical radiation skin changes. Patient satisfaction with topical products decreased slightly from interim to follow-up time points, but QOL ratings improved in both groups over time. No significant group differences were found for skin, QOL or patient satisfaction ratings at interim or follow-up time points. These preliminary findings suggest the essential oil mixture is at least equivalent to RadiaPlexRx™, a product commonly used as standard care since it has been shown to be effective in protecting skin from radiation effects. Thus, an additional benefit of these findings is that patients have options. An essential oil mixture may be an especially helpful choice for patients that prefer a botanical, non-pharmaceutical or scented skin product. Effect sizes for the main study outcomes for the interim and follow-up assessments were: Skin-.01-.07 (small-medium effect); QOL-.01-.04 (small effect); and patient satisfaction-.02 (small effect). Pilot methods were feasible in terms of recruitment, suitability of randomization, intervention acceptability/safety, moderate adherence, low dropout rates, and utility of measures.

Conclusion: The essential oil mixture did not provide a better skin protectant effect than standard care. However, the findings revealed the essential oil mixture is equivalent to RadiaPlexRx™ in preventing radiation-associated skin toxicity. As a result, the pilot study provides evidence to support botanical or non-pharmaceutical options for women. Furthermore, as pilot methods were deemed feasible, a larger trial powered by obtained effect sizes is warranted so that the clinical effectiveness of this novel intervention can be further evaluated in the breast cancer population.

Abstracts of Podium Presentations

UNDERSTANDING BIRTH AND ITS OUTCOMES

Moderator:

Susan E. Fleming, PhD, MN, Perinatal CNS

Assistant Professor, Nursing

Washington State University

Chewelah, WA

PROGRESSIVE MUSCLE RELAXATION ON STRESS AND ANXIETY AMONG PRIMIGRAVIDAE

Rajeswari Singaravelu, Sreelekha Bhaskara Kurup, Neelakshi Ganapathy,

Anita David, Linda H. Eaton, Ardith Z. Doorenbos

DERAILED: A META-ETHNOGRAPHY ON LABOR INDUCTION AND AUGMENTATION

Janelle F. Palacios

MEDICALIZED PARENTING AFTER PRETERM BIRTH

Ira Kantrowitz-Gordon, Roxanne Vandermause

THE ECONOMIC IMPACT OF THE MOMS ORANGE COUNTY HOME VISITATION PROGRAM ON BIRTH OUTCOMES

Yuqing Guo, Pamela Pimentel, Jung-Ah Lee, Yvette Bojorquez,

Julie Rousseau, Preston Reed, Ellen Olshansky

GIVING BIRTH: THE VOICES OF TONGAN WOMEN

Shelly Reed, Cheryl Corbett, Elise Corbett

UNDERSTANDING BIRTH AND ITS OUTCOMES

Progressive Muscle Relaxation on Stress and Anxiety among Primigravidae

*Rajeswari Singaravelu, PhD, RN¹; Sreelekha Bhaskara Kurup, PhD, RN²;
Neelakshi Ganapathy, PhD, RN³; Anita David, PhD, RN⁴;
Linda H. Eaton, MN, RN, AOCN⁵; Ardith Z. Doorenbos, PhD, RN, FAAN⁵*

¹*Obstetrics & Gynaecological Nursing, Sri Ramachandra University, Chennai, India*

²*Medical Surgical Nursing, Sri Ramachandra University, Chennai, India*

³*Psychiatric Nursing, Sri Ramachandra University, Chennai, India*

⁴*Pediatric Health Nursing, Sri Ramachandra University, Chennai, India*

⁵*Biobehavioral Nursing and Health Systems, University of Washington, Seattle, WA*

Purpose/Aims: To determine efficacy of progressive muscle relaxation on stress, anxiety and pregnancy outcome among primigravidae.

Rationale/Background: Pregnant women experiences stress, anxiety due to fear regarding labor, fetus, social, financial and occupational issues. Maternal mental health problems pose a huge human, social and economic burden to women, their infants, families and society. Progressive muscle relaxation technique is a simple form of relaxation for mind and body, which greatly improves psychological state; overall well being and most importantly reduce stress and anxiety during pregnancy and keeps the pregnant mother and foetus mentally and physically healthy.

Methods: A randomized controlled trial of 250 low risk primigravidae at 21-22 weeks of gestation (n = 125 in intervention group and n = 125 in control group) was used for this study. Antenatal mothers were recruited from tertiary care university hospital in South India. Two-session, 30-minutes Progressive muscle relaxation (PMR) was taught for the intervention group and control group followed the routine care. The progressive muscle relaxation therapy consisted of video teaching on 1:1 basis for two consecutive days, followed by audio cassette/ CD which was issued for self practice at home once a day for 10 weeks. Two weeks later direct reinforcement was provided and there after weekly reinforcement through phone to mothers. During each visit to antenatal clinic participant performed PMR under researcher supervision. The data collection components included background variables, pregnancy specific stress scale, and anxiety scale, at 21-22 weeks of gestation and posttest was conducted at 31-32 weeks. Pregnancy outcome variables included gestational age at birth, mode of delivery, APGAR score, birth weight of newborn at labour. Postpartum depression was assessed through Edinburgh postpartum depression scale at 6 weeks following delivery. Data were analyzed using both descriptive and inferential statistics.

Results: The analysis revealed significant reduction in pregnancy specific stress (p <0.001) and decrease in anxiety (p <0.001) among intervention group compared to the control group. The intervention group had better pregnancy outcomes such as increased gestational age at birth with the difference of one week (p<0.05), more number of vaginal deliveries (p <0.001), increased birth weight with mean difference of 120 grams (p<0.01), decreased incidence of postpartum depression (p <0.001) than the control group. No changes were found in the APGAR score between intervention and control group.

Implications: Nurses in the clinical and community setting play a vital role is disseminating evidence based CAM practices to help pregnant women to balance their emotional stability and enhance pregnancy outcomes particularly term labour, normal vaginal deliveries, optimal birth weight and reduced occurrence of postpartum depression. This study strongly supports that progressive muscle relaxation therapy is an effective interventional strategy that can be disseminated for the relief of stress and anxiety among pregnant women.

UNDERSTANDING BIRTH AND ITS OUTCOMES

Derailed: A Meta-Ethnography on Labor Induction and Augmentation

*Janelle F. Palacios, PhD, CNM, RN
Postdoctoral Research Fellow
Family and Child Health Care
University of California, San Francisco
School of Nursing
San Francisco, CA*

Purpose: The purpose of this presentation is to describe the findings from a meta-ethnographic synthesis on labor induction and labor augmentation experiences among women globally.

Background: While much attention has been given to general labor and birth experience, little is understood from the woman's perspective of the common practice of inducing or augmenting labor.

Method: PubMed, EBSCO, CINAHL plus, Scopus, Proquest, and PsychInfo, along with bibliographic review were searched for articles published between the years 1990-2013 using the terms: labor induction experience, childbirth experience, qualitative research, qualitative study, thematic analysis, grounded theory, content analysis, narrative analysis, phenomenology, interpretive phenomenology and ethnography in various combinations. In total, 1390 papers were identified, 54 were found to be qualitative studies, of which 5 papers were included for analysis. Meta-ethnographic systematic analysis was performed according to the Noblit and Hare (1988) method, which employs both reciprocal and refutational translation to compare similar or contradictory findings to create a line-of-argument synthesis.

Results: The included studies were from Denmark (one), United States (one), Australia (one), Sweden (one) and United Kingdom (one). These studies examined women's experiences of labor induction and/or augmentation regarding: decision making, satisfaction, and knowledge. The overall theme *derailed* derives from women not experiencing an expected and idealized labor course. Supporting themes include: trust in providers guide patient labor decisions, waiting game, and disappointing outcomes and wasted energy.

Implications: Labor induction and/or augmentation may not be as well understood among patients as providers expect, and increased education about indications for and outcomes of these medical procedures is needed to help improve women's labor and delivery experiences and satisfaction.

UNDERSTANDING BIRTH AND ITS OUTCOMES

Medicalized Parenting after Preterm Birth

Ira Kantrowitz-Gordon, PhD, CNM
Senior Lecturer, Family and Child Nursing
University of Washington School of Nursing, Seattle, WA
irakg@uw.edu

Roxanne Vandermause, PhD, RN
Associate Professor, College of Nursing
Washington State University, Spokane, WA
rvandermause@wsu.edu

Purposes/Aims: As part of a study of parents' ongoing distress after preterm birth, we examined how parenting activities were controlled and medicalized by hospital and outpatient health care providers.

Background: Prematurity is a leading cause of neonatal morbidity and mortality in the United States. Parents of premature infants are challenged by prolonged infant hospitalization and concerns about the health and cognitive development of the child. According to Foucault's theory of discourse, health care providers inherently have power over patients and families because of their disciplinary knowledge and the support of health care institutions. This can lead to conflict between parents and caregivers during the infant's hospitalization and follow-up and contribute to parents' distress.

Methods: We recruited a convenience sample of parents from the Pacific Northwest who self-identified as having experienced significant distress after preterm birth. The births occurred between 24 and 30 weeks gestation and parents participated when their children were between 15 months and eight years old. The passage of time since the birth allowed a perspective on how the preterm birth impacted parenting activities well beyond the infant hospitalization. In an initial interview parents described their experience of prematurity, emotional distress, and parenting. Parents were instructed to take photographs that represented their distress in order to engage participants in deep reflection of difficult and emotional topics. Photo-elicitation methods were then used at a second interview to enhance data collection and to aid in the interpretive process. Couples were interviewed separately in order to avoid a common or dominant story emerging. Data were analyzed using discourse analysis, a qualitative methodology which examines how everyday experiences are socially constructed and determined by power structures.

Results: Ten parents (5 couples) participated in 19 interviews and contributed eight sets of photographs. Participants described distress from the loss of parenting control, medicalization, and the dominance of technology. Parents were quickly separated from their newborns at the birth, with little opportunity to see or touch the infant. As contact with the infant increased, parents participated in physical care such as diaper changes and weight checks, with less attention to human touch and nurturing. Home care for the sickest infants requiring ventilation or feeding tubes transformed parents into quasi-nurses. Parents' daily experience in caring for the child at home was discounted by contradictory findings and judgmental language during outpatient follow-up. Concerns about cognitive development and medical errors heightened parents' vigilance of their children and increased their desire to become medical experts in order to protect the child.

Implications: Nursing care for preterm infants can be improved by increased attention to the impact on parents, support for non-medical parenting activities, and inclusion of parents in medical decision-making. Communication should be sensitive to their emotional vulnerabilities.

Funding: By grants from WIN, STTI International and Psi Chapter-at-Large.

UNDERSTANDING BIRTH AND ITS OUTCOMES

The Economic Impact of the MOMS Orange County Home Visitation Program on Birth Outcomes

Yuying Guo, PhD, RN, Assistant Professor¹
Pamela Pimentel, RN, Chief Executive Office, MOMS Orange County
Jung-Ah Lee, PhD, RN, Assistant Professor¹
Yvette Bojorquez, RN, Chief Program Officer, MOMS Orange County
Julie Rousseau, PhD, CNM, RN, Assistant Clinical Professor¹
Preston Reed, PhD, Research Scientist¹
Ellen Olshansky, PhD, RN, FAAN, Professor, Director¹

¹*Nursing Science, University of California, Irvine, CA*

Purpose: The purpose of this research was to provide preliminary evidence about the economic impact of the MOMS Orange County maternal-child health coordination model on birth outcomes.

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 paraprofessionals 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. Although the MOMS program has been found to contribute to positive birth outcomes, little is known about how much cost savings was generated by the MOMS program.

Methods: This study included an academic and community partnership approach. MOMS provided a de-identified dataset. MOMS and UCI's Program in Nursing discussed and generated the analysis plan. UCI's Program in Nursing Science was responsible for conducting relevant analyses of the MOMS data. The Orange County, California State and U.S. birth outcomes were obtained from the literature and were used to compare with MOMS' birth data. In 2010, 1,103 pregnant women who participated in the MOMS program delivered babies. The study calculated the cost savings of the MOMS program in reducing negative birth outcomes in 2010.

Results: Women in the MOMS program were found to have lower preterm births and low birth weight births than the county, state and national averages. For example, in 2010, 5.9% of MOMS babies were born prematurely compared to 9.1% of babies born prematurely countywide, 10% statewide, and 12% nationwide. If 1,103 births were randomly selected at the county, state and national levels, it is found that MOMS has 31 fewer preterm births than in Orange County, 41 fewer than in California State, and 63 fewer than in the U.S. According to an Institute of Medicine report, the estimated cost per infant born preterm in the U.S. is \$51,600. Using 1,103 births from 2010 from MOMS participants, we estimate that MOMS generates \$1.6 million in savings in Orange County, \$2.1 million in California State and \$3.2 million in the U.S. in reducing preterm births. The same estimate was applied to very low birth weight births (\$280,000 per VLBW birth). We estimate that MOMS generates \$560,000 savings in Orange County, \$1.1 million in California state and \$2.2 million in the U.S. through reducing VLBW deliveries.

Implications: The evidence suggests that MOMS Orange County has the potential to save significant healthcare costs by increasing the rates of positive birth outcomes.

Funding: The project described was supported by the National Center for Research Resources and the National Center for Advancing Translational Sciences, National Institutes of Health, through Grant ULI TR000153.

UNDERSTANDING BIRTH AND ITS OUTCOMES

Giving Birth: The Voices of Tongan Women

Shelly Reed, DNP, APRN, CNE
Cheryl Corbett, APRN, MSN, NP-C
Elise Corbett, SN

Purpose: The purpose of this qualitative descriptive study is to describe the perceptions of Tongan women about the childbearing experience.

Background: With a growing influence of immigrants into the United States, the urgency for nurses to be able to provide culturally competent care increases. Because postpartum women have to cope with the stresses of labor, birth, and hospitalization as well as the psychosocial and physical adaptations accompanying the transition to motherhood, they are in particular need of expert, sensitive nursing care. Developing cultural competence is of importance to nurses caring for childbearing women (Callister, 2005, 2008). Only one recent study of childbirth was found in the literature which included Tongan women as study participants. Tongan women were included as part of the total women interviewed (n=100), discussing their perceptions of pain in childbirth, and was not specific to the meaning of childbirth.

Method: Seventeen English-speaking Tongan women living in the US states of California and Utah who had given birth to a baby in the past year were invited to participate in the study. Informed consent was obtained, and digitally recorded interviews were conducted. Interviews were transcribed and analyzed as appropriate for qualitative inquiry. Members of the research team analyzed data separately to identify preliminary themes, and analysis continued as a team to finalize the results and identify the final themes arising from the narrative data.

Results: The importance of honoring Tongan cultural practices during childbearing was the overarching theme. Supporting themes included following specific physical cares to ensure positive maternal/newborn outcomes; avoiding pregnancy taboos; respect for traditions such as naming as prescribed by Tongan culture; being a “strong” Tongan mother; and valuing motherhood and family. One woman said, “It is one of the most incredible things that can happen for a woman to give birth. Like they say, you can never know how much you love until you give birth.” Another woman said, “Names are very significant. A name is your family line; it is your forefathers and what they want to leave in this precious life.”

Implications for Clinical Practice: Understanding the importance of Tongan cultural practices in the care of childbearing women is essential. The value Tongan women place on following cultural practices to ensure positive outcomes should be respected. Sensitivity to the stoicism is important, especially when considering pain control and patient education. A culturally competent nurse understands the importance of social and cultural influences on patients’ health beliefs and behaviors and generates interventions to assure quality health care to diverse populations of women.

Abstracts of Podium Presentations

WELLBEING AND CHRONIC ILLNESS

Moderator:

*Cheryl Krause-Parello, PhD, RN
Associate Professor, Nursing
University of Colorado
Aurora, CO*

**RISK FACTORS AND CHRONIC KIDNEY DISEASE
OF ASIAN PACIFIC ISLANDERS—GLOBAL HEALTH**
Merle Kataoka-Yahiro, Julaine Ching, Kamomilani Anduha Wong

**RACIAL DIFFERENCES IN DIET PATTERNS
OF OBESE PATIENTS WITH HEART FAILURE**
Lorraine S. Evangelista, Marjan Motie

**PSYCHOSOCIAL FACTORS AFFECTING HYPERTENSIVE
YOUNG AFRICAN AMERICAN MEN**
Carol Rose DeLilly

**MANAGING HYPERTENSION: ETHNOMEDICINE USE
BY OLDER SLAVIC IMMIGRANT WOMEN**
Catherine R. Van Son

WELLBEING AND CHRONIC ILLNESS

Risk Factors and Chronic Kidney Disease of Asian Pacific Islanders–Global Health

Merle Kataoka-Yahiro, DrPH, APRN

Associate Professor

School of Nursing and Dental Hygiene

University of Hawaii at Manoa

Honolulu, HI

Julaine Ching, MSN, RN-BC

School of Nursing and Dental Hygiene

University of Hawaii at Manoa

Honolulu, HI

Kamomilani Anduha Wong, MSN, FNP-BC

School of Nursing and Dental Hygiene

University of Hawaii at Manoa

Honolulu, HI

Purpose/Aims: To describe the risk factors and Chronic Kidney Disease (CKD) among Asian Pacific Islanders (APIs) who attended the National Kidney Foundation of Hawai'i (NKFH) Kidney Early Detection Screening (KEDS) Program.

Rationale/Conceptual Basis/Background: CKD is increasingly being recognized as a global health problem, in part, from the acceptance of a conceptual model, definition, and classification of CKD by the Kidney Disease Improving Global Outcomes (KDIGO) in 2004. In the 2010 WHO report, it is now recognized that CKD is common in people with Cardiovascular disease (CVD) and associated CVD risk factors (i.e. diabetes, hypertension, heart disease, obesity). Data from the Heart Outcomes and Prevention Study indicate that microalbuminuria is a marker of kidney damage. Approximately 11% of U.S. adults (23.5 million) have CKD and Hawaii's kidney failure is 30% higher than the national level. There are limited disaggregate CKD data on APIs and there is a need to better capture 'real data' rather than estimates of how many APIs have CKD and the risk factors for CKD amongst this population.

Methods: This is a secondary data analysis of 915 participants enrolled in the NKFH KEDS Program between 2006 and 2009. Of the 915 participants, 62.4% were female and 37.6% were male, ranging from 18 to 89 years of age. In this study, approximately 67.5% were APIs and Native Hawaiian and 32.5% were non-APIs. Microalbuminuria was used as an indicator for CKD. Pearson chi-square was performed to compare the demographic and biometrical differences between normal (n=426) vs abnormal microalbuminuria (30mg/L or greater) (n=438). To identify the risk factors associated with CKD, a hierarchical logistic regression model with demographic variables were entered first followed by biometrical measurements, p-value set at .05. The test for goodness of fit and R²-type indices were not significant.

Results: Pearson chi-square was completed on two groups (normal microalbuminuria vs. abnormal microalbuminuria). Significant results were found with ethnicity (p=.02), history of diabetes (p=.000), systolic blood pressure (p=.007), and BMI (p=.000). The significant results of the hierarchical logistic regression (.05 criteria) based on Wald, df, significance for microalbuminuria included BMI (p=.005) and blood glucose (p=.003).

Implications: The findings were consistent with studies reported in the literature and validate the need for CVD and related CVD risk factors screening in the NKFH KEDS program. Understanding the relationship between CKD and other chronic diseases is important in future development of a public health policy to improve outcomes for API CKD individuals. Early screening and surveillance for CKD maybe effective interventions to lower rates of CKD and CVD.

Funding: The project described was supported in part by Award No. U54RR026136 from the National Center for Resources (NCRR) & Award No. U54MD007584 from the National Institute of Minority Health and Health Disparities (NIMHD), National Institute of Health (NIH).

WELLBEING AND CHRONIC ILLNESS

Racial Differences in Diet Patterns of Obese Patients with Heart Failure

Lorraine S. Evangelista, PhD, RN, FAAN
Associate Professor, Nursing Science
University of California, Irvine, CA

Marjan Motie, PhD
Project Director, Nursing Science
University of California, Irvine, CA

Purpose: To compare the dietary patterns of obese patients with heart failure (HF), diabetes, and/or metabolic syndrome from different racial groups.

Background: There is growing recognition that nutrition may play a crucial role in the management of patients with heart failure. However, our knowledge regarding racial differences in dietary patterns of overweight and obese patients with heart failure is limited.

Methods: We examined the nutritional patterns (e.g. kilocalories, macro- & micronutrients) of 77 obese patients with HF (mean age 58.1±10.3 years) male [74%], married [65%], Whites [49%], Blacks [13%], Asians [22%], and Hispanics [16%]. Food intake was tracked using a 3-day food record.

Results: Baseline demographic and clinical characteristics (e.g. age, weight, BMI, body composition, waist circumference, and lipid profile) were comparable across all races. Blacks and Hispanics consumed more calories and proteins than their counterparts ($p = 0.039$); likewise, Blacks consumed higher percentages carbohydrates than all other races ($p = 0.048$, respectively). Hispanics consumed higher fats and saturated fats compared to the counterparts ($p = 0.016$ and $p = 0.008$, respectively). Additional differences in micronutrient and mineral intake were noted across the different racial groups (see Table).

Implications: Our findings are limited by the observational nature of the study and the small sample size. Nevertheless, data to support the racial differences in dietary intake in this population are novel and may explain some of the differences in morbidity and mortality reported in obese patients with chronic HF. Future studies with a larger sample size are warranted to explicate the role of race and food consumption, with an emphasis on the role of macro- and micronutrients of diets on overall weight loss, adiposity, and risks for worse clinical outcomes.

	Whites (n = 38)	Blacks (n = 10)	Asians (n = 17)	Hispanics (n = 12)	P value
Calorie intake,(kcal)	1217.4 ± 268.2	1607.8 ± 426.2	1385.2 ± 675.7	1560.4 ± 599.6	0.039
Protein intake, (gm)	68.4 ± 16.2	90.8 ± 20.0	72.4 ± 25.4	78.2 ± 19.2	0.015
CHO intake (gm)	137.9 ± 51.4	200.0 ± 49.9	155.9 ± 85.9	173.4 ± 92.2	0.048
Fat intake (gm)	45.3 ± 13.7	51.5 ± 27.7	41.6 ± 20.9	64.3 ± 26.2	0.016
Saturated fat acids	13.0 ± 4.2	14.6 ± 8.2	12.8 ± 6.6	19.9 ± 8.4	0.008
Phosphorus	985.5 ± 295.0	1395.6 ± 418.9	995.5 ± 354.8	1164.3 ± 392.2	0.007
Vitamin D	5.4 ± 4.1	9.7 ± 6.0	3.8 ± 2.6	5.8 ± 3.2	0.005
Thiamin	1.1 ± 0.4	1.6 ± 0.7	1.1 ± 0.5	1.3 ± 0.4	0.021
Iron	10.9 ± 4.3	22.0 ± 21.8	11.2 ± 5.4	13.8 ± 5.4	0.007
Selenium	100.4 ± 33.3	154.2 ± 81.8	97.6 ± 36.7	130.0 ± 78.0	0.012

Funding: Grant funding received from the Heart, Lung, and Blood Institute (1R01HL093466-01).

WELLBEING AND CHRONIC ILLNESS

Psychosocial Factors Affecting Hypertensive Young African American Men

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

Purpose: The purpose of this quantitative study was to explore and identify correlations between psychosocial factors and their impact on medication adherence and blood pressure outcomes among hypertensive young African American Men receiving treatment.

Background/Conceptual Basis: Uncontrolled hypertension among young African American men leads to premature, hypertension-induced target organ damage. Early-onset hypertension is a major contributor to shortened life expectancy of African American men; however, studies demonstrating correlations between psychosocial variables, medication adherence and blood pressure outcomes are limited. The Public Health Critical Race praxis model requires researcher self reflection in race consciousness to acknowledge the ordinary workings of racism in public health studies. The PRECEDE-PROCEED model provided structure to identify psychosocial predisposing, reinforcing, and enabling factors.

Methods: A convenience sample of 150 hypertensive young African American men aged 22-50 were recruited from a Southern California public health clinic to examine psychosocial factors associated with blood pressure outcomes. All participants were prescribed antihypertensive medications. Measures of predisposing factors were assessed by a psychometrically sound questionnaire assessing demographic data, health-related quality of life, hypertension knowledge, health literacy, and medication adherence self-efficacy. Reinforcing factors were measured as provider communication style and perceived personal discrimination in healthcare. Required health insurance served as a controlled variable and enabling factor. Medication adherence was identified as a mediator variable affecting the average of two systolic and diastolic blood pressure readings as measured by the primary investigator.

Results: Using the two-tailed Pearson r , strong positive correlations were found between medication adherence self-efficacy and medication adherence, ($r = .589, p < 0.01$). Positive correlations were found among *provider communication style* and four variables: medication adherence self-efficacy ($r = .324, p < 0.01$), medication adherence ($r = .241, p < 0.01$), mental health ($r = .235, p < 0.01$), and hypertension knowledge ($r = .216, p < 0.05$). Inverse correlations were found among *personal discrimination in healthcare* and four variables: mental health ($r = -.291, p < 0.01$), medication adherence ($r = -.261, p < 0.01$), medication adherence self-efficacy ($r = -.251, p < 0.01$), and provider communication style ($r = -.204, p < 0.05$). Positive correlations were found between physical health and health literacy ($r = .211, p < 0.05$) and between physical health and mental health ($r = .217, p < 0.05$).

Implications: Awareness of psychosocial factors affecting this population is a critical aspect of health care that deserves our attention in efforts to improve patient self-efficacy and medication adherence, and to reduce uncontrolled hypertension related health disparities. Health care providers who actively practice and demonstrate enhanced communication style and reduce practices that may be perceived as discriminatory to this young, vulnerable, and high-risk population, may reduce hypertension-induced target organ damage.

Funding: Funding is gratefully acknowledged: The UCLA School of Nursing T32 Health Disparities and Vulnerable Populations Research Training Program NIH/NINR T32 NR007077 and the UCLA Institute of American Cultures.

WELLBEING AND CHRONIC ILLNESS

Managing Hypertension: Ethnomedicine Use by Older Slavic Immigrant Women

*Catherine R. Van Son, PhD, RN
National Hartford Centers of Gerontological Nursing Excellence
Claire M. Fagin Fellow/Assistant Professor
College of Nursing
Washington State University
Spokane, WA*

Purpose: To describe the ethnomedicine (the cultural context of health, disease and illness, and the nature of local healing systems including medicinal remedies) used by a group of older immigrant women to manage their hypertension (HTN).

Background: Ethnomedicine remedies used by older immigrants is poorly understood. Often the use of ethnomedicine remedies by older immigrants is governed by the lack of health insurance, transportation, and trust with healthcare providers, cultural and linguistic barriers, as well as low income and educational levels. In ethnic minority communities a disconnect exists between their cultural belief systems and that of the allopathic (western biomedical) community. Older Slavic immigrants from the former Soviet Union (FSU) find compliance to allopathic medicine in the USA difficult. An understanding of the factors influencing the approaches used to manage their high blood pressure such as ethnomedicine is critical if it is to be effectively managed.

Methods: Using a qualitative descriptive approach, 25 Slavic immigrant women over the age of 55 and diagnosed by a physician with hypertension were interviewed. The women were asked to describe the methods used for managing their high blood pressure. Several themes related to decisions were described with regard to prescribed recommendations for hypertension.

Results: This paper presents the theme regarding ethnomedicine remedies used by the participants to manage their HTN. The women were on average 66 years old, had been diagnosed with HTN for an average of 14 years, and averaged 8.5 years of education. All of the participants talked about their distrust of western medicine and the various ethnomedicine remedies they used for managing their hypertension. Herbal remedies discussed included herbs such as rosehips, yarrow, hawthorn, fennel, dill, lemon balm, valerian, Siberian ginseng and horsetail. Dietary remedies were lemon, beets, raspberries, mushrooms and cranberries. On occasion they used pharmaceuticals such as Validol, Enap, and Analgin from the former Soviet Union, and mustard plaster and hot or cold water treatments. Research is limited or non-existent related to the efficacy of these remedies and the management of HTN. Most of them used and preferred their ethnomedicine to allopathic pharmaceuticals as prescribed by their physician. All of the participants stated that they did not share their use of ethnomedicine remedies with their healthcare providers. None of the participants reported that their hypertension was well managed and described an episodic and random approach to hypertension control.

Implications: Older Slavic immigrant women use both ethno and western medicine remedies to manage their HTN. Healthcare providers are unaware of the herbal, dietary and foreign pharmaceuticals being used in combination with or in lieu of the western medications they are prescribing. Healthcare providers should be attentive to ethnomedicine use and provide more information about western medications and the harmful effects of combining remedies without consultation. In addition, research is needed with respect to the efficacy of ethnomedicine remedies used to manage hypertension.

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Abstracts of Podium Presentations

WELLBEING IN MOTHERS AND INFANTS

Moderator:

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

IMPACT OF SKIN TO SKIN CARE ON NICU STRESS

Haifa (Abou) Samra, Jacqueline M. McGrath, Janet Dutcher

EXPERIENCE OF INFANT FEEDING FOR FIRST-TIME MOTHERS: A HERMENEUTIC ANALYSIS

Carrie W. Miller, Roxanne Vandermause

FATIGUE, BABY-CARE ACTIVITY, AND MATERNAL-INFANT ATTACHMENT AFTER CHILDBIRTH

Chieh-Hsiu Hung, Ya-Ling Lai

ASSESSING MATERNAL STRESS DURING INFANT FEEDING

Madalynn Neu, Ashley Haight

RELATIONS AMONG MATERNAL AND INFANT CIRCADIAN RHYTHM AND DEPRESSION

Karen A. Thomas, Robert L. Burr

WELLBEING IN MOTHERS AND INFANTS

Impact of Skin to Skin Care on NICU Stress

Haifa (Abou) Samra, PhD, MSIM, RN-NIC, CNL
Associate Professor
South Dakota State University
Brookings, SD

Jacqueline M. McGrath, PhD, RN,
FNAP, FAAN, Associate Dean, Research
and Scholarship, School of Nursing
University of Connecticut
Storrs, CT

Janet Dutcher, DNP
NICU Manager
Avera McKennan Hospital
Sioux Falls, SD

Purpose: The aim of this study was to examine perceptions of NICU stress in mothers of late-preterm (LPIs: born between 34 and 37); and determine if kangaroo mother care (KMC) is effective in reducing those perceptions.

Rationale: According to the Allostasis theory maternal separation and NICU stress lead to dys-regulation and increased stress reactivity in preterm infants and mothers.

Methods: In this randomized controlled trial, 22 healthy infant/mother dyads were recruited from level III NICU. Subjects were identified prior to delivery and randomized to either the KMC or the holding group at the time they consented and immediately after birth, if eligible and medically stable. A blocked randomization scheme was used to ensure equal numbers in each group. Mothers in the KMC group provided KMC at least three times a week and at least 50 minutes per session throughout NICU stay. Mothers in the holding group followed the same protocol but held the baby wrapped in a blanket. Minutes of KMC or holding were recorded and tracked. The primary outcome was mother's perception of NICU stress measured twice; at baseline and within 24 hours prior to the discharge using the PSS: NICU scale. Mother and infant covariates were extracted from medical records.

Results: At baseline, there were no statistical differences between groups in maternal age, marital status, educational and income level, stress scores gravida, para, number of preterm births infant, apgar scores, gestational age, birth weight or measures of cardiovascular stability (SCRIPT score). There were no differences in, number of hours of holding or KMC per NICU stay, age in hours at which KMC or holding started. Stress scores ranged from 1.47-2.87 (metric 1) and 0.98-2.23 (metric 2) at baseline and from 1.72-2.84 (metric1) and 1.17-2.32 (metric 2) post intervention for the KMC group. Stress scores for the holding group ranged from 1.96-3.93 (metric 1) and 1.26-2.97 (metric 2) at baseline and from 2.09-2.69 (metric 1) and 1.03-2.27 (metric 2) post intervention. Post intervention change in overall stress ($R=0.57$, $p=0.05$) and change in stress of having an infant in the NICU ($R=0.83$, $p=0.0009$) were positively associated with number of KMC hours per NICU stay. The change in stress levels experienced by the mother due to her infant's behavior and appearance ($r=0.86$, $p=0.0008$), parental role alteration ($r=0.84$, $p=0.0009$), and staff behavior and communication ($r=0.69$, $p=0.02$) were positively associated with the number KMC hours mothers provided. Those relationships remained significant after controlling for NICU stay and birth weight.

Implications: Stress scores in mothers of LPIs were comparable to or lower than those published in mothers of infants born between 27 and 32 weeks gestation. The unexpected findings of increased stress in mothers who provided higher number of KMC hours maybe attributed to increased time commitment and to the mother's perception of KMC. Support should be available during KMC. KMC is not a benign intervention and should be tailored to the mothers need and ability. Cost-benefit analysis of KMC, in terms of stress incurred by the mother, should be further evaluated.

WELLBEING IN MOTHERS AND INFANTS

Experience of Infant Feeding for First-Time Mothers: A Hermeneutic Analysis

Carrie W. Miller, PhD, RN, CNE, IBCLC
Seattle University
College of Nursing
Seattle, WA

Roxanne Vandermause, PhD, RN
Washington State University
College of Nursing
Spokane, WA

Purpose: Explore maternal perceptions of infant feeding in contemporary society.

Aim: To explicate and interpret feeding decisions and experiences of first-time mothers before birth, one week after birth, and at six-weeks after birth.

Background: Infant feeding is a unique relationship between a mother and infant that is like no other human relationship in the lifespan. Research suggests women struggle with infant-feeding choices and decide how to feed infants prior to the birth. The phenomenon of infant feeding and maternal choice of feeding methods warrants further investigation and research. A clear understanding of what the experience means of being a first-time mother and preparing for, initiating, and sustaining infant feeding has not been fully addressed in the literature.

Methodology: A Heideggerian hermeneutic philosophical approach guided this research project with a longitudinal approach. The focus was to generate a comprehensive interpretation of first-time mothers' experiences regarding how they prepare for infant feeding before birth and initiate and sustain infant-feeding methods in the first six weeks of an infant's life.

Results: Twelve first-time mothers, recruited from the Northwest region of the United States, each interviewed three times. Participants volunteered to be in the study during their third trimesters of pregnancy and all indicated they were healthy with no known high risk factors. Two patterns emerged from the analysis of transcribed interviews: *Tending to life: Ready to feed*. Subthemes included *call to nourish*, *fearing failure/using formula*, and *making enough milk*. The second pattern *Coming into motherhood: Suffering, loving, and being*, included the following subthemes: *falling in love by learning*, *suffering for my baby*, and *being back in the world: feeding in public*.

Implications: This study illuminated how current views of infant feeding created discourse for women on a personal level. Participants felt persuaded by informational bias, moral overtones and restrictive construction of choice. Contemporary societal demands of infant feeding have created a homogenous pro-breastfeeding discourse. Alternative choices about infant feeding, such as using formula, tend to be interpreted as acts of moral defiance, rather than as a health promoting activity when human milk is unavailable. There has been a shift for women in thinking about formula as potentially harmful and reflective of a mother's inability to provide for her infant. This creates a conflict between mothers and health professionals. Policy change needs to state the functional use of formula as an alternative nutritional supplement when human milk is not available to meet the needs of the infant, without viewing formula as a harmful substance. Mothers need to understand the benefits of human milk, but also when formula use may be necessary without feeling personally ineffective to nourish one's infant.

WELLBEING IN MOTHERS AND INFANTS

Fatigue, Baby-Care Activity, and Maternal-Infant Attachment after Childbirth

Chieh-Hsiu Hung, RN, PhD

Professor

School of Nursing

Kaohsiung Medical University

Taiwan

Ya-Ling Lai, RN, MSN

Instructor

School of Nursing

Tajen University

Taiwan

Purpose: This study was to compare postpartum fatigue, difficulty in baby-care activities, and maternal-infant attachment after different types of delivery in a rooming-in setting.

Background: Regardless of the type of delivery, women admitted to a baby-friendly hospital are asked to stay with their babies 24 h a day and breastfeed on demand shortly after being transferred to a postpartum ward. In the past, most studies have focused on rooming-in care and its benefits, and the influence of rooming-in on postpartum recovery and infant care after different types of delivery have rarely been explored.

Methods: A descriptive cross-sectional study was adopted and structured questionnaires were used for data collection. Data were collected with the socio-demographic scale, Visual Analogue Scale on Postpartum Fatigue, Difficulty in Baby-Care Activities Scale, and Maternal-Infant Attachment Inventory. Participants were invited to participate in the postpartum units of an academic medical center and a regional hospital. Both of the hospitals were accredited baby-friendly hospitals, in southern Taiwan. A total of 120 postpartum women were recruited in this study, of which 60 underwent vaginal delivery and 60 underwent cesarean section.

Results: Women who underwent vaginal delivery scored lower on the postpartum fatigue scale than women who underwent cesarean section, but no statistically significant differences were found between the 2 groups regarding difficulty in baby-care activities and maternal-infant attachment scores. We also found that a higher postpartum fatigue score resulted in greater difficulty in baby-care activities. Higher difficulty in baby-care activities resulted in a weaker maternal-infant attachment.

Conclusions: From these results, it is recommended that the Department of Health, the Taiwan Joint Commission on Hospital Accreditation (responsible for baby-friendly hospital accreditation), and clinical nurses address postpartum fatigue, particularly in women undergoing cesarean section. Postpartum fatigue should be treated as part of immediate postpartum care, and flexible rooming-in should be initiated. By so doing, mothers can get adequate rest and fully recover from surgery after cesarean section before rooming-in in order to improve the health of both mothers and infants.

Keywords: baby care activity, baby-friendly hospital, cesarean section, maternal-infant attachment, postpartum-fatigue, and vaginal delivery

WELLBEING IN MOTHERS AND INFANTS

Assessing Maternal Stress during Infant Feeding

*Madalynn Neu, PhD, RN
Assistant Professor
College of Nursing
University of Colorado
Aurora, CO*

*Ashley Haight, BS
Physical Therapy Program
University of Colorado
Aurora, CO*

Purpose: The aim of this study was to test the feasibility of using salivary cortisol and salivary amylase as indicators of maternal stress during feeding of young infants.

Background: Infant feeding problems may begin in the first weeks after birth and may be associated with maternal stress during the feeding. Maternal stress may lead to infant feeding problems or follow infant fussiness, choking, or spitting. Feeding problems during the first six months of life have been found to persist into early childhood. Questions to be answered before conducting a large scale longitudinal investigation of the mother-infant relationship and stress during feedings were: 1) do mothers object to saliva collection during feedings during the first two weeks after birth, and 2) do maternal levels of cortisol and amylase show a different pattern of response during the feeding?

Methods: In this descriptive study, saliva was collected from 24 mothers aged 21 through 40 years of age. Fourteen (58%) mothers were Caucasian, 4 (17%) were African American, and 6 (25%) were Hispanic. Infants were born at term without complications, and were 7 to 18 days of age when the feeding observation was done. For saliva collection, mothers sucked on a dental swab immediately before the feeding, 10 minutes after the feeding began, at the end of the feeding, and 20 minutes after the feeding ended. Mothers were asked after the last saliva collection whether collection was disruptive to the feeding and if they felt that collection was stressful.

Salivary cortisol and amylase were used as indicators of maternal stress as one may capture stress during feeding better than the other, and/or they were expected to have a different pattern of response. Salivary cortisol correlates highly with plasma cortisol, reflects unbound cortisol in the body, and is a valid indicator of HPA system function. Levels of salivary cortisol peak approximately 20 minutes after a stressful event. Salivary amylase is an enzyme secreted in saliva that increases in response to activation of the autonomic nervous system, and has been found to be a sensitive indicator of psychological stress. Levels of salivary amylase peak approximately 10 minutes after a stressful event.

Results: Duration of feedings were 10 to 25 minutes ($M=21$; $SD=5$). All mothers stated that the saliva collection was not disruptive to the feeding and denied feeling stressed by the collection. Repeated measures analysis showed that salivary cortisol decreased from baseline through 20 minutes after the feeding and the difference between each time point was significant. Salivary amylase levels were variable among mothers and time points.

Implications: Findings suggest that using both salivary cortisol and amylase may provide a more comprehensive assessment of maternal stress during a feeding than either one alone. Salivary cortisol levels showed a more overall emotional tone of mothers while salivary amylase may have been more associated with specific behaviors of mothers and infants. Future research will correlate behaviors of mothers and infants during feedings with salivary cortisol and amylase levels.

Funding: Intramural grant from University of Colorado College of Nursing.

WELLBEING IN MOTHERS AND INFANTS

Relations among Maternal and Infant Circadian Rhythm and Depression

*Karen A. Thomas, PhD
Professor, Department of
Family & Child Nursing
University of Washington
Seattle, WA*

*Robert L. Burr, PhD
Research Professor, Department of
Biobehavioral Nursing & Health Systems
University of Washington
Seattle, WA*

Purpose: The purpose of this study was to explore mother and infant circadian rhythm longitudinally following infant birth. Aims included: describing and relating circadian rhythm of infant and maternal activity and examining the relations among infant and maternal circadian rhythm timing, maternal ME, and depression.

Background: Infants' immature circadian rhythm and sleep-wake pattern fragment maternal sleep and infant awake periods may overlap with maternal rhythm-dependent preferred sleep period. Morningness-eveningness (ME) is a key factor governing vulnerability to sleep disruption and sleep is strongly associated with depressive symptoms. There is minimal research demonstrating maturation of infant circadian rhythm, the influence of infant rhythm on maternal rhythm, and the role of ME characteristics in maternal depression.

Methods: Forty-three health mother-infant dyads were studied in the home over a three day period with infant and maternal activity recorded by actigraphy (Actiwatch-S, Respironics, Bend, OR) and by diary. Data collection occurred at three times of measure (TOM): infant age 4, 8, and 12 weeks. Maternal depression was measured using the PROMIS short form depression scale and diurnal preference was assessed using the Horne-Östberg Morningness-Eveningness Scale. Circadian parameters (acrophase, mesor, amplitude, R^2) of mother and infant activity were calculated using 24-hour cosinor analysis. Tests of difference included ANOVA and t-test. The relation among variables were examined using Pearson correlation.

Results: The strength (amplitude) of both maternal ($p = 0.021$) and infant ($p < 0.001$) activity rhythm (amplitude) increased significantly between 4 and 12 weeks. The correlation between mother and infant amplitude increased over time (TOM1 $r = 0.297$, $p = 0.049$; TOM3 $r = 0.385$, $p = 0.011$). Maternal acrophase or timing of peak activity was generally consistent across all TOMs (TOM1 mean 15:19 (SD 1:13) vs. TOM3 15:04 (SD 1:42)), however infants demonstrated a phase shift with TOM3 acrophase occurring an average of 53 minutes earlier than TOM1 (15:29 (SD 2:14) vs. 14:36 (1:30), $p = 0.030$). The correlation between maternal and infant acrophase increased over time (TOM1 $r = 0.331$, $p = 0.028$; TOM3 $r = 0.597$, $p < 0.001$). At TOM1 correlation between maternal raw ME score and acrophase was modest ($r = 0.282$, $p = 0.063$) but by TOM3 increased substantially ($r = 0.604$; $p < 0.001$), likely reflecting initial postpartum circadian rhythm disruption and re-establishing intrinsic chronotype. Although as a group the correlation between maternal ME score and infant acrophase increased over the three TOMs, the acrophases of evening type mothers were an average of 77 minutes later (phase delayed) than their infants while morning type mother acrophases were 20 minutes earlier (phase advanced) than their infants. Mothers with morning ME tendencies reported decreasing depression over TOMs compared with those with evening tendencies ($p = 0.008$).

Implications: Findings depict increasing strength of infant circadian rhythm along with phase advancement and maternal re-establishment of rhythm. Although increasing synchrony between maternal and infant rhythm was detected, findings suggest that infant phase advancement may be challenging for mothers with evening tendencies and that the pattern of depressive symptoms is associated with ME.

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Abstracts of Podium Presentations

WELLNESS IN ANTE- AND POST-PARTUM WOMEN

Moderator:

*Lida J. Dekker, MN, RN, PCHCNS-BC
EdD Candidate, Instructor
College of Nursing
Washington State University
Vancouver, WA*

EFFECTS OF ALTITUDE ON CHARACTERISTICS OF SLEEP IN LATE PREGNANCY

Gayle Kipnis, Kathryn Lee, Mary Barger, Cynthia Beckett

DEMOGRAPHIC CHARACTERISTICS OF PRE-PREGNANCY OBESITY

Elizabeth Restrepo, Fuqin Liu

VITAMIN D SUPPLEMENTATION DURING PREGNANCY AND LACTATION: A PILOT RCT

Doria K. Thiele, Jody Ralph, Maher El-Masri, Cindy M. Anderson

PREGNANCY DECISION-MAKING AMONG WOMEN WITH A RECENT MEDICAID-FUNDED BIRTH

Dana L. Zaichkin

MOTHERS AT RISK: FACTORS AFFECTING POSTPARTUM STAY

Lucy R. Van Otterloo, Cynthia D. Connelly

WELLNESS IN ANTE- AND POST-PARTUM WOMEN

Effects of Altitude on Characteristics of Sleep in Late Pregnancy

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
San Francisco, CA

Mary Barger, PhD
Associate Professor
School of Nursing
University of San Diego
San Diego, 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 the effects of moderate altitude on sleep characteristics during the last month of pregnancy and to compare them to a similar sample at sea level. Prior to this study, sleep parameters during late pregnancy had only been studied at sea level or low altitudes. An extensive literature review revealed that higher altitudes can elicit physiologic challenges to adult sleep which may impact the sleep of pregnant women. It was hypothesized that sleep at moderate altitude during late pregnancy may have diminished quality and quantity when compared to a similar sample at sea level. 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.

This prospective, descriptive study compared convenience samples of nulliparous women who had completed 35 gestational weeks of pregnancy from Flagstaff, Arizona (elevation 6910 ft.) (n=50) and San Francisco (elevation 52 ft.) (n=131). IRB and CHR approvals were obtained and all participants signed informed consent. Sleep booklets were completed during the last five weeks of pregnancy. The Pittsburgh Sleep Quality Index (PSQI) and a three-day sleep diary were utilized to measure components of sleep quality and quantity. Analyses included independent samples t-tests for comparison of groups and ANCOVA to control for education. A p value of $< .05$ was considered statistically significant with SPSS software program version 18 for Windows utilized for analyses. After controlling for education, the PSQI sleep disturbance score was the only sleep parameter that differed between sea level and altitude participants. ($F [1,173] = 5.28, p = .023, \text{partial } \eta^2 = .030$). Approximately 3% of the total variance in the PSQI sleep disturbance scores was explained by the difference in altitude between the groups. However, poor sleep quality and severe sleep disturbance was observed for women at both elevations as evidenced by mean PSQI score of 6.94 for sea level and 7.64 for the moderate altitude cohort with >5 indicating poor sleep quality.

The implications of this research includes the need for enhanced education of pregnant women to encourage the practice of 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 to include objective measures of sleep characteristics.

WELLNESS IN ANTE- AND POST-PARTUM WOMEN

Demographic Characteristics of Pre-Pregnancy Obesity

Elizabeth Restrepo, PhD, RN
Associate Professor
Texas Woman's University
Denton, TX

Fuqin Liu, PhD, RN
Assistant Professor
Texas Woman's University
Denton, TX

Purpose: To examine pre-pregnancy obesity prevalence over a five-year period in Texas, and to examine demographic characteristics associated with pre-pregnancy obesity.

Background: Pre-pregnancy obesity increased significantly over the last two decades. The increase is seen more dramatically in certain subgroups of the population. Previous research revealed that pre-pregnancy obesity adversely impacts both maternal and neonatal outcomes. To better inform healthcare providers and policy makers in addressing the issue of pre-pregnancy obesity and to design appropriate pre-pregnancy obesity interventions, information is needed on characteristics of this high-risk population.

Methods: This is a retrospective cohort design. Study data were derived from merged Texas birth and infant death certificate data. The population represents women giving birth 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 maternal population as underweight, normal weight, overweight, obese, and super obese. We then specifically evaluated the prevalence of the obese and super obese as measures of pre-pregnancy obesity. We also categorized the weight groups by ethnicity and identified the top two subgroups that have the highest rates of pre-pregnancy obesity. We conducted statistical analyses using SPSS (version 19), using descriptive statistics to examine both pre-pregnancy obesity and certain demographic variables for selected subgroups.

Results: The largest ethnic group in our population was the Hispanic group, representing 50.4% of the maternal population, which was greater than the percentage of Caucasians (34.2%) and African Americans (11.2%) combined. Analyses revealed an increase in prevalence of obesity and super obesity in the Hispanic group from 2005 (19.3% obese; 0.3% super obese) to 2009 (21.4% obese; 0.4% super obese). The subgroups of women with the highest prevalence of pre-pregnancy obesity in the years 2005 through 2009 were the African American (26.7%) and Hispanic (21.8%) groups. Further analyses demonstrated that obese and super obese African Americans and Hispanics were more likely to be adults (20 years of age or greater), married at time of birth, living in rural Texas counties, having a high school education or greater, on Medicaid, and enrolled in the Women, Infants, and Children (WIC) program.

Implications: Pre-pregnancy obesity is an immense health burden. Over the five-year study period, pre-pregnancy obesity increased significantly in the state of Texas. Increase in obesity prevalence was most evident in African American and Hispanic women giving birth during that time frame. This study revealed certain noteworthy demographic characteristics that exist among obese and super obese African American and Hispanic women. There is an urgent need to design health promotion programs to target these high risk groups prior to pregnancy to effect change that may improve outcomes for both mother and neonate.

WELLNESS IN ANTE- AND POST-PARTUM WOMEN

Vitamin D Supplementation during Pregnancy and Lactation: A Pilot RCT

*Doria K. Thiele, PhD, CNM, IBCLC
Instructor, School of Nursing
Oregon Health & Science University
Monmouth, OR*

*Jody Ralph, PhD
Assistant Professor, College of Nursing
University of North Dakota
Grand Forks, ND*

*Maher El-Masri, PhD
Professor and Research Leadership Chair
University of Windsor
Windsor, ON
Canada*

*Cindy M. Anderson, PhD, WHNP-BC,
FAAN, Associate Dean
College of Nursing
The Ohio State University
Columbus, OH*

Purpose: To investigate the impact of continuous prenatal to early postnatal maternal vitamin D supplementation on the vitamin D status of women and their infants.

Background: Epidemiologic data reveals that approximately 50% of pregnant and breastfeeding women have insufficient vitamin D serum levels, with variation across the country related to climate and skin color. Deficiency of vitamin D has been correlated with gestational diabetes and preeclampsia in pregnant women, and with atopic disease and bone disorders in their offspring. Controversies regarding accepted serum vitamin D levels needed to prevent disease remain, however prominent researchers in the field consistently use ≥ 80 nmol/L as a definition of sufficiency. Determining the impact of continuous maternal prenatal to postnatal vitamin D supplementation on the vitamin D serum status of women and their infants adds novel understanding to this field and will inform clinical practice and policy regarding changes in vitamin D supplementation recommendations during pregnancy and lactation.

Methods: Using a double-blind, randomized controlled trial design, a total of 16 pregnant women at 24-28 weeks gestation were enrolled. The control group (N= 8) received a prenatal vitamin containing 400 IU vitamin D daily, plus a placebo capsule. The experimental group (N=8) received the same prenatal vitamin with an additional capsule containing 3400 IU vitamin D, for a total of 3800 IU daily. Participants continued their assigned supplements through 4-6 weeks postpartum. 25-hydroxyvitamin D (25[OH]D) serum levels were measured in maternal participants at entry to the study and in both maternal and infant participants at delivery and at 4-6 weeks postpartum.

Results: All participants in the study self-identified as white race and reported daily prenatal vitamin intake. Mean gestational age at time of blood draw was 28 weeks 2 days \pm 1 week. The mean 25[OH]D serum level was 82.05 ± 12.7 nmol/L. Of the 16 participants, 7 had sufficient 25[OH]D levels (44%), while 9 had serum 25[OH]D levels that did not meet the level of sufficiency (56%). There was a significant impact of maternal vitamin D supplementation on maternal 25[OH]D at delivery (59.5 ± 7.35 vs. 82.6 ± 6.8 nmol/L, $p=0.044$) and at 4-6 weeks postpartum (54.8 ± 6 vs. 90 ± 5.8 nmol/L, $p=0.002$). A significant difference in the infant participant groups at delivery was also found (58.5 ± 6 vs. 81.4 ± 5.4 , $p=0.017$), however this was not significant at 4-6 weeks postpartum (42.5 ± 12 vs. 62.2 ± 11 nmol/L, $p=0.256$).

Implication: Despite consistent prenatal vitamin use and summer sun availability, a majority of these pregnant participants entered the study with insufficient vitamin D serum levels. Supplementation of pregnant women with 3800 IU vitamin D daily for an average of 12 weeks significantly improved the vitamin D status of the participants and their infants by delivery. Nurses should be aware of the health impacts of maternal vitamin D deficiency across generations, as well as work to change supplementation recommendations to meet the biologic needs of women and infants.

Funding: Robert Wood Johnson Foundation Nurse Faculty Scholar Award (Anderson, 64202), Association of Women's Health, Obstetric and Neonatal Nurses Novice Researcher Award (Thiele).

WELLNESS IN ANTE- AND POST-PARTUM WOMEN

Pregnancy Decision-Making among Women with a Recent Medicaid-Funded Birth

Dana L. Zaichkin, MHA, PhD, RN
Clinical Assistant Professor
Pacific Lutheran University, School of Nursing
Tacoma, WA

Unintended pregnancy has been associated with a host of unfavorable health, social, achievement, and economic outcomes. Rates of unintended pregnancy have remained relatively unchanged for over three decades which continues to elude researchers, clinicians, and policymakers. Unintended pregnancy and its outcomes disproportionately impact women of socioeconomic disadvantage and racial minorities. Increasingly, researchers have recognized pregnancy intention as a nuanced, multidimensional phenomenon, with limited sensitivity to conventional measurement strategies, plus ambivalence toward childbearing and contraception holding key roles in unintended pregnancy.

The purpose of this study was to expand the knowledge and understanding of factors and forces that influence sexually active women in their pregnancy decision-making, including the initiation and use of contraception. This study analyzed previously collected data from the 2007 *TAKE CHARGE Final Evaluation*, conducted by Washington DSHS. There were 1,292 women in the total sample, with qualitative subsamples of 593 and 258. All women had a Medicaid-funded birth in spring 2005 and were surveyed two years later, with over 2400 volunteered comments.

This descriptive study maintained a naturalistic viewing position, employing a concurrent nested mixed-methods design with qualitative priority and integration during analysis. Unique to this study was the transformation of forced-choice survey responses into qualitative statements, plus integration with volunteered participant comments and birth history data to create participant narratives amenable to a process of pattern-coding.

Analysis uncovered four themes and 17 subthemes which were integrated with existing literature to form two thematic messages. The first message asserts that participants were *like everybody else, but living on the edge*. Defying stereotypes, women represented characteristics, goals, values, and childbearing desires that could characterize the general population of Washington women, with economic security as the significant exception. The second message is that *ambivalence is prevalent, multifaceted, and perhaps self-protective*. Ambivalence toward pregnancy and childbearing was multidimensional and arose in various contexts, had a significant association with subsequent birth, and may offer a protective mechanism for responding to many conflicting attitudes, norms, and beliefs that surround pregnancy. For many women, it may not be possible to form or express intentions even when pregnancy is considered desirable and ambivalence may be a mechanism for moderating decisional conflict.

Health and social services providers must remain alert to their personal/professional orientations, biases, and potentially stigmatizing behaviors. Screening strategies that elicit the values, interests, and life situations may assist with goal alignment, improved trust, and mutual plans that could prevent unwanted pregnancy and yield other improved health outcomes. Current public policies that afford insurance access for pregnancy, children and family planning fulfill a critical need, which may be enhanced by the Affordable Care Act.

The unique approach to analyzing survey data employed in this study may be applied to other large fertility studies, particularly when integration of volunteered comments is possible. This study advances the ongoing critique of retrospective pregnancy intention measurement and reinforces the need for prospective and longitudinal fertility research, plus additional qualitative and integrated methods study.

WELLNESS IN ANTE- AND POST-PARTUM WOMEN

Mothers at Risk: Factors Affecting Postpartum Stay

Lucy R. Van Otterloo, PhD, RN, CNS

Assistant Professor

School of Nursing

California State University, Long Beach

Long Beach, CA

Cynthia D. Connelly, PhD, RN, FAAN

Director of Nursing Research &

Professor

Hahn School of Nursing

University of San Diego

San Diego, CA

Purpose/Aim: Within the health research and policy priority of maternal health, knowledge of factors that affect the women's postpartum length of stay is needed. Identifying maternal risk factors may help decrease the length of hospital stay, reduce costs, and improve efficiency of obstetrical units. The purpose of this study was to identify what risk factors identifiable during the perinatal period have the greatest odds for increasing the woman's postpartum length of stay (ELOS).

Background: Recent data show maternal morbidity due to complications in the perinatal period are prevalent and result in longer postpartum stays and increased health care costs. Complications are often preventable when appropriate resources and prompt treatment are available; successful management of these complications is dependent on early identification. Factors derived from the empirical literature were incorporated into two basic groups: Fixed (age, race, parity, previous pregnancy/medical history) and Modifiable (stress, obesity, peripartum care, present medical conditions). These factors and their potential adverse effects led to the development of the conceptual framework.

Methods: Data for these analyses came from all women in California delivering infants between January 2008 through December 2009. Using probabilistic linkage techniques that allow for the identification of records most likely to be matches, maternal delivery data from the Office of Statewide Health Planning and Development (OSHPD) were linked to the birth statistical master files of the Office of Vital Statistics (OVS). OSHPD data included delivery mode, diagnoses, procedures, type of discharge, payment, length of stay, hospital type, and demographics. OVS included education, race/ethnicity, mother's birth date, parity, initiation of prenatal care, co-morbidities, birth weight, and gestational age at delivery. The linkage between OSHPD and OVS databases has been found to be 97-100% accurate. Final N for the study was 1,021,441 linked records. Statistical tests included bivariate analysis and multiple logistic regressions which allowed examination of the associations between risk factors and ELOS while controlling for confounding factors.

Results: Women with ELOS (n = 9,724) were more likely to deliver by cesarean (20.36/1000 births versus 4.23/1000 vaginal births), be <18 or >35 years, Black or Pacific Islander, nulliparous, of low income, have no prenatal care, or have obstetric conditions: multiple gestation, placenta previa/abruption, low-birth weight or preterm infant compared to normal LOS women. 17% had one comorbidity/complication. Chronic hypertension was associated with ELOS for both vaginal (OR 5.9; CI: 4.4-7.9) and caesarean births (OR 3.6; CI: 3.1-4.2). Puerperal infections (OR 6.9; CI: 5.7-8.2), eclampsia (OR 17.1; CI: 13.8-21.6), and transfusion (OR 11.7; CI: 9.2-17.8) conferred the highest odds for ELOS for vaginal deliveries.

Implications: Various common risk factors contribute to the occurrence of complications during the perinatal period, increasing LOS and cost. To mitigate risks, agency specific guidelines for systematic identification to ensure the availability of appropriate resources required to provide patient centered risk appropriate care are needed.

Abstracts of Poster Presentations

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Carrie Miller, Benjamin J. Miller, Anne Hirsch, Toni Vezeau

ADVANCING NURSING EDUCATION IN THE WEST

Aligning Student and Institutional Learning Outcomes? There's an App for That!

*Nancy Haugen, PhD, RN
Associate Professor, Chair, ABSN Program
Samuel Merritt University School of Nursing
Oakland, CA*

*Margaret Rivero Early, PhD, RN
Associate Professor
Samuel Merritt University School of Nursing
Oakland, CA*

Purpose and Aims: Development and utilization of an innovative, engaging, web-based curriculum mapping application to clearly align course, program and institution learning outcomes in program curricula.

Rationale: While preparing for multiple accreditation visits, it became apparent that there were gaps and inconsistencies in the alignment of course, program and institution learning outcomes with the BSN and ABSN curricula. We needed a tool to make this process efficient and effective while provide easy visualization for program comparisons and gap analysis.

Brief Description: An organic process developed as faculty meetings were held to map the curriculum to the course learning objectives (CLOs) the program learning objectives (PLOs), and the institutional learning objectives (ILOs). The first blush attempted demonstrated how faculty participants believed the CLOs aligned with the PLOs and ILOs. These data were entered into the Curriculum Management Initiative (CMI) program to identify distribution and alignment of the objectives between the BSN and ABSN programs.

Outcomes: Gap analysis demonstrated inconsistencies in alignment of outcomes between BSN and ABSN programs. It showed that we need to give the faculty more guidelines in developing alinment.

Conclusion: The CMI proved to be useful for identifying inconsistencies in curricula between programs, and revealed areas to strengthen curricular cohesion. Additionally, the alignment gave faculty data to use in revising student assignments reflective of mastery of the learning objectives.

Recommendations: This program allows for alignment of multiple accreditation and professional standards with student and institutional learning outcomes. Future research would be aimed at methods to streamline and enhance the application in both academic and clinical settings.

ADVANCING NURSING EDUCATION IN THE WEST

Impact of Course Scheduling on Nursing Faculty Reported Job Satisfaction

*Nancy Haugen, PhD, RN
Associate Professor and ABSN Program Chair
School of Nursing
Samuel Merritt University
Oakland, CA*

*Dawn Pope, MSN, RN
Assistant Director
Accelerated Nursing Option
College of Nursing
University of Wisconsin, Oshkosh
Oshkosh, WI*

*Jaya Jambunathan, PhD, RN
Professor and Director
Research and Evaluation
College of Nursing
University of Wisconsin, Oshkosh
Oshkosh, WI*

Purposes/Aims: The purpose of this study was to determine if there is a difference in the level of nurse educator self-reported satisfaction, professional productivity and work life-balance among faculty teaching in second degree, accelerated BSN programs that employ block scheduling versus those utilizing traditional course scheduling.

Rationale/Conceptual Basis/Background: Nursing faculty satisfaction is critical to recruit and retain well qualified faculty to educate the future nursing workforce. Nursing research has focused on the role of leadership, professional autonomy, organizational climate, and organizational behavior and role conflict; however, there is a paucity of research focusing on course scheduling in relation to faculty satisfaction.

Methods: A modified Robert Wood Johnson Survey of Nurse Educators was sent to faculty teaching in four accelerated BSN programs. Faculty members were sent a request by their Dean or Chair to complete the survey. Data were analyzed using a t-Test.

Results: Of the 139 respondents, who reported working in an accelerated BSN program, 93 reported using traditional course scheduling and 46 reported teaching using block scheduling. Demographically there were few significant differences between the two groups. The primary difference was that only 67.4% of the block scheduled faculty were full-time nurse educators compared to the 83.9% of faculty who were non-block scheduled ($p < .05$). Additionally, there were fewer instructors (32.3% versus 37.0%) and more assistant professors (47.3 vs. 30.4%) in the non-block scheduled than the block scheduled group ($p < 0.10$). Nurse educators who reported teaching in a block scheduling format reported statistically significant lower satisfaction with the climate for minority faculty ($p < .05$), job security ($p < .05$), relationships with nursing colleagues ($p < .10$) and relationships with faculty colleagues outside of the school/college of nursing ($p < .01$) than the non-block scheduled faculty did.

Implications: With the advent of accelerated, second degree programs and the proliferation of online and hybrid programs, the impact of course scheduling on faculty satisfaction cannot be overlooked.

Funding: This study was funded by the Robert Wood Johnson Foundation Program – Evaluating Innovations in Nursing. Grant ID #: 67055.

ADVANCING NURSING EDUCATION IN THE WEST

Academia and Service Partnership to Ignite the Flames of Research for Bedside Nurses

*Ruth A. Mulnard, DNSc, RN, FAAN
Program in Nursing Science
University of California, Irvine
Irvine, CA
ramulnar@uci.edu*

*Charlene Miranda-Wood, MSN, RN
Manager, Department of Quality,
Education and Research
UC Irvine Health
Orange, CA*

*Donna Grochow, MSN, RN
Director, Department of Quality,
Education & Research
UC Irvine Health
Orange, CA*

Purposes/Aims: This project shares a model of ideal collaboration between academic and service-based nursing scholars/practitioners to achieve a robust program of research in a university hospital coupled with ideal clinical teaching of undergraduate nursing students.

Rationale/Background: Too often missions are viewed as competitive between academic nursing and service-based nursing environments. Academic nursing for undergraduate nursing education emphasizes the implementation of a robust didactic learning environment that is aligned with appropriate clinical training opportunities to achieve the best preparation of students to succeed at novice practitioners. Service-based nursing concentrates on development of the novice and the experienced practitioner of nursing to achieve the highest possible level of patient care outcomes. In our model, a focus on research provided a means to bridge the gap and alignment between these seemingly disparate missions.

Undertaking/Best Practice/Approach/Methods/Process: As entities of the same university structure, meetings were held between the academic and service nursing groups, to begin the dialogue of identifying shared values and areas of coherence for future collaborations. To that end, a formal MOU was created that articulates the agreed-upon arrangement. Academic nursing provides research consulting expertise for the shared governance Research Council as well as support for the Nursing Research Fellowship that competitively enrolls highly motivated staff nurses who want to engage in active clinical research conduct. Service-based nursing provides clinical educators and clinical nurse specialists who serve to assist with didactic course delivery while also providing major support for the instructional component of clinical courses by overseeing student nurses in 12-hour shift specialty-based environments.

Outcomes Achieved/Documented: Outcomes have been positive through this effort achieving a win-win assessment of the collaborative model. Both entities were recently able to achieve reaccreditations for Magnet designation and CCNE respectively.

Conclusions: Through a creative, open partnership between academic nursing and practice nursing in the same university infrastructure, improved outcomes were achieved by both entities. Provision of research support and services was the key to the success of this joint effort.

ADVANCING NURSING EDUCATION IN THE WEST

An Undergraduate Honors Track: Why Do Students Apply?

Angie Docherty, NursD, MPH, RN
Assistant Professor
School of Nursing
Oregon Health & Science University
Monmouth, OR

Doria Thiele, PhD, CNM
Instructor
School of Nursing
Oregon Health & Science University
Monmouth, OR

Stella Heryford, MSN, RN
Instructor
School of Nursing
Oregon Health & Science University
Monmouth, OR

Purposes/Aims: This two-stage study aimed to review the introduction of an undergraduate honors research track within an established baccalaureate nursing program. Stage two will review student engagement and participation within the honors track; stage one has sought to answer what underpins a student's decision to apply.

Background and Rationale: Existing literature demonstrates positive outcomes in honors education including the development of creative thinking and the propensity to continue towards advanced education and nursing leadership. However, in the current climate of financial constraint on schools and students, the additional cost burden may present challenges. Concerns have also been raised about the workload on students who extend their education load whilst completing their undergraduate nursing curriculum. Therefore, as part of the introduction of a new, competitive entry, honors education pilot, it was important to explore the decision making that underpinned the application process.

Methods: The study used a prospective, mixed methods (QUAL+ quan) design. A quantitative survey sought data from the 20 students eligible to apply for the honors pilot. The core qualitative component, using case study methodology and analysis from semi-structured interviews, gathered data from the 6 participating students. The case study rationale was based on facilitating an in-depth, contextual investigation, using a nested sample from the supplementary survey cohort. The study was completed at one campus in Oregon and was subject to IRB review.

Results: 13 students (65%) completed the survey: 7 applicants and 6 non-applicants. A difference in means test demonstrated no significant difference between these groups in terms of previous education, dependents, gender, and age. Among non-applicants, 3 cited cost as being the main deterring factor and 3 cited the inability to make time commitments as the deterring factor. Applicants were more likely to state that they intended to continue their education beyond their current level but significance could not be confirmed due to the low sample size. The qualitative data supported the quantitative findings: 5 cases described a process of 'cost-benefit analysis' prior to applying and there was replication across each case in three key themes: a desire to learn more about the research process; a desire to be more 'marketable' in terms of future career; and a desire to proceed to advanced nursing education.

Implications: Whilst of small scale, the findings suggest that prospective honors students will weigh up the pros and cons of application before embarking on additional study. Importantly, the results suggest that the predicted value is largely based on a perceived advantage in terms of future career and educational goals. If universities wish to develop a resource enhancing honors track, then advocating the importance of ongoing professional and educational development may be an important strategy.

ADVANCING NURSING EDUCATION IN THE WEST

Crafting a Relevant Continuing Education Needs Assessment Tool for Lebanese Nurses

Nuhad Yazbik Dumit, RN, MA, PhD
Assistant Professor
School of Nursing
American University of Beirut
Beirut, Lebanon

The purpose of this paper is to present the process of designing a culturally-fitting continuing education needs assessment tool for nurses in Lebanon.

Continuing nursing education (CNE) offerings are essential for maintaining quality and safe care. CNE programs are mainly determined by the provider rather than the learner especially in countries where no formal learning needs assessment has ever been done and no other means of obtaining feedback about nurses learning needs has been solicited.

Method: the Morrel-Samuels' guidelines were used as basis to devise the tool in addition to the authors personal experience in constructing and testing questionnaires. Morrel-Samuels' proposed considering five areas when designing surveys: 1) content; 2) format; 3) language; 4) measurement; and 5) administration. The author added three more considerations: organization; cognitive and pilot testing; and determining the undetermined.

The process of developing the instrument started with determining the content based on the purpose of the questionnaire (exploring perceived learning needs of Lebanese registered nurses [RN] and the target population (Lebanese RN). One part of the tool included 10 sociodemographic and work-related questions. A second and major part included 40 statements addressing gaps in knowledge and skills related to RNs job responsibilities and competencies. However, in the absence of Lebanese scope and standards of practice, it was hard to determine those questions so we had to depend on the authors experience in the national qualifying practical examinations and a former research where nurses from remote and underserved areas described their usual working day. The third component included 7 questions addressing preferred teaching methods, time, place, format, day of the week, language and the like. The fourth part incorporated five open-ended questions addressing barriers to CNE and indicating specific learning needs.

Format addressed characters of the statements: short, clear, and each addressing one issue, skill, or behavior at a time. The questionnaire was firstly written in English, then translated to Lebanese Arabic, and back translated to English by a person fluent in both languages and blind to the first English version.

Statements addressing skills are rated on a scale based partially on Benner's novice to expert model; ranging from never performed/need training to performed competently/no need for training. The plan for administering the survey using self-filled questionnaires and accompanying cover letters is done with the support of the Order of Nurses in Lebanon through nursing departments of healthcare organizations in the country.

Organization of the questionnaire related to grouping or not of the questions under titles, placement of the different parts, and the like is decided based on the cognitive interviewing with a sample of 10 RNs representing the Lebanese population of nurses; this served as pilot testing the tool as well. Lastly, determining the undetermined is addressed by soliciting feedback from nurse managers as key informants.

We are aware that this is a never-ending and challenging undertaking even in countries where CNE is well established. We will not know for sure if this tool served its purpose until we run the survey.

ADVANCING NURSING EDUCATION IN THE WEST

Creating Online Modules to Bridge the Gap for Clinical Faculty Development

*Barbara Braband, PhD, RN
Assistant Professor
School of Nursing
University of Portland
Portland, OR*

*Carol Craig, PhD, FNP, RN
Professor
School of Nursing
University of Portland
Portland, OR*

*Loretta Krautscheid, PhD, RN
Assistant Professor
School of Nursing
University of Portland
Portland, OR*

The purpose of this project was to develop on-line training modules for clinical instructors who are either new to our University or new to community health nursing. The presentation provides an explanation of how the module content was chosen, how the modules were developed, how modules were placed online for instructors and how module learning was evaluated. The presentation will also present an evaluation protocol for the project.

Adjunct clinical instructors frequently are new to education. Instructors are often approached by the university because they are excellent clinicians and/or because they are good preceptors. Those same instructors can be bewildered when faced with grading student papers, managing problematic student behavior, finding ways to motivate students and understanding “academese” in order to evaluate and promote course and university outcomes. In addition, instructors are often working either full or part time in practice and don’t have the luxury of taking time out to travel to the university for continuing education or meetings.

One way to manage this problem is to develop online modules that can be accessed by clinical instructors whenever it is convenient. The first step was to meet with the university instructional designer to see what would be possible for a web-based module. Once we decided on a modality, we looked at what content was most needed by new clinical instructors. We decided that having our clinical instructors understand the basics of community health or population based nursing, how to evaluate student assignments in the community health course, how to use the clinical evaluation tool to promote student progress in the course, and general best practices for clinical teaching would all be appropriate for the website. Once the content was chosen, we developed appropriate objectives and an evaluation method for each module. The instructional designer helped us to create web-based modules that could be accessed through a secure site. Evaluation of this project was done by a pilot study of clinical instructors who were asked about their achievement of our module objectives during the fall semester, prior to a spring semester launch. Instructors evaluated the effectiveness of the web-based modality.

This project has many potential uses within the school of nursing. We are already planning to expand the number and type of modules to include many different courses and teaching practices. Any school of nursing that is challenged to help adjunct clinical instructors maintain high teaching standards could use this method, as it was both inexpensive and effective.

Funding: The project was funded through the Firstenberg Family Foundation.

ADVANCING NURSING EDUCATION IN THE WEST

Development of a Mindfulness-Based Intervention for Graduate Nursing Students

*Lois C. Howland, DrPH, MSN, RN, Associate Professor
Susan Instone, PhD, RN, Professor*

*Susie Hutchins, DNP, RN, Clinical Associate Professor
Cheryl Butera, MSN, RN, Clinical Assistant Professor*

Michael Terry, DNP, RN, Clinical Associate Professor

Nadine Kassity-Krich, MBA, BSN, RN, Clinical Assistant Professor

*Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA*

Purpose: To describe the process of developing and feasibility of delivering a customized mindfulness-based intervention (MBI) targeting mental distress, self-compassion, and mindfulness/awareness/attention among entering graduate nursing students.

Background: Nursing students are at risk for high levels of stress related to heavy academic demands and the challenge of mastering complex psychomotor clinical skills (Hutchinson & Goodin, 2013). Pre-licensure nursing students in accelerated, graduate programs are at risk for even higher levels of stress, given the required rapid acquisition of knowledge and skills demanded by this type of program. Stress is frequently linked to mood disorders including anxiety and depression. Elevated levels of stress and anxiety are linked with impaired learning and critical thinking (McNiesh, 2011). Students are often unaware that stress can impact their ability to learn, and may have limited strategies to reduce the stress they are experiencing. Learning effective stress reduction skills may be an essential component of the teaching-learning experience in nursing programs (Moscaritolo, 2009). Developing effective stress management skills while in school may continue to fortify and protect nursing students after they graduate reducing professional burnout (Gelsema, Niemann, Schmidt & Walach, 2004; O'Haver Day & McNelis, 2012). Mindfulness-based interventions (MBIs) are effective self-care strategies in reducing mental distress and improving psychological well-being among healthy individuals as well as a variety of clinical populations (Brown & Ryan, 2003; Chiesa & Serretti, 2009). Our primary aims were to develop and to test the feasibility of a mindfulness-based intervention (MBI) in a cohort of beginning Master's Entry to Nursing Program (MEPN) students.

Methods: A core group of faculty developed the MBI during the spring and summer preceding the study. A mixed method 14-week interventional study to test the MBI was implemented in Fall 2013 after approval by the University of San Diego Institutional Review Board. Forty-three of 61 eligible first year MEPN students signed consent and enrolled in the study. The MBI consisted of weekly, brief (15-20 minute) training sessions immediately following their last class. These MBI training sessions were led by faculty and included various mindfulness practices, such as mindful eating, conducting a compassionate mental scan of the body, and awareness of breath meditation. The participants were then asked to practice the MBI skill daily for the rest of the week using audio recordings they could download from a secure website devoted exclusively to the study. They were asked to submit weekly reflections about their "mindfulness journey" using a series of structured questions designed to elicit their experience. Monthly pizza suppers were held with faculty for face-to-face discussion. Three self-report questionnaires measuring levels of mental distress, mindfulness/attention, and self-compassion were administered at baseline, Week 8, and Week 14. Participants completed a final evaluation exploring the feasibility and acceptability of the MBI.

Results: We will present the process of developing the intervention, the curriculum that was developed, and results of the feasibility indicators measured in the study. Finally, we will include "lessons learned" to help inform other nurse educators wishing to develop similar programs.

ADVANCING NURSING EDUCATION IN THE WEST

Emotional Intelligence and Student Nurse Leadership

Heather Szeles

BSN Student, School of Nursing and Dental Hygiene

University of Hawaii at Manoa

Honolulu, HI

Advisor: Estelle Codier, RN, PhD, Associate Professor, University of Hawaii, Manoa

The University of Hawaii at Manoa's School of Nursing and Dental Hygiene's Student Ambassador Program is a unique opportunity for participating nursing students to build leadership skills, and foster professional relationships in order to become future nursing leaders. It is important for students to develop leadership skills during their university education so they are ready to take on leadership responsibilities once they enter the post graduation workplace. This is particularly important for nursing students, who with the implementation of the Affordable Care Act will enter the nursing workforce during a period of unprecedented change. Additionally, it is anticipated that senior nurse leaders, who have postponed retirement because of recent economic instability in the US, may soon retire precipitously, without doing the successive planning that involves mentoring the successive generation of leaders. It is anticipated that as nurse leaders of the baby boomer generation retire, novice nurse leaders will replace them.

Hundreds of research studies across many professional disciplines, including nursing have demonstrated evidence for a positive correlation between measured emotional intelligence (EI) and effective leadership outcomes. A review of the literature provided a meta-analysis of 69 EI performance research studies that showed there was a positive correlation between EI and measures of performance (Van Rooy & Viswesvaran, 2004). In the discipline of nursing, there is some literature that describes the importance of EI as an attribute for nurse leaders. There is also some evidence that the use of coaching strategies is more successful in developing EI than other commonly used methods.

Little research has been done on the measured EI of nursing students and almost none on how EI ability may be developed in this population. The purpose of this mixed method, exploratory study is to measure the impact of a program of peer coaching on the measured EI of a group of nursing student leaders. Participation in the study will be offered to nurses in the Student Ambassador program, a program of leadership development for students in the University of Hawaii School of Nursing and Dental Hygiene. Students who agree to participate will receive instruction on emotional intelligence and its importance in leadership, and then participate in a series of peer coaching sessions across a four-month period.

The findings of this study will make a contribution to the growing body of EI literature by providing data about: 1. Measured EI in student nurse leaders and 2. The impact of an intervention designed to develop EI in the student nurse leader population. Specific Research Questions (RQ) includes the following: 1. Does measured emotional intelligence ability change over a period of peer coaching activity? 2. Do student participants report self perceived changes in EI ability across a period of peer coaching activity? 3. How do student participants rate peer coaching as a means for developing leadership ability? Study objectives will be met through a mixed-method, exploratory study. Emotional intelligence scores, using the Mayer-Salovey-Caruso emotional intelligence test, (MSCEIT, version 2) will be compared between pre-intervention testing and post testing at the end of the study period. Additionally, a survey instrument scoring the value of the peer coaching sessions will also be administered at the end of the study.

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ADVANCING NURSING EDUCATION IN THE WEST

Evaluating the OCNE Shared Competency for Core Values among Seven Colleges of Nursing

Catherine Salvesson, RN, PhD
Director, RNBS Program
School of Nursing
Oregon Health & Science University
Portland, OR

Barb Canon, RN, MS
Program Director (Retired)
College of Nursing
Clackamas Community College
Oregon City, OR

Purpose: The purpose of this project was to evaluate the implementation of the Oregon Consortium for Nursing Education (OCNE) Core Competency #1: “A competent nurse’s personal and professional actions are based on a set of shared core nursing values” in a course taught in seven partner schools.

Background: OCNE nursing schools have a shared curriculum based on ten core nursing competencies. The courses in the curriculum provide the content, learning activities, and evaluation outcomes addressing the ten core competencies. OCNE faculty have invested over ten years in developing course materials to build knowledge and skill in the ten competency areas, and the competencies build and spiral throughout the curriculum to meet required nursing education benchmarks. It was determined that it would be valuable to investigate how a competency appears in courses among partner schools for the purpose of refining and enriching shared curricular content and determine how the competencies live in the courses of the partner schools.

Methods: The community college partners in OCNE were invited to participate in a mixed methods evaluation of the first OCNE Core Competency using a quantitative survey, qualitative webinars for focus groups, and individual interviewing. The OCNE Coordinating Council identified faculty in their schools teaching the first course, Health Promotion, and encouraged them to participate. Identified faculty were contacted and provided an online survey of how core values and biomedical ethics appear in their courses. Three conference calls were scheduled for interactive focus group style conversation. Those unable to attend the conference calls were interviewed individually by phone.

Results: The online survey revealed topics commonly discussed in nursing schools in relation to values and ethics. Notably the ANA Code of Ethics, Oregon Nurse Practice Act, and nursing as a professional were included by all programs. Other areas varied in their inclusion. The settings where content was delivered varied from classroom lectures, to simulation, to clinical environments. The OCNE Megacases (cases shared by all OCNE partner schools) provided content for over 50% of core topics. The conference calls/personal interviews provided additional information regarding what was included, where gaps appeared to be, and individual differences between schools in various geographical locations throughout Oregon. Notable variation between schools existed in the best way to initiate content regarding legal issues, cultural diversity regarding ethical values and norms, and situational ethics. Access to resources in biomedical ethics was appreciated and needed.

Implications: Universally and unconditionally faculty who participated expressed appreciation for the focus on the competency, the interaction with other faculty teaching the same course throughout the state, and the time to think critically about how values and ethics are presented at the beginning of the curriculum. Opportunities for teachable moments and where to access useful resources was also appreciated. This evaluation is seen as a pilot for how the other nine competencies could be explored among the OCNE partner schools in the future.

ADVANCING NURSING EDUCATION IN THE WEST

Finding Safety and Authenticity: Becoming a Transformative Nurse Educator

Dawn Doutrich, PhD, RN, CNS, Associate Professor
Lida Dekker, EdD(c), RN, PCHCNS-BC, Instructor
Melody Rasmor, EdD(c), RN, APRN-BC, Clinical Assistant Professor
Renee Hoeksel, PhD, RN, Assistant Dean, RN-BSN Program, Professor
Megan Ludena, BSN, RN, Master in Nursing Student
Latoyia Butler, BSN, RN, Master in Nursing Student

College of Nursing
Washington State University Vancouver
Vancouver, WA

Purpose/Aims: Supporting the transition from expert clinical nurses to authentic nurse faculty is crucial to the future recruitment and retention of excellent nurse educators. It is essential to understand what nurse educators need in order to be successful. Nursing education curricula can help emerging nurse faculty develop the relevant skills, comportment, and expectations demanded of them in academic and clinical settings. The purpose of this study was to gain knowledge of the development of highly competent nurse educators and ways in which nursing education curricula can assist to develop educators and academic leaders with effective characteristics and skills. The overall goal was to gather information from practicing nurse educators in various settings in order to update nursing education curricula. The specific aims were to: (a) uncover meaningful themes related to creating effective nurse educators; (b) identify strategies to move the knowledge gained into the education and practice of nurse educators; and (c) develop stronger linkages between nurse educator practice and academia.

Rationale/Conceptual Basis/Background: The study was philosophically grounded in Heideggerian hermeneutics. Consistent with this approach, participants were urged to recall narratives or stories with as much detail as they could in order to uncover thematic meaning within their lived educator experiences.

Methods: A qualitative, descriptive design was used. Four focus groups were organized and fourteen participants shared stories about their educational practices. All participants were graduates of a master's in nursing program with a focus on nursing education. Two nurse deans/directors were also interviewed via telephone to determine what they identify as crucial in hiring nurse educators. The groups' and the deans' interviews were audiotaped, transcribed verbatim, and data were managed using Ethnograph© Software. Analysis took place systematically over six months by the entire team.

Results: Preliminary findings include these recurring themes: (a) participants were unclear about the "culture of academia", for example, although they described being strong clinicians, they talked about the "not knowing the rules" of academia and "feeling inadequate," "inauthentic," "unsafe," and "undervalued"; (b) participants also described a sense of excitement when they witnessed students become successful, seeing "aha moments" of understanding in students who had been struggling and how these experiences provided a sense of meaning; (c) dean/directors found that new faculty needed guidance in communication, particularly with conflicted situations and with knowing whom to turn to for guidance.

Implications: Study implications include recommendations for: (a) strengthening the communication components of curricula particularly with regard to dealing with conflict in the nurse educator's workplace; (b) developing guidelines for nurse educator orientations to share with other institutions that hire new nurse educators; (c) discussing tenure and other expectations of the "culture of academia" as an aspect of nurse educator coursework.

Funding: Samuel S. Johnson Foundation.

ADVANCING NURSING EDUCATION IN THE WEST

Addressing Health Inequities in a Neighborhood Nursing Practicum

*Lynn Van Hofwegen, DNP, APRN
California State University, East Bay
Concord, CA*

*Claire Valderama-Wallace
California State University, East Bay
Concord, CA*

Purposes/Aims: This presentation provides an exemplar of a neighborhood-based community education project and innovative community health nursing clinical practicum. The aims of this project are: 1) to engage undergraduate nursing students in addressing social justice issues and health disparities in the project neighborhood, 2) to promote an interdisciplinary approach among nursing students and community partners to enhance educational, social and health outcomes for the project neighborhood, 3) to enhance the understanding of nursing students of the extended scope of community health nursing practice, and 4) to participate with the interdisciplinary team in building partnerships among families and health care resources in the project community through the delivery of health education and counseling to the parents and youth.

Rationale/Background: The Jackson Triangle Neighborhood has experienced low academic achievement, increasing neighborhood violence, and declining health outcomes. The Hayward Promise Neighborhood initiative seeks to partner community and university networks to provide education, improve health literacy, and support community stability to promote the “cradle to career” path for Jackson Triangle youth.

Description: In conjunction with the HPN initiative, 8-10 community health nursing students each quarter engage with community health workers, AmeriCorps volunteers, school parent centers, afterschool youth enrichment programs, and early childhood programs to provide health education and counseling to families and children.

Outcomes Achieved/Documented: Students have provided a total of 130 presentations in over 800 participant encounters at school-based parent centers and youth enrichment program sites. Anecdotal response thus far from students, partners and families is positive. Evaluation research is in progress.

Conclusions: Partnering undergraduate nursing students with interdisciplinary teams in an innovative neighborhood-based initiative to improve health and education outcomes can provide a rich community health experience to students while contributing to the health and well-being of the local community.

ADVANCING NURSING EDUCATION IN THE WEST

IPE Perinatal Mental Health Practice and Education

Yoriko Kozuki, PhD, PMHNP-BC, ARNP

Patty Betrus, PhD, RN

Shawn Elmore, PhD, RN

Karen Schepp, PhD, RN, PMHCNS-BC, FAAN

Susan Spieker, PhD

University of Washington

Seattle, WA

Goals: 1) Describe the gap between mental healthcare needs during pregnancy and the postpartum phase, and the current available options in the state of Washington. 2) Describe the innovative perinatal mental health (Peri MH) practice model that is preventative in nature, focusing on the family trained in an interprofessional education environment (IPE). 3) Describe the goals and processes in establishing the Peri MH enhanced PMHNP-DNP program at the University of Washington. 4) Describe the preliminary outcomes of the Peri MH program.

Significance: There are significant unmet needs regarding the quality of mental health care for pregnant women, their fetuses, infant children, and other family members in the perinatal phase (defined as up to one year after birth). Nationally, the HRSA report (2011) indicated 3,802 Mental Health Professional Shortage Areas (HPSAs), including 36 of the 39 counties (92 percent) in Washington. Further, the Western Interstate Commission for Higher Education (WICHE) Mental Health Program has projected that from the year 2000 to 2025, Washington will lose, rather than gain, people in the workforce. In addition to the shortage of mental health providers, maternal mental illnesses are not treated properly due to the fragmented current referral system and arbitrary cut-off of postpartum mental health coverage. In Washington, among the annual births (listed as 86,929 in 2011), 86 percent of women received prenatal care. However, the current mental health workforce and delivery system have limited capacity for treating women with prenatal and postpartum mental illnesses. The rate of major depression among prenatal patients is listed as 11 to 14 percent.

Approach: First, an innovative Peri MH practice model was developed. Peri MH is an emerging concept which addresses the interaction of the environment, including family, parenting style, or mental health treatment, which determines the mental illness-related gene expression. In this model, IPE education and interdisciplinary practice (i.e., psychiatrists, PMHNPs, midwives, public health nurses, infant mental health specialists, social workers) are the key professionals in holistically treating affected women, their infant children, and family. Secondly, funds were secured through HRSA to: 1) establish the curricular enhancements. Nine additional didactic credits and 50 clinical hours were added to the basic PMHNP-DNP program for this Peri MH subspecialty certificate program. The additional content includes early childhood caregiver/child dyadic observations, psychopathology, epigenetics, and early trauma, such as neglect and abuse that have associations with untreated parental mental illnesses. Other aspects of the innovative model include recruitment efforts for a diverse clinical faculty and student body, and educating the target clinicians in the community using a variety of methods.

Preliminary Outcomes: Twenty one ethnically and racially diverse students have been admitted to the program. Six new community collaborations for Peri MH focused clinicals have been established. Two one-day conferences for a diverse audience were conducted to enhance the knowledge and clinical practice competencies in Peri MH for clinicians in the community (overall evaluation of conferences ≥ 4.0).

Implications: Relevance of the Peri MH practice model in different states, along with feasibility for replication at other nursing schools, will be discussed.

Funding: This project is supported by HRSA ANE Grant #D09HP22624.

ADVANCING NURSING EDUCATION IN THE WEST

Leadership Philosophy and Perspectives of the Baccalaureate in Community College

*Samantha Girard, MN, RN, PHN
PhD Student
College of Nursing
Washington State University
Spokane, WA*

The purpose of this investigation is to examine the leadership philosophy of community college (CC) presidents and their perspectives of baccalaureate degrees offered in community college settings. This emerging educational trend may increase the number of baccalaureate prepared nurses and nursing workforce diversity. Community College presidents, among others, have expressed concern that offering baccalaureate degrees at the CC may alter the long-standing mission and purpose of the institution. The decision to offer the baccalaureate degree at a community college may be significantly influenced by the personal leadership philosophy of the presidents of those institutions.

This study is being done to: 1) examine the leadership philosophy of CC presidents, and 2) discover perspectives of CC presidents regarding baccalaureate degrees offered in community college settings.

Rationale: Numerous trends have led to an increasing need for nurses with diverse backgrounds and a baccalaureate degree. These trends also identify gaps in the ability of current baccalaureate and RN-BSN programs to meet workforce demands. The *Future of Nursing: Leading Change, Advancing Health* report recommends increasing the percentage of nurses with a baccalaureate degree or higher to 80% by 2020. The Master Plan for Nursing in Washington State recommends expanding capacity at the baccalaureate level because there is a substantial gap between the current production of associate degree nurses and RN-BSN program capacity. A report from the Washington Center for Nursing projects that the demand for registered nurses in Washington State will exceed supply by 2017. Finally, the Institute of Medicine, Washington Center for Nursing, National League for Nursing and the American Association of Colleges of Nursing published position papers that call for increasing diversity within the nursing workforce to align with the populations they serve.

Lewin's organizational change theory and Bass and Riggio's transformational leadership theory will provide a framework for analyzing study data.

A multiple method, cross-sectional, descriptive exploratory design was used to survey community college presidents within Washington State regarding their leadership philosophy and perspectives of baccalaureate degrees offered at the community college. Quantitative data were analyzed and reported using descriptive statistics. Qualitative statements were analyzed using content analysis in a qualitative descriptive design.

Preliminary results indicate leadership philosophy, financial constraints, community resources and desire for baccalaureate programs, workforce needs and other factors influence the decision to offer baccalaureate degrees in the community college setting. Findings from this study also uncovered perspectives which facilitate or hinder the development of a baccalaureate of science in nursing degree in the community college setting. Implications of this study suggest offering a BSN in community college settings provide one method of increasing the number of nurses with a BSN and increasing nursing workforce diversity.

ADVANCING NURSING EDUCATION IN THE WEST

Navigate Scenario: *LearnScapes for Nursing Research* Pilot Study with Jones & Bartlett Learning

*Karen LeDuc, DNP, APN-BC,
CNS, CPN, CNE
Associate Professor
Loretto Heights School of Nursing
Regis University
Denver, CO*

*Alma Jackson, PhD, COHN-S
Associate Professor
Loretto Heights School of Nursing
Regis University
Denver, CO*

*Kathleen Whalen, PhD, CNE
Associate Professor
Loretto Heights School of Nursing
Regis University
Denver, CO*

*Corinna Preuschoff, PhD
Research Director
Jones & Bartlett Learning
Burlington, MA*

Purpose/Aims: The purpose of this pilot study was to ascertain the efficacy of an immersive, virtual learning environment to cultivate the skills associated with evidence-based practice and nursing research for undergraduate nursing students.

Rationale/Background: Navigate Scenario: *LearnScapes for Nursing Research* by Jones & Bartlett Learning powered by Toolwire, takes the virtual learning experience to a new level by giving students the opportunity to apply knowledge in authentic, contextualized environments. Navigate Scenario consists of sixteen cutting edge immersive learning simulations where nursing students develop critical thinking, problem-solving, and communication skills necessary to apply their knowledge in practice situations. The project was conducted to evaluate both faculty and student experiences with this innovative teaching/learning strategy in a BSN research course offered in the accelerated format.

Methods: Two parallel research courses participated in the project. The treatment group utilized Navigate Scenario; the control group did not. Both responded to a set of questions about their learning experience. Survey response rates in the control group (n = 7) were too low to make valid comparisons, therefore results are limited to product feedback from the treatment group (n=32) and course faculty (n=1).

Results: Most students liked the experiential learning aspect of the scenarios, the quality of the graphics, and the importance of the communication and teamwork applications in the practice setting. They reported dissatisfaction with the time consuming nature of the assignments given the accelerated course format and lack of immediate feedback for their answers. This issue is currently being addressed by Jones & Bartlett Learning in cooperation with Toolwire in an effort to create a solution whereby students receive more immediate feedback as well as access to rationales more easily.

The key features, however, were underutilized: Only 12/32 used the Natural Assessments; only 13/32 used the Transcript Feature; only 19/32 used the Note-Taking Functionality; and 27/32 used the Key Takeaways. The instructor was satisfied with the product and intends to use it in future course offerings focusing on integrating the product more fully in terms of product features and concentrating on better alignment of the scenarios with textbook material.

Implications: Nursing education is challenged to incorporate innovative teaching and learning methodologies as we prepare students for the reality of nursing practice. Navigate Scenario provided the long needed experiential learning opportunity to foster evidence-based practice and research skills. This immersive, virtual, experiential environment is consistent with the imperative to teach applicable skills and strategies necessary for the contemporary nursing milieu. Ongoing evaluation of the efficacy of this product in collaboration with the publisher will enhance education outcomes to meet practice demands across settings.

ADVANCING NURSING EDUCATION IN THE WEST

Nursing Students' Attitudes toward Clinical Placement in Rural Hospitals

Lori Hendrickx, EdD, RN, CCRN
Professor
College of Nursing
South Dakota State University
Brookings, SD

Heidi Mennenga, PhD, RN
Assistant Professor
College of Nursing
South Dakota State University
Brookings, SD

Laurie Johansen, MS, RN, PHN
Instructor
College of Nursing
South Dakota State University
Brookings, SD

In an effort to respond to persistent nursing shortage concerns, many nursing education programs have increased the numbers of students being admitted. Unfortunately, some nursing schools have turned away qualified applicants in part due to a shortage of clinical sites. In an effort to provide additional clinical sites when larger numbers of students were admitted, one midwestern nursing program expanded its clinical experiences to include rural health care facilities. Students traveled within 70 miles of campus for a beginning clinical experience in a rural health care facility. Students cared for patients in acute care, home care and outpatient areas. Nursing administrators in the rural hospitals reported positive results including student exposure to the unique aspects of rural nursing, improved student understanding of the nurse generalist role, and opportunities for students to care for patients of all ages and diagnoses. Additionally, the administrators indicated having exposure of students to their rural facilities was an excellent recruitment tool. Students participating in rural clinical rotations had completed evaluations of their clinical instructors at the end of each semester; however they had not evaluated their clinical rotation specifically regarding the rural hospital experience. Informal comments from nursing students indicated that many students began the rural clinical experience with preconceived attitudes that the rural hospital clinical rotation would not provide them with the same quality experience that their counterparts placed in more urban facilities would receive. In an effort to better understand the nursing student experience in rural healthcare facilities, this study will examine nursing students' attitudes about rural clinical placements. Data collection is in progress. Results from this study will help determine the effectiveness of continued clinical placement in rural hospitals.

ADVANCING NURSING EDUCATION IN THE WEST

Online Collaborative Learning in a RN to BSN Clinical Course

Henny Breen, PhD, RN, CNE, COI
Assistant Professor
Good Samaritan School of Nursing
Linfied College
Portland, OR

Background: There is a growing body of evidence that supports collaborative learning within many programs of study; however, few studies have been done in nursing. Further there is not an accepted framework for judging what is best practice in assessing collaborative discourse (Oncu & Cakir, 2011). Inherent to the collaborative process, is the ability to synthesize and merge different perspectives. This is critical to nursing practice in order to make decisions about nursing care.

Method: The transcripts of asynchronous discussions in large and small groups about disaster nursing using The Neighborhood developed by Jean Giddens (2010) formed the data for this qualitative study. The three phases of Harasim's (2012) Online Collaborative Learning Theory provided the analytical constructs and indicators for collecting the data. The phases included: (1) idea generating (2) idea organizing (3) intellectual convergence.

Results: It was found that students moved through all three phases of the online collaborative learning theory in the large group to produce a final product as an individual assignment. There were no inductively derived constructs or indicators. In the small groups, the students also moved through all three phases of the theory in which they produced a group assignment. Group process indicators defined as those posts that included discussions about how to set up the discussion, availability, expressions of support and social comments such as "thank you" and "good job" were only found in the small groups.

Conclusions: Findings from this study suggest that movement through the three phases can occur when an individual rather than a group assignment is required. This is contrary to the notion that intellectual convergence takes place when the group moves towards co producing a product (Harasim, 2012). The findings also suggest that group process indicators may not be required for collaboration to occur. This is contrary to the findings of the concept analysis, which found that group process was an antecedent to collaboration (Breen, 2013).

Implications: The phases of the Online Collaborative Learning Theory can be used to evaluate the group and/or individual students' ability to collaborate. Group process skills should be evaluated separately. Group process has more to do with interpersonal skills whereas collaborative learning has more to do with cognitive skills. Both are required for practicing nurses. When evaluated separately, the student learning needs would be more clearly delineated.

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ADVANCING NURSING EDUCATION IN THE WEST

Our Shared Vision for Change: Discovering What Is Possible as a Community of Inquiry

*Sarah Wallace, MSN, RN
Nurse Educator
Associate Nursing Program
Lane Community College
Florence, OR*

*Netti Garner, MSN, RN
Associate Clinical Professor
RN-BS Completion
Oregon Health & Science University
Portland, OR*

*Renee Menkens, MSN, RN
Instructor
RN-BS Completion
Oregon Health & Science University
Portland, OR*

*Amanda Marcus, MSN, RN
Instructor
RN-BS Completion
Oregon Health & Science University
Portland, OR*

Purposes/Aims: The goal of this project is to contribute to quality improvement, build community within the faculty team, and to socially construct new knowledge in online educational practice for the OHSU Integrated Practicum course in the Oregon Health & Science University (OHSU) School of Nursing RNBS Completion program. The faculty team shared a vision to improve the online course environment to support a community of nurse learners and to improve integration of the practicum experiences with the online learning activities. The faculty became a Community of Inquiry (COI), socially constructing what is possible for improving the online course content and delivery.

Rationale/Background: As the culminating course in the RNBS program of study, there is a desire to support students to provide for integration of learning from previous courses in the program and their own professional development. The COI Framework is situated in social constructivist theory and is well researched and documented as having successful applications in online nursing education programs that lend to learner centered environments, and new knowledge construction within a community of learners. Faculty desired increased understanding of theory and evidence based strategies within the framework of COI to be effective in aspects of teaching presence, social presence and cognitive presence in online learning environments.

Brief Description: A graduate student specializing in nursing education led the organization and timelines of the project utilizing the COI framework to guide the process change. Over a 10 week period faculty engaged in deliberative discussions about each element of the COI framework. Faculty evaluated the course critically using the COI model to improve course content and delivery for aspects of cognitive, social and teaching presence to create a more learner centered and learner community experience.

Outcomes Achieved/Documented: Student course evaluations supported the revisions of the course with higher student satisfaction scores. Student comments indicated course strengths regarding organization of the course, relevance to practice, encouragement of independent learning in the practicum setting and “bringing it all together” as the final course in the program of study.

Conclusions: The project emphasized movement from the student nurse role to collegial engagement within a supportive learning environment. The faculty and learners were satisfied with the course redesign and outcome. This project was an exemplar for other course revisions in the program.

ADVANCING NURSING EDUCATION IN THE WEST

Partnerships with Community Foundations: Funding Specialty Courses

Maureen O'Malley, PhD, RN
Associate Director
School of Nursing
University of Alaska, Anchorage
Anchorage, AK

Sharyl E. Toscano, PhD, RN
Associate Professor
School of Nursing
University of Alaska, Anchorage
Anchorage, AK

Purpose: The purpose of this project was to obtain funding from a community foundation, develop and implement a specialty course consistent with the goals of the community foundation, and determine the effectiveness of the course.

Rationale/Background: Nurse educators prepare generalist nurses to meet the majority of the needs for nurses in the community, yet there are specialty groups in the community with unmet needs. For example, the Alaska Kidney Foundation (AKF) has several goals related to educating citizens on the importance of prevention and screening, as well as providing the best care for those both at risk and diagnosed with kidney disease. The SON obtained funding from the AKF to fund an elective course for baccalaureate students entitled Concepts in Renal Health and Illness. The course was a hybrid seminar course that included multiple methods to deliver course content.

Methods: The course was taught by a combined faculty of University faculty and nurse clinicians from the community who specialize in renal care. Baccalaureate students met patients in various stages of kidney disease and became very familiar with the challenges and importance of screening and targeted interventions. Students completed surveys with both closed- and open-ended questions to assess student knowledge of renal pathophysiology, health promotion and disease management. Course methods were also evaluated. Completed questionnaires were received from 14 students in the class. Descriptive statistics summarized the change in student knowledge and perception of course methods. Student comments generated during course evaluation were reviewed for common threads.

Outcomes Achieved: There were significant increases in knowledge in all three categories measured. The clinical modules that focused on health promotion and disease management were found to be the most valuable. Students cited they gained knowledge, insight through experiential learning and a feeling of being prepared.

Conclusions: This project showcases a funding source in the community that can both assist Schools of Nursing to fund clinically-relevant electives. As a result of the success of the course, the AKF has funded development of clinical simulations to provide additional experience for students with patients at risk, or diagnosed with kidney disease. Courses can be developed that are consistent with the aims of community foundations and the learning needs of baccalaureate students. The students reported they were better prepared to provide care to a specialty population.

ADVANCING NURSING EDUCATION IN THE WEST

Sustaining Nursing Scholarship with a Nursing Research Fellowship Program

*Kathleen Adlard, MN, RN
Clinical Nurse Specialist, Hyundai Cancer Institute
CHOC Children's Hospital of Orange County
Orange, CA*

*Eileen K. Fry-Bowers, PhD, JD, RN, CPNP
Associate Professor
Loma Linda University School of Nursing
Loma Linda University Institute for Health Policy and Leadership
Loma Linda, CA
ekbowers@llu.edu*

Purpose: We discuss the development and evolution of a Nursing Research Fellowship program at a Magnet® designated Children's Hospital.

Background: Innovations in patient care, nursing, and the practice environment are hallmarks of Magnet® recognition. According to the ANCC Magnet® Model, nurses have a professional responsibility to generate new knowledge, implement innovations in practice and optimize improvements in the safety and quality of patient care. Leaders in Magnet designated organizations are charged with assuring that there are adequate resources available for nurses to engage in the research process.

Best Practice: In 2005, in order to build capacity for scholarly work, the institution implemented a selective "Nursing Research Fellowship Program." The Fellowship, a two-year commitment, begins with a four month didactic component, taught by faculty from local schools of nursing that introduces Fellows to the research process. Following this didactic portion, Fellows are intensively mentored for the remaining time by a PhD prepared Nurse Researcher/Scientist and an on-site advanced practice registered nurse with expertise in research, also a former graduate of the program. Fellows identify a research problem, conduct a literature review, write a research proposal, apply for institutional review (as the principal investigator), design and implement a study, and analyze and evaluate data. In 2012, the application process was adjusted to allow for teams of 2 or 3 individuals to submit applications in hopes of fostering collaboration in research and multidisciplinary teamwork. The team must include at least one registered nurse (RN) and must answer a nursing-sensitive research question. Fellows receive a condition-based stipend during and upon completion of their project.

Outcomes: To date, 28 Fellows have/are enrolled in the program. The 2013 cohort includes two 2-person teams, one of which is comprised of an RN and a respiratory therapist, the other team includes two nurses. All Fellows present their findings at the program's graduation, at monthly clinical grand rounds, and posters are displayed at the institution's annual research conference. Dissemination to external audiences includes: 15 posters, 12 podium presentations, and 7 publications. Several more manuscripts remain in progress. Five Fellows have received awards for their work; including one Fellow whose publication received the journal's annual *Writing Excellence Award* and two Fellows who received a *New Researcher Award of Excellence* from the *Society of Pediatric Nurses*. One Fellow obtained an MSN degree citing the program as her inspiration, another completed her DNP, and a third enrolled in a PhD program. In 2013, the institution hired a full-time on-site Nurse Researcher/Scientist to support and expand institutional nursing scholarship.

Conclusions/Implications: Building and sustaining a culture of nursing scholarship requires individual commitment, departmental and institutional support and collaborative partnerships. Challenges encountered include providing on-going mentorship beyond the didactic component of the program. Multidisciplinary collaboration is strongly encouraged.

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ADVANCING NURSING EDUCATION IN THE WEST

The Effectiveness of an Educational Intervention for NCLEX Remediation

*Carrie Miller, PhD, RN
Seattle University
College of Nursing
Seattle, WA*

*Benjamin J. Miller, PhD, ARNP
Seattle University
College of Nursing
Seattle, WA*

*Anne Hirsch, PhD, APRN
Seattle University
College of Nursing
Seattle, WA*

*Toni Vezeau, PhD, RN
Seattle University
College of Nursing
Seattle, WA*

Background: NCLEX average pass rate in the US for first time US educated test takers in 2012 and 2013 were 90.34% and 86.39%, respectively. A recent report from the NCSBN (2013) indicated a significant decrease in exam pass rates for both first time and second time examinees, with passage rates of second time takers ranging from 27% to 29%. A recent intervention in summer 2013 for nine students in the advanced practice nursing immersion (APNI) program who did not pass the NCLEX on the first attempt, resulted in a 100% pass rate the second time. The APNI program is designed for students with degrees in other disciplines. Students complete the pre-licensure course work and matriculate directly into an advance practice program upon successful completion of the NCLEX examination. Prior to the April 2013 NCLEX revision, the average NCLEX passage rate was between 95 and 100% for APNI students on their first attempt. At the conclusion of the AY 2012-2013, 64 APNI students took the NCLEX examination with a pass rate of 86% as nine students (14%) failed the exam on their first attempt. The purpose of this study was to assess the effectiveness of an NCLEX remediation curriculum for repeat testers.

Methods: This is a mixed methods approach to assess the effectiveness of an NCLEX remediation program for nine APNI students. A quantitative web based survey was administered to the nine students with brief qualitative responses. A focus group was held with the nine members to obtain a deeper understanding and perceived value of the NCLEX intervention. The remediation intervention consisted of: 1) an individual session with a faculty member to critically appraise individual performance followed by a group debrief, 2) Faculty mentoring, 3) development of an educational plan. Ethical integrity regarding the NCLEX exam was maintained throughout the debriefing and the Seattle University IRB deemed this study as exempt. Quantitative data are presented as mean scale from a 5-point likert scale for each of the interventions. Qualitative data presented as overarching themes from the focus session.

Results: Nine retested for the NCLEX examination with 100% pass rates. The students' responses to the survey indicated that the most valuable components of the intervention were: A faculty facilitated group debriefing (4.75), prioritization and delegation (4.86) and a pharmacology review (4.71) were perceived as the most valuable aspects of this intervention. Students studied an average of 26-30 hours per week and completed between 2001 and 2500 review questions prior to retaking the exam. Qualitative data suggest the debriefing sessions were valuable for student support, improving confidence while reducing feelings of isolation and despair.

Conclusions: This pilot intervention provided a significant increase in NCLEX pass rates compared to the national average of 29% pass rate for second time takers. The significantly higher than expected pass rates may be related to the maturity level and high levels of motivation as successful passage of the NCLEX examination is required to matriculate to the graduate courses. Additional studies are needed to assess this intervention with traditional nursing students.

Abstracts of Poster Presentations

**ADVANCING PRESSURE ULCER SCIENCE:
RISK REDUCTION AND ASSESSMENT**

OVERVIEW: ADVANCING PRESSURE ULCER SCIENCE:
RISK REDUCTION AND ASSESSMENT

JoAnne D. Whitney, Elizabeth Bridges

PRESSURE ULCER RISK ASSESSMENT IN THE ICU:
MOVING THE SCIENCE FORWARD

Jenny Alderden

PREVENTING OCCIPITAL PRESSURE ULCERS
IN HIGH RISK PATIENTS: OPERATING ROOM INITIATIVE

Deena Young Guren

PREVENTING OCCIPITAL PRESSURE ULCERS
IN HIGH RISK PATIENTS: ICU INITIATIVE

Lindsay Boyd, Nicole Johnson

ARE WE MISCLASSIFYING UNSTAGEABLE
PRESSURE ULCERS?

Sunniva Zaratkiewicz, JoAnne Whitney, Margaret Baker, Jeanne Lowe

ADVANCING PRESSURE ULCER SCIENCE: RISK REDUCTION AND ASSESSMENT

Overview: Advancing Pressure Ulcer Science: Risk Reduction and Assessment

JoAnne D. Whitney

Professor

Biobehavioral Nursing & Health Systems

University of Washington

Seattle, WA

Elizabeth Bridges

Associate Professor

Biobehavioral Nursing & Health Systems

University of Washington

Seattle, WA

Hospital acquired pressure ulcers (HAPU) are a national patient safety concern and significant threat to patients in acute and critical care environments. Despite increased attention to reduce HAPU they remain a serious problem. HAPU are reported to be associated with increased morbidity or death of 60,000 hospitalized patients annually (Sullivan & Schoelles, 2013). With a growing older adult population and those of all ages with chronic health problems (e.g., diabetes, obesity) HAPU will continue to be an issue unless we expand our knowledge of risk identification, preventive measures and accurate assessment when ulcers occur or are suspected. This symposium highlights recent research and initiatives addressing these areas of knowledge development.

Historically pressure ulcers have been associated with older age, specific conditions (e.g., spinal cord injury) or settings such as long term care. However, hospitalized patients are also vulnerable due to factors associated with critical illness and care requirements. Risk assessment relies predominantly on the Braden Scale and/or specific individual patient characteristics identified through descriptive research. Several factors are thought to predict risk but there is limited agreement or data to support a specific predictive model. Unfortunately, neither risk assessment scales or specific factors are wholly effective for risk identification among acutely ill patients, including those exposed to high risk environments such as the operating room. A new informatics based approach to risk assessment is presented in the paper, "Pressure Ulcer Risk Assessment in the ICU: Moving the Science Forward" (J Alderden).

There are a number of strategies designed to prevent HAPU. These vary in terms of development, utilization and systematic efficacy testing to discover or confirm effective preventive interventions (Chou et al, 2013). In addition, there is need for research that will help to identify interventions for specific patient populations. Two papers "Preventing Occipital Pressure Ulcers in High Risk Patients-ICU" (D Guren) and "Preventing Occipital Pressure Ulcers in High Risk Patients-Operating Room"(L Boyd) present the results of initiatives to decrease HAPU in two high risk environments.

While there is debate as to whether HAPU are avoidable, when HAPU do occur appropriate staging of the ulcer is critical for guiding specific care, accurate mandated reporting and appropriate reimbursement. The National Pressure Ulcer Advisory Panel staging system is widely used and was recently expanded to include two additional categories, unstageable ulcers and suspected deep tissue injury. These categories are potentially useful; however they are not based on evidence and have raised questions pertaining to their exact nature and etiology. The paper, "Are We Misclassifying Unstageable Pressure Ulcers?" (S. Zaratkiewicz) presents results relevant to accurate assessment and diagnosis of unstageable ulcers.

References:

Chou R, Dana T, Bougatsos C, Blazina I, Starmer A, Reitel K, Buckley D. (2013) Pressure Ulcer Risk Assessment and Prevention: Comparative Effectiveness. Agency for Healthcare Research and Quality (US).

Sullivan N, Schoelles KM. (2013). Preventing In-Facility Pressure Ulcers as a Patient Safety Strategy: A Systematic Review. *Ann Intern Med.* 158:410-16.

ADVANCING PRESSURE ULCER SCIENCE: RISK REDUCTION AND ASSESSMENT

Pressure Ulcer Risk Assessment in the ICU: Moving the Science Forward

*Jenny Alderden, RN, MN
PhD Candidate
University of Utah
College of Nursing
Salt Lake City, UT*

Background: Hospital acquired pressure ulcers (HAPU) occur among 3-10% of intensive care unit (ICU) patients and result in longer length of hospitalization, increased cost, and human suffering. Some pressure ulcers can be prevented using interventions that are not feasible for every patient. Therefore, recommended standards of nursing practice include at least one pressure ulcer risk assessment during each nursing shift. However, discerning which individuals are at risk in the ICU is problematic because existing risk assessment scales lack specificity in the ICU population. A new ICU pressure ulcer risk assessment model is needed. However, development of a risk assessment scale for ICU patients presents methodological challenges. There is little consensus in predictor variable selection among studies, and therefore results from the literature cannot be readily synthesized. In addition, available studies generally focus on very specific ICU populations (for example, surgical ICU), which negatively impacts generalizability. Finally, some published studies were underpowered due to the uncommonly occurring outcome variable (HAPU).

Methods: Electronic medical records (EMR) and their associated large data sets offer a unique opportunity for development of a risk assessment model. A wide range of predictor variables can be selected from medical records based on the relevant literature and on clinician input and can be incorporated into a dataset. The dataset generated from electronic medical record data also has the advantage of incorporating a heterogeneous ICU population because large-scale data collection is more feasible. Furthermore, the data can be incorporated into a longitudinal data set which optimizes the input of sequentially occurring variables (for example, vital signs and laboratory values). Newer methods of data analysis such as machine learning can also be used on the EMR data set.

Implications: Electronic medical record data presents an opportunity to use ‘big data’ to develop a pressure ulcer risk assessment tool for use among ICU patients. The tool could be run in the background of the EMR and generate risk assessment values in real time, which would optimize nurses’ workflow and enable nurses to take appropriate measures for ICU patients at highest risk.

ADVANCING PRESSURE ULCER SCIENCE: RISK REDUCTION AND ASSESSMENT

Preventing Occipital Pressure Ulcers in High Risk Patients: Operating Room Initiative

Deena Young Guren, MSN, RN, CNOR
Assistant Nurse Manager
Perioperative Clinical Educator, UWMC Surgical Services
University of Washington Medical Center
Seattle, WA

Purposes/Aims: To determine which occipital positioning device would best distribute posterior head interface pressure in the supine position used for cardiac surgery.

Rationale/Background: The perioperative environment is high risk for pressure ulcer development. There was an increased incidence of occipital pressure ulcers in cardiac surgery patients. Gel and foam donuts were being used for head positioning, but other commercial devices were available. Performance improvement interventions to decrease the risk of pressure ulcers were undertaken in the OR and ICU.

Brief Description: A repeated measures design was used. Seven commercially available devices, marketed as pressure reducing head supports, were tested in healthy volunteers. An XSensor surface pressure mat was placed between the subject's head and the positioning device. The subjects were in the usual position for cardiac surgery: supine, on a whole bed gel overlay, with arms tucked, a towel roll placed under the shoulders and head on occipital device. The devices were tested in a random order, with pressures obtained every 50 seconds x 3. Eleven subjects (4 males) were selected to ensure variability in height, weight, BMI, head/neck circumference and hair (long, short, thin, partially bald or dreadlocks). A follow-on study of the two best surfaces was conducted to determine pressure characteristics over time. A 10-lb medicine ball, which has the same pressure profile as a human head, was used. Pressures and surface area were measured every 15 minutes for 4-8 hours.

Outcomes Achieved/Documented: Peak pressures ranged from 124 ± 33 mm Hg to 199 ± 16 mm Hg and skin interface pressure > 100 mm Hg on the occiput ranged from 9 ± 6 cm² to 26 ± 5 cm². A gel device had the best pressure profile (Peak: 124 ± 23 mm Hg; skin interface: 9 ± 9 mm Hg). The "foam donut" currently in use was the second best surface: Peak pressure 130 ± 16 mm Hg; skin interface: Hg 13 ± 9 cm². Pressure over time: Over the 4 to 8 hour test period there was no difference in the average peak pressure on either surface, although there was significantly greater occipital surface area contact with pressure > 30 mm Hg on the foam donut (1 cm² vs 7 cm²). Anesthesia confirmed that the selected devices did not interfere with airway management. Based on these results, a practice change was implemented in January 2012. In conjunction with ICU initiatives, there has been one occipital pressure ulcer in the past 18 months compared to 7 in the preceding year.

Conclusions: Practice changes that occurred were the purchase of gel devices for all prolonged (> 4 hour) cardiac, thoracic, transplant surgeries at UWMC. For short cases (< 2 hours) the foam donut can be used. Collaboration with procedural areas (EP and Catheterization labs) to implement use of the gel device and communication with the ICU related to pressure ulcers was formalized.

ADVANCING PRESSURE ULCER SCIENCE: RISK REDUCTION AND ASSESSMENT

Preventing Occipital Pressure Ulcers in High Risk Patients: ICU Initiative

Lindsay Boyd, MS, RN

Registered Nurse (RN2)

5SE Cardiothoracic Intensive Care Unit

*University of Washington Medical Center
Seattle, WA*

Nicole Johnson, RN, BSN, CCRN

Registered Nurse

5E Medical/Surgical/Transplant ICU

*University of Washington Medical Center
Seattle, WA*

Purposes/Aims: Decrease incidence of occipital pressure ulcers in high risk cardiothoracic ICU.

Rationale/Background: Patients admitted to the intensive care unit (ICU) are at high risk for skin breakdown due to risk factors including time on vasopressors, friction and shear, cardiovascular disease and mechanical ventilation. The development of a pressure ulcer can affect the patients' length of stay, risk for infection and overall satisfaction. The cardiothoracic ICU was experiencing a high rate of reportable (stage III or greater) occipital pressure ulcers. There were no identified solutions in the literature.

Description: Multimodal strategy including use of an off-loading cushion an dedicated RN time to assess high risk patients for pressure ulcers. *Step 1.* A systematic evaluation of an off-loading cushion (originally designed for wheelchairs) compared to a standard pillow and bed surfaces (Hill-Rom Sport and Hill-ROM Sport –LAL). Peak pressure was 181 mmHg on the standard bed surface. Peak pressure was decreased to 26 mmHg with the use of the cushion. We conducted additional pressure mapping to evaluate the combination of a pillow plus cushion, to better support the patient's head/neck. *Step 2.* Criteria were developed for the identification of high-risk patient (cardiac surgery, cardiac devices, vasopressors, inability to turn – required flat/supine position) who would benefit from the use of the off-loading cushion. All high risk patients had the cushion placed under their head and shoulders. The cushion could be augmented with a pillow. *Step 3.* The staff received in-serviced on proper use and correct placement technique and had follow up education through rounding by pressure ulcer prevention champions and the leadership team. We partnered with cardiothoracic OR to have off- loading cushion placed under patients immediately after surgery completed. *Step 4.* Post-implementation all CTICU patients were evaluated daily for risk factors. For those patients at high risk, proper use and placement of the cushion was assessed and need for continued use of the device was reinforced. Skin integrity on all patients was evaluated during dedicated rounds.

Outcomes Achieved/Documented: In 29 high-risk patients who had the cushion placed (Dec 2011-Feb 2012) there were 0 occipital pressure ulcers of any stage, in contrast to 7 reportable pressure ulcers in the year prior to initiation of the interventions. In the following 18 months, there has been one occipital pressure ulcer related to a hair braid. Initiatives are ongoing to reinforce the use of the device and introduce the initiatives to all new staff.

Conclusions: Use of a prophylactic off- loading cushion in high risk CTICU patients is associated with a decrease in occipital pressure ulcers. Further research is needed to isolate the effects of the off-loading cushion controlling for other risk factors.

ADVANCING PRESSURE ULCER SCIENCE: RISK REDUCTION AND ASSESSMENT

Are We Misclassifying Unstageable Pressure Ulcers?

Sunniva Zaratkiewicz, PhD(c), BSN, RN, CWCN

sunnivaz@uw.edu

JoAnne Whitney, PhD, CWCN, FAAN

Margaret Baker, PhD, RN, FAAN

Jeanne Lowe, PhD, RN, CWCN

Purposes/Aims: The primary purpose of this research is to study the evolution of Unstageable pressure ulcers (PUs) over time to determine if their healing trajectory is consistent with full and/or partial thickness wounds.

Rationale/Conceptual Basis/Background: Unstageable PUs are defined by the National Pressure Ulcer Advisory Panel as full thickness PUs in which the wound base is covered with slough or eschar; these ulcers cannot be staged until the slough or eschar is “debrided” or removed from the wound base. If Unstageable PUs are always full thickness wounds, one would expect to find the presence of granulation tissue, fat, muscle, or other deep structures at the wound base prior to wound closure. If deep structures and/or granulation tissue are not present at the wound base prior to wound closure, this would suggest that not all Unstageable PUs are full thickness wounds. If Unstageable PUs show healing consistent with partial thickness wounds one would instead find the regeneration of papillary dermis, reticular dermis, and epidermis as partial thickness wounds heal by replacing the same tissues that were lost unlike full thickness wounds which heal by the production of granulation tissue. Systematic evaluation of observations and documentation of the healing process of Unstageable PUs is a first step towards better understanding if these PUs are always full thickness wounds.

Methods: Using a cross-sectional retrospective record review, 194 Unstageable PUs were examined. The sources of data were the electronic medical record and a Quality Improvement PU data base. The PU data base is managed by certified wound care nurses and includes data on all verified hospital acquired PUs since 2007. Unit of analysis is by ulcer site, not per patient. Statistical analysis was completed using SPSS version 16.

Results: Of the initial 194 Unstageable PUs involved in the study, 120 were excluded due to lack of necessary data to answer the research questions. Out of the 74 Unstageable PUs that remained in the study, approximately a third (33.8%) were found to follow a healing trajectory consistent with partial thickness wounds. This finding is novel, is of significant clinical value, and has the potential to impact clinical practice and policy.

Implications: The findings of this study indicate that although many Unstageable PUs demonstrate healing trajectories consistent with full thickness wounds, this is not the case for all Unstageable PUs. Given this information, further studies are warranted and opening a discussion regarding the possible revision of the current definition for Unstageable PUs is recommended.

Abstracts of Poster Presentations

CARE COORDINATION

PATIENT EXPERIENCES OF CARE COORDINATION FOR HIGH COST CHRONIC CONDITIONS

Sarina Fazio

HEART FAILURE PATIENTS' REHOSPITALIZATION INTERVENTION DISCHARGED TO SNFS

Sheryl Nespor, Cheryl Westlake

CARE COORDINATION

Patient Experiences of Care Coordination for High Cost Chronic Conditions

Sarina Fazio, RN, BSN
Master's Student
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Purpose: The purpose of this quantitative cross-sectional pilot study is to examine the satisfaction and experiences among individuals who are actively enrolled in an outpatient Care Coordination program in Northern California to help manage their chronic conditions.

Background: Chronic conditions are among the most common, costly, and preventable of all health problems in the United States (Center for Disease Prevention and Control, 2012). Individuals with multiple chronic conditions are subject to worse health outcomes, often receive suboptimal care, and are more likely to be admitted to the hospital for a preventable hospitalization (Vogeli, et al., 2008; Wolff, Starfield & Anderson, 2008). Care Coordination has emerged as a system for delivering high quality and cost-effective care to patients with complex chronic diseases. The Agency for Healthcare Research and Quality (AHRQ) defines Care Coordination as the “deliberate organization of patient care activities to facilitate the appropriate delivery of healthcare services” (McDonald, et al., 2007). Due to the intricacy of Care Coordination and the rapidly growing evidence base supporting its implementation, measuring the effects of Care Coordination as perceived by patients and families are essential (McDonald et al., 2010).

Methods: The study is currently being conducted with chronically ill individuals enrolled in an outpatient telephonic Care Coordination program for high cost chronic conditions at the University of California Davis Health System. Patient surveys are being administered telephonically using items selected from the Consumer Assessment of Healthcare Provider and Systems survey initiative developed by the AHRQ. The primary outcomes of interest are patient experiences and patient satisfaction with the program.

Results: Data analysis will be conducted beginning in November 2013 using Stata, Version 12, statistical software. Descriptive statistics will be used to summarize the independent and dependent variables collected in the study. Logistic regression will be used to model each patient experience outcomes measures as functions of their demographic variables, predisposing factors, enabling factors, and condition severity variables.

Implications: If this study is able to show that patients are highly satisfied and have positive experiences in Care Coordination, it supports current evidence that Care Coordination should continue to be implemented and expand as a method for healthcare delivery in combatting the chronic disease epidemic.

CARE COORDINATION

Heart Failure Patients' Rehospitalization Intervention Discharged to SNFS

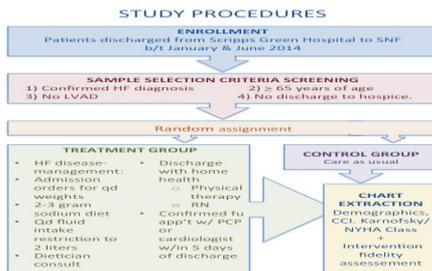
*Sheryl Nespor, PhD, FNP
Family Nurse Practitioner
Scripps Health
La Jolla, CA*

*Cheryl Westlake, PhD, RN
Professor and Associate Dean, International and Community Programs
Azusa Pacific University
Azusa, CA*

Purpose: To test a heart failure (HF) disease-management intervention for 30-day rehospitalization and mortality rates (R/MRs) --- HF discharge checklist reflecting HF disease-management (national guideline-indicated medications/dose modification; counseling/monitoring interventions; and follow-up instructions) that yielded an 18% R/MR reduction.

Background: Thirty-day R/MRs for HF patients are a Center for Medicare & Medicaid and Joint Commission core measure with hospitals risking non-reimbursement for rehospitalization rates within 30-days of discharge at greater than the risk adjusted national rate. For HF patients, discharge to SNFs predicts higher HF- and all-cause R/MRs than discharge to home. Although the application of national HF care guidelines in HF disease-management programs to HF patients in acute care/outpatient settings has demonstrated reduced rehospitalization and mortality rates (R/MRs), no HF guidelines have been adapted for and/or applied to HF patients in SNFs. Interventions to reduce 30-day rehospitalization and mortality rates (R/MRs) have not been adapted and/or applied to HF patients discharged to the SNF. **Research question:** In HF patients discharged from hospitals to SNFs, does a HF disease-management intervention (fluid/volume care; rehabilitation care, and comprehensive discharge planning) improve 30-day HF and all-cause rehospitalization and mortality rates? **Intervention:** A HF disease-management admission order set for HF patients discharged to SNFs using national guideline-indicated fluid/volume care; rehabilitation care, and comprehensive discharge planning.

Methods: Quasi-experimental design and randomized sampling will be used to test the intervention on 30-day R/MRs for 135 patients randomized to the experimental



(HF disease-management: Admission orders for daily weights; 2-3 gram sodium diet; Daily fluid intake restriction to 2 liters; Dietician consult; Discharge with home health physical therapy/RN; Confirmed follow up appointment with primary care MD or cardiologist within 5 days of discharge) or control group (Usual care). Descriptive (n, %; mean \pm SD), comparison (χ^2 , t test), and uni/multi-variate correlations of all variables will be analyzed to address

the research questions. A logistic regression will be used to estimate the readmission risk. **Implications:** Knowledge gained about a national guidelines-based, HF fluid/ volume care, functional status, and comprehensive discharge planning intervention may contribute to improved outcomes for patients with HF.

Abstracts of Poster Presentations

CAREGIVING ACROSS THE LIFESPAN

CAREGIVER STRESS: A CONCEPT ANALYSIS

Sarah M. Llanque, Lynette M. Savage, Neal S. Rosenburg, Michael Caserta

CONFIDENCE AND AWARENESS OF PERSONAL HEALTH IN CAREGIVERS OF SPECIAL NEEDS CHILDREN

Carla M. Hagen, Melissa LaRue

DEVELOPING THE CAREGIVER BURDEN INDEX FOR PARENTS OF CHILDREN WITH ALLERGIES

Pei-Ching Liu, Bih-Shya Gau

THE POSITIVE ASPECTS OF CAREGIVING AMONG TAIWANESE CAREGIVERS

Chiung-Mei Liu

CAREGIVING ACROSS THE LIFESPAN

Caregiver Stress: A Concept Analysis

*Sarah M. Llanque, PhD, RN
NSRA T32 Postdoctoral Fellow
College of Nursing
University of Utah
Salt Lake City, UT*

*Lynette M. Savage, PhD, RN
Adjunct Faculty
Good Samaritan School of Nursing
Linfield College
Portland, OR*

*Neal S. Rosenberg, PhD, RN
Associate Dean of Nursing
and Associate Professor
Good Samaritan School of Nursing
Linfield College
Portland, OR*

*Michael Caserta
Professor
College of Nursing
University of Utah
Salt Lake City, UT*

Background: Approximately 60 to 70% of caregiving for people with Alzheimer's disease and related dementia (ADRD) occurs in the home and community-based setting by non-paid caregivers. The number of people affected by ADRD is expected to increase from 5.4 million to 16 million by the year 2030. This increase will accelerate the number of caregivers for ADRD patients. Caregiver stress may arise from caring for a person with dementia due to various factors and is unique for the caregiver caring for a person with ADRD.

Purposes/Aims: The purpose of this concept analysis is to provide clarity on the concept of caregiver stress as it pertains to the caregiver of people with ADRD.

Definition of Concept: The authors selected modified method of Wilson's (1963) concept analysis to explore stress associated with care for ADRD patients. For purposes of this paper the definition of Alzheimer's caregiver stress references what a caregiver experiences in either bodily or mental tension resulting from providing direct care for a person with ADRD.

Method: The authors utilized databases that included CINAHL with Full Text, PubMed, MEDLINE, OVID, PsycARTICLES, PsycINFO, and Google Scholar. The criteria included peer-reviewed articles: (a) written in English, (b) that described or studied caregiver stress with caregivers of persons with ADRD, and (c) published within the last thirty years.

Linking the Concept to Nursing Practice: The concept of caregiver stress related to caring for family members with ADRD has important implications for nursing practice and research. The number of people with ADRD symptoms increases as the population ages. As the needs of their loved one increase, family caregivers are at greater risk of depression and physical illness. The demand for identifying caregiver stress and incorporating stress-reduction methods will be vital for nurses. Because nurses are on the frontlines interfacing with family caregivers, it is imperative they be able to recognize and understand the stressors associated with caregiving for ADRD patients.

Conclusion: Support for the caregiver may help avoid premature institutionalization of the person with dementia. Identifying caregiver stress is important for nurses to recognize in their practice. There are a number of instruments used to evaluate caregiver stress are available to nursing personnel, which include, but are not limited to, the Caregiver Burden Inventory and Zarit Burden Interview. Providing a safe environment for the caregiver to express concerns about the person with ADRD, as well as offering community resources to provide support to the caregiver, or simply acknowledge the daily struggles of caring for a loved one with dementia is a vital part of one's nursing practice when working with caregivers of persons with ADRD.

CAREGIVING ACROSS THE LIFESPAN

Confidence and Awareness of Personal Health in Caregivers of Special Needs Children

*Carla M. Hagen, PhD, MPH, RN
Associate Dean/Clinical Associate Professor
Oregon Health & Science University
School of Nursing, La Grande Campus
La Grande, OR*

*Melissa LaRue, BA, BSN, RN
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 needs in their caregiving role and if an awareness of their personal health increased after their participation in Powerful Tools for Caregivers (PTC), a 6-week educational series designed to help family caregivers take care of themselves. A secondary aim was to learn more about caregiver concerns, and what caregivers consider their most important concern related to their caregiving.

Rationale/Background: 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, which often remains unattended by the caregiver. 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.

Methods: To measure the effectiveness of PTC among caregivers of special health/behavioral needs children; participants completed pre-and post-intervention surveys. Forty-two 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. Six classes were held in four different states representing the Northwest, Midwest, Southeast, and East Coast regions of the country. PTC class content and survey materials originally created for caregivers of older adults, was revised to address the caregiver population of children with special needs. For this study, the demographics and the domain of caregiver confidence will be assessed based on eight questions, of which participants responses were calculated on a 5-point (0-4) Likert scale. Caregiver health was assessed through a series of ten binomial (yes/no) questions related to caregiver attention to their own health needs. An open-ended question was also utilized to determine their most important concern related to caregiving.

Results: Preliminary data analysis shows that PTC participants (n=37*) reported overall increased caregiver confidence ($P < .02$) from pre- (M=1.74) to post-intervention survey (M=2.52) which was conducted immediately after the sixth PTC class. Caregiver health showed similar increases in that PTC participants (n=32*) reported overall increased attention to their health ($P < .02$) with pre- (M=0.56) to post-intervention survey (M=0.39). Thirty caregivers reported 78 concerns related to their caregiving.

*Due to missing data from participants.

Implications: The results of this investigation indicate that participation in the educational series Powerful Tools for Caregivers can improve the level of confidence in their caregiving role, and provide caregivers an increased awareness of their own personal health needs. Learning more about caregivers individual identified concerns allows health care providers and educators to assess additional strategies of caregiver support.

CAREGIVING ACROSS THE LIFESPAN

Developing the Caregiver Burden Index for Parents of Children with Allergies

Pei-Ching Liu, MSN, RN, PhD
Instructor

Department of Nursing
Mackay Junior College of Medicine,
Nursing, and Management
Taipei, Taiwan

Bih-Shya Gau, PhD, RN
Assistant Professor

Department of Nursing
College of Medicine
National Taiwan University
Taipei, Taiwan

Aims: This article reports the development and psychometric testing of the Caregiver Burden Index (CBI) for parents taking care of children with allergic diseases.

Background: Allergic disorders are among one of the most prevalent chronic diseases and the young population is the most affected. However, there is no specific instrument designed to measure the caregiver burden of parents providing health care to children with allergies.

Methods: This was a mixed-methods study conducted between September 2006 and July 2008. The index item generation phase was composed of three steps using qualitative and quantitative approaches including in-depth interviews, content validity, and a focus group. In a second phase, a cross-sectional study was performed to randomly select eligible parents and the psychometric properties of the CBI were evaluated by item analysis, internal consistency reliability, and exploratory factor analysis.

Results: The final CBI consisted of 20 items with three factors extracted after exploratory factor analysis. The factors, “Constraints on Personal and Family Life”, “Psychological Distress” and “Physical Health Complaints” accounted for a cumulative variance of 75.55%. The content validity index was 0.89 and the internal consistency was high with the coefficient alpha of 0.98.

Implications: The study findings provide evidence suggesting that this scale has sufficient psychometric properties for use with three separate dimensions underlying the caregiver burden. The Caregiver Burden Index will serve as a disease-specific instrument that help nurses and healthcare providers better understand the impact perceived by parents of children with allergic disorders.

CAREGIVING ACROSS THE LIFESPAN

The Positive Aspects of Caregiving among Taiwanese Caregivers

Chiung-Mei Liu
PhD Student
University of San Diego
School of Nursing
San Diego, CA

Purpose/Aim: The aim of this study is to describe the family caregiver's perceptions of the positive aspects of caregiving and relationships between caregiver's role strain, social support, and health-related quality of life in caregiving of older adults with dementia in Taiwan.

Background: In Taiwan, there are an estimated 600,000 Taiwan caregivers who provide unpaid assistance and support to older adults with disabilities. Caring for older adults can be stressful and may have negative effects on issue with quality of life. Few studies are available that demonstrate the important role of the caregiver, and that focus on the positive aspects of caring for older adults with dementia.

Methods: This study will use a quantitative, cross-sectional, and descriptive design. Based on Cohen's power tables, the (N) for this research will be 153. This study will use Positive Aspects of Caregiving, SF-36 Health survey, Medical Outcomes Study (MOS) Social Support Survey, and Caregiver Strain Index (CSI).

Data Analysis: All data will be analyzed using the Statistical Package in Social Science (SPSS) 19.0 software. Descriptive statistics will be used to analyze the continuous variables and will include frequency, percentage, mean, and so on. Inferential statistics will include the demographics of older adults with dementia and the caregiver, and compare the relationships between caregiver role strain, social support, and quality of life, to the positive aspects of caregiving. Multiple regression will be used to establish the degree of perceive positive aspects of caregiving in relation to the demographic of the older with dementia and the caregiver's role strain, social support, quality of life.

Potential Limitations: A limitation of this study is that the sample size is relatively small. Due to time and cost constraints, the sampling is a convenience sample.

Implications: A significant this study provides, is that it may lead to future interventional research to increase the positive aspects of caregiving. For caregivers these future interventions may provide further social support, lower role strain, and increase quality of life, to improve family caregiver's positive aspects of caregiving. For nurses/physicians an implication may involve providing support to older adults and family caregivers, by understanding the stressors of the family caregiver.

Abstracts of Poster Presentations

CHRONIC ILLNESS

ANTIBIOTIC PRESCRIBING STRATEGIES FOR ACUTE RESPIRATORY TRACT INFECTIONS IN ADULTS

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ASTHMA MANAGEMENT: INCREASING PROVIDER ADHERENCE TO THE EPR-3 GUIDELINES

David Loran, Shelly Hawkins, Susan Laubach

CLINICAL OUTCOME OF TRIPLE THERAPY IN CIRRHOTIC AND NON-CIRRHOTIC HEPATITIS C PATIENTS

Jungeun Lee, Paula Cox, Monica Jarrett

DOES UNCERTAINTY AFFECT COPING AND HOPE IN PATIENTS WITH CHRONIC LEUKEMIA OR LYMPHOMA?

Robin Covey

ACCESS FOR HIGH RISK RURAL HEART FAILURE PATIENTS

Deidre N. Goldberg

ACUTE CORONARY SYNDROME SYMPTOMS: DON'T BE MISLEAD

Anthony McGuire, Lynn V. Doering, Belinda Chen

EXPLORING PERSONAL GROWTH IN INDIVIDUALS LIVING WITH HEART FAILURE

Kristen Overbaugh

FAMILY AND FRIENDS INVOLVEMENT IN SELF-CARE FOR AFRICAN AMERICANS WITH TYPE 2 DIABETES

Judy McKelvy, Arleen Brown

EXERCISE ADHERENCE IN PATIENTS
WITH AN IMPLANTABLE CARDIOVERTER DEFIBRILLATOR
Matilda N. Luttrell, Cynthia M. Dougherty, Robert L. Burr, Barbara B. Cochran

HOME TELEMONITORING SELF-CARE EDUCATION
FOR OLDER ADULT HEART FAILURE PATIENTS
Shelley Y. Hawkins, Tanna Thomason, Fritz Steen, Laura Custis, Jonathan Mack

IMPROVING ASTHMA KNOWLEDGE USING THE PHYSICIAN
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Morgan Wolf, Shelley Hawkins, Monica Sprague, Melissa Rouse, Mary Jo Clark

LIFE SATISFACTION AND GLYCEMIC CONTROL
AMONG LATINAS WITH TYPE 2 DIABETES
Sandra Benavides-Vaello, Tamara Odom-Maryon

METABOLIC SYNDROME: IMPLEMENTING WAIST
CIRCUMFERENCE AND SCREENING IN PRIMARY CARE
Robert J. Kimberling, Joseph Burkard, Mary Kubota, Alwin Bagingito

MI AIMS: MOTIVATIONAL INTERVIEWING
AND APPRECIATIVE INQUIRY MOTIVATING SUCCESS
Sarah Wallace, Kathlynn Northrup-Snyder, Kristen Crusoe

THE POWER OF THE LIVER TRANSPLANT WAITING LIST
Lissi Hansen, Yi Yan, Susan J. Rosenkranz

WHO ARE THE RULE OUTS? PATIENTS WHO DO NOT
HAVE ACUTE CORONARY SYNDROME IN EMERGENCY DEPT.
Anne Rosenfeld, Bruce A. Cooper, Mohamud Daya, Elizabeth P. Knight, Holli A. DeVon

CHRONIC ILLNESS

Antibiotic Prescribing Strategies for Acute Respiratory Tract Infections in Adults

*Kionglee Jung, RN-BSN, MSc
DNP Student
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ*

*Donna Velasquez, PhD, FNP-BC
Clinical Associate Professor
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ*

Purpose: To evaluate the effectiveness of no antibiotic prescribing and delayed antibiotic prescribing with an educational leaflet in adults with acute upper respiratory tract infection.

Background: Approximately 500 million cases of acute respiratory infections of viral origin occur each year in the United States. Of these, 76 million visits are managed by primary care providers and only 5% of the 7.4 million antibiotic prescriptions written for respiratory infections were of bacterial origin. It is estimated that inappropriate antibiotic prescribing costs the United States about \$211 million annually, while increasing the number of antibiotic resistant bacteria brochure can decrease inappropriate antibiotic use, increase patients' antibiotic awareness, reduce number of antibiotic resistant bacteria and healthcare cost.

Methods: This evidence-based project (EBP) is implemented at Arizona State University Health Services at Phoenix. Healthy patients with the diagnosis of acute respiratory tract infections with ≤ 5 days of illness are recruited. Intervention includes patient education with an educational leaflet on appropriate antibiotic use. Pre and post intervention data collected include demographics, prescription filled rate, clinical duration, reconsultation rate, understanding on antibiotics, satisfaction level, and impact on future antibiotic use. The Health Believe Model and the Iowa Model is used to guide the implementation of the project.

Outcomes: Anticipated outcomes include a decrease in inappropriate antibiotic use nationwide, an increase in patient level of understanding on antibiotic use, a decrease in the number of antibiotic resistant bacteria, and consequently a national decrease in healthcare costs.

Conclusions: Antimicrobial resistance is on the rise as a result of inappropriate antibiotic use in patients with acute respiratory tract infections. Evidence indicates that with delayed and no antibiotic prescribing strategies with patient education using an educational leaflet can significantly reduce inappropriate use of antibiotics. Additionally, it has shown to increase patient satisfaction level with no difference in clinical duration or reconsultation rates with the different prescribing strategies. This project is anticipated to decrease inappropriate antibiotic use by increasing patient awareness of appropriate antibiotic use, and consequently decrease antimicrobial resistance and healthcare cost. Despite current guidelines and campaigns, the decrease in inappropriate use of antibiotics is minimal.

CHRONIC ILLNESS

Asthma Management: Increasing Provider Adherence to the EPR-3 Guidelines

David Loran, RN, BSN, DNP Student
Hanh School of Nursing and Health Science
University of San Diego, CA

Shelly Hawkins, DSN, FNP-BC, GNP,
FAANP, Faculty Chair
University of San Diego
San Diego, CA

Susan Laubach, MD
Clinical Mentor
Asthma and Allergy Medical Group
San Diego, CA

Purposes/Aims: The purpose of this evidence-based practice project is to increase provider adherence to the expert panel report 3 (EPR-3) guidelines for asthma care.

Rationale/Background: Asthma currently affects 25.7 million people and costs the United States \$56 billion accounting for 8.9 million physician visits annually (Centers for Disease Control and Prevention, 2012). In California, asthma affects nearly 3 million people (Centers for Disease Control and Prevention, 2008) making it one of the most commonly encountered chronic illnesses by health care providers. In 1991, the National Heart Lung and Blood Institute (NHLBI) first published evidence-based guidelines for the management of asthma. The most recent update in 2007 classified the use of asthma action plans as Evidence Level B. Even with the update in 2007, there continues to be an overall lack of health care provider adherence to asthma guidelines (Janson & Weiss, 2004; Navaratnam, Jayawant, Pedersen, & Balkrishnan, 2008; Ting, 2002). Healthy People 2020 sets goals for national adherence with written asthma actions plans at 33.4%. However, the EPR-3 guidelines states there should be 100% adherence to written asthma action plans. In the project facility, upon review of 50 charts, the incidence of written asthma action plans was 48%.

Best Practice: The purpose of this evidence-based practice project is to increase the use of written asthma action plans to 90% of patients in an asthma and allergy clinic in southern California. An efficient well-established process in other settings was implemented directing the nursing staff to check for an active asthma action plan (within the previous six months). If not in place, the staff completes a carbon copy Action Plan and place the copy into the patient chart. In addition, an educational in-service for staff members who initiate the incorporation of the EPR-3 guidelines at the clinic will be held to further increase their knowledge of asthma action plan use in order to promote this documentation change.

Outcomes: In progress. Fifty (50) patient charts will be reviewed to evaluate provider adherence to the EPR-3 guidelines one month after the in-service. It is anticipated upon completion of the project there will be a minimum of 90% usage of asthma action plans by the providers.

Conclusions: Increased use of asthma action plans will suggest an overall increased provider adherence with the EPR-3 guidelines at the allergy and asthma clinic. This increased provider adherence may improve patient outcomes including enhanced patient quality of life due to decreased number of asthma exacerbations (Booth, 2012) and decrease patient office visits for asthma with decreases in health care costs associated with patient care.

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CHRONIC ILLNESS

Clinical Outcome of Triple Therapy in Cirrhotic and Non-Cirrhotic Hepatitis C Patients

*Jungeun Lee, MSN, RN
PhD Student, School of Nursing
University of Washington
Seattle, WA*

*Paula Cox, PhD, ARNP
Clinical Assistant Professor
University of Washington
Seattle, WA*

*Monica Jarrett, PhD, RN
Professor
University of Washington
Seattle, WA*

Purpose: The purpose of this project is to examine the difference in clinical outcome of triple therapy in cirrhotic and non-cirrhotic patients with hepatitis C virus (HCV) infection.

Background: The current standard of care for patients infected with chronic HCV is triple therapy which is combination of oral direct-acting antiviral agents with peginterferon-ribavirin therapy. In phase III clinical trials, improved efficacy and safety of triple therapy has been shown. However, less is known about the clinical outcomes in routine medical practice. Patients with HCV infection in real-world urban population are more diverse in terms of demographic and clinical characteristics, and more likely to be cirrhotic than those in clinical trials. Cirrhotic patients tend to develop more complications on treatment that require additional treatments and closer follow-up than non-cirrhotic patients.

Methods: The data was obtained through a retrospective chart review of 127 patients that were prescribed triple combination therapy for HCV from July 2011 to July 2012. Oral direct-acting antiviral agents prescribed were either boceprevir (BOC) or telaprevir (TVR). The demographic and clinical variables included age, gender, race, HCV subtype, previous treatment for HCV, stage of fibrosis, and HIV co-infection. We collected adverse event data including rash, nausea, vomiting, anemia, need for transfusion, pruritis, fatigue, clinical decompensation and death. Descriptive statistics and univariate comparisons including the Pearson chi-square test for categorical variables and t test for continuous variables were used.

Results: The characteristics of subjects were mean age 54 ± 9 ; 71% males; 64% treated with TVR and 36% treated with BOC; 61% treatment-naïve patients; and 26% cirrhotic patients. Cirrhotic patients were older ($p < .05$), heavier ($p < .05$) and showed higher rates of treatment discontinuation ($p < .01$) compared to non-cirrhotic patients. Almost half of cirrhotic patients (49%) discontinued treatment for any reason, while 22% of non-cirrhotic patients did. Reasons for treatment discontinuation were patients' preference or intolerance, adverse events (e.g. severe nausea/vomiting, psychiatric disorders and anemia), virologic failure and other reasons (e.g. drug abuse and non-compliance). In terms of safety, cirrhotic patients during treatment were more likely to receive transfusion ($p < .05$), visit emergency rooms ($p < .05$) and be hospitalized ($p < .01$). There was no statistical difference in the rates of rash (36% vs 44%), pruritis (36% vs 52%), dysgeusia (12% vs 14%), fatigue (73% vs 77%) and insomnia (30% vs 39%) between cirrhotic and non-cirrhotic patients; however, non-cirrhotic patients tended to have higher rates of expected adverse events.

Implications: Cirrhotic patients appear to have more hematologic adverse events and higher rates of emergency room visits and hospitalizations and were more likely to discontinue therapy. Although cirrhotic patients did not show more significant rates of most adverse events compared to non-cirrhotic patients, they did demonstrate more intense adverse events. This intensity resulted in higher utilization of medical services with HCV treatment and suggests that health care providers need to be closely involved in the management of patients with undergoing HCV therapy by building effective management strategies prior to initiating treatment.

CHRONIC ILLNESS

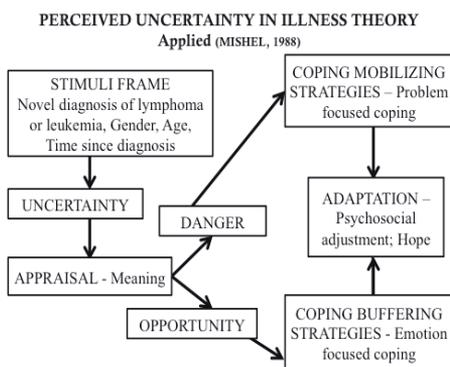
Does Uncertainty Affect Coping and Hope in Patients with Chronic Leukemia or Lymphoma?

*Robin Covey, RN, MSN
Nursing PhD student
Azusa Pacific University
Azusa, CA*

Purpose: The proposed study will explore gender, age, time since diagnosis, uncertainty, meaning, coping, hope, and psychosocial adjustment in patients with a novel chronic leukemia or lymphoma diagnosis.

Background: Nearly one million patients in the United States are living with a cancer diagnosis of leukemia or lymphoma.

The prognosis has greatly improved over the past few decades. Currently, the expected five-year survival is > 50% overall. As the cancer diagnosis may be chronic rather than terminal, uncertainty may result when patients are unable to make sense of their diagnosis and may contribute to the stress of their illness experience. In spite of the improved survival, patients need to cope with the cancer's physical and treatment effects, emotional responses, family disruption, and financial concerns while trying to



maintain hope for a healthy and meaningful future. The result may be diminished adjustment and/or hope.

Conceptual/Theoretical Basis: According to Mishel's (1988) uncertainty in illness theory, patients may appraise uncertainty either as a potential danger or opportunity. As a result, coping strategies are mobilized or maintained to assist patients in coping with the uncertainty and adapting to their illness. Her theory guides the study and has been used previously to explain the relationship of uncertainty to adaptation in patients with breast, prostate, and childhood cancers, hepatitis C, and men undergoing cardiac catheterization.

Methods: A cross-sectional, correlational design will be used to examine patients with a novel leukemia or lymphoma diagnosis participating in local leukemia and lymphoma fundraising events in Southern California. Gender, age, and time since diagnosis will be assessed by a demographic questionnaire, uncertainty by the Mishel Uncertainty in Illness Scale, meaning by the Constructed Meaning scale, coping by the Ways of Coping-Cancer, and psychosocial adjustment by the Psychosocial Adaptation to Illness Scale (domestic/social environment, psychological distress subscales). Hope will be assessed qualitatively. Comparisons of meaning, coping, and psychosocial adjustment by gender, age, time since diagnosis, and uncertainty will be analyzed using chi-square. Relationships between gender, age, time since diagnosis, uncertainty, meaning, coping, and psychosocial adjustment will be analyzed by univariate and multivariate correlations. Hope will be analyzed using content analysis and thematic coding.

Implications/Significance: Nurses need to understand factors that contribute to enhanced coping, adjustment, and hope in relation to the uncertainty experience of patients with chronic leukemia or lymphoma. Enhanced nurses' knowledge may assist patients to achieve enhanced outcomes.

CHRONIC ILLNESS

Access for High Risk Rural Heart Failure Patients

*Deidre N. Goldberg, FNP-C, MSN, RN
DNP Student, Instructor
Oregon Health & Science University
Ashland, OR*

Purposes/Aims: This project seeks to determine access to heart failure clinics for rural patients at highest risk for hospitalization and poor outcomes in southern Oregon in order to begin mitigating access barriers.

Rationale/Background: Heart failure (HF) is a serious and growing problem in the United States and other countries with aging populations, and is the most common diagnosis in persons over age 65 who are admitted to hospitals in the United States. Heart failure has lifetime incidence of 20% in both men and women and is associated with early mortality and poor quality of life. Chronic HF incidence increases with age, and one in 1000 Americans have the condition over age 65, for a total of over 5.7 million people. Treatment for chronic HF that improves survival has been implemented since the 1980's. However, the incidence, associated costs, and morbidity have increased despite declines in deaths from other forms of heart disease. Heart failure incidence will increase by 17% by the year 2030 as the population continues to age. Better and more efficient modes of care will be required.

As recommended by the American College of Cardiology/American Heart Association and the Heart Failure Society of America, best practices in HF management should include care by multidisciplinary teams with specialized education and interest in heart failure. Such clinics are increasing in number in the United States, but are not yet numerous. In Southern Oregon, many patients reside in remote access areas that may be at long geographical distance, or that may be located over mountainous terrain. In addition, many persons with HF are elderly, and may have limited social and economic resources. In consideration of the aging of the population and projections for the vastly increasing numbers of HF patients in the next 30 years, determining access issues for patients is a first step in mitigating such barriers to care, which represent a health care disparity in a vulnerable population.

Undertaking/Best Practice/Approach/Methods/Process: High-risk patients who are referred to the heart failure clinic will be surveyed by mail and email, and queried about their access to the clinic services. The survey will be short, and consist of no more than five questions using a Likert scale. Questions will focus on accessibility of care in the heart failure clinic and perceived geographic, physical, care preference, and economic barriers. IRB approval and subject consent will be obtained prior.

Outcomes Achieved/Documented/Conclusions: The project has not been conducted, and results will not be known until Spring, 2014. This is a clinical inquiry project in accordance with requirements for the Doctor of Nursing Practice degree, and will be reported by presentation to stakeholders and by a paper. Results will be presented by poster for the WIN conference.

CHRONIC ILLNESS

Exploring Personal Growth in Individuals Living with Heart Failure

*Kristen Overbaugh, PhDc, MSN, RN, APRN-BC
Doctoral Student
College of Nursing
University of New Mexico
Albuquerque, NM*

Purpose: The aims of this study are to describe if individuals living with heart failure (HF) report personal growth and to explore the relationship of personal growth with uncertainty and symptom status, as well as with demographic and clinical characteristics (age, sex, ethnicity, disease severity, and time since diagnosis). Personal growth is the ability to perceive positive psychosocial change or outcomes as a result of significant adversity, such as the challenges of living with HF. The reconceptualized uncertainty in illness theory (Mishel, 1990) and Tedeschi and Calhoun's (2004) model of post-traumatic growth are the guiding conceptual frameworks for this study.

Rationale: Six million Americans are living with HF, a chronic, progressive disease that is associated with significant mortality and symptom burden, uncertainty due to an unpredictable disease trajectory, and poor quality of life. Personal growth has been identified as a positive outcome in other chronic conditions, but has been little studied in the context of HF.

Methods: The study will use a descriptive, exploratory design with cross sectional data collection. Convenience sampling will be used to recruit 120 community residing individuals living with New York Heart Association class II-IV HF from an outpatient cardiology clinic. Participants will be asked to complete a demographic and clinical survey, the Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996), the Mishel Uncertainty in Illness Scale-Community Version (MUIS-C; Mishel, 1990), and the Memorial Symptom Assessment Scale-Heart Failure (MSAS-HF; Zambroski et al., 1994). Descriptive statistics will depict demographic and clinical characteristics. Bivariate correlations among age, time since diagnosis and PTGI, MUIS-C, and MSAS-HF scores will be examined as well as the associations of growth with sex, ethnicity, and NYHA class using appropriate parametric or nonparametric tests. Multiple regression with simultaneous entry will be used to assess the extent to which a model consisting of these variables predicts growth scores and the extent to which each predictor makes independent contributions to the model. The target sample size is sufficient to achieve 80% power to detect a medium effect size ($f^2 = .15 \approx R^2 = .13$) at an alpha level of .05 for a regression model with up to seven predictors while accommodating up to 15% incomplete or non-returned surveys.

Implications: Results from this study will address significant gaps in the literature by revealing the extent to which personal growth is present in outpatients with HF and by identifying demographic, clinical, and cognitive factors that are associated with growth. Findings will add to the literature exploring personal growth in chronic illness and enhance the theoretical understanding of the relationships among growth, uncertainty, and symptom status in the face of significant adversity. Findings may also help inform the development of supportive, patient-focused care models, such as palliative care, that augment conventional disease-focused management with a goal of facilitating personal growth.

CHRONIC ILLNESS

Family and Friends Involvement in Self-Care for African Americans with Type 2 Diabetes

*Judy McKelvy, MN
School of Nursing
and Department of Medicine
University of California, Los Angeles
Los Angeles, CA*

*Arleen Brown, MD, PhD
School of Nursing
and Department of Medicine
University of California, Los Angeles
Los Angeles, CA*

Background: Diabetes is a common chronic condition that is associated with devastating health consequences for African Americans, who experience higher prevalence of diabetes and its complications. African American women, in particular, face a disproportionate burden of diabetes and its complications. Although there are well documented evidence-based therapies and self-management strategies to reduce morbidity and mortality from diabetes, use of these therapies among African American women is suboptimal.

Objective: To conduct a systematic review of the nature and effectiveness of social network (e.g. friends and family members) involvement in self-care for African American adults with type 2 diabetes (T2DM). Results of this review will be used to inform a culturally tailored intervention to enhance intrinsic motivation for engaging in recommended diabetes self-care behaviors among African American women with T2DM.

Methods: We conducted a systematic review of the published English-language literature (including PubMed, Web of Science, and CINAHL databases) using standardized search terms including African American, friends and family, social support, type 2 diabetes, and self-management to identify articles on the involvement of family and friends in self-management practices for African American adults with T2DM. We further identified those studies that focused on African American women. We also reviewed the references of each article selected for inclusion to identify other relevant articles. The text of each article was reviewed and content abstracted by one author (JLM).

Results: We reviewed 111 articles and identified 18 that met inclusion criteria; 5 of these focused on African American women. Characteristics of social networks that may influence diabetes self care and outcomes were identified, including several specific to African American women. Overall for African Americans, friends/family members who can serve as role models are more effective in helping person with diabetes be successful in obtaining glycemic control. African American women with diabetes obtained better glycemic control when they are satisfied with social support and when friends/family members are educated in diabetes care and can provide positive support. One recent study suggests that text messages may be considered an additional “friend” that can augment the support provided by members of the social network through reminders and opportunities to increase mastery.

Conclusion: Friend/family centered approaches to supporting diabetes self-management can help African American adults improve glycemic control. Supplementing support with text messaging may enhance social support interventions. Additional research is needed to identify culturally-tailored social network interventions that result in improved diabetes outcomes for African American women.

CHRONIC ILLNESS

Exercise Adherence in Patients with an Implantable Cardioverter Defibrillator

Matilda N. Luttrell, DNP, ARNP
Department of Biobehavioral
Nursing and Health Systems

Cynthia M. Dougherty, ARNP, PhD
Professor, Department of Biobehavioral
Nursing and Health Systems

Robert L. Burr, MSEE, PhD
Research Professor, Department of
Biobehavioral Nursing and Health Systems

Barbara B. Cochrane, PhD, RN, FAAN
Associate Professor
Department of Family and Child Nursing

University of Washington
School of Nursing
Seattle, WA

Purpose: The purpose of this project was to describe adherence in an 8-week home-based exercise program for persons with an implantable cardioverter defibrillator (ICD) and to identify baseline factors related to adherence.

Background: Exercise has both physiological and psychological benefits that improve overall quality of life and physical function. Understanding characteristics as they relate to exercise adherence is important for designing interventions that improve outcomes and help maintain an active, healthy lifestyle. Detailed knowledge about who will and will not initiate and maintain an exercise program after an ICD remains limited.

Methods: A secondary analysis of data collected as part of the Anti-Arhythmic Effects of Exercise After an ICD trial was undertaken to describe adherence to an 8-week, home-based walking program. Subjects were randomized to either usual care or an exercise program that consisted of two phases: an 8-week aerobic conditioning phase and a 16-week aerobic maintenance phase. Data reported here are from intervention subjects participating in the 8-week conditioning phase. During conditioning exercise was prescribed for walking 60 minutes/5 days per week using 60-80% of maximum heart rate (HR) identified with a cardiopulmonary exercise test. Adherence was monitored using Polar heart rate monitors, pedometers, and home exercise logs. Pearson correlations were used to assess relationships between baseline demographics, clinical factors, and adherence.

Results: Seventy-one subjects (average age 56 ± 12 years; 79% male; 89% Caucasian; 61% received ICD for secondary prevention, average ejection fraction $39.4\% \pm 15\%$) were included in the study. There was 78% adherence to the number of walks/week (mean $3.89 \pm SD 1.40$), 79% adherence to the total number of minutes walked (mean $1905 \pm SD 723.77$), and 26% adherence to the HR target zone/week (mean $16.03 \pm SD 13.87$ minutes in HR target). Baseline factors found to be related to adherence over the 8-week period were: 1) age ($r = 0.39, p = 0.001$), 2) ejection fraction ($r = -0.31, p = 0.01$), 3) history of myocardial infarction ($r = 0.26, p = 0.032$), 4) taking a calcium channel blocker medication ($r = -0.30, p = 0.01$), and 5) the SF-36 Mental Component Summary score ($r = -0.26, p = 0.03$).

Conclusions: Adherence levels were high for walks/week and minutes walked, but were lower for adherence to target HR zone. This is likely related to taking beta-blocker medications. Those who were older, had lower ejection fraction, and lower mental health scores had higher levels of adherence to the walking program, which is counter to data reported in the literature. Few factors were found to be statistically related to exercise adherence, making it difficult to identify those who will likely be adherent to an exercise program in future studies.

CHRONIC ILLNESS

Home Telemonitoring Self-Care Education for Older Adult Heart Failure Patients

*Shelley Y. Hawkins, PhD, FNP-BC, GNP, FAANP,
Associate Professor and Director of DNP and MSN NP Programs¹
Tanna Thomason, MSN, RN, CNS, Clinical Nurse Specialist²
Fritz Steen, MBA, RN, CDE, CCP, Director, Ambulatory Care³
Laura Custis, BSN, RN, Health Care Informatics Student¹
Jonathan Mack, PhD, RN, ANP-BC, Clinical Associate Professor¹*

¹University of San Diego, San Diego, CA ²Sharp HealthCare, San Diego, CA
³Arch Health Partners

Purpose: The primary purpose of this feasibility study is to determine if older adult Heart Failure (HF) patients who have recently been discharged from the hospital will experience an absence, or reduction, of incidence of readmissions when participating in a home telemonitoring motivational interviewing HF self-care educational intervention. The secondary purpose is to determine if the home telemonitoring motivational interviewing older adult HF patients have less incidence of readmissions in comparison to (1) older adult HF patients who have a motivational interviewing self-care educational intervention, and (2) older adult HF patients who have a traditional approach health promotion educational intervention.

Rationale/Background: Heart failure (HF) affects 5.8 million Americans and is a substantial cause of morbidity, mortality, and healthcare expenditures. Strategies commonly recommended for reducing readmissions include improved patient education about their medications, patient-centered discharge instructions, home visits, and/or increased coordination with outpatient providers. However, evidence-based practice on these strategies to reduce readmissions is very limited. Self-management support is an essential component of HF care and must be ongoing to facilitate the knowledge and skills necessary for HF self-care. Current HF self-care education which usually consists of one educational session near, or at time of, discharge has proven to be unsuccessful in preventing or reducing the number of HF patient readmissions. Furthermore, minimal attention has been focused on whether the educational resources utilized in HF self-care can be comprehended by patients.

Methods: This study is a pre-test/post-test design that will enroll 30 male and female HF patients to one of three groups including one experimental and two attentional control groups based on propensity score matching. Inclusion criteria include (1) aged 60 or older, (2) primary diagnosis of HF, (3) speaks and reads English, (4) owns a telephone, and (5) earns a minimum score of 8 on the Short Portable Mental Status Questionnaire. Subjects will be recruited 48 hours prior to hospital discharge. At the time of recruitment and 6 months later at post-intervention, each subject will complete 5 instruments: Self-Care Heart Failure Index, Telemedicine Perception Questionnaire, Geriatric Depression Scale, Vulnerable Elders Survey, and Test of Functional Health Literacy in Adults. Experimental subjects will receive a wireless home telemonitoring weight scale and blood pressure monitor along with a monthly motivational interviewing HF self-care educational intervention. Attentional control group one will receive a monthly motivational interviewing HF self-care educational intervention and attentional control group two will receive a monthly health promotion educational intervention. All interventions will be delivered by a master's prepared APRN. Data will be analyzed using descriptive statistics and a 3 x 2 ANOVA.

Results: In progress.

Implications: HF patient readmissions may potentially be prevented if warning signs and symptoms of decompensation can be identified and managed before the patient's condition becomes emergent. Patients who are empowered with HF "educationally appropriate" self-care knowledge over an extended time period through home telemonitoring may be better equipped to manage their self-care and prevent, or reduce, the incidence for readmission.

CHRONIC ILLNESS

Improving Asthma Knowledge Using the Physician Asthma Care Education (PACE) Program

*Morgan Wolf, BSN, RN
DNP Student*

*Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA*

*Shelley Hawkins, DSN, FNP-BC,
GNP, FAANP, Faculty Chair
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA*

*Monica Sprague, FNP-BC, RN, PhDc, PHN
Clinical Mentor
Palomar Health
Escondido, CA*

*Melissa Rouse, PhD, RN, CNS-BC,
CEN, HACP, CPHQ
Clinical Mentor
Palomar Health
Escondido, CA*

*Mary Jo Clark, PhD, RN
Seminar Faculty
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA*

Purpose/Aim: The purpose of this evidence-based practice project is to implement the Physician Asthma Care Education (PACE) Program to increase knowledge of asthma management guidelines among nurse practitioners.

Rationale/Background: Asthma has become a global health concern affecting more than 22 million people in the United States and over 300 million worldwide. Despite advances in healthcare, the global prevalence, morbidity, mortality, and economic burden associated with this disease continue to rise. In an effort to improve asthma outcomes, the National Heart, Lung, and Blood Institute (NHLBI) of the National Institutes of Health developed consensus-based guidelines for the management of asthma. Even though these guidelines have remained unchanged since 2007, studies support that many healthcare providers do not routinely incorporate them into their practice and/or introduce their patients to the recommended self-management education and treatment guidelines. Presently, there are no asthma management guidelines at the project facility.

Best Practice: The purpose of this evidence-based practice project is to increase nurse practitioner knowledge test scores regarding asthma management guidelines by 20%. An asthma knowledge test developed by the Asthma Educator Institute of the American Lung Association will be administered to nurse practitioners followed by an educational in-service based on the PACE program. The same asthma knowledge test will be given immediately following the in-service and repeated three months after the in-service.

Outcomes Achieved/Documented: In progress. The asthma knowledge test will be administered to evaluate nurse practitioner knowledge of the PACE program. It is anticipated upon completion of the project that nurse practitioner knowledge test scores will increase by 20%.

Conclusions: Nurse practitioners' knowledge and incorporation of the National Institutes of Health's current guidelines for asthma management may improve patient outcomes, enhance quality of life, and decrease healthcare costs. Given that asthma is of national and global epidemic proportion, it is essential that nurse practitioners are knowledgeable regarding asthma management guidelines in order to promote optimal asthma patient outcomes.

CHRONIC ILLNESS

Life Satisfaction and Glycemic Control among Latinas with Type 2 Diabetes

Sandra Benavides-Vaello, BSN, MPAff, PhD, RN
Assistant Professor
College of Nursing
Washington State University
Spokane, WA

Tamara Odom-Maryon, PhD
Research Professor
College of Nursing
Washington State University
Spokane, WA

Purpose: The purpose of this multi-method exploratory descriptive study was to examine differences, in life satisfaction and glycemic management, between novice and experienced low income Latinas with type 2 diabetes; and to explore the psychosocial intersections of culture, food habits, and type 2 diabetes as experienced by low income Latinas.

Background: More than 13% of Hispanic adults, 18 years and older, have diabetes. Diabetes also poses a serious threat for Hispanic women (Latinas) and it is one of the leading causes of death for this group. Sadly, Latinas born within the last 10 years have a greater than 50% lifetime risk of likelihood of developing diabetes. Diabetes requires intense self management, and necessitates vigilance over several components, including diet. For Hispanic women with this disorder, dietary management of their disease can present complex psychosocial issues as they remain the primary caregivers in the family, yield substantial influence over what foods are maintained or introduced into the family, have great reverence for their matriarchal responsibilities, and view health as a balancing act of all body and spiritual systems. Additionally, cultivating expertise in diabetes self-management can require nearly a decade of disease experience. Yet little research has been conducted in relation to disease experience and successful diabetes management among low income Latinas.

Methods: A multi-method design was used to explore the food habits, disease management, and life satisfaction of Latinas with type 2 diabetes. Purposeful sampling methods were used to recruit 71 Latinas for this study. Data was collected via individual interviews (qualitative), life satisfaction questionnaire and HbA1c levels (quantitative).

Results: For Hispanic women with type 2 diabetes, the number of years with the disease was associated with higher HbA1c levels; and a negative association was noted between life satisfaction and the use of insulin by injection. Time since diagnosis was not associated with lower life satisfaction scores. Preliminary findings for qualitative suggest that for Latinas early in their disease trajectory routine glucose self-monitoring and stress management pose substantial challenges; most assess glucose levels when symptomatic; seek health services only when urgent issues arise; and eating to care for their diabetes is one of the most difficult aspects of self-management.

Implications: This research study contributes valuable information on the state of the science of Latinas and diabetes self-management. Additional research is needed to discern disease experience (number of years with diabetes) impacts adequate self-management. Further in understanding the numerous roles Latinas with diabetes must juggle while trying to manage their disease, how stressors impact self-management, and how Latinas perceive what is good self-management is relevant to how clinicians and researchers approach diabetes treatment and management guidelines for this population.

Funding: Washington State University. "Food Ways and Other Psychosocial Influences of Mexican American Women with Diabetes". Spokane Faculty Seed Grant 115355-001.

CHRONIC ILLNESS

Metabolic Syndrome: Implementing Waist Circumference and Screening in Primary Care

*Robert J. Kimberling, BS, RN
DNP Student*

*Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA*

*Joseph Burkard, DNSc
Faculty Chair
Associate Professor
University of San Diego
San Diego, CA*

*Mary Kubota, MSN, ANP
Clinical Mentor
Prime Care
Bagingito, Inc.
Temecula, CA*

*Alwin Bagingito, MD
Clinical Mentor
Prime Care
Bagingito, Inc.
Temecula, CA*

Background: Metabolic syndrome (MetS) as defined by the American Heart Association and National Heart Lung and Blood Institute (AHA/NHLBI) is a cluster of metabolic abnormalities which include: hypertension, low HDL levels, elevated triglycerides, impaired fasting glucose, and central adiposity. MetS has a U.S. prevalence rate of 27 percent. This is a clinically significant problem as patients with MetS have a two- to three-fold increase in cardiovascular mortality, three-fold increase in cerebrovascular accidents, and five-fold increased risk of diabetes. Increased central adiposity as measured by increased waist circumference (WC) is associated with a two-fold increase in all-cause morbidity and mortality rates. Despite clear evidence that WC predicts future health risk better than body mass index WC is rarely utilized in clinical practice.

Purpose/Aim: To identify metabolically at-risk adult patients by integrating waist circumference into the routine vital signs of a primary care office in order to screen for central adiposity and metabolic syndrome in congruence with AHA/NHLBI recommendations.

Design and Methods: The project setting is a two-provider family practice clinic serving a diverse urban population in Southern California which doesn't currently screen for MetS or WC and agreed to participate in this project. All staff members were instructed on the proper procedures for measuring WC, documenting screening in the electronic health record, the significance of MetS and central adiposity, as well as proper patient education instructions. AHA/NHLBI recommendations were utilized to screen all patients over the age of 18 excluding those previously diagnosed with diabetes, by adding WC measurements to routine vital signs. Providers then screen for central adiposity and MetS treating and counseling as clinically indicated. Repeated measures design is used for data collection through retrospective chart review of 100 charts per month over a four month time period to include baseline data for comparison of screening rates and identify percentage of patients within the practice who have increased WC or meet MetS criteria.

Outcomes: In progress. The anticipated outcomes for this project are to increase WC screening to a minimum of 60% and increase screening rates for metabolic syndrome to a minimum of 40%.

Conclusions and Implications: Screening for disease is a proactive and essential aspect of effective primary care. Early identification and stratification of future health risks are paramount to a nurse practitioners ability to improve patient outcomes and enhance the quality of life for their patients. Implementing a straightforward evidence-based procedure to screen patients allows the at-risk population to be identified to target early counseling, lifestyle management, and/or medical therapies aimed at improving the morbidity and mortality rates of diseases associated with MetS and central adiposity, such as diabetes or other atherosclerotic cardiovascular diseases.

CHRONIC ILLNESS

MI Aims: Motivational Interviewing and Appreciative Inquiry Motivating Success

*Sarah Wallace, MSN, RN
Nurse Educator
Associate Nursing Program
Lane Community College
Florence, OR*

*Kathlynn Northrup-Snyder, PhD, CNS, RN
Assistant Professor
RN-BS Completion
Public Health
Oregon Health & Science University
Portland, OR*

*Kristen Crusoe, EdD, MN, RN
Assistant Professor
RN-BS Completion
Health Systems Organizational
Leadership Program
Oregon Health & Science University
Portland, OR*

Purposes/Aims: The goal of this project was to explore the educational outcomes of combining Motivational Interviewing (MI) and Appreciative Inquiry (AI) to support student learning, self confidence, and self efficacy within the Lane Community College (LCC) Integrated Practicum (IP) course.

Rationale/Background: The IP course is the final experiential learning opportunity and requires students to approach their assignment as beginning nurses with support from a preceptor and faculty. Low self confidence and low self efficacy affects accurate self appraisal and the subsequent behaviors related to competent and effective nursing performance. The MI Aims intervention offered a supportive framework for beginning nurses to identify behaviors of nursing, prioritize behaviors they want to strengthen, and reflect on the process of increasing confidence.

Brief Description: MI and AI experts in collaboration with the IP course faculty member developed a five hour introductory workshop and designed curricular elements to incorporate AI and MI. AI provided a framework that allowed the students to create a vision of a successful nurse and provided a positive exploration of their upcoming experience. Motivational Interviewing and behavioral theory elements provided a foundation for exploring the specific behaviors associated with developing nursing competence and prioritizing areas to develop. The reflection activities and live practice sessions supported the learning and competency of the newly acquired AI and MI skills.

Outcomes Achieved/Documented: Faculty explored the best fit for MI Aims within the LCC curriculum and the impact on the students within this IP course.

Conclusions: The MI Aims project is a viable teaching technique and can be explored in further research with this pre-licensure student population. Options for enhancing the education application will be explored based upon student feedback.

CHRONIC ILLNESS

The Power of the Liver Transplant Waiting List

Lissi Hansen, PhD, RN
Associate Professor
Oregon Health & Science University
Portland, OR

Yi Yan, RN
Clinical Instructor
Oregon Health & Science University
Portland, OR

Susan J. Rosenkranz, MA
Research Associate
Oregon Health & Science University
Portland, OR

Background: Mrs. Johnson, a 60 year old woman, is being rushed from a medical unit to the intensive care unit for the management of massive upper gastrointestinal variceal bleeding. Like Mrs. Johnson, many patients deteriorate or develop serious end-stage liver disease related complications while waiting for a liver transplant. Consequently, such patients are temporarily unsuitable to undergo transplant surgery and are placed into a temporarily inactive category, or *status 7*, on the liver transplant waiting list. No research has focused on this special population and their families' experiences during the inactive period.

Purpose: Describe the experience of a patient being status 7 on the liver transplant waiting list from the perspectives of family members and health care professionals.

Methods: A multidisciplinary research team collected data that included 38 hours direct observation at the bed side, 9 semi-structured interviews conducted with 6 family members, and 9 semi-structured interviews with 8 health care professionals from nursing, medicine and other health care disciplines. Interviews were audiotaped, transcribed verbatim, and analyzed using a combined deductive-inductive content analysis approach.

Results: Mrs. Johnson stayed in the intensive care unit for 5 days and returned to active status on the waiting list when she transferred out of the unit. The Johnson family's rollercoaster-like journey through the inactive period can be described in three phases: dealing with crisis, confusion and frustration, and back on the road to transplant. Three themes emerged during the first phase: drastic shift in circumstance, emotional turmoil, and keeping the hope alive. Two themes emerged during the second phase: mismatched communication and different perceptions. The third phase was filled with relief and excitement. These three phases corresponded with the progression of Mrs. Johnson's clinical condition. The focus throughout each phase for family members and health care professionals was to get Mrs. Johnson's status re-activated on the liver transplant waiting list.

Implications: This case presentation can serve as a starting point for developing inquiries that further explore experiences of patients with end-stage liver disease and family members as they struggle during the inactive period on the waiting list. As many families in the intensive care unit, the Johnson family experienced emotional turmoil and stress in addition to communication challenges with health care professionals. To support and improve communication, professionals should assess family members' needs for information and their understanding of the information. Information should be provided honestly, clearly, and consistently to help reduce family member stress and anxiety.

Funding: The study of which the case presentation is a part was funded by a grant from the National Institute of Nursing Research, R21 NR009845.

CHRONIC ILLNESS

Who Are the Rule Outs?

Patients Who Do Not Have Acute Coronary Syndrome in Emergency Dept.

*Anne Rosenfeld, PhD, RN, FAAN
Professor and Associate Dean
College of Nursing
The University of Arizona
Tucson, AZ*

*Bruce A. Cooper, PhD
Senior Statistician, Associate Adjunct
Professor, School of Nursing
University of California, San Francisco
San Francisco, CA*

*Mohamud Daya, MD, MS
Associate Professor
Oregon Health & Science University
Portland, OR*

*Elizabeth P. Knight, RN, BSN
Graduate Assistant, College of Nursing
The University of Arizona
Tucson, AZ*

*Holli A. DeVon, PhD, RN
Associate Professor, College of Nursing
University of Illinois, Chicago
Chicago, IL*

Purpose/Aims: To profile demographics, presenting symptoms, clinical features and discharge diagnoses of patients who present to the emergency department (ED) with possible acute coronary syndrome (ACS) who are then ruled out.

Background: Approximately 85% of patients presenting to the ED with symptoms suggestive of ACS are subsequently ruled out. Rapid evaluation of these patients has been called one of the most challenging of diagnostic dilemmas. Nurses are largely responsible for the initial assessment of these patients. Understanding the profiles of patients who rule out could assist triage nurses with patient evaluation.

Methods: This study is part of a larger prospective, longitudinal study designed to examine the influence of gender on symptoms during ACS. Trained research assistants collected data including demographics, initial symptoms and clinical variables. Symptoms were measured dichotomously (present/absent) with a 13-item validated checklist. The final diagnosis at discharge from the hospital, whether from the ED or inpatient setting, was abstracted verbatim from the medical record by trained research assistants blinded to the symptom checklist. Chi-square statistics were used to examine gender differences in profile variables.

Results: We enrolled 475 patients presenting to three EDs with possible ACS; 318 were ruled out for ACS. Mean age of patients who ruled out was 57.6 years (SD 15.6 years). The sample was 47% female and 32% from minority populations. The most frequently reported single symptom in rule outs for both women and men was chest discomfort. Women and men differed significantly on three symptoms, with women more likely to report chest pressure, lightheadedness, and upper back pain. The most common discharge diagnosis was unspecified or atypical chest pain (n=143; 45%), followed by alternate cardiac diagnoses, including heart failure, palpitations and atrial fibrillation.

Implications: Patients admitted to the ED with potential ACS and who are ruled out presented similarly to ACS patients, presenting primarily with chest discomfort. There were gender differences in their symptoms. The role of rule out profiles in ED ACS risk stratification requires further study.

Funding: This study is funded by NIH: R01 NR012012 (DeVon, PI).

Abstracts of Poster Presentations

CHRONIC ILLNESS: ADOLESCENCE

A TAILORED HPV EDUCATIONAL INTERVENTION TO INCREASE HPV VACCINE UPTAKE

Tonimae Maesa Bancod, Debra Ilchak

CHARACTERIZING QUALITY HEALTHCARE SERVICES FOR YOUNG SEXUAL MINORITY WOMEN

Michael Johnson, Lynne Nemeth

DEVELOPMENT OF THE ADOLESCENT DIGITAL PERCEPTION OF SELF QUESTIONNAIRE (ADPOSQ)

Annmarie Lyles

ENGAGING RURAL YOUTH AS ADVOCATES FOR “HEALTHY SNACKING ZONES”: FIRST YEAR RESULTS

Nancy E. Findholt, Betty T. Izumi, Jackilen Shannon, Thuan Nguyen, Carole A. Smith

HEALTH-RISK BEHAVIORS AMONG ALTERNATIVE HIGH SCHOOL STUDENTS WHO PLAY SPORTS

*Karen E. Johnson, Marla E. Eisenberg, Linda H. Bearinger, Jayne A. Fulkerson,
Renee E. Sieving*

MILLENNIALS, MALIGNANCY AND THE CHANGING TIMETABLE OF ADULTHOOD: NURSING IMPLICATIONS

Eden Brauer

MORE THAN A CAP: ADOLESCENT PERCEPTIONS OF THE IMAGE OF NURSING

*Marla J. Marek, Kristi Bahr, Roberto Gutierrez, Wendy Matthew, Melanie Rines,
Mey Saephanh, Jennifer Serratos, Mahsa Takhsha*

THE INTERSECTION OF DISABILITY
AND SUBSTANCE ABUSE IN ADOLESCENTS

Linda L. Eddy, Sterling McPherson, Caroline Jacobs

TRANSITION CONCERNS OF YOUNG ADULTS
WITH CYSTIC FIBROSIS AND THEIR FAMILIES

Marie L. Lobo, Ashley Nordell, Amie Merhege

USING “TEACH-BACK” TO IMPROVE KNOWLEDGE
OF HEALTHCARE NAVIGATION AMONG
HIV+ ADOLESCENTS

Andrew J. White, Lois Howland, Jennifer Lewis

WEIGHT-BASED STIGMA AND BINGE-EATING DISORDER
IN LOW-INCOME, MULTI-ETHNIC ADOLESCENTS

Rana Halabi Najjar

YOGA ON ACADEMIC, ADJUSTMENT BEHAVIOR
AND SELF ESTEEM AMONG ADOLESCENTS

*Anita David, Sreelakha Bhaskarakurupa, Rajeswari Singaravelu,
Linda H. Eaton, Ardith Z. Doorenbos*

CHRONIC ILLNESS: ADOLESCENCE

A Tailored HPV Educational Intervention to Increase HPV Vaccine Uptake

Tonimae Maesa Bancod, RN, BSN, DNP

FNP Student

College of Nursing and Health Innovation

Arizona State University

Phoenix, AZ

Debra Ilchak, DNP, RN, FNP-BC, CNE

Clinical Assistant Professor

College of Nursing and Health Innovation

Arizona State University

Phoenix, AZ

Purpose: The purpose of this clinical applied project is to determine if a tailored Human Papillomavirus (HPV) educational intervention affects uptake of the HPV vaccine in patients 18 to 26 years of age.

Background: HPV is the most common sexually transmitted disease in the United States with almost all sexually active individuals acquiring HPV during their lifetime. HPV is the leading cause of genital warts, oral cancer, cervical cancer, and is also contributory to several other cancers. Despite efforts to eradicate this disease with HPV vaccines, vaccination rates of the U.S. population remain suboptimal with the average percentage of uptake at 19% -22%. Six cross-sectional studies and four systematic reviews showing moderately high reliability and validity were retrieved from a systematic literature review. The evidence demonstrates that health care providers can increase uptake of the HPV vaccine by providing patients with structured education regarding HPV prevention, utilizing concepts of the Health Belief Model, and emphasizing healthcare provider recommendation for the vaccine.

Methods: This clinical applied project will be implemented at a university healthcare clinic. Participants will be male and female patients who are 18 to 26 years of age and have not completed the HPV vaccine series. An 8.5-inch by 11-inch laminated HPV Education Algorithm Teaching Tool will be utilized to discuss HPV and the recommendation to receive the HPV vaccine with participants. This teaching tool was developed based on the concepts of the Health Belief Model. Upon completion of the intervention, participants will be given a copy of the CDC HPV fact sheet and offered the HPV vaccine. In addition to whether or not participants receive the HPV vaccine, their demographic data and responses to the questions on the teaching tool will be collected.

Outcomes: The project is currently in progress and no outcomes are documented. Data analysis will begin in January 2014. Expected outcomes include increased HPV vaccine uptake rates within this clinical setting after project implementation.

Conclusions: The prevalence of HPV-associated disease continues to increase and it is imperative that health care providers apply evidence into practice that will help reduce the health and economic burden of HPV. A tailored HPV educational intervention can be easily incorporated into a patient's visit to provide HPV education and emphasize provider recommendation for the HPV vaccine. By increasing HPV vaccine uptake, health care providers can help reduce the morbidity and mortality associated with HPV.

CHRONIC ILLNESS: ADOLESCENCE

Characterizing Quality Healthcare Services for Young Sexual Minority Women

Michael Johnson, MSN, RN
Lecturer, School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV

Lynne Nemeth, PhD, RN, FAAN
Associate Professor, College of Nursing
Medical University of South Carolina
Charleston, SC

Study Aims: The long-term goal of this study is to support the health and wellness of lesbian and bisexual college aged women through providing quality healthcare services. The specific aims of this study are:

- 1) Explore the experiences of college age lesbian and bisexual women regarding their healthcare encounters with health services.
- 2) Characterize the perceptions of college age lesbian and bisexual women regarding quality healthcare services.

Background and Rationale: Approximately 1.4 – 1.8 million college women identify as lesbian, bisexual, or unsure of their sexual orientation. The Institute of Medicine and Healthy People 2020 emphasize disparities in health outcomes and inequities of healthcare services of lesbian and bisexual women, in comparison to heterosexual women. Additionally, research suggests lesbian and bisexual women delays or does not use healthcare services because of poor quality healthcare, including providers being insensitive, discriminatory, biased, or not having knowledge specific to LB medical needs. Although few studies have linked under utilization of care to worse health outcomes, researchers have long presumed a relationship between the two. Despite these demonstrated needs for research and guidelines for providing quality healthcare to lesbian and bisexual college age women, we found little literature. This qualitative study will begin to address this research gap by exploring and characterizing the perceptions of lesbian and bisexual college women regarding quality healthcare services.

Methods: This exploratory qualitative study used a grounded theory approach and semi-structured interviews to accomplish the specific aims. In-depth interviews were conducted via telephone with English speaking participants who self-identified as a sexual minority female between the ages of 18 – 24 and self-reported being enrolled at a 4-year university. The in-depth interviews were audio recorded and professionally transcribed. The transcribed interviews were uploaded into NVivo 10.0 and were analyzed using the constant comparative method.

Results: This study is ongoing, but the emerging characters of quality healthcare services include *inclusion of same-sex partners, supporting disclosure of sexual orientation, and attentiveness to individual needs*. Additionally, all of the participants have thus far encouraged health care providers and clinicians to educate themselves on sexual minority women and their specific needs.

Implications: Few resources exist for organizations to provide quality care to young lesbian and bisexual college women. The findings from this study can be used by providers and clinicians as a model to examine how they provide healthcare to lesbian and bisexual women. Other developments may include models for creating welcoming healthcare environments and models for developing cultural competence education for health providers, clinicians, and support staff. Additionally, nursing educators may use these findings as a model for educating pre-licensure and nurse practitioner students.

CHRONIC ILLNESS: ADOLESCENCE

Development of the Adolescent Digital Perception of Self Questionnaire (ADPoSQ)

Annamarie Lyles, PhD, RN
Assistant Professor
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ

Purpose: The purpose of this study was to understand and measure young adolescent boys' perception of self.

Conceptual Basis: This study documented and began to measure the five constructs of the Integrated Behavior Model, that is, (a) ATTITUDE: feelings and beliefs about self including body, body parts, and weight, perception of self, accuracy of own perception compared to actual measurements of body parts, height, and weight, satisfaction with current self, and importance of changing one's self; (b) PERCEIVED NORM: influence of others regarding one's self; (c) PERSONAL AGENCY: perception of boys' ability to be in charge of their own self; (d) INTENTIONS: plans to maintain or change one's self; and (e) ACTIONS: activities taken to maintain or change one's self.

Rationale: It is necessary to develop, a theory-driven, developmentally appropriate, reliable, valid, and culturally neutral instrument, the ADPoSQ. The Body Mass Index (BMI) is limited to body weight, therefore being an incomplete measure for appropriately referring adolescents for treatment of weight issues. The ADPoSQ allows boys to create computerized selves (avatars) to portray their current and preferred bodies to augment and expand the survey questions.

Methods: The instrument, provisionally entitled ADPoSQ (Adolescent Digital Perception of Self Questionnaire), was developed and tested for content validity and internal consistency and test-retest reliability.

Results: The findings of this initial study are that the ADPoSQ has adequate content validity and internal consistency. It is clearly feasible for the boys to use as well as the investigator to collect, manage, and interpret the data. Further development is necessary in the measurement of personal agency.

Implications: The long-term goal of the development and testing of the ADPoSQ is to make it available to researchers and professionals to screen and target young adolescent boys for appropriate targeted interventions to attain and maintain a healthy self. The ADPoSQ has potential for use in schools and clinics, however, will require continued development and testing for construct and criterion validity and reliability.

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CHRONIC ILLNESS: ADOLESCENCE

Engaging Rural Youth as Advocates for “Healthy Snacking Zones”: First Year Results

*Nancy E. Findholt, PhD, RN
Associate Professor
School of Nursing
Oregon Health & Science University
La Grande, OR*

*Betty T. Izumi, PhD, MPH, RD
Associate Professor
School of Community Health
Portland State University
Portland, OR*

*Jackilen Shannon, PhD
Associate Professor
Public Health & Preventive Medicine
Oregon Health & Science University
Portland, OR*

*Thuan Nguyen, PhD
Assistant Professor
Public Health & Preventive Medicine
Oregon Health & Science University
Portland, OR*

*Carole A. Smith, MEd
Regional Administrator
OSU Extension Service – Union County
La Grande, OR*

Purpose: To evaluate the effects of an intervention that engages rural youth as advocates for “healthy snacking zones” within 5 elementary/middle schools and nearby food stores.

Background: Childhood obesity is a serious public health threat which disproportionately affects rural populations. One contributor to obesity may be unhealthy snacking. Snacking has increased among youth of all ages and the snacks that children often choose to eat contribute significantly to their daily energy intake. Children’s snacking habits are strongly influenced by their immediate food environments, including schools and food stores proximal to schools. Thus, interventions are needed to improve these environments.

Methods: Youth were recruited for new 4-H “SNACZ” clubs. Club members participated in a photovoice assessment to raise their awareness of environmental barriers to healthy snacking and planned and implemented community outreach projects to promote healthy snacking among their peers and parents. Process data were collected to document youth participation, intervention activities, implementation barriers and supports, and youth perceptions of the experience. Baseline data were collected on school and food store environments, children’s snack choices, and obesity prevalence. Methods included surveys of teachers and youth, interviews with school principals and food store owners, field observation of schools and food stores, and measurement of student body mass index.

Results: Thirty-two youth participated and implemented several outreach projects, including poster contests and booths at community festivals. Challenges included finding meeting times that did not conflict with other school activities; supports included schools and stores willing to support youth activities. Youth perceptions of the experience were positive. Baseline assessments revealed that school environments did not support healthy snacking; availability of healthy snacks and beverages was low in stores near schools; students infrequently consumed fruits, vegetables, and low-fat/nonfat milk for snacks but had high consumption of soda, candy, and chips; 33% of students in grades K-8 were overweight and 16.3% were obese.

Implications: Interventions that create healthful food environments are a population-focused strategy for improving diets and reducing obesity.

Funding: Agriculture and Food Research Initiative Grant # 2012-68001-19702 from the USDA National Institute of Food and Agriculture, Childhood Obesity Prevention: Integrated Research, Education, and Extension to Prevent Childhood Obesity, A2102.

CHRONIC ILLNESS: ADOLESCENCE

Health-Risk Behaviors among Alternative High School Students Who Play Sports

*Karen E. Johnson, PhD, RN
Assistant Professor
School of Nursing
University of Texas at Austin
Austin, TX*

*Marla E. Eisenberg, ScD, MPH
Associate Professor
Division of Adolescent
Health & Medicine
University of Minnesota
Minneapolis, MN*

*Linda H. Bearinger, PhD, RN, FAAN,
FSAHM, Professor
School of Nursing
University of Minnesota
Minneapolis, MN*

*Jayne A. Fulkerson, PhD
Associate Professor
School of Nursing
University of Minnesota
Minneapolis, MN*

*Renee E. Sieving, PhD, RN, FSAHM
Associate Professor
School of Nursing
University of Minnesota
Minneapolis, MN*

Purpose/Aims: To examine 10-year trends in associations between weekly sports team participation and health-risk behaviors among alternative high school (AHS) students in three categories: substance use, sexual risk-taking, and violence involvement.

Rationale/Conceptual Basis/Background: AHS students are an understudied population at risk for school dropout and involved in high levels of health-risk behaviors. Existing evidence suggests sports team participation may buffer youth from engaging in health-risk behaviors. No known studies have explored relationships between sports team participation and health-risk behaviors among AHS students.

Methods: We used data from AHS students participating in the 2001, 2004, 2007, and 2010 Minnesota Student Survey ($n = 2,847$ to 4,596) for this repeated cross-sectional analysis. Gender and age of samples remained consistent across survey years, but samples became more diverse (28% youth of color in 2001 to 50% in 2010). We used logistic regression to examine relationships between sports team participation and 14 outcomes. We tested whether associations varied by survey year, gender, and race/ethnicity.

Results: Each year, about 11% of AHS students participated in sports. Among males, sports team participation was a protective factor for 6 substance use outcomes and a risk factor for 2 violence-related outcomes. Among females, sports team participation was a protective factor for 2 outcomes (*cigarette use, ever had intercourse*) and a risk factor for 2 violence-related outcomes. There were no differences by race/ethnicity or survey year.

Implications: While sports team participation holds potential as a protective factor, it yielded inconsistent effects in the present study. Further research is needed with AHS students who play team sports to elucidate mechanisms influencing health-risk behaviors and identify avenues for health promotion among these students. Nurses working in AHSs and public health settings are in ideal positions to collaborate with school administrators and researchers to facilitate such research and translate it into practice with AHS students.

Funding: CDC#T01-DP000112 (Bearinger); MCHB-HRSA#T80-MC00021 (Bearinger).

CHRONIC ILLNESS: ADOLESCENCE

Millennials, Malignancy and the Changing Timetable of Adulthood: Nursing Implications

*Eden Brauer, RN, MSN
Doctoral Student, School of Nursing
University of California, Los Angeles
Los Angeles, CA*

Purpose: To analyze the concept of emerging adulthood and present its relevance in conceptualizing research as well as clinical interventions in cancer care.

Rationale: Cancer is the leading cause of non-accidental death among adolescents and young adults in the United States. While cancer treatments have improved tremendously over the last several decades, epidemiologic data show that survival improvements for all cancers among this age group have lagged behind younger and older cohorts. In addition to poorer survival outcomes, adolescent and young adult cancer survivors report a range of poorer health outcomes including higher rates of anxiety, depression, smoking, obesity, heart disease, hypertension, and asthma when compared to young adults without a history of cancer. These characteristics may contribute to cancer recurrence, secondary malignancies as well as poor quality of life. The underlying reasons for these outcome disparities are not well understood, but factors specific to age and life stage may contribute to the relative lack of progress among this patient group. Therefore, the concept of emerging adulthood may offer a more contextual perspective on the cancer experience of young people.

Undertaking: Building on the work of Erikson and Levinson in developmental psychology, Arnett (2000) first proposed the concept of emerging adulthood to describe a distinct life stage between adolescence and young adulthood. According to Arnett, the defining attributes of emerging adulthood include instability, change, exploration, and role experimentation. In this analysis, the relevance of emerging adulthood is explored with respect to cancer care for young people using an integrated method of concept development (Meleis, 2007). The potential for this concept to reflect the life-course as well as contextual factors that influence health is highlighted. Finally, the integration of emerging adulthood in the development of optimal standards of care and clinical interventions is addressed.

Outcomes Achieved: The concept of emerging adulthood acknowledges the profound demographic shifts and socioeconomic realities that young people face today. Such reframing may provide new insight to the macro-level factors that affect the health and wellbeing of this vulnerable population and mechanisms underlying these observed disparities. Since the concept was first introduced, emerging adulthood has gained traction in both scholarly literature as well as popular media. The utility of this concept in nursing research and practice, particularly in cancer care, is examined. Advantages and limitations of the concept and its use in cancer care are reviewed, particularly as they relate to the delivery and quality of cancer care globally.

Conclusions: The disparities in outcomes for emerging adults with cancer and the lack of progress in this area over the last two decades are alarming and poorly understood. The conceptualization of emerging adulthood as a distinct developmental stage may offer new insight into observed disparities in health outcomes and overall survival. Nursing research on the development and evaluation of age-appropriate survivorship care plans to manage chronic conditions and promote healthy behaviors may have significant impact on reducing long-term morbidity and mortality and improving outcomes for young cancer survivors.

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

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CHRONIC ILLNESS: ADOLESCENCE

More Than a CAP: Adolescent Perceptions of the Image of Nursing

Marla J. Marek, RN, PhD, Associate Professor
Kristi Bahr, RN, BA, Master's Student
Roberto Gutierrez, RN, BA, Master's Student
Wendy Matthew, RN, BSN, Master's Student
Melanie Rines, RN, BSN, Master's Student
Mey Saephanh, RN-BC, BS, Master's Student
Jennifer Serratos, RNC, BSN, Master's Student
Mahsa Takhsa, RN, BSN, Master's Student

School of Nursing
California State University, Stanislaus
Turlock, CA

Although a national survey reports that nurses are highly respected and a trusted profession, only 5% of high school students said they would choose nursing as a career. School aged children have misconceptions about the role of nurses, where they work, and the diversity of career options for nursing. This discrepancy between public perception and actual career choice decisions leaves the profession at a loss for how to promote nursing as a highly respected career choice. The purpose of this study was to explore how junior and senior high school students view nursing both visually and textually. A total of 85 Junior and Senior high school students in the central valley of California (Fe=54, Ma=27, Unk=4). Using the Draw and Write Method, students were given a piece of paper and colored pencils and asked to draw an image of a nurse and then list the top three things that nurses do.

Content analysis was used to examine the image and textual data. Over a period of several weeks, images and text were read and re-read by all the researchers. Data were examined individually, coded, sorted, and placed into categories. As themes emerged, categories were combined until consensus was achieved between all researchers. Images were examined by gender of the image, gender of the drawer, grade level, attire, expression, equipment, and symbols. Images were also coded and placed into the final three categories.

The acronym CAP describes the three themes that emerged from student responses to what nurses do: Care, Assist, and Perform. Caring behaviors were typically described as "Care for people" and "Nurses care so much". Assist was often described as "Assist the doctor", "Help the doctor", and "Get the patient ready for the doctor". Perform included a variety of tasks such as "They do check-ups", "Paperwork", "Ask you a lot of questions", and "They see if something is broken". Most of the images were of female nurses (n=66) although there were some male nurses (n=12). Most of the images showed nurses in scrubs (n=50), although there were several dresses (n=20). Many of the nurses were wearing a hat or cap (n=39), several of which had a cross on them. Crosses were also noted on uniforms and bags. Most of the nurse images were smiling (n=58).

Findings indicate that nurses need to advocate for more accurate and professional role models in all settings where adolescents are exposed to nurses. In addition, the profession of nursing would benefit from media campaigns that depict ethnically diverse male and female nurses in different settings performing a variety of complex nursing roles.

CHRONIC ILLNESS: ADOLESCENCE

The Intersection of Disability and Substance Abuse in Adolescents

Linda L. Eddy, PhD, RN, CPNP
Associate Professor
College of Nursing
Washington State University
Vancouver, WA

Sterling McPherson, PhD
Assistant Professor
College of Nursing
Washington State University
Vancouver, WA

Caroline Jacobs, MEd, RN
PhD Student
College of Nursing
Washington State University
Vancouver, WA

Aim: To better understand the intersection of disability and substance use in adolescents with disabilities.

Background: According to the National Survey of Children with Special Health Care Needs, 14% of children in the United States are estimated to have special health care needs. However, it is difficult to understand how best to design potential interventions that might prevent substance abuse and to identify modifiable risk factors in adolescents with disabilities. The literature about substance abuse in this population is mixed. For example, Beitchman et al. (2001) and Kepper et al. (2011) found that adolescents with disabilities were more likely to abuse drugs and alcohol than were adolescents without disabilities. In contrast, some studies (e.g. Moline & Pelham, 2001) concluded that adolescents without disabilities were actually more likely to experiment with drugs and alcohol than were adolescents with disabilities. Many studies about these relationships have been published, but the literature is still unclear about whether having a disability puts adolescents at higher risk of substance abuse or not. It is also unclear what interventions might be feasible and effective in preventing or reducing harm from substance abuse in this population.

Methods: We are currently conducting two studies. Study One is a meta-synthesis to examine the relationship between disability and substance abuse in adolescents aged 11-21 years with a variety of disabilities from both qualitative and quantitative perspectives. Study Two is a meta-analysis to examine the effectiveness of substance abuse prevention and treatment programs in this population. The rationale for undertaking the meta-analysis is to understand the true average effect size among intervention studies that have conflicting results, which is the case when examining substance abuse programs for adolescents with disabilities. We hope to develop a more correct estimate of effect magnitude for various programs and to examine subgroups in ways not possible with individual studies.

Results: This is work in progress and findings will be reported at study completion.

Implications: In this era of scarce funding, it is important to identify those most in need of services and determine what evidence-based programs are available. Understanding the prevalence of substance abuse in adolescents with disabilities and identifying effective programs will help nursing better serve this vulnerable population.

Funding: This project was funded by a Washington State University Vancouver Mini-grant.

CHRONIC ILLNESS: ADOLESCENCE

Transition Concerns of Young Adults with Cystic Fibrosis and their Families

Marie L. Lobo, PhD, RN, FAAN
Professor

Ashley Nordell, MSN, RN, PNP
Graduate Student

Amie Merhege, MSN, RN, PNP
Graduate Student

College of Nursing
University of New Mexico
Albuquerque, NM

Purpose Aims: The purpose of this study was to examine concerns of young adults with cystic fibrosis and their parent or caregiver in a small Cystic Fibrosis (CF) Clinic in a rural Southwestern state.

Background: CF is the most common genetic illness found in Caucasian families. While CF has long been considered a disease of childhood, more than 50% of the CF population in the US is over 18 years of age. The transition between pediatric and adult providers is a new phenomenon, with adult pulmonary providers often not understanding the medical management of individuals with CF. All individuals with CF in the state are seen in these clinics.

Methods: Descriptive survey methods were used. Both teens/young adults with CF and their parent or caregiver were surveyed. 17 individuals with CF between the ages of 13 and 21 years are seen in the pediatric and adult pulmonary clinics.

Results: Nine (53%) of the 17 dyads participated in this study. The mean age of the 9 teens/young adults (6 female and 3 males) was 15.89 years, the mean age of their 9 adult caregivers (all mothers) was 46.7 years. Mean education of the teens/young adults was 10.5 years and of their caregivers 12 years. 6 of the 9 dyads were Caucasian. Families attended this CF Center between 10 and 21 years $M = 13.89$ years, $sd = 3.59$). Only 3 of the teens/young adults or parents had met with adult pulmonary staff during the transition process. These meetings were primarily with the clinic physician, nurse practitioner, clinic nurse, CF dietician, social worker and respiratory therapist.

Parents voiced more concerns than the teens/young adults. Parents were more concerned about knowing who to call with questions after transition to adult clinic ($X^2 = 6.449$, $p = .092$) or the adult clinic "running on time" ($X^2 = 6.296$, $p = .098$). All of the parents wanted a written transition plan when meeting with the adult CF team ($X^2 = 6.606$, $p = .086$). Both parents and teens/young adults were concerned about leaving their pediatric CF Team behind ($X^2 = 9.679$, $p = .022$) and meeting their new caregivers ($X^2 = 6.449$, $p = .040$). Other concerns by both caregivers and young adults were more serious, such as being concerned about an increased exposure to infections in adult clinic ($X^2 = 5.627$, $p = .060$). In open ended questions parents voiced concerns about not being involved in their child's care and decision making when they transitioned to adult care.

Implications: A transition program is in place in this clinic, however the data are demonstrating that the program is not effective in allaying the concerns of patients attending the clinics, particularly the concerns of the parents. A more robust effort at providing transition services must be developed, including helping parents with the transition to their child making their own health care decisions.

Funding: Supported by HRSA T72 MC 00004 University of New Mexico Pediatric Pulmonary Center.

CHRONIC ILLNESS: ADOLESCENCE

Using “Teach-Back” to Improve Knowledge of Healthcare Navigation among HIV+ Adolescents

*Andrew J. White, BSN
DNP Student*

*Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA*

*Lois Howland, DPH, MSN
Assistant Professor*

*Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA*

*Jennifer Lewis, PhD, MSW
Clinical Faculty*

*University of Southern California
San Diego, CA*

Purpose: To improve patient’s knowledge and skills of healthcare navigation related to the transition to adult care among HIV-infected youth. The practice change approach was to increase the outreach coordinator’s ability to use the “teach-back” method to improve patient knowledge scores related to healthcare navigation. Evaluation of this evidence-based teaching strategy on the target population occurred over repeated visits.

Background: Nearly 20% of all 20-year-olds engaged in HIV care are lost to follow up in the year following their 21st birthday (Lee et al., 2013). HIV infected individuals who do not receive consistent medical care are more likely to develop opportunistic infections, develop drug resistance, and potentially spread the virus to others through risky behaviors. Application of effective education strategies to help youth transition to adult care is needed. Based on research, the National Quality Forum and the Joint Commission recommended using a “teach-back” approach to evaluate and confirm understanding of patient teaching (National Quality Forum, 2005; The Joint Commission, 2007).

Approach: Approach focused on training the adolescent care coordinator on methods to test for health literacy, assess for comfort level in healthcare navigation, and provide new knowledge and skills related to effective health care utilization.

Undertaking: Evaluation of coordinator’s skill of using the “teach back” method was assessed following training. The coordinator was provided with educational material and an interactive 15-20 minute educational session. After the educational intervention, the coordinator was given a post-test to evaluate the immediate effectiveness of the educational intervention. To evaluate the impact of this evidence-based teaching strategy, the outreach coordinator was provided with a teaching plan to identify specific knowledge deficits the adolescent has in navigating the healthcare system. The coordinator used the Brief Estimate of Health Knowledge and Action-HIV (Osborn, Davis, Bailey, & Wolf, 2010) to determine the adolescent’s health literacy score, followed by knowledge assessments focusing on medical care and medication. Knowledge scores were assessed at baseline and then post-education session at three additional follow-up clinic visits.

Outcomes: Pending.

Conclusions: Pending data analysis but implementing the teach-back method of health education should increase the capacity of HIV care providers to deliver effective health education to HIV-infected youth thereby promoting improved continuity of care and better treatment outcomes.

CHRONIC ILLNESS: ADOLESCENCE

Weight-Based Stigma and Binge-Eating Disorder in Low-Income, Multi-Ethnic Adolescents

*Rana Halabi Najjar, PhD, RN, CPNP
Assistant Professor
School of Nursing
Oregon Health & Science University
Monmouth, OR*

Aim: The purpose of this study was to describe and examine the relationship between weight-based stigma, binge-eating disorder, and psychological distress in low-income, multi-ethnic adolescents.

Background: Weight-based stigma is a factor that potentially impacts the emotional problems experienced by overweight and obese people, and is perpetuating the difficulties that these individuals are burdened with on a daily basis. Furthermore, research has revealed that children enduring weight-based stigma are experiencing psychological distress and utilizing unhealthy coping strategies to deal with their stigmatizing experiences. Binge eating is an important variable to be addressed in stigma studies because binge eating could be triggered by anxiety, depression, and anger. In addition, binge eating has been known to predict the onset of obesity, especially in adolescents and has been correlated with an increase in preoccupation of weight and dieting, increasing the likelihood of adolescents engaging in unhealthy eating habits. There is a paucity of research examining the relationship between weight-based stigma, binge eating disorder, and psychological distress in low-income adolescents. Elucidating the correlations of these variables will help design more effective multidisciplinary and multiethnic interventions.

Method: One hundred and five adolescents recruited from low-income neighborhoods completed a self-report questionnaire to assess for binge eating behavior, weight-based stigma, and psychological distress. Age, gender, ethnic background, and household income were collected. Heights and weights were measured at the time of data collection.

Results: From the sample of 105, 20% reported having binge eating disorder. In addition, 58% ($n = 61$) of the sample reported having at least one stigmatizing experience, 31.5% ($n = 33$), reported marked concern with body shape (BSQ score greater than 140), and 21% ($n=22$) had high levels of psychological distress (GSI raw score above .63). Females and Non Hispanics (predominately African Americans) experienced higher levels of weight-based stigma. Participants with binge eating disorder reported higher levels of psychological distress and experienced more weight-based stigma. Weight based stigma and psychological distress accounted for 33% of the variance in BED ($F(8,96) = 7.36, p < .001$).

Implications: This study confirms that weight-based stigma, binge-eating disorder, and psychological distress are common occurrences in low-income adolescents. Raising awareness about weight based stigma and developing behavioral interventions is paramount to decreasing the effects of stigma in low-income, multi-ethnic adolescents. Developing educational programs in schools focused on informing students about the harmful effects of weight-based stigma and binge eating disorder are imperative. In addition, interventions to reduce weight teasing and bullying in the school and at home should be implemented.

CHRONIC ILLNESS: ADOLESCENCE

Yoga on Academic, Adjustment Behavior and Self Esteem among Adolescents

*Anita David, PhD, RN¹; Sreelakha Bhaskarakurupa, PhD, RN²;
Rajeswari Singaravelu, PhD, RN³; Linda H. Eaton, MN, RN, AOCN⁴;
Ardith Z. Doorenbos, PhD, RN, FAAN⁴*

¹Pediatric Nursing, Sri Ramachandra University, Chennai, India; ²Medical Surgical Nursing; ³Obstetrical & Gynecological Nursing; ⁴Biobehavioral Nursing and Health Systems, University of Washington, Seattle, WA

Purpose/Aims: To determine the effectiveness of yoga on academic performance, adjustment behavior and self-esteem among adolescents.

Rationale/Background: Adolescence is filled with intellectual, emotional, biological and physical changes. Emotional development is at maximum, unstable, psychologically vulnerable and faces a lot of adjustment problems outside the family and peer group. Seeks identity to himself want to be more independence. Peer groups can have positive and also negative influences and lead to an increase in experimentation with world and, threat of violence at home and outside school. Yoga helps the individual to harmonize and integrate thoughts, desires, and emotions, feelings, in realizing the true potential of a person, both in terms of his physical, intellectual skills, capabilities and personality development. The conceptual theory adopted was Kings' goal attainment.

Methods: A quantitative research method, pretest posttest control group design of 300 adolescent students (n=150 in intervention group, n=150 in control group). Approval was obtained from the institutional ethics committee. The samples were selected from Government Higher Secondary School Chennai, South India. Each subject in the intervention group attended a total of 5 classes for 5 days lasted for 20 minutes which included meaning, history, branches of yoga, pre-preparation, benefits and types of asanas were taught and demonstrated in group sessions.

Additionally, a booklet on Yoga- "A way to success" was provided for the intervention group on the 5th day following the demonstration class. It consists of information on different types and benefits of asanas. The intervention groups were monitored daily for the practice of asanas in the school under the supervision of a researcher. For the control group the routine activities were carried out. The data were collected includes background variables, Academic Achievement motivation Questionnaire, Bells adjustment Inventory Questionnaire and self-esteem Inventory Questionnaire. Posttest I was completed on 31st day and posttest II on 89th day. At the end of the study, control group received the information booklet on Yoga - "A way to success". Data were analyzed using descriptive & inferential statistics.

Results: The Measures of ANOVA revealed an overall improvement among adolescents in the intervention group in all aspects by effect of yoga compared to the control group (p <0.001). The intervention group showed greater improvement in Academic motivation than the control group at p<0.001. The intervention group's in all aspects of adjustment behavior had significantly improved compared to the control group at p<0.001. Self-esteem among the intervention group had significantly improved than the control group at p<0.001.

Implications: Effect of yoga on academic performance, adjustment behavior and self-esteem among adolescents will provide additional knowledge to the nurses working in hospitals, clinical and community settings. A booklet on Yoga- "A way to success" can be used in all schools by the adolescents as a guide to improve the cognitive functioning, self-esteem, adjustment towards school, family and society. Nurses can educate the parents regarding the identification of risky behavior among adolescents and also about parenting techniques to tackle them. Yoga played a vital role in enhancement of their academic achievement, adjustment behavior and self-esteem and over all development among adolescents.

Abstracts of Poster Presentations

CLINICAL NURSING

A SAFE MEDICATION MANAGEMENT PROGRAM FOR NURSES IN POST-ACUTE CARE

Anna J. Soliven

BEST PRACTICE: IMPLEMENTATION OF A POSITIVE PATIENT AND SPECIMEN BARCODING SYSTEM

Tiffania Szymanski, Mary Jo Clark, Sue Bowles

CAN TEAM COMMUNICATION CHECK-INS PREDICT TEAM FUNCTION AND IMPROVE OBSTETRICAL CARE?

*Jean T. Baumgardner, Susanna R. Cohen, Dilys Walker, Julia C. Dettinger,
John Cranmer*

EBP BELIEFS AND BEHAVIORS OF NURSES PROVIDING CANCER PAIN MANAGEMENT

Linda Eaton, Ardith Doorenbos

ESTIMATING QUALITY IN RURAL AND URBAN HOSPITALS USING A COMPOSITE INDICATOR

Diane K. Boyle, Byron J. Gajewski, Mary E. Burman, Mary Gatua

EVALUATING MEDICATION ADMINISTRATION WHEN INTEGRATING A SCANNER AND ACADEMIC HER

Lori Cook, Jennifer Sorensen, Sherry Fuller

NURSES' ATTITUDES AND READINESS FOR RESEARCH AND EVIDENCE BASED-PRACTICE

Lorraine S. Evangelista, Ty Thomas

IMPACT OF EBP TRAINING PROGRAM
AT A COMMUNITY BASED HOSPITAL

Ty Thomas, Lorraine S. Evangelista

INJURY PREVENTION AND RETAINING
THE AGING NURSING WORKFORCE

*William Chou, Ebere Ume, Shirley Evers-Manly,
Linda R. Phillips, Janet Mentes*

LEADERSHIP AND SAFETY CLIMATE:
A TYPOLOGY OF INTERVENING FACTORS

Shelly Fischer, Jacqueline Jones, Joyce Verran

MEANINGFUL USE ESSENTIALS: RN BENEFIT,
EASE OF USE, ACCEPTANCE, SATISFACTION

Deborah M. Judd, Kay M. Sackett

HEALTH LITERACY (HL) KNOWLEDGE AND EXPERIENCE
OF HOSPITAL-BASED NURSES

Diane Drake, Cheryl Westlake, June Melford

NURSES' PERCEPTIONS OF CONFLICT
AS CONSTRUCTIVE OR DESTRUCTIVE

Sunny Wonsun Kim, Julie McNulty

RELUCTANT RELIANCE: NURSE-INDUSTRY
INTERACTIONS AND THE PURCHASING PROCESS

Quinn Grundy

THE ROLE OF THE NURSE INFORMATICIST IN ADOPTION
OF EVIDENCE BASED PRACTICE

Alan Vierling, John Hudson

SELECTION OF THE BEST VASCULAR ACCESS DEVICE:
AN INTERVENTION TO PROMOTE NURSE ADVOCACY

Debra Kirkley, Marilyn Birchman, Deborah Burns, Judith Canfield

SIMULATED ERROR EXPERIENCES:
IMPROVING ATTENTION AND COMPLIANCE

Renae L. Dougal, Karen Breitzkreuz, Melanie C. Wright

SLEEP, FATIGUE, AND NURSING CARE DELIVERY:
ACUTE-CARE TRAUMATIC BRAIN INJURY PATIENTS

Ellita T. Williams, Hilaire J. Thompson

THE NURSING COMMUNITY APGAR PROGRAM

Molly Vaughan Prengaman, Ed Baker, David Schmitz

USING AN INNOVATIVE “SAFETY CROSS” TOOL
TO COMMUNICATE PRESSURE ULCER RISK

Glenda B. Kelman, Mary Anne Jadlos

CLINICAL NURSING

A Safe Medication Management Program for Nurses in Post-Acute Care

*Anna J. Soliven, MSN, APRN, CNS
DNP Student
University of San Diego
San Diego, CA*

Purposes/Aims: The purpose of this project was to: 1) evaluate medication errors and the medication administration processes of licensed nurses in skilled nursing facilities; 2) develop evidence-based educational modules to improve their knowledge and practice; and 3) to promote safe medication management outcomes for patients.

Rationale/Background: Inpatient preventable medication errors cost approximately \$16.4 billion annually per the Massachusetts Technology Collaborative and New England Health Care Initiative in 2008. The Institute of Medicine (*To Err is Human*, 1999) estimated 7000 deaths in the United States each year are due to preventable medication errors. Research has shown that practicing licensed nurses lack the knowledge related to medication classification, calculations and administration. Therefore, they are at a significant risk for making medication errors (Simonsen, Johansson, Daehlin, Osvik and Farup, 2011). Regulatory compliance also plays a vital role for skilled nursing facilities. In order to meet the federal regulations, a facility must not have a medication error rate of 5% or greater; or incur a significant medication error (*Code of Federal Regulations-State Operations Manual*, 2009).

Undertaking/Best Practice/Approach/Methods/Process: A review of how medication errors were identified and reported in 2 skilled nursing facilities was conducted. A pre-test questionnaire was developed and provided to evaluate the medication knowledge of licensed nurses working in these skilled nursing facilities. Two 30-minute evidence-based education modules were designed and provided to the licensed nurses. A post-test questionnaire was again provided to test the licensed nurses' drug knowledge, monitoring, administration and calculations.

In addition, pre-test observations of the nurses conducting medication administration processes prior to the education modules were performed. Post-test observations of the medication administration processes were also conducted of the same licensed nurses after the education modules were provided, to evaluate the effectiveness of the education modules.

Outcomes Achieved/Documented: Data is currently being analyzed.

Conclusions: The development, implementation of and continued education and training of licensed nurses in skilled nursing facilities regarding safe medication practices are imperative. This is essential in the prevention of medication errors and improvement in the quality of care and quality of life for our patients.

CLINICAL NURSING

Best Practice: Implementation of a Positive Patient and Specimen Barcoding System

Tiffania Szymanski
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA

Mary Jo Clark, PhD
Professor, Faculty Chair
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA

Sue Bowles, DNP, RNC-NIC, CNS
Clinical Nurse Specialist
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA

Project Purpose: The purpose of this project is to decrease mislabeled lab specimens by implementing a barcode scanning system.

Background: Accurate patient and specimen identification is an essential component of providing quality care. Misidentification can have potentially life threatening consequences for the patient. A result reported for the wrong patient could lead to a missed or delayed diagnosis, unnecessary procedure or treatment, even a life threatening hemolytic reaction. For over a decade accurate patient identification has topped the list of National Patient Safety Goals and continues to be the 1st National Patient Safety Goal for 2013. Mislabeled laboratory specimens are more likely to occur in units that perform frequent phlebotomy and care for higher acuity patients. For our patients these events may lead to additional or unnecessary lab draws inflicting additional pain and stress on already ill children. Mislabeled lab specimens are preventable occurrences. Implementation of an automated computer barcoding system allows for positive patient identification and linkage of all specimens to that patient through the entire testing process from collection to reporting. Barcoding has been shown to be effective in reducing specimen and laboratory testing identification error in various settings and has been recommended as an evidence-based “best practice” for reducing mislabeling of laboratory specimens.

Practice Change Process: Following hospital wide training of all inpatient staff, Beaker a barcode based positive patient identification system application in the EPIC computerized documentation system that communicates directly to the EMR, was implemented for use in all inpatient areas. Frequency of mislabeled and unlabeled samples reported in the laboratory before and after implementation will be used to evaluate the impact of the barcode based identification system.

Results and Outcomes: In Progress.

Implications and Conclusions: To be determined following review and analysis of results. It is expected that implementation of the barcoding system will decrease the frequency of mislabeled and unlabeled laboratory specimens leading to fewer errors and better patient outcomes.

CLINICAL NURSING

Can Team Communication Check-Ins Predict Team Function and Improve Obstetrical Care?

Jean T. Baumgardner, BS, RN, Family NP Student¹ baumgard@seattleu.edu
Susanna R. Cohen, MS, CNM, Program Director, Nurse Midwifery/Women's Health NP²
Dilys Walker, MD, Exec. Dir., PRONTO Intl.; Assoc. Dir., Global WACH; Assoc. Prof.³
Julia C. Dettinger, MPH, Research Coordinator³
John Cranmer, DNP, MPH, MSN, ANP, Senior Fogarty Fellow³

¹*College of Nursing, Seattle University, Seattle, WA*

²*College of Nursing, University of Utah, Salt Lake City, UT*

³*Department of Global Health, University of Washington, Seattle, WA*

Purpose and Aims: Obstetric emergency management in low and middle income countries requires cohesive team function. Understanding the role of communication techniques in team performance could allow health care teams to quickly assess communication health, diagnosis inter-professional communication barriers, and modify behaviors to better coordinate clinical management, avoid errors, and avert preventable maternal deaths We hypothesized that communication is foundational for cohesive team function. Using the PACT-Video tool, we will quantify the relationship between teamwork and communication during simulated emergencies, including general communication and teamwork skills and specific behaviors such as closed-loop communication or task delegation.

Background: High quality teamwork and effective communication are vital to coordinating care, ensuring safety, and reducing morbidity and mortality—particularly during emergencies. Though many factors contribute to maternal mortality, WHO estimates that errors in medical care affect 10% of patients globally. They have identified communication, clinical competency, and care coordination as global research priorities essential for improving clinical outcomes. Guatemala is among the low and middle-income countries that bear a disproportionate global burden of maternal and perinatal mortality. PRONTO International, seeks to effectively train obstetric teams to manage the country-specific obstetrical emergencies that contribute to their mortality burden. PRONTO's program utilizes skills-based team training and emergency simulations. Their curriculum is based on the TeamSTEPPS model and is designed to foster communication and teamwork during obstetrical emergencies.

Methods: 57 videos of obstetrical emergency management during PRONTO's Guatemala training were randomly divided between two Spanish-speaking coders using two-step random block assignment. Coders were blinded to the videos' sequence within PRONTO's intervention; 33% of videos were jointly assigned. Four investigators and two coders reached consensus on the PACT-Video tool's application to the training context. Interrater reliability will be quantified using ICC (2, 1) or the Skillings-Mack Test. Subsequently, we will use the Shapiro-Wilk test to determine which data are normally distributed; parametric and non-parametric analytic methods will be selectively used based on the underlying data distribution. The primary analysis will quantify the relationship between communication, overall teamwork, and specific communication behaviors using Pairwise Correlation or Spearman's Rank Correlation. Significant correlates will be used in Maximal Likelihood Factor Analysis to propose a "Short Form" version of the PACT-Video tool.

Results: Pending data analysis.

Implications: This analysis will give PRONTO feedback on the efficacy of their curriculum's impact on improved teamwork and communication. A short form version of the PACT-Video tool can be used during PRONTO's trainings for team-self assessment and identification of communication barriers. It may also serve as a clinical tool for providers, nurses, and midwives to rapidly assess communication and teamwork during actual obstetrical emergencies. Such a practical tool may allow teams to rapidly modify their communication strategies in order to avert severe maternal outcomes and mortality.

CLINICAL NURSING

EBP Beliefs and Behaviors of Nurses Providing Cancer Pain Management

<i>Linda Eaton, PhD(c), RN, AOCN</i> <i>Doctoral Student</i> <i>Biobehavioral Nursing and Health Systems</i> <i>University of Washington</i> <i>School of Nursing</i> <i>Seattle, WA</i> lineaton@uw.edu	<i>Ardith Doorenbos, PhD, RN, FAAN</i> <i>Associate Professor</i> <i>Biobehavioral Nursing and Health Systems</i> <i>University of Washington</i> <i>School of Nursing</i> <i>Seattle, WA</i>
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Purposes/Aims: The purpose of this paper is to describe evidence-based practice (EBP) beliefs and behaviors of nurses who provide care to patients with cancer-related pain.

Rationale/Conceptual Basis/Background: Evidence-based practice is essential for providing quality care and improving oncology patient outcomes such as cancer-related pain. Pain relief depends on healthcare providers using the best pain management principles guided by EBP information. Nurses are pivotal in the implementation of evidence-based pain management since they provide continuous direct care to patients in the hospital. There has been little research on the nurse-level factors that influence sustaining evidence-based pain management in the inpatient oncology unit.

Methods: From May to June 2013, nurses caring for patients with cancer-related pain at an academic medical center and a community medical center completed the web-based versions of the EBP Beliefs and Implementation Scales, and the Carlson's Prior Conditions Instrument. Survey data were analyzed to determine variables associated with beliefs about the value of EBP, ability to implement it, and evidence-based pain management behavior.

Results: Nurses (N=43) were employed on an inpatient oncology unit at a 450-bed academic medical center and a 468-bed community medical center in the Pacific Northwest. Staff nurses at the academic medical center (n=22) were more likely to have a bachelor's degree in nursing ($p = .03$), work full-time ($p = .04$), and were younger in age ($p = .007$). Scores on the EBP Beliefs and Implementation scales and Carlson's Prior Conditions Instrument did not differ significantly between the two groups. On average, both groups of nurses agreed with the positive impact of EBP; implemented EBP 1 – 3 times in the past 8 weeks, and reported practicing evidence-based pain management behavior often. Oncology nursing certification was significantly associated with stronger beliefs in EBP ($p = .034$) and more frequent EBP implementation ($p = .039$), but was not significantly associated with evidence-based pain management behavior.

Implications: Nurses believe in the positive impact of evidence-based pain management and are implementing evidence-based pain management practices, such as patient assessment, evaluating effectiveness of analgesia, and communicating with physicians. Beliefs and behaviors need to be considered when identifying barriers and facilitators to evidence-based cancer pain management on the inpatient oncology unit in academic and community settings. In addition, nurses with oncology nursing certification should be considered as champions of evidence-based cancer pain management in these practice settings. This knowledge is critical to providing quality health care and improving cancer-related pain management.

CLINICAL NURSING

Estimating Quality in Rural and Urban Hospitals Using a Composite Indicator

Diane K. Boyle, PhD, RN
Wyoming Excellence Chair in Nursing and Professor
Fay W. Whitney School of Nursing (FWWSON)
University of Wyoming
Laramie, WY

<i>Byron J. Gajewski, PhD</i> <i>Professor</i> <i>Department of Biostatistics</i> <i>School of Medicine</i> <i>University of Kansas</i> <i>Kansas City, KS</i>	<i>Mary E. Burman, PhD, RN</i> <i>Dean and Professor</i> <i>FWWSON</i> <i>University of Wyoming</i> <i>Laramie, WY</i>	<i>Mary Gatua, PhD, MSW</i> <i>Project Director</i> <i>FWWSON</i> <i>University of Wyoming</i> <i>Laramie, WY</i>
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Purpose/Aims: Our project purpose is to conduct an exploratory analysis of nursing quality differences among rural, micropolitan, and urban hospitals using a novel composite performance measure of two nursing sensitive National Quality Forum (NQF) endorsed indicators, hospital acquired pressure ulcers (HAPUs) and patient falls.

Rationale/Conceptual Basis/Background: Nurses provide the majority of care hours in hospitals, however fewer nursing resources in many rural areas may lead to quality disparities among rural, micropolitan, and urban hospitals. To date, limited research has been done on the relationship between nurse staffing and nursing attributes and performance measures in rural hospitals.

Our conceptual basis is Donabedian's paradigm where structure and processes of care influence care outcomes. Structure is setting attributes in which patient care takes place. We include hospital attributes of case mix index, Magnet® status, teaching status, bed size, and location; patient care unit attributes include nursing care hours and skill mix, education, and specialty certification. The location (rural, micropolitan, or urban) structure variable is the study grouping variable. **Process** is what is done for/to patients. In our study, 'what is done' for patients includes patient risk assessment, prevention protocol implementation, and physical restraint application. Patient **outcomes** are results of care and include patient safety and quality measures. In our study, we will test a novel composite performance indicator that combines HAPU prevalence and fall rate.

Methods: Our data come from the National Database of Nursing Quality Indicators® (NDNQI®). We will combine two indicators (pressure ulcers and patient falls) using a utility function framework; experts will provide the point of indicator equivalence. Statistical modeling then will be fitted using two-level (unit, hospital) linear mixed modeling (LMM) to estimate the composite indicator's relationship with indicator of urban versus rural hospitals, after adjusting for other control variables.

Results: Preliminary results will be presented about the utility function method and composite indicator development.

Implications: Our work extends current research regarding nurses' contributions to prevention of HAPUs and falls, as well as research regarding potential quality differences among rural, micropolitan, and urban hospitals.

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CLINICAL NURSING

Evaluating Medication Administration When Integrating a Scanner and Academic EHR

Lori Cook, RN, MS, CNE, Faculty
Jennifer Sorensen, RN, MS, Faculty
Sherry Fuller, RN, MSN, FNP-C, Faculty
Loretto Heights School of Nursing
Regis University
Denver, CO

Purpose: The purpose of this project is to increase student confidence and competency when integrating medication scanners with an academic electronic health record (EHR).

Background: The literature repetitively supports the reduction in medication errors when hospitals utilize both an electronic medication record and barcode technology. There is great need to reduce the gap between classroom and clinical education in nursing. Undergraduate nursing education is compelled to provide opportunities for students to properly utilize technology similar to that used in acute and sub-acute health care environments. It is essential to engage students in the critical thought processes required to safely administer medications. To date, none of the academic EHR's have integrated a medication scanner. Collaboratively, Regis University nursing faculty worked with Information Technologies to develop a simple web based application allowing use of a medication scanner with the academic EHR.

Method: Students were oriented to the use of the medication scanner via a video prior to practicing in skills lab. During competency validation, students were graded on their knowledge, skills and attitudes during safe medication administration in a one-on-one simulation setting with nursing faculty. The students were required to demonstrate proficiency using medication administration scanners, and comprehensive documentation in the academic EHR. The health care technologies used for this skill demonstration were the WASP scanners and the academic EHR.

Outcomes: Students and faculty voluntarily completed a survey utilizing a 5-point Likert scale (1-Strongly disagree, 2- Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree) and open ended questions. Students rated the following items highest: Using the Medication Scanner helped to ensure I delivered my patient medications safely= 4.71; I feel competent in the use of a medication scanner= 4.86; I feel prepared to use the medication scanner in clinical practice =4.0. 100 % of the students noted what they liked most about using the medication scanners with the EHR to administer patient medication was that it improved patient safety and provided warnings of possible medication errors. Faculty rated the following items highest: Students are prepared to use the medication scanner in clinical practice= 4.4; Using the Medication Scanner helped to ensure students delivered patient medications safely=4.09; Students were competent in the use of a medication scanner= 4.20; The medication scanners used in lab are similar to what I have seen used in the clinical setting= 4.30. When asked what faculty liked most about using the medication scanners with the EHR to administer patient medications, 90 % noted it improved patient safety. 40 % noted that it increased student confidence. 80 % of faculty disliked that the medication scanners were not integrated with the EHR.

Conclusion: Students and faculty valued the opportunity to participate in a medication administration simulation using current health care technologies that provided for skill acquisition in a safe environment. This medication administration model mimics current clinical practice, allowing for favorable outcomes for students, faculty, and most importantly, patients. The continued use of this skill demonstration in conjunction with healthcare technologies will ideally transform to increased student proficiency and positive patient outcomes.

CLINICAL NURSING

Nurses' Attitudes and Readiness for Research and Evidence Based-Practice

*Lorraine S. Evangelista, PhD, RN, FAHA,
FAAN, Associate Professor
Program in Nursing Science
University of California, Irvine
Irvine, CA*

*Ty Thomas, RN, BSN
Staff Nurse
Hoag Memorial Presbyterian Hospital
Newport Beach, CA*

Purpose: The use of evidence to guide nursing practice has received much attention in recent years. However, many nurses are reluctant to embrace EBP as they provide patient care. Likewise, data to guide development of effective strategies to engage nurses in research and EBP is limited. The aims of this descriptive, cross-sectional study were to: 1) assess registered nurses' attitudes and readiness for research and EBP; and 2) identify factors that affect adoption of and engagement in clinical inquiry.

Background/Significance: The IOM has supported the need to restructure health care delivery to create systems that are both patient-centered and evidence-based. Despite the growing need to move toward instituting EBP, the nursing profession faces challenges with implementing a culture of clinical inquiry and continual learning at the bedside. A better understanding of nurses' attitudes and readiness for research and EBP may be key to planning effective strategies for empowering nurses to embrace a spirit of inquiry.

Methods: The study received exemption for full IRB review; 388 registered nurses completed a comprehensive four part questionnaire. Part I, collected demographic data (e.g. sex, age, race, years as a nurse, education, and nursing unit (critical care vs. non-critical care)). Part II (10 items) used a 5-point Likert scale with which respondents indicated their agreement or disagreement with statements reflecting attitudes toward nursing research (Smirnoff et al, 2007). Part III (7 items) measured perceptions related to EBP using the 5-point Likert Scale from Part II (Gale & Schaffer, 2009). Part IV (5 items) was adopted from the Nursing EBP Survey (Titler et al, 1999) to assess EBP culture.

Results: The majority of respondents (86%) agreed that research should guide nursing practice and will improve patient care. Similarly, 83% felt that EBP was essential to nursing practice and 78% felt it was useful in daily practice. However, only 64% and 73% felt they could engage in research and EBP, respectively. Nurses from critical care unit and with a BSN or MSN had more positive attitudes toward and were more likely than their counterparts to engage in research and EBP (all p 's < 0.001). Although older and more experienced nurses had more positive attitudes toward research and EBP, younger and less clinically experienced nurses were more likely to engage in a spirit of inquiry (all p 's < 0.05).

Implications: Our data highlight the need for further education and training for nurses to improve attitudes toward clinical inquiry. Nevertheless, the elements vital to adopting best evidence into practice (e.g. positive attitudes, supportive culture) were present and can serve as the foundation for designing an EBP program for our facility. Certain nursing characteristics (e.g. younger age, higher education, critical care experience) may affect adoption of research and EBP and warrants further study.

CLINICAL NURSING

Impact of EBP Training Program at a Community Based Hospital

Ty Thomas, RN, BSN
Staff Nurse
Hoag Memorial Presbyterian Hospital
Newport Beach, CA

Lorraine S. Evangelista, PhD, RN,
FAHA, FAAN, Associate Professor
Program in Nursing Science
University of California, Irvine
Irvine, CA

Purpose: Although ample research shows that programs to engage nurses in evidence-based practice (EBP) promote clinical inquiry, there is limited data on the impact of these training programs on an organization's EBP culture. This project was designed to assess the impact of the *Translating Research into Practice* (TRIP) Program and active endorsement, accountability, and role modeling on nurses' attitudes toward research and EBP and nurses' perceived barriers toward embracing EBP in daily practice.

Background/Significance: The need to provide high quality, knowledge based individualized patient care was made a focal point with the IOM's 2001 report "Crossing the Quality Chasm", urgency was injected with the ratification of the 2010 Affordable Care Act. Nursing, as the largest body of providers within the healthcare system, is positioned to have the greatest influence in making the transition to a patient-centered, evidence based model. The recommendations to facilitate this shift have included continual education and training as well as active participation of frontline, clinical nurses to investigate and implement evidence based practices. Understanding nurses' attitudes and perceived barriers toward an EBP model are crucial to its inception and success.

Description: One of the components of the TRIP Program is the TRIP Fellowship, a series of workshops developed to prepare clinical nurses to identify unit-based practice issues amenable to evidence-based performance improvement and guide them as they plan, implement, and evaluate clinically focused TRIP projects. The sequence of the workshops systematically guides the TRIP fellow through the process of developing and completing an EBP innovation. A unique feature of our program was promoting active endorsement, accountability, and role modeling of the TRIP fellows; fellows were groomed to be the EBP champions and to lead their unit-based council in promoting a spirit of inquiry with the overall goal of building a culture of clinical inquiry and continual learning.

Results: To date, 15 nurses completed the TRIP program and have established an informal leadership role within their units. Survey data collected before ($N = 248$) and after ($N = 140$) the TRIP program was established showed that nurses' perceptions that research should guide practice, nurses should have the opportunity to engage in research, evidence should be used as a foundation for practice, and the use of best evidence will improve quality of patient care, significantly improved over time ($P < 0.001$). Common barriers to adoption of EBP were lack of time to search for research and implement change, lack of access to research reports, and lack of confidence in understanding the evidence.

Implications: Results showed nurses had increasingly positive attitudes toward conducting and incorporating research and evidence based practice clinically; however lack of time, support, and insecurity interpreting and adapting research and evidence based guidelines for practice were identified as barriers to actualization of an EBP culture. To build upon the initial success, i.e. improved nursing attitudes, of the TRIP Program remedies to these barriers need to be addressed for future cohorts.

CLINICAL NURSING

Injury Prevention and Retaining the Aging Nursing Workforce

William Chou, Entry-Level MSN Student

Charles R. Drew University, School of Nursing, Los Angeles, CA

*Ebere Ume, PhD, RN, Assistant Professor
CDU SON, Los Angeles, CA*

*Shirley Evers-Manly, PhD, RN
Interim Dean, CDU SON, Los Angeles, CA*

*Linda R. Phillips, PhD, RN, FAAN
Professor, UCLA SON, Los Angeles, CA*

*Janet Mentes, PhD, APRN, BC, FGSA
Associate Professor, UCLA SON
Los Angeles, CA*

Purpose: The purpose of this literature review was to explore available options of preventing work related musculoskeletal injuries to older nurses, thus preserving their work life and minimizing the nursing shortage.

Background: Nurses experience higher rates of non-fatal work related injuries than most other industries, including construction. Changes in the body as people age make them more susceptible to musculoskeletal injuries such as sprains and strains. The physically demanding nature of nursing work exacerbates the risks of musculoskeletal injuries for the aging nurse. According to the Bureau of Labor Statistics (BLS) Registered Nurses and Nurse Aides were two of the six occupations that accounted for 26% of all recordable musculoskeletal injuries in 2011. However, these BLS injury statistics may be much higher than reported as there is evidence suggesting injuries in the private hospitals may be underreported. A 2008 national survey found that 45% of the nurses experienced a back or musculoskeletal injury within the past year. It was noted the proportion of older RNs, between the ages of 50-64, in the nursing workforce is projected to rise to 36.4 % by the year 2015. Over 30% of musculoskeletal injuries occur within the 40-49 year old age range, over 50% within the 50-59 years old range. These injuries can lead to premature departure from the nursing workforce and increasing the nursing shortage.

Methods: Review of literature from: Cinahl, PubMed, Google Scholar, Bureau of Labor Statistics using the keywords: “nursing injuries”, “occupational health”, “nursing shortage”, “musculoskeletal injuries”, “low back pain”, and “ergonomics”. Sixty five articles between 2008-2011 were reviewed. Inclusion was limited to 13 articles pertaining to musculoskeletal injuries, and possible interventions, affecting aging nursing. Exclusion criteria included non-musculoskeletal injuries such as emotional and other psychological phenomenon such as “burnout”, or physical injuries such as needle-stick and infections.

Results: Reducing work related musculoskeletal injuries help the healthcare industry retain more experienced bedside nurses while reducing the nursing shortage. For the aging nurse, avoiding an injury not only prolongs their career, but also improves their quality of life. Prevention of musculoskeletal injuries is possible, and techniques exist to alleviate and significantly reduce chronic back pain. The literature surveyed lacked focus to musculoskeletal injuries experienced by, and prevention strategies aimed at the aging nursing workforce.

Implications: Opportunities exist to innovate strategies for the prevention of musculoskeletal injuries experienced by the aging nursing workforce. Further research is needed to address the specific risks and mitigation measures of musculoskeletal injuries suffered by the aging nurses.

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CLINICAL NURSING

Leadership and Safety Climate: A Typology of Intervening Factors

*Shelly Fischer, RN, MS, FACHE, NE-BC, Doctoral Candidate
University of Colorado
Aurora, CO*

*Jacqueline Jones, PhD, RN, FRCNA
Associate Professor, College of Nursing
University of Colorado, AMC
Aurora, CO*

*Joyce Verran, PhD, RN, FAAN
Professor, College of Nursing
University of Colorado, AMC
Aurora, CO*

Purposes/Aims: The study purpose was to validate a typology of factors that influence the relationship between Transformational Leadership (TFL) and Safety Climate (SC) in healthcare. Research questions included:

1. Can experts come to consensus on proposed intervening factors in the relationship between TFL and SC?
2. Can experts come to consensus on the categorization of these factors?
3. Can experts come to agreement that the proposed factors are mediators or moderators of this relationship?

Rationale/Conceptual Basis/Background: Despite awareness of patient safety issues and the influence that TFL and SC have on patient safety, there is a gap in knowledge about the specific mechanism of this relationship. Mediating and moderating factors influence how and under what conditions Transformational Leaders are able to create strong Safety Climates and thereby achieve positive patient safety outcomes. This preliminary work validates an organizing framework and hypotheses that are essential for further testing of these intervening factors.

Methods: A comprehensive list of intervening factors was developed from a systemic search of the literature. Evidence was leveled for each factor, and those without substantial support were eliminated from the list. Categories of factors were developed using an iterative process. A three-round modified Delphi methodology was then used to test the framework with experts in leadership and patient safety who were selected from academic and service practice.

Results: Twenty-five experts from four disciplines representing six countries agreed to participate in the study. Twenty of the experts were retained for three rounds of questionnaires between April and September, 2013. Consensus ($\geq 66\%$ scoring 6 or 7 on 1-7 scale) or stability ($\leq 15\%$ change between rounds) was achieved on all items, and unanimous support of the revised typology was achieved in the final round. Based on scoring and recommendations, the resulting typology includes 40 factors that are organized under eleven headings within three main categories: Leadership Behaviors and Priorities, Organizational Processes, and Staff and Physician Characteristics. Definitions of terms were improved and expanded, and hypotheses regarding mediating and moderating effects of the factors were posed by expert consensus.

Implications: The final typology is comprehensive yet concise, and incorporates innovative concepts that are new to the literature, yet hold significant promise as essential factors in the safety chain. Emerging from the evidence and validated by experts in leadership and patient safety, this framework facilitates testing of mediating and moderating effects of the factors that influence TFL and SC. Future testing will expand understanding of the specific mechanisms related to how and under what conditions leaders influence safety climate, and will support curriculum designed to develop healthcare leaders that are prepared to constructively address the patient safety conundrum.

CLINICAL NURSING

Meaningful Use Essentials: RN Benefit, Ease of Use, Acceptance, Satisfaction

Deborah M. Judd, DNPc, APRN, FNP-BC
Nurse Practitioner
and Associate Professor of Nursing
Weber State University
School of Nursing
Ogden, UT

Kay M. Sackett, EdD, RN
Associate Professor of Nursing
University of Alabama, Tuscaloosa
Capstone College of Nursing
Tuscaloosa, AL

Purpose/Aims: Dissemination of extensive integrative review findings on perceived EHR benefit, usability, acceptance, and satisfaction among nurses and factors associated with acceptance and satisfaction of EHR adoption/utilization from a qualitative mixed method RN survey/focus group (n=28).

Rationale: The EHR should be both disciplinary specific “unique and interdependent aspects...visible and understandable” (Keenan & Yakel, 2005, p. 385). Nursing leadership determined nurse satisfaction an essential indicator of patient care quality (Kossmann & Scheidenhelm, 2008).

Methods: Extensive integrative literature of multiple databases appraised/analyzed knowledge on nursing perception of benefit, ease of use, acceptance, or satisfaction, and resultant practice implications for meaningful use for point of care and/or future utilization.

Results: (1) Substantiates nursing literature scarcity regarding perception and ascertains magnitude of human/environmental/technology factors upon perception and usability. (2) A qualitative nurse focus group appraised short phrase positive/negative EHR terms along with a short 6-item Likert scale of perceived usefulness and ease of use. Transcribed focus group responses (n=28) were analyzed using NVIVO_10 software. Meaningful benefit, satisfaction, usability, and acceptance themes emerged along trends for enhanced perception of benefit and satisfaction

Implications: RN/NP factors and implementation principles facilitate benefit and satisfaction. Familiarity with any system over time improved EHR usability and adoption. RNs/NPs describe EHR as beneficial for decision-making with immediate access to healthcare data but described time required to document and lack of preparation for system adoption as barriers. Awareness of barriers or facilitators to EHR adoption ensures intuitive, appropriate and meaningful use of technology. Mandatory EHR utilization, necessitates nurses understand how nursing taxonomy and specific adoption strategies and participation in the *Systems Life Cycle* motivates acceptance. Future research regarding RN and NP experiences with EHR utilization should include additional randomized clinical trials and qualitative studies to validate evidence about perception on ease of use, benefit and satisfaction. Human, environmental or technological factors are relevant to successful HIT adoption. Prospective studies ought to use theoretical frameworks (Mezirow’s Transformational Learning Theory; Technology Acceptance Model (TAM); Task-Technology Fit (TTF) Model; Mastrian’s & McGonigle’s Foundation of Knowledge Model; or Benner’s Novice to Expert Theory). Wise EHR choice/development promotes meaningful use, improved outcomes, best RN/NP practice, and validation of nursing’s consequence of safe, affordable, quality care achievement.

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CLINICAL NURSING

Health Literacy (HL) Knowledge and Experience of Hospital-Based Nurses

*Diane Drake, PhD, RN
Nurse Research Scientist
Mission Hospital Regional Medical Center
Mission Viejo, CA*

*Cheryl Westlake, PhD, RN
Professor and Associate Dean
International and Community Programs
Azusa Pacific University
Azusa, CA*

*June Melford, RN, MSN
Gerontology CNS
Mission Hospital Regional Medical Center
Mission Viejo, CA*

Purpose: To describe the health literacy knowledge and experience (HLKE) of community-hospital practicing nurses' (RNs) as phase 1 of an experimental, educational study.

Background: Health literacy, the degree to which individuals can obtain, process and understand basic health information/services needed to make health decisions, is a critical determinant of health status and mortality with ~50% of adults having low HL. Low HL has demonstrated an association with poorer use of preventive services and later entry to the health care system, decreased knowledge and self care ability, rates of medication adherence, and increased rates of preventable ER/hospital admissions, and costs. A conceptual model describes HL and outcomes as affected by provider teaching ability. Despite numerous HL studies, the only study of RNs, found Georgia RNs had low knowledge about HL screening and written healthcare materials. **Research Questions:** What are the RNs sociodemo-graphics, HL knowledge, and experience.

Methods: A descriptive, correlational design and convenience sample (n=110) of all RNs at Mission Hospital Regional Medical Center working in a patient care role was used to following IRB approval. All eligible RNs received a nurse manager email explaining the study, facilitating consent, and providing the online HLKE survey link for survey completion.

Results: The majority of RNs are female (110, 93%), white (110, 69%) have an Associates/Bachelor's degree in Nursing (147, 90%) with an average age of 46. 3 (\pm 9.6) years and 15.5 (\pm 9.9) years of experience as an RN. RNs demonstrated low HL knowledge and some (43-56, 44-58%) HL experience (assessment of reading level / cultural appropriateness of and use of illustrations in written HC materials).

Implications: Findings demonstrate low HL knowledge and limited HL experience that may benefit from an educational intervention and ultimately affect patient knowledge and outcomes.

CLINICAL NURSING

Nurses' Perceptions of Conflict as Constructive or Destructive

Sunny Wonsun Kim, PhD

Assistant Professor

College of Nursing and Health Innovation

Arizona State University

Phoenix, AZ

Julie McNulty, PhD, RN, CPHQ

Francis Postdoctoral Fellow

in Biobehavioral Oncology Research

College of Nursing and Health Innovation

Arizona State University

Phoenix, AZ

Aim: To describe nurses' perceptions of conflict as constructive or destructive.

Background: The nursing workplace is unpredictable and highly dynamic. This rapid paced, unpredictable work environment is characterized by conflict, but also leads to conflicts within and between professions. Issues associated with conflict such as lack of collaboration, lack of communication and disruptive behavior are detrimental in the health care work environment. Although some nurse researchers have recognized that conflict can be beneficial, this perspective is not widely reflected in either in nursing education or practice and the view of conflict is generally described as negative in nursing. The multi-faceted views of conflict are apt and necessary for an exploration of high-stress professions such as nursing.

Method: Five small groups each attended six monthly standard 90-minute sessions. Between the first and second monthly sessions, each participant was asked to write a weekly journal about their conflicts in their work place. There were four specific questions: (1) describe a constructive conflict you have experienced in your work place this week; (2) what made it constructive?; (3) describe a destructive conflict you have experienced in your work place this week; and (4) what made it destructive? The data collection was completed using an online protocol and yielded 163 entries from 34 full time nurses in a major metropolitan area (33 females, 1 male; age M=44.1 years; Time in nursing M=19.2; 21 European-Americans, 3 African-Americans, 1 Latinas, 6 Asian, 1 African).

Results: A constant comparative analysis was utilized to analyze the data. The 82 entries were divided into 6 themes in nurses' perceptions of constructive conflict: (1) none, (2) problem solving, (3) collaboration (4) coordination, (5) communication, and (6) patient care. The 9 categories emerged from 81 destructive conflict responses (1) none, (2) poor conflict management: direct confrontation and lack of communication (3) medical outcome (4) patients and their family, (5) time constraint, (6) relationship, (7) teamwork, (8) power difference, and (9) role conflict. Interestingly, the analysis in this paper indicated that themes with similar characteristics emerged for both constructive and destructive conflict such as patient care (medical outcome) and coordination/time constraints and communication.

Implication: Nursing tends to adhere to assumptions that conflict is a negative force to be avoided. However, conflict has positive and healthy aspects. Future research needs to examine conflict management skills in nursing integrating with communication research. They may help diffuse more serious conflicts, stimulate a search for new facts or resolution, increase group cohesion and performance, and demonstrate the power or ability of the conflicting parties. Understanding nurses' constructive and destructive perceptions of conflict could help shape questions for future research and contribute to interventions designed to educate nursing communities about more conceptually rich ways of defining conflict. Teaching and educating nurses the value of, and how to handle conflict is imperative in a way that makes it positive or negative, not the conflict itself. Nurses will benefit from understanding that conflict avoidance is poor conflict management that will likely serve only to perpetuate negativity.

Funding: This study was funded by the Mason-Inova Partnership Initiative at George Mason University.

CLINICAL NURSING

Reluctant Reliance: Nurse-Industry Interactions and the Purchasing Process

Quinn Grundy, PhD(c), RN

Doctoral Student

Department of Social and Behavioral Sciences, School of Nursing

University of California, San Francisco

San Francisco, CA

Purpose: The purpose of this project was to describe the nature of interactions between non-prescribing Registered Nurses (RNs) and industry in clinical practice. Key aims included exploring these interactions from the perspective of RNs and analyzing the potential impacts of these interactions on ethical practice and safe, effective provision of nursing care.

Background: Clinicians' interactions with industry have come under scrutiny due to their potential for increasing healthcare costs, threatening patient safety, and impacting the quality of care. The recent Physician Payments Sunshine Act, which requires disclosure of industry payments, omits nurses from its mandate. Non-prescribing RNs influence treatment decisions and may become targets for industry marketing as industry's access to physicians becomes restricted.

Methods: This multi-sited, qualitative study explored the phenomenon of RN-industry interactions in clinical practice. A purposive sample (n=3) of healthcare institutions was selected to represent different industry relations and policy environments, including a public hospital, an academic medical center, and a community not-for-profit hospital. Four data collection strategies were triangulated: targeted observation of nurse-industry interactions; focus groups with RNs; individual interviews with key informants; and documents analysis. Data were analyzed using an interpretive approach in which key themes were inductively derived from the data and described in relation to policy and institutional contexts.

Results: Interactions around purchasing decisions emerged as one of the key domains of nurse-industry interactions, and have not been previously described in the literature. Industry representatives targeted RNs' in light of their decision-making capabilities. One administrator explained "A, they're here all the time and accessible; B, they're dealing with the patient directly; and C, they're the ones that sit on the Product Evaluation Committee". Industry interactions were frequently incorporated into nurses' professional roles, sometimes conflicting with patient care responsibilities. Nurses frequently served as gatekeepers for products to an institution, and industry representatives relied on nurses' expertise and credibility to navigate the purchasing process and gain institutional 'buy-in'. Nurses expressed concern that they were underprepared to negotiate industry interactions ethically and effectively. Nurses expressed feeling they must "operate from a level of distrust" in order to ensure that interactions around purchasing were ethical and cost-effective, and reluctantly relied on industry information to inform purchasing decisions.

Implications: Nurse-industry relationships have the potential to increase healthcare costs and to affect the quality of care, though nurses are frequently omitted from industry relations' policy. Concerns around transparency, reliance on biased information, product-focused education, and dependence on industry resources were raised and require further exploration. As industry interactions become increasingly incorporated into nursing practice, policy is required to ensure these interactions do not negatively affect cost-effective, safe and quality patient care.

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CLINICAL NURSING

The Role of the Nurse Informaticist in Adoption of Evidence Based Practice

*Alan Vierling, BS, BSN, MSN
Doctoral Student
Old Dominion University
Norfolk, VA*

*John Hudson, PhD
Assistant Professor
Old Dominion University
Norfolk, VA*

Purposes/Aims: The purpose of this study is to gain deeper understanding of the role played by nurse informaticists in the promotion of evidence based practice and quality, while further describing the relationship of the nurse informaticist on formal IT governance structures.

Rationale/Background: The Institute of Medicine has identified evidenced based medicine as an essential element in providing high quality, lower cost healthcare. Evidence based medicine, however is not in widespread use. Information technology provides an ideal method to introduce evidence based practice guidelines into the care continuum by imbedding it into the electronic medical record. In the most recent industry survey on the role of the nurse informaticist, from the Healthcare Information and Management Systems Society (HIMSS), evidence based practice is not discussed. Their ability to drive evidence based practice through electronic medical records has not been deeply studied. Additionally, the relationship of the informatics nurse to governance structure is poorly understood. The lack of evidence also leaves open the question of association between presence of informatics nurses and quality outcomes in a healthcare facility. Quality is objectively defined achieving recognition as a Truven Top 100 hospital.

Undertaking/Best Practice/Approach/Methods/Process: A 20 question survey was posted on various list serves for nurse informaticist and Chief Nurse Executives. The survey is voluntary and completely anonymous. The survey assesses the role of the nurse informaticist in promoting evidence based practice through the electronic medical record. The role of the nurse informaticist is also examined relative to the information technology governance process in the facility.

Outcomes Achieved/Documented: Preliminary data shows 70%of responding hospitals were greater than 250 beds, half are teaching facilities. Seventy-three percent of reporting hospitals employ nurse informaticists. Twelve percent report achievement of Truven Top 100 designation. Sixty-one percent of facilities report a formal policy on evidence based practice. Nurse informaticists are involved in information technology governance 30% of the time and none chair the committee. 64% of facilities report including evidence based practice in clinical protocols and guidelines. Hospitals with nurse informaticists are more often associated with the use of evidence based practice, and are actively involved in clinical guideline formation, with nearly 50% of respondents reporting participation of the nurse informaticists.

Conclusions: The presence of a nurse informaticist are more often associated with use of evidence based practice and achievement of national quality recognition as compared to organizations without a nurse informaticist.

CLINICAL NURSING

Selection of the Best Vascular Access Device: An Intervention to Promote Nurse Advocacy

*Debra Kirkley, PhD, RN
Program Manager
Nursing Practice and Research
Providence Regional Medical Center
Everett, WA*

*Marilyn Birchman, MSN, RN, AOCNS
Clinical Research Manager
Providence Regional Medical Center*

*Deborah Burns, RN
IV Therapy Nurse
Providence Regional Medical Center*

*Judith Canfield, MHA/MBA, RN
Director
Surgical & Interventional Services
Providence Regional Medical Center*

Purposes/Aims: This study will evaluate the effectiveness of a decision-making algorithm on nurses' self-perception of confidence in advocating for vascular access devices.

Background: For some hospitalized patients, peripheral IV catheters are neither effective nor efficient for delivering fluids and medications. Central venous devices are preferred for patients receiving lengthy therapies or drugs that heighten risk for vein injury and clots. While nurses are in a position to advocate for central vascular devices when appropriate conditions are present, some may be intimidated by such conversations.

This study will evaluate the usefulness of an evidence-based decision-making algorithm to heighten nurses' confidence in supporting best practices for vascular access. The algorithm, based on Infusion Nurses Society Standards, will provide nurses with the evidence and language from which to launch clinical conversations with providers.

Methods:

- Quasi experimental design; nonrandom selection, Pre-test, Post-test
- Intervention group: Convenience sample of nurses from two medical surgical units; (N = 20 for power 0.8)
- Control group: Convenience sample of nurses from a med-surg unit that has not been exposed to the intervention; (N = 20 for power 0.8)
- Measurement: 9 question survey with 4 demographic and 5 study-related questions
- Intervention: 25 minute teaching session will introduce evidence- based device selection algorithm, taught by an IV therapy nurse specialist
- Three sets of study-related scores will be assessed for change in knowledge/confidence. Gain scores from experimental subjects will be compared with controls using a paired t-test. Posttest measures will be obtained immediately following intervention and 12 weeks thereafter to assess continuing impact.

Results: Data collection ends Q4 2013 with analysis complete by end of Q1 2014.

Implications: The results of this study will provide support for more extensive dissemination of the vascular device selection algorithm as well as influence future decision-making about the use of such algorithms to support evidence-based conversations by nurses.

CLINICAL NURSING

Simulated Error Experiences: Improving Attention and Compliance

Renae L. Dougal, MSN, RN, CLNC, CCRP
Nursing Research and Education Specialist, Research Institute
Saint Alphonsus Regional Medical Center, Boise, ID

Karen Breitreuz, EdD, MSN, CNS, RN,
CNE, Assistant Professor
Boise State University
School of Nursing
Boise, ID

Melanie C. Wright, PhD
Program Director
Patient Safety Research
Trinity Health System
Boise, ID

Background: Providers anecdotally report a greater sensitivity to risks following personal experience with errors or preventable adverse events. Research as early as the 1970s indicates that the greater the perceived consequences associated with missing an event, the higher the likelihood that the event will be detected. Even more recently, higher perceived consequences are also associated with greater adoption of prevention strategies.

Purpose: Pilot simulations were developed and performed in order to understand how risk reduction strategies impacted nurses and nursing student attitudes and behaviors. A post simulation survey was completed by each simulation participant to better validate and understand perceived risk events and their consequences. Surveys were designed to better understand the influence and perception of realism of the simulation and the overall impact of the experience on participant intentions towards future practice.

Methods: Multiple nursing scenarios intended to demonstrate human fallibility in the face of routine tasks were developed and carried out in nine simulation events. Scenarios were completed and evaluated of 17 nursing students and 5 RNs, in two laboratory simulation settings. Presentation factors were varied to include adult and pediatric patients, type of embedded errors (e.g. wrong medication concentration or wrong route medications), number of embedded errors, and whether the participant acted alone or in teams. Participants were surveyed post-simulation regarding both perceived realism and changes in attitudes regarding error likelihood, error prevention behaviors and consequences. Post-simulation qualitative discussions were conducted to identify factors that may influence whether the simulation experience provided a lasting impact on patient safety risk perception attitudes and behaviors.

Results: For those scenarios completed, 27.27% were carried out in teams while 72.72% were carried out alone. Survey responses regarding memorability of the experience, reflected mean scores of 7.2 to 8.3 on a scale of 1-10. Realism and attitudes towards potential risk were also measured. Most, if not all, participants failed to identify and appropriately manage at least one embedded error during the experience. In post-simulation debriefings, participants believed that completing two scenarios as compared to one, added to the impact of the experience. Participants perceived value in reading real-life stories of errors in conjunction with the simulations. Nurses commented that they believed a continuing program of error simulations every six months to one year would positively impact their ability to detect and mitigate error situations. Whether or not the participants were told that there were embedded errors did not appear to impact their perception of the experience. Embedding more than one error in a single scenario was not perceived as unrealistic.

Implications and Conclusions: Findings support continued simulation development to expose nursing students and RNs to error situations for education, and maintaining awareness of risk and the need for risk prevention practices. Ongoing research will measure nursing error rates in inpatient nursing units following completion of simulation error prevention education.

CLINICAL NURSING

Sleep, Fatigue, and Nursing Care Delivery: Acute-Care Traumatic Brain Injury Patients

*Ellita T. Williams, BSN, RN
PhD Student*

*Biobehavioral Nursing & Health Systems
University of Washington
Seattle, WA*

*Hilaire J. Thompson, PhD, RN, ACNP-BC,
CNRN, FAAN, Associate Professor*

*Biobehavioral Nursing & Health Systems
University of Washington
Seattle, WA*

Purpose: The aims of this investigation were 1) to describe caregiving activities provided to TBI patients during hospitalization in an acute care unit; 2) to examine relationships between a) reports of sleep quality and caregiving activities and b) reports of presence of fatigue and caregiving activities.

Background: Sleep disturbance and fatigue are among the debilitating symptoms experienced by patients hospitalized following traumatic brain injury (TBI). Exacerbations of these symptoms become an even greater issue of concern when the patient is transferred to the acute care unit because they are expected to actively engage in health care activities. Nursing care provided to this population may play a significant part in the patient's functional outcomes at discharge and beyond; however a knowledge gap currently exists regarding the relationships among nursing activities and symptoms in the acute care period.

Methods: Medical records and trauma registry information at Harborview Medical Center for subjects admitted with moderate-severe TBI between January-March 2013 were reviewed (n=24). Four basic care behaviors-- turning, bathing, oral care, and toileting were recorded for 7 days during the night-time hours (2200-0800). These behaviors constituted caregiving. Information regarding sleep quality, fatigue, and caregiving were extracted from the chart and information regarding functional outcome at discharge and injury information was obtained from the trauma registry.

Results: The average Glasgow coma scale score was 4.5 (SD 2.2). Most subjects were male, middle aged (54yrs SD 15.2), and white. Per nursing chart notes, 86% of patients were not sleeping well on day 1 of admission to the acute care unit. The most performed care activities during nighttime hours were toileting [avg. 1.7(range 0-3.4)] and turning [avg. 1.6 (range 0-3.6)]. Average number of caregiving activities during night-time hours was 4.61 (range 0-10.4). A significant positive correlation exists between reports of next day fatigue and the number of nighttime caregiving activities ($r=.43$). A negative correlation exists between reports of sleeping well and caregiving ($r=-.17$).

Implications: Nursing care activities result in night-time awakenings may perpetuate poor sleep and day-time tiredness. Essential care behaviors should be bundled during the night in order to promote sleep and optimal daytime function. Mandatory rest periods during the day and night shifts are recommended. Future studies should evaluate these changes over a 24-hour period.

CLINICAL NURSING

The Nursing Community Apgar Program

Molly Vaughan Prengaman, MS, RN, FNP-BC
Assistant Professor
School of Nursing
Boise State University
Boise, ID

Ed Baker, PhD
Professor
Director Center for Health Policy
Boise State University
Boise, ID

David Schmitz, MD
Chief Rural Officer
Program Director RTTs
Family Medicine Residency of Idaho, Inc.
Boise, ID

Purposes/Aims: The purpose of this project was to utilize the Nursing Community Apgar Questionnaire (NCAQ) as a tool for critical access hospitals wanting to improve their rural nurse recruitment and retention efforts.

Rationale/Conceptual Basis/Background: In rural and frontier areas of the United States, the nursing shortage is particularly severe. The transition of our health care system which is currently underway may result in a surge of newly insured individuals seeking care and further strain on the rural health workforce. Drs. Baker and Schmitz previously developed a Critical Access Hospital Community Apgar Questionnaire (CAH CAQ) which identified factors that influence rural family physician recruitment and retention. The development of a parallel tool, the Nursing Community Apgar Questionnaire (NCAQ), serves to provide a unique interventional package with which rural hospitals will be able to address their workforce needs. Conceptually, the project drew upon Bushy's application of the core nursing concepts of person, environment, health, and nursing to the unique aspects of rural nursing.

Methods: Phase I of the project resulted in the development of the Nursing Community Apgar Questionnaire (NCAQ). In Phase II, the NCAQ was piloted at eleven critical access hospitals in Idaho and a comparative database established. The Nursing Community Apgar Program was initiated in Phase III. Nursing administrators and practicing rural nurses at three critical access hospitals completed the NCAQ as part of their nurse recruitment and retention quality improvement efforts.

Results: Data were analyzed and results presented to administrative boards at participating critical access hospitals. Data analysis results demonstrated each critical access hospital's strengths and challenges, both individually and in comparison to those results in our critical access hospital database.

Implications: The Nursing Community Apgar Program can be utilized by rural communities and hospitals to enhance their nurse recruitment and retention efforts. Participation in the Nursing Community Apgar Program provides rural communities and critical access hospitals a real-time assessment tool which can be used to strengthen their advertising and interviewing, tailor their negotiation and contract strategies, and track their progress over time. With further research and collaboration, the program can work to identify solutions to common challenges and develop best practice policies. Ultimately, this program aims to decrease rural nursing vacancies and enhance rural access to health care.

Funding: Provided by the Idaho Office of Rural Health and Primary Care.

CLINICAL NURSING

Using an Innovative “Safety Cross” Tool to Communicate Pressure Ulcer Risk

Glenda B. Kelman, PhD, ACNP, BC
Chair and Associate Professor, Nursing
The Sage Colleges
and St. Peter’s Health Partners
Albany and Troy, NY

Mary Anne Jadlos, MS, ACNP-BC, WOCN
Acute Care Nurse Practitioner
Wound, Ostomy, and Skin Care Nursing
St. Peter’s Health Partners
Samaritan Hospital
Albany and Troy, NY

Purpose: The purpose of this pilot was to test the *Safety Cross* visual tool to assess, track/monitor and document inpatients either/or admitted with a pressure ulcer (PrU) or who have developed hospital-acquired pressure ulcers (HAPUs).

Background: Pressure ulcers (PrUs) are a major health care concern in the United States affecting approximately 3 million adults annually. The Centers for Medicare and Medicaid Services (CMS) added prevention of hospital acquired pressure ulcers (HAPUs) to the National Patient Safety Initiative and have classified HAPUs as non-reimbursable. The Sixth Annual Health Grades Patient Safety in American Hospitals Study in 2009 of approximately 5000 hospitals from 2005 to 2007 found an increase in PrU incidence of 7.8% over the course of the study, resulting in a cost of approximately \$2.41 billion.

Methods: A sixty day pilot was conducted using a convenience sample of patients admitted to a 29 bed adult medical inpatient hospital unit. The *Safety Cross Tool* was used to track patients admitted with PrUs or who developed HAPUs during their hospital stay. The *Safety Cross Tool* utilized for this pilot was a modified version of the international *NHS Scotland Safety Cross* that represents one calendar month with daily entry data points. Each day, the number of new patients admitted with an existing PrU and any inpatients who developed a HAPU were documented over a period of 60 days. At the end of each month, a cumulative total was reported including a Root Cause Analysis (RCA) of each HAPU.

Outcomes: Findings (N = 321) revealed sixteen patients (4.9 %) were admitted with an existing PrU. In addition, nine patients (2.8 %) were identified as developing a HAPU. RCA revealed that five of these nine inpatients had PrUs present on admission, but initial documentation was incomplete or missing. Therefore, the final analysis yielded a HAPU incidence of 1.2 % during the 60 day pilot.

Conclusions: The use of the *Safety Cross* visual tool facilitated tracking and monitoring of patients admitted with existing PrUs (4.9 %) and patients who were identified as developing HAPU. However, RCA was essential in further identifying the actual HAPU incidence of 1.2 %. Application of a user friendly visual tool such as The *Safety Cross* can assist nurses and the interprofessional team to communicate PrU risk and facilitate implementation of evidence-based prevention and treatment measures to improve quality outcomes and reduce costs.

Acknowledgments:

Mary Hannan, MS, RN, NE-BC, Chief Nurse Officer, Albany Memorial Hospital, SPHP
Wanda L. Eaker, RN, Director of Telemetry and Critical Care, Albany Memorial Hospital, SPHP

Abstracts of Poster Presentations

COMMUNITY

CPHC SCREENING DATA:
A COMPARISON OF URBAN AND RURAL OLDER ADULTS
Judy H. Pedro, Ron Laran, Stephanie Cazares

CPHC SCREENING DATA: UNINSURED AND INSURED
PARTICIPANTS IN KERN COUNTY
Judy H. Pedro, Jocelyn Barahona, Johanna Montes

APPLICATION OF RELATIONSHIP-BASED, BODY-CENTERED
METHODS TO TRANSFORM PRACTICE
Patricia L. Nardone, Lissi Hansen, Janet Reeder, Cynthia Patterson, Claire Spanbock

COMMUNITY HEALTH NURSES AS ETHNOGRAPHERS
IN TAMIL NADU, INDIA
Alexa R. Meins, Ardith Z. Doorenbos

DESIGNING HOME VISIT INTERVENTIONS DELIVERED
BY PROMOTORAS FOR OBESITY PREVENTION
*Elizabeth Reifsnider, Lucy Reyna, Maribell Guzman, Irma Pecina, Connie Mendoza,
Abigail Diaz*

USING INFORMATICS TO CAPTURE HUMAN RESPONSE:
HOME-BASED HEALTH TECHNOLOGIES
Blaine Reeder, George Demiris

COMMUNITY

CPHC Screening Data: A Comparison of Urban and Rural Older Adults

Judy H. Pedro, MSN, RN, PHN, CNS
Assistant Professor
Department of Nursing
California State University, Bakersfield
Bakersfield, CA

Ron Laran, BA
Student Nurse
Department of Nursing
California State University, Bakersfield
Bakersfield, CA

Stephanie Cazares
Student Nurse
Department of Nursing
California State University, Bakersfield
Bakersfield, CA

Purpose: The purpose of this research study was to examine biometric data collected from participants of Community Preventive Health Collaborative (CPHC) health screenings for a comparison of urban versus rural older adults, 60 years and older.

Background: Mason-Baughman and Kisiday (2013), state that older adults in rural areas have unique issues when accessing health care, transportation, and social services, in addition to having less income than their urban peers (Mason-Baughman & Kisiday, 2013). Rural communities in Kern County are remote, far from major medical centers, and have a higher poverty rate than urban Bakersfield (US Census, 2013). CPHC allows California State University, Bakersfield (CSUB) nursing students to perform health screenings including blood pressure, blood sugar, total cholesterol, and body mass index (BMI) for the underserved in Kern County. Older adults found to have elevated health screening test results are given a medical referral. Providing preventive health services to older adults is a cost effective way to link them to primary health care services to reduce costly complications and improve quality of life.

Methods: Permission to conduct the study was obtained by the CSUB Institutional Review Board. CPHC program data was gathered from participants during health screening clinics and entered onto an excel spreadsheet without indicating the individual's name. Data gathered included the patient's report of health history indicators and biometric screening test results. Data was compared for older adults screened at urban versus rural locations between January and June of 2013. The variables compared between the two groups were elevated results in one or more of the following: systolic and diastolic blood pressures, blood sugar level, total cholesterol, and BMI.

Results: Of the participants screened in urban locations, 74 out of 108 (68.5%) had a systolic blood pressure of 140 or greater, and/or a diastolic blood pressure of 90 or greater, and/or blood sugar of 145 or greater, and/or total cholesterol of 240 or greater, and/or a BMI of 30 or greater. Of the participants screened in rural locations, 26 out of 35 (74.3%) had a systolic blood pressure of 140 or greater, and/or a diastolic blood pressure of 90 or greater, and/or blood sugar of 145 or greater, and/or total cholesterol of 240 or greater, and/or a BMI of 30 or greater. Compared to urban participants, rural participants had a higher percentage of elevated biometrics.

Implications: The findings indicate that a large percent of older adults in both rural and urban communities had elevated screening test results. Community health nursing programs can be developed in collaboration with community partners for at risk populations, including older adults, and offer teaching related to healthy behaviors and maintaining health conditions in a controlled state. Student nurses are a resource for populations that lack access to health promotion and preventive health services.

Funding: CPHC funded by a grant from The California Wellness Foundation.

COMMUNITY

CPHC Screening Data: Uninsured and Insured Participants in Kern County

Judy H. Pedro, MSN, RN, PHN, CNS
Assistant Professor
Department of Nursing
California State University, Bakersfield
Bakersfield, CA

Jocelyn Barahona
Student Nurse
Department of Nursing
California State University, Bakersfield
Bakersfield, CA

Johanna Montes
Student Nurse
Department of Nursing
California State University, Bakersfield
Bakersfield, CA

Purpose: The purpose of this research study was to examine the correlation of elevated screening test results between groups of uninsured and insured participants of preventive health screenings that tested blood pressure, blood glucose, total cholesterol, and body mass index (BMI).

Background: Horton and Johnson (2010), state that community organizations that provide outreach services promote the well-being of the community, help improve quality of life, and help patients access medical care. Community Preventive Health Collaborative (CPHC) is a program that allows student nurses at California State University, Bakersfield (CSUB) to provide health screenings to underserved populations in Kern County. Only 77.1% of the Kern County population claim to have health insurance (Healthy Kern, 2013). Lack of health insurance is a barrier for patients to access optimum health care needs and can cause the risk of health problems to worsen if they go untreated (Riedel, 2009). Uninsured adults have a 25% greater mortality risk than adults with coverage (Riedel, 2009). In addition, uninsured individuals with diabetes, cardiovascular disease, end-stage renal disease, HIV infection, and mental illness have less access to preventive care and have worse clinical outcomes than patients who are health insured (Riedel, 2009).

Methods: Permission to conduct the study was obtained by the CSUB Institutional Review Board. CPHC program data was gathered from participants during health screening clinics and entered onto an excel spreadsheet without indicating the individual's name. Data gathered included the patient's report of health history indicators as well as biometric screening test results. The variables examined in this study were the number of uninsured and insured participants that had one or more elevated screening test results including systolic blood pressure of 140 or greater, and/or a diastolic blood pressure of 90 or greater, and/or blood sugar of 145 or greater, and/or a total cholesterol of 240 or greater, and/or BMI of 30 or greater.

Results: There were 952 CPHC participants during academic year 2012 – 2013. Of those, 358 (37.6%) reported having insurance and 409 (42.9%) reported having no insurance. Of those with insurance, 218 (60.9%) had an elevated screening test result in one or more of the variables including, blood pressure, blood glucose, total cholesterol and BMI. Of those without insurance, 256 (62.6%) had an elevated test result in one or more of the variables.

Implications: CPHC health screening data indicates that both groups, with or without insurance, had high levels of elevated screening test results. Although this was an expected finding for those without insurance, the implications for those with insurance include the need to examine issues related to accessing health care. Insured populations may benefit from health care system guidance and education to overcome barriers to accessing health care. Nursing programs can partner with community agencies to develop education and preventive programs to address the health care needs of under-served population.

Funding: CPHC funded by a grant from The California Wellness Foundation.

COMMUNITY

Application of Relationship-Based, Body-Centered Methods to Transform Practice

Patricia L. Nardone, MS, PhD, RN, Regional Consultant and Educator¹

Lissi Hansen, PhD, RN, Professor²

Janet Reeder, BS, MSN, HCA, RN, Manager, Skyline ASC¹

Cynthia Patterson, BSN, RN, Regional Consultant and Educator¹

Claire Spanbock, MBA, RN, CNOR, Regional Director¹

¹*Surgical Services, Kaiser Permanente Northwest, Portland, OR*

²*School of Nursing, Oregon Health & Science University, Portland, OR*

Rationale and Background: Over 60,000 surgical procedures are performed every year in three ambulatory surgery facilities within an integrated care delivery system. Complexity of procedures and number of patient co-morbidities has increased. Patient safety events in the perioperative and perianesthesia areas remain pervasive and are directly related to the quality of communication, relationship dynamic and clinical judgment exhibited. Social relations, political contexts, hierarchical structures and culture influence the degree to which staff speak up in order to prevent these events. Evidence suggests that a collaborative environment in which speaking up is encouraged influences patient outcomes.

Purpose: The purpose of the multi-facility, interdisciplinary Speak Up for Patient Safety (SUPS) quality improvement project is to reduce patient safety events, improve communication, develop relationships and deepen clinical judgment exhibited by staff.

Approach, Method and Process: Action Science methods, relationship-based care, and body-centered practices informed the core SUPS curriculum. The curriculum was designed to engage learning, deepen attention, refresh energy, and improve clinical judgment. The curriculum has potential to reduce subsequent patient safety events. In 2012, the original curriculum was piloted in the first facility and in 2013 revised for participants in the second facility. Sessions included application of cognitive, pre-cognitive and sensory-emotional practices using simulation and cognitive rehearsal of scenarios. Scenarios were developed from diverse clinical situations in which patient safety is at risk. In addition, relationship conflict was created. Participants were guided to 1) communicate effectively, 2) address conflict and 3) exhibit clinical judgment skills. Follow-up education sessions and coaching are currently in progress. The curriculum was further revised for the third facility where education sessions are planned for October and November of 2013. Pre-post surveys include measurement of 1) self/group efficacy, 2) attention/distraction, 3) actual case examples of speaking up and 4) assessment criteria related to communication and clinical judgment. In addition, focus group data are in the process of being analyzed for two facilities. Data related to patient safety events are being compiled.

Outcomes: Preliminary data for two facilities indicated improvement in abilities related to 1) group efficacy, 2) communication and 3) collaboration. In the second facility, evidence further suggests improvement in 1) accountability, 2) conflict resolution and 2) clinical judgment. There were no improvements in staff perception of gossip or undermining of colleagues in either facility.

Conclusions: Relationship-based, body-centered methods and simulation, in addition to leadership support, follow-up coaching and education anchored cultural change. This approach positively influenced staff perception of certain aspects of self/group efficacy, communication skills and clinical judgment. Plans for expanding SUPS into other programs and facilities are in progress.

COMMUNITY

Community Health Nurses as Ethnographers in Tamil Nadu, India

*Alexa R. Meins, BS
PhD Student
School of Nursing
University of Washington
Seattle, WA*

*Ardith Z. Doorenbos, PhD, RN, FAAN
Associate Professor
School of Nursing
University of Washington
Seattle, WA*

Aims: An aim of this project was to assess the community health approach used by two institutions in the southern state of Tamil Nadu, India and how they address the health inequities faced by impoverished communities. Another aim of this project was to evaluate the perceived roles that the nurses fulfill as a part of their community health approach compared to what roles are actually observed in the daily community health practice.

Background: Primary healthcare centers in the Tamil Nadu are staffed primarily by community health nurses and nursing students who travel each day from the city. These clinics are in both rural and urban areas that have been identified as having poor access to healthcare resources and are in areas inhabited by people of low socioeconomic and educational status. Services that are provided by the primary health centers include vaccinations, prenatal care, first aid, and medication distribution among others. In addition to staffing the primary health centers, the community health nurses are also responsible for providing in-home care to patients on assigned streets.

Methods: Field notes were collected through participant observation of the community health nurses and patients at both institutions. Based on the field notes collected, semi-structured interviews were conducted with the nurses to inquire further about emerging themes. A content analysis was then performed on the data gathered from both the field notes and interview responses.

Results: The community health nurses are respected and trusted by those they serve because of the role that they play in the health and well-being of their community. When interviewed about their role, the nurses responded that they are healthcare providers and educators. Participant observation revealed that not only do the nurses fulfill these two roles, but also a third role: ethnographer.

Implications: The third, undeclared role that the Tamil Nadu nurses fulfill-ethnographer- allows the nurses to develop positive nurse-patient relationships, which is essential to providing quality care. In addition, their role as an ethnographer allows the nurses to identify and address problems with healthcare delivery as they arise in their communities. This triple-role approach, seen in the care provided by community health nurses of Tamil Nadu, is a viable strategy for community health programs. It can be implemented in other parts of India as well as other developing nations worldwide due to its success in providing quality primary care to the impoverished communities of Tamil Nadu.

COMMUNITY

Designing Home Visit Interventions Delivered by Promotoras for Obesity Prevention

*Elizabeth Reifsnider, PhD, WHNP, PHCNS,
FAAN, Associate Dean and Professor
College of Nursing and Health Innovation
Arizona State University*

*Maribell Guzman
Irma Pecina
Connie Mendoza
Promotoras*

*College of Nursing and Health Innovation
Arizona State University*

*Lucy Reyna, BA
Community Partner
Reina Enterprises*

*Abigail Diaz, RN, BSN
Director, WIC Program
City of Houston*

Department of Health and Human Services

Introduction: To reduce the incidence of obesity, the Institute of Medicine published the most effective approaches to childhood obesity in 2011. Their recommendations include 1) exclusive breastfeeding until 6 months and continuing until 12 months, 2) appropriate portions and choices for infant feeding, 3) parenting education for behavior management and nutritional guidance, 4) sleep promotion for infants and children, 5) physical activity as appropriate for age, and 6) limited screen time. The community-based interventions discussed in this symposium contains these recommendations as their core with adaptations necessary for delivery to Mexican American mothers in the WIC program in Houston Texas.

Methods: The project began with meetings between a community-based group (de Madres a Madres), the academic-based researcher, and public health nurses and WIC supervisors who worked for the local health department. All participants agreed that the rates of obesity in the community were too high and needed to be addressed, but previous programs delivered through the WIC education sessions had not made substantial differences. The proposal to develop interventions that can be delivered by promotoras was seen as an innovative approach that could potentially demonstrate a new way to reduce childhood obesity. Consequently, all parties collaborated on the intervention creation, delivery site, target population, and promotora selection and training.

Results: Being a community-based project in connection with a county and state health department, the approval process required 4 different Review Board approvals. The hiring and training process of the promotoras was conducted in collaboration with our community-based agency and issues about authority and control emerged. The promotora training was more difficult than expected as the promotoras hired were familiar with community outreach and program provision, but learning how to conduct research has been challenging.

Discussion: Academic researchers who practice CBPR need to realize that community residents are not familiar with research and need assistance in understanding basic research approaches. Combining community action and research may be a difficult concept to experienced community outreach workers who are familiar with providing all information to all interested parties. In addition, clear communication channels are needed for collaboration between all parties concerned with the research. The community perspective provided by the promotoras is invaluable in making the intervention meaningful to the intervention recipients.

COMMUNITY

Using Informatics to Capture Human Response: Home-Based Health Technologies

Blaine Reeder, PhD
Assistant Professor, College of Nursing
University of Colorado
Anschutz Medical Campus
Aurora, CO

George Demiris, PhD
Professor
Biobehavioral Nursing and Health Systems
University of Washington
Seattle, WA

Aim: The aim of this presentation is to operationalize a biobehavioral nursing model by linking it to existing home-based health technologies to demonstrate the potential of such technologies to improve health in the home context and inform the design of future applications.

Description: The Human Response Model¹ is an organizing framework for biobehavioral nursing research based on the idea that person and environment factors interact to produce adaptive human responses. These responses can be classified as biological, experiential (self-reported) or behavioral (observable). Home-based health technologies and smart homes show promise to support independent aging and enhance home health care delivery for different patient populations. “Smart homes” are broadly defined as residential settings with embedded technologies that facilitate passive monitoring of the residents with the goal to improve well-being and safety of residents. A recent systematic review identified six different types of “smart” home technologies² and classified them by function: physiological monitoring, social interaction, cognitive support, functional monitoring, safety monitoring and security monitoring.

Approach: We demonstrate how the six types of home-based health technologies can capture and support biological, experiential and behavioral responses by mapping real-world examples of different technologies to different response types of the Human Response Model (see Figure 1).

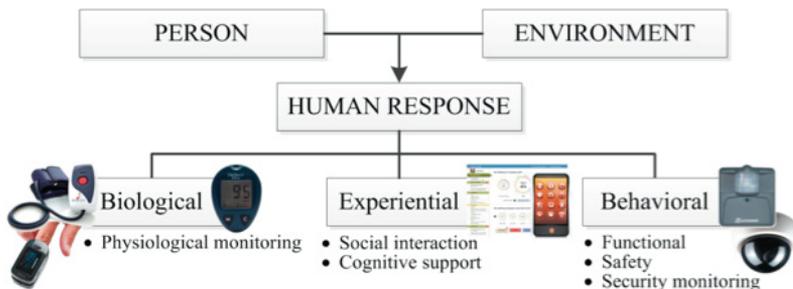


Figure 1: Human Response Model and home-based health technology examples

Logic: Biological responses can be measured in the home by monitoring various vital signs through use of devices such as glucometers, blood pressure cuffs and pulse oximeters to wirelessly transmit data to personal health records. Experiential responses can be enhanced through online social interactions with peers, family members and health care providers. Cognitive support can be enabled through reminders delivered, for example, via smart phone applications. Motion sensors can provide non-obtrusive functional and safety monitoring and activate video cameras for external security monitoring (see Figure 1).

Conclusions: This presentation demonstrates the utility of home-based health technologies in support of adaptive responses to person-environment interactions by mapping real-world technology examples to different response types defined by the Human Response Model. It furthermore provides a theoretical grounding to an emerging and continuously growing domain.

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Abstracts of Poster Presentations

CTSA'S IN THE WEST: NURSING ADVANCING HEALTH

DEVELOPMENT OF DASHBOARD
FOR IMPROVING CTSI PERFORMANCE

Deborah Koniak-Griffin, Pamela Davidson

GENERATING DATA TO ENHANCE COMMUNITY SENSITIVITY:
VALUE OF COMMUNITY INCUBATOR GRANTS

Ellen Olshansky, Yuqing Guo, Sarah Choi, Jung-Ah Lee

A THEATER INTERVENTION TO PROMOTE LATINO
PARENT-ADOLESCENT SEXUAL COMMUNICATION

Joanne Noone, Tiffany L. Allen, Nancy Castillo, Teresa Esqueda

PERCEPTIONS OF ANTICOAGULATION SELF-CARE
USING HEALTH TECHNOLOGY IN HISPANIC ELDERS

*Jung-Ah Lee, Alpesh Amin, Mark Bachman, Jill Berg, Lorraine Evangelista,
Preston Reed, Javier Garcia-Rivas*

CTSA'S IN THE WEST: NURSING ADVANCING HEALTH

Development of Dashboard for Improving CTSI Performance

Deborah Koniak-Griffin, RNC, EdD, FAAN
Professor and Endowed Chair
University of California, Los Angeles
School of Nursing
Los Angeles, CA

Pamela Davidson, PhD
Leader, CTSI-Evaluation
Clinical and Translation Science Institute
University of California, Los Angeles
Los Angeles, CA

Purpose/Aims: In this presentation a nurse scientist describes the dashboard development process as a strategy to promote research-based best practices.

Background: Nursing's activities within CTSIs vary considerably across institutions, with strongest contributions reportedly in community engagement and training. A nurse scientist in the UCLA Clinical and Translational Science Institute (CTSI), funded in 2011, is part of the multidisciplinary leadership team of the CTSI-Evaluation Sciences program. One of their activities is a dashboarding design process to develop a set of metrics to monitor internal operational processes and outcomes in relation to goals. Although dashboards are being used in several CTSIs for improving performance and alignment with the national CTSI consortium, nursing involvement in dashboard/ performance improvement has not been reported. Dashboards are useful visual displays that may be used to communicate extensive data clearly and concisely as well as for analytical purposes.

Methods: Following approval of the Executive Oversight Committee and external consultation, the evaluation team initiated the dashboard development process with the goal of measuring transformational change and monitoring organizational performance. The multi-step process began with mapping a set of approximately 25 candidate organizational performance metrics to the national CTSI promising metrics and those emphasized by our regional CTSI network (UC BRAID). The candidate metrics were examined by the senior leadership team and all relevant stakeholders in the four partner institutions of the UCLA CTSI. Criteria were developed to select metrics reflecting the vision, mission, strategic direction, and those critical for monitoring and improving performance. Implementation of a Metrics Gallery served as an innovative strategy in identifying the most optimum measures for evaluating performance and outcomes in relation to CTSI goals.

Outcomes Achieved: Several metrics have been identified for consideration in the Dashboarding process, including indices of CTSI Utilization and Effectiveness, "Time (average) from IRB Submission to Approval-Full Review" and Studies Meeting Accrual Goals. Findings from a 2012 Investigator Survey using a 1 (low) to 5 (high) rating scale, showed the overall effectiveness of the CTSI was 3.13 at all four sites, with ratings varying across the four partnering institutions from 2.77-3.22. Although 94% of respondents (N=366) reported being aware of CTSI programs and services, only 41.7% had used them in this early phase of CTSI operations. Moderate to extreme benefits to research were reported by all user-respondents. Baseline data at UCLA show the *estimated* median days currently is 65 for "Time between minimum document received on new contract to fully executed contract." This metric reflects efficacy of the contract negotiation process. The Beta version of the dashboard will be unveiled in late 2013.

Conclusions and Implications: Improving performance in research enterprises such as CTSIs requires examining goals in relation to performance and outcomes. This evaluation process may be facilitated through use of common metrics and dashboard displays that help identify "best practices" within and across institutions. The utility of dashboards makes them suitable as a potential tool for evaluating organizational effectiveness and educational outcomes in relation to goals within Schools of Nursing.

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CTSA'S IN THE WEST: NURSING ADVANCING HEALTH

Generating Data to Enhance Community Sensitivity: Value of Community Incubator Grants

*Ellen Olshansky, PhD, RN, FAAN
Professor and Director
Program in Nursing Science
University of California, Irvine*

*Yuqing Guo, PhD, RN
Assistant Professor
Program in Nursing Science
University of California, Irvine*

*Sarah Choi, PhD, RN
Assistant Professor
Program in Nursing Science
University of California, Irvine*

*Jung-Ah Lee, PhD, RN
Assistant Professor
Program in Nursing Science
University of California, Irvine*

Purpose/Aims: This presentation provides examples of research funded by “community incubator grants” at UC Irvine’s CTSA. The specific aim is to highlight how this particular grant mechanism has enhanced cultural sensitivity through academic-community research partnerships and how nurse scientists have been integral partners.

Rationale/Background: There is a strong nurse scientist presence at UC Irvine’s CTSA, especially in the area of community engaged research. Several nursing faculty have partnered with community organizations through the community incubator grant funding, making valuable contributions that enhance community sensitivity. This activity reflects the vision of UC Irvine’s Program in Nursing Science that emphasizes robust community involvement for the purpose of increasing sensitivity to the various communities with which we work.

Approach/Best Practice: Three specific examples are presented to demonstrate how these community incubator grants facilitated assistant professors in their development of community partnerships that enabled community-based research founded on strong community sensitivity: home visitation for underserved pregnant women, diabetes in underserved communities, hip fractures in older adults.

Results/Outcomes: Pilot results have been valuable in MOMS Orange County fundraising and advocacy efforts. The partners in this project presented their findings at a CTSA Community Engagement conference. Enhanced community-based diabetes pilot research strengthened a community partnership for future research. Pilot results are being used to develop an older adult-centered, community-based hip fracture program.

Each partnership led to ongoing research studies and resulted in increased trust among the community members for the academicians and increased sensitivity among the academicians for the community members.

Conclusions: The “community incubator grants” at UC Irvine’s CTSA not only provide research funding, but contribute to the mission of the community engagement unit of the CTSA as well as of UCI’s Program in Nursing Science, that of facilitating partnerships with communities to enhance sensitivity to the needs of communities.

CTSA'S IN THE WEST: NURSING ADVANCING HEALTH

A Theater Intervention to Promote Latino Parent-Adolescent Sexual Communication

Joanne Noone, PhD, RN, CNE
Associate Professor, School of Nursing
Oregon Health and Science University
Ashland, OR

Nancy Castillo, BS
Cuidate Program Coordinator
Jackson County Public Health
Medford, OR

Tiffany L. Allen, BS
Senior Research Asst., School of Nursing
Oregon Health and Science University
Ashland, OR

Teresa Esqueda, BS
Research Assistant
Jackson County Latina Health Coalition
Medford, OR

Purpose/Aims: The purpose of this study is to evaluate the acceptability of a culturally-relevant parenting intervention using interactive theater to facilitate Latino parent-adolescent communication about sexuality and pregnancy prevention. The specific aims of this study are to 1) assess the acceptability, perceived benefits, and deficits of a theater-based intervention to improve Latino parent-adolescent communication about sexuality and pregnancy prevention; and 2) estimate preliminary intervention impact on parent comfort and amount of parent communication about sexuality and pregnancy prevention.

Rationale/Background: Nationally, 44% of Latina adolescents will become pregnant by age 20 compared with 19% of non-Hispanic whites. Teen pregnancy rates in women of color have been identified as a health disparity in the United States, Oregon and Jackson County.

Methods: The intervention in this study was a two hour theater-based intervention in Spanish using teen actors. The intervention consisted of scripted scenes and interactive scenes that were developed from community assessments and focus groups. Interactive theater is referred to as 'a rehearsal for life'. It progresses from traditional performance to increased audience participation with the aid of a facilitator, allowing participants to engage in problem-solving and to develop a sense of competency. Benefits include low cost and the ability to engage large numbers of participants and people with various levels of literacy. This study used a three-month prospective design. Acceptability and perceived benefits and deficits of the intervention were assessed with both qualitative and quantitative process evaluations. Spanish measures of parental communication (comfort, general communication and parent-child sexual communication) were employed at baseline and 3 months. All were measured on a 5 point Likert scale with higher numbers indicating more positive communication. Paired T tests for each of the three subscales compared pre and post-scores.

Results: 66 parents participated in the intervention and 59 were followed up at three months. Acceptability of the intervention was demonstrated. Parents commented on the realistic situations and enjoyed use of the teen actors to promote communication. 86% of parents reported at three month follow-up that they used information from the theater performance to talk to their child. All measures demonstrated significant improvements in general communication, sexual communication and comfort, with a P value of 0.017, 0.0002, and 0.002 respectively.

Implications: An interactive theater intervention is an engaging, innovative approach to facilitate parent communication about sexuality and pregnancy prevention. Acceptability of the intervention with Latino parents was demonstrated. The intervention was associated with increased parental communication and comfort at three month follow-up.

Funding: Supported by the Oregon Clinical and Translational Research Institute (OCTRI) from the National Center for Advancing Translational Sciences (NCATS).

CTSA'S IN THE WEST: NURSING ADVANCING HEALTH

Perceptions of Anticoagulation Self-Care Using Health Technology in Hispanic Elders

Jung-Ah Lee, PhD, RN, Assistant Professor, Nursing Science

Alpesh Amin, MD, MBA, Professor, Chair, Department of Medicine, School of Medicine

Mark Bachman, PhD, Assistant Professor, Director, School of Engineering, Calit2

Jill Berg, PhD, RN, Associate Professor, Nursing Science

Lorraine Evangelista, PhD, RN, Associate Professor, Nursing Science

Preston Reed, PhD, Research Scientist, Nursing Science

Javier Garcia-Rivas, MA, Graduate Student Researcher, Nursing Science

University of California, Irvine

Irvine, CA

Background: Older Hispanic adults are at substantial risk for cardiovascular and cerebrovascular disorders that require anticoagulation treatment (AT) (e.g., warfarin). Tremendous progress has been made in the use of anticoagulants but the treatment effectiveness is largely dependent on a patient's ability to follow the regimen. Poor adherence to AT remains a substantial problem among older Hispanic patients who must follow a multi-component treatment regimen. These patients may exhibit poor adherence due to limitations associated with aging, lack of adequate social support or financial resources, or inadequate knowledge related to AT. The use of mobile health technology to enhance self-care has gained momentum in the last decade, but little is known about the technical feasibility and effectiveness of such systems in promoting self-care in this vulnerable population.

Purpose: The purpose of the study was to identify the attitudes and preferences of older Hispanic adults on AT regarding the use of health applications (apps) via mobile devices (e.g., tablets) to gain skills for medication self-management.

Methods: A focus group study was conducted in Spanish for patients in anticoagulation clinics affiliated with an academic medical center. Apps regarding medication reminder/management and vitamin K content foods were presented to participants one at a time, and then participants were asked to use each one briefly. Participants gave their opinions on the health apps. The focus group discussion was audio-recorded and transcribed verbatim. Content analysis is on-going, with transcripts reviewed separately by research team members to draw common themes.

Preliminary Results: Nine patients (7 females, 2 males; mean age 71 years; 62-83) and 5 family caregivers (1 spouse, 4 daughters) participated in 4 focus group sessions. Participants reported taking anticoagulant medication at consistent times of day, but some reported forgetting or fear associated with AT. Participants were intrigued by the possible use of health apps in their medication management. Many reported never having used any health apps, but they reported that they did use pill organizers or paper logs. Some concerns raised were: 'technology illiteracy, 'expensive mobile devices', 'interactions of social alcohol drinking or Hispanic specific foods (e.g., cactus) with anticoagulants', and 'bleeding episodes'. Other comments included 'home remedy (herb)' for bruising and 'strong support from their religious belief'. Caregivers were involved actively in the focus group discussion expressing their experiences, including 'dependency of patient on the caregiver', 'lack of support for caregiver', 'devotion to parents' care'. In the focus groups, the patient and caregiver participants provided a supportive environment for each other to share their feelings with the AT. Participants expressed the need for more detailed education about their medical conditions and treatment. Detailed results from the content analysis will be presented at the conference.

Conclusions/Implications: In light of the increasing incidence and prevalence of conditions requiring anticoagulation therapy, our findings will be used to develop an elderly-centered, culturally sensitive health application to promote self-management in older Hispanic adults with chronic conditions in conjunction with family caregivers.

Funding: 1) University of California- Irvine, Institute for Clinical and Translational Sciences (UL1TR000153), Pilot Study Award 2012-2013. 2) University of California- Los Angeles, RCMAR/CHIME (P30-AG021684) and UCLA-CTSI (UL1TR000124) Pilot Study Award 2013-2014.

Abstracts of Poster Presentations

CULTURE

ASSESSING MEXICAN AMERICAN CAREGIVER ACCULTURATION AND ITS RELATIONSHIP WITH BURDEN

Janice D. Crist, Alice Pasvogel, Joseph T. Hepworth

ASSOCIATIONS BETWEEN ACCULTURATION AND HEALTH

Barbara Snyder, Colleen Keller, Kathryn Coe

CANCER SELF-MANAGEMENT FOR PATIENTS WITH LIMITED-ENGLISH-PROFICIENCY

Fang-yu Chou, Grace J. Yoo, Jeannette Q. Lee

COPING AND QUALITY OF LIFE OF MEXICAN AMERICAN BREAST CANCER SURVIVORS

Mary Lopez

CRITICAL RACE THEORY, CULTURAL SAFETY AND CULTURAL COMPETENCE ENHANCING EDUCATION

Lida Dekker

CULTURAL ACCURACY: TRANSLATING MEXICAN AMERICAN WOMEN'S AMI EXPERIENCES

John Bowles

DIABETES INTERVENTIONS IN OLDER HISPANICS

*Cecille Marie Basilio, Ebere Ume, Janet Mentes,
Linda R. Phillips, Shirley Evers-Manly*

FINDINGS FROM CULTURALLY CONGRUENT HOME VISITS OF SENIOR REFUGEES

Rebekkah L. Hulen, Kelly Fanning Pesnell, Susan S. Tavernier

HEALTH RISK ASSESSMENT AMONG FIVE ASIAN AMERICAN
SUBGROUPS IN CALIFORNIA

Mo-Kyung Sin

HEALTHY WEIGHT BEHAVIOR MAINTENANCE
IN HISPANIC WOMEN

Daisy S. Garcia

REGULAR PREVENTIVE HEALTH CARE PRACTICES
AMONG KOREAN AMERICAN WOMEN

Young-Shin Lee

ROLE OF SELF-EFFICACY AS PREDICTOR OF SELF-RATED
HEALTH IN NATIVE AMERICAN ELDERS

Bette A. Ide, Barbara K. Dahlen

CULTURE

Assessing Mexican American Caregiver Acculturation and Its Relationship with Burden

Janice D. Crist, RN, PhD, FNGNA, FAAN

Associate Professor, Community and Systems Health Science Division

*Alice Pasvogel, PhD, RN
Assistant Research Scientist
Office of Nursing Research*

*Joseph T. Hepworth, PhD
Associate Research Scientist
Office of Nursing Research*

*College of Nursing, The University of Arizona
Tucson, AZ*

Background: Acculturation, defined as the degree to which one is affected by a culture in health perceptions and decisions, is an essential concept to examine in transcultural studies. Health disparities may vary according to elders' and caregivers' acculturation.

Purposes/Aims: The purpose of this methodological secondary analysis was to examine the reliability and validity of two measures of acculturation used in a study predicting the use of home health care services (HHCS) and a randomized control test of a telenovela intervention to increase HHCS use. Both studies used Mexican American (MA) elders and their family caregivers. Validity was assessed by correlating acculturation with the caregiving burden measures. The prediction study used Cuellar et al.'s (1995) Acculturation Rating Scale for Mexican Americans II (ARSMA II), a 30-item measure; and the intervention study used an 18-item measure from Hazuda (1988) and Marin (1996) subscales. Both acculturation instruments measured Mexican and Anglo ethnic identification, acceptance, and social interaction, and language preference (Spanish or English). Burden was measured in both studies with Poulshock and Deimling's (1984) 2-dimension questionnaire assessing Objective Burden (elders' personal and instrumental needs) and Subjective Burden (how tiring, difficult and/or bothersome caregiving activities are reported). Because of the strong Mexican cultural norm of familism, the hypotheses were: H1 Higher levels of Mexican American Acculturation would be associated with lower Caregiving Burden. H2 Higher levels of Anglo Acculturation would be associated with higher Caregiving Burden.

Methods: Cronbach's alpha was used to assess reliability. Pearson product-moment correlations were used to assess the relationships between the continuous measures of Acculturation and Caregiving Burden.

Results: For the prediction study (n=140 MA caregivers), the ARSMA II alpha for the Mexican American dimension was .84 and for the Anglo dimension was .92. Acculturation did not correlate with either Objective or Subjective Caregiving Burden. For the intervention study (n=22 MA caregivers), alpha for the Mexican American dimension was .68 and for the Anglo dimension was .83. We found that Mexican American Acculturation was correlated with Objective Burden ($r=.48$, $p=.05$); and Anglo acculturation was correlated with Subjective Burden ($r=.51$, $p=.04$).

Implications: The ARSMA II and the Hazuda/Marin items focus on similar concepts with the same bicultural dimensions. The lower alphas for the Hazuda/Marin subscales were expected due to their having fewer items. We recommend the shorter Hazuda/Marin instrument be used with MA family caregivers, that it continue to be compared with other Acculturation instruments, and its psychometrics evaluated.

CULTURE

Associations between Acculturation and Health

Barbara Snyder, BSN, RN, MBA

*Transdisciplinary Training in Health Disparities Science Pre-Doctoral Fellow
National Hartford Centers for Gerontological Nursing Excellence Scholar
College of Nursing and Health Innovation, Arizona State University
Phoenix, AZ*

Colleen Keller, PhD, FAHA, FAAN

*Regents' Professor; Foundation Professor
in Women's Health; Director, Center for
Healthy Outcomes in Aging; Co-Director, T32
Transdisciplinary Training in
Health Disparities Science
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ*

Kathryn Coe, PhD

*Professor and Lilly Scholar
Social and Behavioral Sciences Division
Department of Public Health
Indiana University-Purdue University
Indianapolis, IN*

Purposes/Aims: The purpose of this report is to review, synthesize, and interpret the most recent existing research that draws associations between acculturation and health outcomes.

Rationale/Background: In the United States (U.S.), there is a growing concern regarding health disparities, primarily because 1) ethnic minority populations are quickly growing (U.S. Census Bureau, 2013) 2) acute and chronic disease management and treatment are expensive; and 3) health disparities, which often occur in acute and chronic diseases, affect ethnic minority populations disproportionately. One hypothesis is that immigrant acculturation is a measureable mechanism underpinning health inequalities, hence there is a growing body of scientific inquiry exploring the link between acculturation, health risks, and disease.

Undertaking/Best Practice/Approach/Methods/Process: An electronic search was conducted in PubMed using the MeSH major topic acculturation for journal research reports dated from January 2011 through June 2013, and using the sampled age range 45 +, and English language, and health outcomes. The final twenty-one reports that were included in this review a) specifically examined acculturation and its relationship to a health issue; b) used a defined measure for acculturation; and c) showed an association between acculturation and a specific health issue. The research reports included in this synthesis were examined in terms of 1) strength of the relationship(s) between acculturation and health outcomes; and 2) the conceptual and operational assessments of acculturation.

Outcomes Achieved/Documented: The associations reported in this review were equivocal, as often, the associations between acculturation and health outcomes were contradictory among the reviewed studies. More than half of the authors in the reviewed papers explicitly commented about difficulties with the use of the acculturation concept in their studies. The acculturation measures varied across the appraised studies, and one third of the reports stated that the study results were not generalizable to other populations, regions, or contexts.

Conclusions: Findings suggest that acculturation is likely not a useful concept for examining as a potential mechanism to underpin health inequities. Examining differences in health outcomes through understanding alternative concepts such as biculturalism extrapolated from culturally relevant interventions may be more useful.

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CULTURE

Cancer Self-Management for Patients with Limited-English-Proficiency

Fang-yu Chou, PhD, RN
Associate Professor
School of Nursing
San Francisco State University
San Francisco, CA
fchou@sfsu.edu

Grace J. Yoo, PhD
Professor
Asian American Studies
San Francisco State University
San Francisco, CA

Jeannette Q. Lee, PhD
Assistant Professor
Physical Therapy
San Francisco State University
San Francisco, CA

Purpose/Aim: This paper presents the summary of research literature in cancer self-management for cancer patients with limited-English-Proficiency (LEP) and the development of an intervention prototype for breast cancer patients with Limited-English-Proficiency.

Background: Cancer demographics in the United States have changed as the country has become more culturally diverse with growing numbers of new immigrants from various cultural backgrounds. Some patients, particularly those from non-mainstream backgrounds, experience delays in seeking health care and lack appropriate health seeking behaviors. Studies have suggested that LEP seems to be associated with symptom distress and reduced breast cancer screening. Health care providers (HCP) also report feeling that they are unable to communicate as effectively with LEP clients and admit to providing less patient-centered care due to language barriers. Cultural differences (i.e. taboos about the word “cancer”) are also at play when discussing diagnoses with patients with LEP. Strategies and practical interventions are needed to support self-management among LEP cancer patients.

Methods/Results: The aim of this project is to develop an intervention handbook prototype in cancer self-management for LEP patients. The intervention handbook will be first developed for Chinese American breast cancer patients with LEP. Research Literature within last five years was reviewed in the topic of intervention for cancer self-management for Limited-English-Proficiency patients or immigrant patients. A prototype of self-management intervention handbook will be developed based on the conceptual and research literature by a team of interdisciplinary investigators. Panels of content experts from ten health care providers and ten Chinese American breast cancer survivors will be invited to review the intervention prototype to establish the content validity and feasibility.

Implications: This project provides preliminary data of the usefulness and feasibility of designing a self-management intervention for culturally-diverse cancer patients. Further research includes testing and applying the intervention.

Funding: Collaborative Research Grants, Office of Research and Sponsored Programs, San Francisco State University, 2013-2014 (PI: F.Chou).

CULTURE

Coping and Quality of Life of Mexican American Breast Cancer Survivors

*Mary Lopez, PhD
Assistant Dean, Research and Administration
College of Graduate Nursing
Western University of Health Sciences
Pomona, CA*

Coping is a challenge for breast cancer survivors and may result in a poor quality of life (QOL). The primary purpose of this mixed method study was to examine the effects of acculturation, optimism, and breast cancer concerns on coping styles and to determine the effect coping styles have on the QOL of Mexican American breast cancer survivors. The embedded qualitative component of this study following Labov and Waletzky's (1967) social phenomenon narrative analysis approach and included non-structured interviews to investigate Mexican American women's experiences living with breast cancer. Participant's stories were recorded verbatim and subjected to content analysis and thematic coding. *Familismo* or the importance of family participation was the major social context in addressing on-going physical and psychological needs of Mexican American breast cancer survivors 9 years after treatment. Narratives revealed the major domain of Surviving the Fight, with subthemes of Adapting my Lifestyle, Maintaining Hope, and Remaining Vigilant. Qualitative data confirmed the quantitative model variables as personal characteristics of acculturation and optimism strongly influencing QOL. After nine years of cancer survivorship, women who had lower acculturation and were less optimistic about the future had ongoing physical and psychological concerns about breast cancer and used passive coping styles. The quantitative results of this study have been reported elsewhere. Nurses in a variety of healthcare settings can use these findings to identify Mexican American breast cancer survivors at risk for reduced QOL and design culturally appropriate interprofessional care plans to coordinate their healthcare needs.

Keywords: breast cancer, acculturation, optimism, coping, quality of life, familismo, Mexican American

CULTURE

Critical Race Theory, Cultural Safety and Cultural Competence Enhancing Education

*Lida Dekker, EdD(c), MN, RN, PCHCNS-BC
Instructor/Graduate Student
College of Nursing/College of Education
Washington State University
Vancouver, WA*

Purpose/Goals: The purpose of this paper is to explicate promising practices, which have been implemented by nurse educators to enhance coursework to produce safer, more effective practitioners to function in our increasingly global society. The goals are to create safe and effective learning environments for future nurses and to allow for exploration of biases and assumptions. Understanding oneself is an essential step toward effective communication with others. Promising practices from nurse educators are described that address the question, how do you teach nurses and healthcare providers to be culturally safe?

Background: Nurse educators teach and provide care in a global society, and traditional education practices may not adequately prepare nursing students to provide culturally safe care. Integration of critical race theory, cultural safety, and cultural competence into course didactics is an innovative solution, which may better inform nursing education practices. Critical race theory originated with Black U.S. scholars who were responding to legal and consciousness-raising issues in the 1960's-1990's and is evolving as a critical theory. Cultural safety, developed by nurses in New Zealand, legally informs care through the New Zealand Nurse Practice Act, which requires nurses and educators to examine power differentials that may be present during nurse/patient and faculty/student encounters. Major tenets of cultural safety are (a) culturally safe care has been provided when the patient says it has and (b) knowing one's own cultural story leads to self-awareness of biases that may impact care. U.S. nursing has historically relied on cultural competence, however, this practice maintains an "us/them" anthropological stance that has not resulted in improvement in health disparities (Seaton, 2010).

Undertaking/Best Practice: The author's teaching experience and research participation, along with current literature review resulted in creation of an elective course curriculum, *Cultural Safety and Social Justice in Global Society*. This course encourages and supports students from all cultures and ethnicities to grow in self-understanding and improve effective communication skills with diverse clients and co-workers. This poster will connect adult learning theories with dynamic learning activities, visual models, web resources and scholarly references, which have successfully guided nursing students toward culturally safe practices.

Outcomes: Seven years of constructive student feedback have been accumulated to support the evolution of this course. Course graduates reported successfully implementing concepts in their own teaching and practice. This feedback informs a qualitative dissertation inquiry in progress.

Conclusions: Nursing educators and students may be supported in their growth along the cultural competence continuum from cultural blindness toward cultural competence by this innovative teaching practice incorporating concepts from critical race theory and cultural safety.

Reference:

Seaton, L. (2010). Cultural care in nursing: A critical analysis. Sydney: University Technology. Retrieved Jan 2013.

CULTURE

Cultural Accuracy: Translating Mexican American Women's AMI Experiences

*John Bowles, PhD, RN
The University of Arizona
College of Nursing
Tucson, AZ*

Purpose/Aims: To present the procedures and resources used to assure cultural accuracy and clarity of data collected and analyzed in a cross-cultural study with Mexican American women diagnosed with coronary heart disease (CHD) and who reside in the U.S.-Mexico border region.

Background: Achieving cultural accuracy challenges researchers who conduct studies with people from cultures other than their own. During the process of translation and back-translation of interview questions and qualitative data the non-English speaking participants' intended meaning may not be accurately and adequately captured. Accurate representation of data is a key factor in closing the heart disease disparity gap among minorities and underserved populations. Mexican American (MA) women are a burgeoning population and experience a disparity in heart disease risk factors and potentially increased risk for heart disease. However, there are no studies describing the acute myocardial infarction (AMI) symptom experience of this Hispanic subgroup.

Methods: A convenience sample of 8 primarily very Mexican oriented, non-English speaking MA women mean age 63 years (range 41-78 years) with recent AMI from the US-Mexico border region participated in a semi-structured interview and completed the McSweeney Acute and Prodromal Myocardial Infarction Symptom Survey (MAPMISS). A bilingual/bicultural female interpreter assisted the PI in data collection for participants with limited English proficiency, for the purpose of cultural accuracy of data. The interpreter used language and provided examples that underpinned the participants' cultural values and norms. The PI asked the interview questions in English. A bilingual/bicultural interpreter translated the questions into Spanish for the participant and then translated the participants' responses into English for the PI. Each interview was audio-recorded. The audio recordings were transcribed by a bi-lingual/bi-cultural transcriptionist. Discrepancies in meaning or terms identified in the audio-recorded translation were discussed between the interpreter, transcriptionist and the PI until consensus of meaning was achieved. Accuracy of the translated terms were confirmed with the participants through the process of member-checking.

Results: Cultural accuracy and clarity of participants' terms and descriptions resulted in new and uncommon terms previously reported in the literature that describe women's heart attack experiences. For example, women used terms such as "*asphyxiatia*" (asphyxiating) and "*menos fuerza*" (less strength) to describe their symptoms. Subtle changes in terms used to describe pain, location of pain, and activities were identified. For example the difference between, "It's a pain in my chest and in my back" and "It's a pain that covers from the chest to the back."

Implications: Discrepancies in interpretation of data collected when using simultaneous translation and/or during the process of transcription can be identified and reconciled with bilingual/bicultural translators, transcriptionists and in the process of member-checking. These processes may guide nursing researchers in cross-cultural studies to achieve cultural accuracy and clarity of data collected and analyzed with culturally diverse persons.

CULTURE

Diabetes Interventions in Older Hispanics

Cecille Marie Basilio, Entry-Level MSN Student, CDU SON, L.A., CA

Ebere Ume, PhD, RN, Assistant Professor, CDU SON, L.A., CA

Janet Mentes, PhD, APRN, BC, FGSA, Associate Professor, UCLA SON, L.A., CA

Linda R. Phillips, PhD, RN, FAAN, Professor, UCLA SON, L.A., CA

Shirley Evers-Manly, PhD, RN, Interim Dean, CDU SON, L.A., CA

Purpose: Identify and examine through a literature review, successful chronic care models for older Latinos with diabetes, aged 65 and older, in low-income areas.

Background: In many urban areas, the prevalence of diabetes among Hispanics, notably Mexican Americans, has tremendously increased over the last decade. This marked increase is reflected, for example, in the 2011 Los Angeles County Health Survey (LACHS) which shows that Hispanics are disproportionately affected by diabetes by 13.5% as compared with other ethnic or race groups; 34.3% of which are Hispanic diabetics, 65 years and older. According to the National Alliance for Hispanic Health, the Hispanic population 65 years and older is projected to triple by 2050 from 6% to 18%, putting future generations of older Hispanics to be especially at risk for diabetes. The mortality rate from diabetes is 50% higher among Hispanics than non-Hispanic whites according to the National Diabetes Information Clearinghouse (NDIC). The results of a survey conducted by the County of Los Angeles Public Health showed that the high prevalence of diabetes among the Hispanics may be related to socioeconomic disparities such as poverty, language barrier, lack of access to care and preventative services, physical inactivity, widespread media advertising of unhealthy foods and beverages, greater availability and affordability of unhealthy foods relative to healthy foods and lack of education. Special issues related to aging were not specifically addressed in the survey, but, in general, the report called for culturally appropriate interventions to address these disparities and to improve diabetic care and management, reduce morbidity and improve quality of life outcomes for persons with diabetes.

Methods: Three electronic databases (Cinahl, PubMed and Google Scholar) were searched using keywords “diabetes”, “aging”, “older Hispanic”, “low income”, “diabetes prevalence rate”, “health disparities”, “diabetes programs”, “diabetes interventions.” Analysis focused on identifying program elements that were most effective for improving diabetes outcomes for older adults. Articles pertaining to interventions and management of diabetes in older Hispanics were included. Articles focusing on other non-Hispanic ethnicity or racial groups were excluded.

Results: Marked improvement in glycemic control for the older Hispanic population was linked to interventions involving skill building behavioral sessions, structured physical activities, increased awareness of fruit and vegetable consumption and increased availability of affordable fruits and vegetables in the community. In general, studies did not pay special attention to issues related to aging or how these aging issues affected outcomes.

Implications: The recognition that Hispanics suffer from a disproportionate burden of diabetes can initiate nursing efforts to advocate for collaborative long-term efforts to support prevention, early diagnosis and acceptable care for those disadvantaged, low-income Hispanics with diabetes. A keen understanding of diabetes risk factors is crucial in providing patient education and the basis for successful diabetes prevention and intervention programs. Tailoring these interventions to common age-related changes is also essential. Designing programs for older Hispanics with diabetes requires a renewed commitment on the part of the nurse and other health care specialists to increase access to affordable quality health care and levels of education.

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CULTURE

Findings from Culturally Congruent Home Visits of Senior Refugees

Rebekkah L. Hulen, MSN, RN, CNE
Doctoral Student, School of Nursing
Idaho State University
Meridian, ID
Hulereb2@isu.edu

Kelly Fanning Pesnell, DNP, APRN, FNP-C *Susan S. Tavernier, PhD, APRN-CNS*
School of Nursing *School of Nursing*
Idaho State University *Idaho State University*
Meridian, ID *Meridian, ID*

Purpose: The purpose of this pilot study was to describe the health care needs of resettled refugees seen during a culturally appropriate home visit.

Background: There are over 8000 resettled refugees from 20 different countries of origin residing in Idaho. In collaboration with the Idaho Office for Refugees, faculty and students in the Family Nurse Practitioner and Accelerated Bachelor's Degree Nursing program provide home visits to senior refugees. Using the Standards of Practice for Culturally Competent Nursing Care as the basis for care, students receive education on trauma-based care and medical interpretation. Cultural navigators accompany the students and faculty on the home visits, providing translation of language and culture. The particularly complex needs of senior refugees (age 55 and older) are often difficult to meet due to documented barriers to healthcare, affordable housing and employment opportunities.

Methods: This pilot study used content analysis of home visit documentation from eight senior refugee cases. The analyses included the documentation of seven different senior refugees, defined as age 55 or older and resettled through the Idaho Office for Refugees. The authors listed the identified problems, tabulating the number of times each occurred. The authors categorized the list of problems using a consensus approach.

Results: The analysis of home visit documentation revealed eight categories of health care needs: medication, nutrition, translation services, dental, vision, transportation, mental health, and functional assistance. Medication needs varied and only one participant taking all medications as prescribed. Four of eight (50%) seniors were not taking a prescribed medication due to not refilling the prescription. Reasons provided were that the senior refugee was unaware of the medication needing continuous refills or assistance to order and obtain refills. Additionally, 50% of study participants were taking at least one medication without knowing what the medication was treating. Barriers to adequate nutrition involved one or more of the following for five of eight seniors (62.5%): inability to stand to cook, assistance needed with shopping, or lack of finances to buy food. Six of eight (75%) senior refugees required translation services to complete the nursing home visit. Other needs identified included: three of eight (37.5%) with dental carries and/or missing teeth requiring dental referrals, 25% needing vision, transportation, or mental health referrals and three of eight (37.5%) needing functional assistance with mobility and/or activities of daily living. Nursing students made 19 health care referrals for the eight senior refugees during their first home care nursing visit.

Implications: The spectrum of care required for refugees resettled in the US becomes more complex as layers of vulnerability are added. In addition to language and cultural barriers to health care access, senior refugees have fewer economic resources, diminished physical function and strength, higher incidence of chronic illness, and diminished capacity to cope. Our findings suggest a need for larger studies and continued programmatic development to meet the uniquely complex needs of the resettled elderly refugee population.

CULTURE

Health Risk Assessment among Five Asian American Subgroups in California

*Mo-Kyung Sin, DSN, RN
Associate Professor
College of Nursing
Seattle University
Seattle, WA*

Despite Asian Americans being the fastest growing minority population in the U.S. and having poorer health status than the overall U.S. population, they have been largely neglected with regards to health risk assessment and program development. The purpose of this study was to assess health behaviors (smoking, binge drinking) and health conditions (body mass index, high blood pressure, diabetes) of five Asian American subgroups using the publicly available 2011-2012 California Health Interview Survey data (CHIS). The CHIS is a population-based random-digit dial telephone survey of households in California conducted by the University of California, Los Angeles, in partnership with the Department of Health Care Services and the California Department of Public Health. Among a total of 3,873,000 self-reported subgroup Asian ethnic adults (age ≥ 18) surveyed in California, Chinese accounted for 29%, Filipino 24.4%, Vietnamese 11.2%, Korean 9.3%, and Japanese 5.0%. Vietnamese men had the highest prevalence of current smokers (24.9%) followed by Korean men (23.3%). Korean (34.9%) and Japanese (30.9%) men had the highest prevalence of former smokers. The prevalence of binge drinking was highest among Filipino (38.5%) and Korean (34.5%) men. The prevalence of being overweight and/or obese was highest among Filipinos (54.8%) and Japanese (46.3%). Most Asian American subgroup men had a higher prevalence of diabetes than non-Latino white men (8.3% vs. 7.3%). Highest high blood pressure prevalence was among Japanese (40.5%) and Korean American (33.1%) men. These risk profiles for each Asian American subgroup help researchers set priorities for designing health promoting programs.

CULTURE

Healthy Weight Behavior Maintenance in Hispanic Women

*Daisy S. Garcia, MSN, RN
Doctorate of Nursing Science Student
School of Nursing
University of Washington
Seattle, WA*

Post-intervention behavior maintenance is key to preventing overweight and obesity in Hispanic women, particularly those who are more likely to be sedentary than the general population. This review explores intervention components for successful healthy weight behavior maintenance in Hispanic women. Specifically, the study aims to identify common intervention components that are effective in achieving maintenance of behavior change and how often such interventions were successful in achieving maintenance of participants' behavior change.

Computer and manual searches identified articles from 1992 to 2012, and randomized and quasi-experimental studies were located ($N = 9$). The methodological characteristics and components of the intervention studies were analyzed systematically. The analyses were guided by a data extraction list based on Sidani and Braden's (1998)¹ interventions' evaluation criteria and on the Consolidated Standards for Reporting Trials of 2010 statement. Maintenance of behavior was determined by the statistical significance ($p < .05$) of behavior change at the follow-up assessment point favoring the treatment groups.

Findings revealed that common intervention components supporting Hispanic women's weight-related behavior change and maintenance included interpersonal contact, length of intervention duration, and use of cultural motivational and social support strategies. Studies reporting three quarters (75%) or greater retention rates were more likely to achieve behavioral change among its participants. Behavior maintenance was reported in the majority of the studies ($n = 7$), and five achieved significant behavior maintenance at follow-up completion period.

Limitations and strengths of the review are discussed and recommendations are made for future interventions testing with an emphasis on Hispanic women's personal concerns, acculturative pathways, and assistance with developing problem-solving skills to increase Hispanic women's self-efficacy and thus satisfaction and permanence in programs that promote healthy weight.

Reference:

¹ Sidani, S., & Braden, C. J. (1998). *Evaluating nursing interventions: A theory-driven approach*. Thousand Oaks, CA: Sage Publications, Inc.

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CULTURE

Regular Preventive Health Care Practices among Korean American Women

*Young-Shin Lee, PhD, RN
Associate Professor
School of Nursing
San Diego State University
San Diego, CA*

While regular preventive health care practices are necessary to reduce mortality and morbidity, certain ethnic groups have limited accessibility to health care systems that results in late detection of disease and poor prognosis. Cancer is the leading cause of death among Asian American women. Specifically, Korean Americans (KAs) have the highest prevalence of breast and cervical cancers, lower cancer screening rates, and leading to lower survival rates than other ethnic groups. Low bone density in KAs is another high risk factor of injury and fracture. Although the literature provides valuable information, there is limited conclusive information about the compliance of these preventive health care practices.

Purpose: The purpose of the study was to explore the characteristics of preventive health care practices (mammograms, pap tests, and bone screenings) by three age groups (young, middle, and older) among KA women.

Methods: A descriptive study with a total of 63 KA women (age groups: 25-35, 45-55, and 65+ years) measured concepts of acculturation, length of residency in the U.S., health insurance, and additional characteristics (history, frequency, demographic information and most recent check up) of three preventive health screenings.

Findings: The young group had shorter residency times but was more acculturated than the middle and older groups: 41% of the middle group had health insurance followed by 55% and 81% in young and older groups, respectively.

Regarding mammograms and pap tests, 71% to 85% of middle and older groups had these tests done at least once; 48% and 24% had mammogram screenings regularly every one or two years; 30% in young and older groups and 50% in the middle group had pap tests performed regularly. More than 97% of women who received mammograms and pap tests had received recommendations for testing by health care providers (HCPs).

With regards to bone mineral density (BMD) testing, 57% and 45% respectively of middle and older groups had test screenings, while only 25% and 45% respectively of those screened received recommendations for BMD by their PCPs. The rest of the participants who obtained preventive or screening health care practices did so as a result of their own decisions or friends' recommendations.

Conclusion: Overall, KA women's preventive health care practices were greater than those stated in the literature, but regular screenings of preventive health care practices and follow up care should be improved. The older group showed lower health-related habits than younger groups. The study indicates the importance of HCP's recommendations to guide preventive health care practices.

Implications: In the public sector, there needs to be additional education regarding the importance of regular preventive health care and follow-up care for this specific population.

CULTURE

Role of Self-Efficacy as Predictor of Self-Rated Health in Native American Elders

Bette A. Ide, PhD, RN, FAAN

Contributing Faculty/Quantitative Methodologist

Richard W. Riley College of Education

Walden University

Minneapolis, MN

betteide@gmail.com

Barbara K. Dahlen, PhD, RN

Assistant Professor

RN-BSN Completion Program

Minnesota State University

Mankato, MN

Barbara.dahlen@MNSU.edu

Purpose: This study of the health and functioning of Native American elders focuses on the role of perceived self-efficacy as a moderator between perceived functional health and self-rated health (SRH).

Rationale/Conceptual Background: The literature on the health of Native American elders emphasizes their health challenges in comparison to the general U.S. population of older adults. There is scant literature related to the existence of health-protective factors such as self-efficacy and how they could function as predictors of health status. The model takes into consideration socio-demographic predictors and indicators of stress and family support as precursors of functioning and SRH.

Methods: The data are drawn from a needs assessment of elders living on the Standing Rock Reservation (Ide, Dahlen, Gragert, & Eagleshield, 2006). Data were gathered through face-to-face interviews by indigenous interviewers. After deletion of cases with substantial amounts of missing data on crucial variables, the sample size was 178. Data were analyzed by a theoretically driven 5-step hierarchical linear regression (HLR) model that included measures of socio-demographic characteristics (age, sex, education), perceived stress (distance in miles to emergency care and count of family problems), family support (Family APGAR [Good, Smilkstein, Good, Shaffer, & Arons, 1979] and household size), functional health (Morris, Buckwalter, Cleary, Gilmer, & Anderson, 1992), perceived general self-efficacy (Jerusalem & Schwarzer, 1992), and SRH.

Results: The age of the sample ranged from 49 to 90 with a mean age of 66.68. Over half (61.2%) were females, and 41.3% had less than a high school education. Through step 4 of the HLR, education, distance in miles to emergency care, and functional health were significant predictors of SRH. Inclusion of perceived self-efficacy in the model erased the relationship between functional health and SRH.

Implications: Perceived general self-efficacy was found to be a moderator between perceptions of functional health and SRH. This provides an important starting point for the development of interventions to help improve the health status of Native American elders. Plans will be offered for the development of enrichment programs for those elders that are directed at improving feelings of self-efficacy.

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Abstracts of Poster Presentations

EDUCATION

CULTURE AND COMMUNICATION: OUTCOMES
OF NURSING STUDENT USE OF SPANISH POCKET GUIDES

Sue A. Habkirk, Joanne L. Douthit

INCREASING DIVERSITY AND STUDENT RETENTION
IN NURSING EDUCATION

Kelly Marley, Sarah Bear

MENTORING DIVERSE GRADUATE STUDENTS TOWARDS
ACADEMIC SUCCESS AND PSYCHOSOCIAL HEALTH

Linda D. Gregory

MINORITY STUDENT EXPERIENCES: BARRIERS
AND BRIDGES IN NURSING EDUCATION

Nassrine M. Noureddine

NURSING COMPETENCIES IN GLOBAL HEALTH

Herica M. Torres Alzate

PRECEPTORSHIP IN AN INTERNATIONAL SETTING:
IMPLICATIONS FOR COLLABORATION

Eileen M. Smit, Mary Jane Tremethick

PREPARING NURSE SCIENTISTS IN GLOBAL HEALTH
RESEARCH: OPPORTUNITIES AND CHALLENGES

*Susan L. Beck, Sarah J. Iribarren, Virginia T. LeBaron,
Seneca Perri, Katherine Sward*

SUSTAINABILITY IN GLOBAL NURSING
EDUCATION PARTNERSHIPS

Judy Liesveld, Jenny Vacek, Debra Brady, Myrna A.A. Doumit, Nancy Hoffart

TEACHING CULTURALLY COMPETENT CARE
TO HEALTHCARE PROVIDERS IN PRACTICE

Bethany Rolfe Witham

THE IMPORTANCE OF FACULTY OF COLOR
FOR PROMOTING STUDENT DIVERSITY

Kristin F. Lutz, Dena Hassouneh, Ann K. Beckett

THE LIVED EXPERIENCE OF KOREAN NURSING STUDENTS
IN AN INTERNATIONAL EDUCATION PROGRAM

*Kyoung-Eun Lee, Ho Soon Michelle Cho, Mee Kyung Cho, Catherine Bailey,
Margaret Peters, Debbie Tapler, Nola Schrum*

THE MYTH OF EQUITY AND INCLUSION
IN NURSING EDUCATION

Kupiri Ackerman-Barger

EDUCATION

Culture and Communication: Outcomes of Nursing Student Use of Spanish Pocket Guides

*Sue A. Habkirk, PhD
Coordinator
Instructional Support Services
The University of Arizona
College of Nursing
Tucson, AZ*

*Joanne L. Douthit, RN, MN, CPN
Clinical Associate Professor
The University of Arizona
College of Nursing
Tucson, AZ*

Purpose/Aims: To provide an accounting of the method of selection and utility of a Spanish Pocket Guide for Nurses to registered nurse preparation programs.

Rationale/Background: Arizona is a highly diverse U.S./Mexico border state with Hispanics accounting for 28.6 percent of the population. As lack of culturally competent health care is associated with greater health disparities and lowered quality of care, the demand for nurses who are culturally competent and who have a better understanding of culturally-centered interventions to address remediable health disparities is crucial. Infusing culturally competent information and resources into nursing programs are essential given the increasing trend in the Hispanic population.

Brief Description of Undertaking/Best Practice: Culturally competent instruction for communicating to patients in Spanish was integrated into the curriculum utilizing multiple resources. Starting in the fall semester of 2010, entry level students received a nursing Spanish phrasebook to augment their current studies and clinical experiences. In the spring of 2011, nursing students in a BSN program semesters two and three were assessed on the quality and use of this Spanish Pocket Guide for Nurses.

Outcomes Achieved/Documented: Ninety percent of the nursing students polled in semesters two and three found the organization of the Spanish Pocket Guide for Nurses excellent or very good however, nearly two thirds reported their instructors referred to the guide little or not at all. Eighty four percent indicated having the guide should prove beneficial or helpful. Several students provided feedback that included implementing a Spanish course into the curriculum and at the very least short lessons of Spanish phrases during lectures would be helpful. This effort prompted the development of a case study scenario filmed using current students in their struggle to communicate with patients who speak a different language. It further served as a catalyst to the development of a web-based Spanish/English auditory and communication tool directed at nursing personnel.

Conclusions: This study has established the need for continued distribution of the Spanish Pocket Guide for Nurses to nursing students; however, it has identified the critical influence of instructors' emphasis on and student practice with the tool. Future research should examine the effect of concentrated lessons and/or courses using Spanish medical phrases on improved patient communication and care post graduation.

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EDUCATION

Increasing Diversity and Student Retention in Nursing Education

Kelly Marley, MSN, RN
Assistant Professor and Associate Dean
School of Health Sciences
Seattle Pacific University
Seattle, WA

Sarah Bear, MSN, RN, CNE
Director, RN-BSN Program
School of Health Sciences
Seattle Pacific University
Seattle, WA

The 2004 Sullivan Commission report identified a lack of minorities in health professions as a major factor contributing to health disparities among under represented populations. The diversity of nurses in Washington State is not representative of the population for whom they provide care. AACN (2013) addressed the strong connection between a culturally diverse nursing workforce and the ability to provide quality, culturally competent patient care. The challenges of recruiting students into nursing from underrepresented populations are well known. Although Seattle Pacific University (SPU) has made real progress in recruiting diverse students into the nursing program, many students face new challenges in successfully progressing to graduation, licensure, and entry into practice. Diverse students often performed poorly on standardized tests, struggled with course content, and had challenges with writing throughout the program. In 2011 and 2012, despite taking an NCLEX review course post-graduation, *all* students who did not pass the NCLEX were diverse. New approaches to support learning and success for diverse students are needed. The purpose of this project is to increase retention, progression, graduation, and licensure of diverse students in a baccalaureate nursing program encompassing prelicensure and RN-BSN students. The poster presentation will focus on a new supplemental curriculum aimed at supporting English Language Learners and underrepresented minorities. The new supplemental curriculum was developed in partnership with the School of Teaching ESL to address issues of writing and strategies for NCLEX-style test questions and is funded in part by a 2013-14 Promise of Nursing grant. The curriculum draws upon methodologies for academic content language instruction, including but not limited to SIOP (Sheltered Observation Instructional Protocol) and CALLA (Cognitive Academic Language Learning Approach). The materials focus on language and content development in all four language skill areas (reading, writing, listening, and speaking) as well as test-taking strategies specific to the tests students take. The curriculum will be delivered in four three hour sessions each quarter of the 2013-14 academic year. Students will be identified as at risk through assessment of ATI standardized tests, writing submissions, and theory course grades. At risk students will be required to attend the sessions beginning the third week of autumn quarter. Assessment will be ongoing, using S-TESL instructor made rubrics and quizzes, designed to prepare for standardized tests. A final computer based test will be administered. Test scores and writing samples will be tracked throughout the program to demonstrate effectiveness. Outcomes from the fall and winter quarters will be included in the poster presentation. The ultimate measure of effectiveness will be NCLEX pass rates. The School of Teaching ESL (S-TESL) will deliver two three hour staff development workshops for SHS faculty to teach best practices for delivering academic content to NNES and diverse students. SHS faculty will be able to incorporate best practices into course content and delivery methods for all courses taught in the school of nursing. Following the 2013-14 academic year, the program will be implemented by SHS faculty with consulting from S-TESL. The goal of the *Increasing Diversity and Student Retention in Nursing Education* program is to increase the educational level and diversity of the nursing workforce to better serve the people of Washington State.

Funding: Grant organization. The Promise of Nursing for WA Nursing School Grant Program administered by the Foundation of Student Nurses Association.

EDUCATION

Mentoring Diverse Graduate Students towards Academic Success and Psychosocial Health

Linda D. Gregory, MSN, BSN, RN

Doctoral Student

Department of Community Health Systems

University of California, San Francisco School of Nursing

San Francisco, CA

Purpose/Aims: Although a robust corpus of literature exists on the merits of mentoring relationships for undergraduate students, the literature is sparse in this area for graduate students. This qualitative pilot study sought to explore and understand factors related to the impact of faculty-mentors on the academic success, psychological and emotional well-being from the perspective of underrepresented minority (URM) students of graduate nursing programs.

Background: As indicated in the 2010 Institute of Medicine report on the future of nursing, a widening gap continues between the number of underrepresented minorities in the population and a sustainable education pipeline to build a fully-representative workforce. Students from URM backgrounds face multiple barriers that potentially interfere with academic success, and the risk for mental health concerns is high. As example, cultural beliefs that promote stigma around mental health issues may explain delayed or under-utilization of mental health services among URM students; and thus may hamper effective coping and the ability to succeed.

Demands for mental health services on campuses are increasing and will require corresponding resources. Administrative struggles with budgetary decisions, to adequately fund mental health services, may further jeopardize the accessibility to URM students. Mentoring as a trusting relationship is an opportunity for supportive discussions and referrals, as appropriate, to services available for known escalation of stress-related behaviors. The faculty-mentor role may serve as an ancillary bridge to mental health services for students.

Methods: This pilot study used grounded theory methodology and analysis, to analyze data from semi-structured open-ended interviews with two URM faculty-mentors and five URM student mentees. A post-modern co-constructivist epistemology framework was used for this study. The analysis is described through the theoretical lens of Symbolic Interactionism and Intersectionality. Purposive sampling was used to recruit participants from a local graduate health sciences campus.

Results: In progress. Preliminary analysis of the seven interviews suggests four emergent themes: a) mentor–advisor as supportive, b) faculty ill-prepared to effectively guide or manage sensitive or culturally charged class discussions, c) campus climate unwelcoming, stressful or anxiety provoking, and d) a lack of clarity between roles as mentor and advisor. Mentoring was generally viewed as a positive relationship. Participants indicated that open communication and the characteristics of being approachable, accessible, and willing to acknowledge their feelings and perceptions as essential to the development of a trusting relationship. Analysis of exemplars suggests a shared goal to balance stress, develop coping skills and the ability to navigate in a predominately white academic environment and culture.

Implication for Research and Practice: Continuing qualitative research will contribute to the overall body of nursing science and knowledge by better understanding the experience and perspective of mentoring on psychological and emotional well-being of URM students who persist and historically return to clinical practice. Ultimately, results will contribute to best practices in developing mentoring programs.

EDUCATION

Minority Student Experiences: Barriers and Bridges in Nursing Education

*Nassrine M. Noureddine, EdD, MSN, RN
Assistant Professor,
School of Nursing,
California State University, Sacramento
Sacramento, CA*

One of the challenges facing the nursing profession today is the underrepresentation of minority nurses as it contributes to the disparity in the delivery of health care. It is well documented in the literature that a diverse nursing population can help overcome language barriers and provide culturally competent nursing care. This is also true for Muslim patients, since differences in the social and religious cultures of Arab Americans and American Muslims raise challenges to healthcare access and delivery.

One factor contributing to the lack of minority nurses is the high attrition rate among minority students. Therefore, the retention of racial and ethnic minority students in nursing schools is essential in the development of a diverse nursing workforce that is able to deliver ethnically, culturally, and linguistically appropriate and sensitive health care. Currently, the literature on the nursing education experiences of minority students, particularly Muslim students, has been sparse. In fact, to the author's knowledge, there is no study that investigated the experiences of Muslim nursing students.

This qualitative phenomenological study sought to answer the following questions: (1) What are the perceived challenges to success that Latino, African American, and Muslim nurses faced in a nursing program where they were in the minority? (2) What institutional resources (student services), social capital (networks), cultural capital (beliefs, values, and skills), and habitus (aspirations) were necessary for their successful completion of the nursing program?

Minority nurses who graduated from a Northern California nursing baccalaureate program over a period of five semesters from Fall 2009 to Fall 2011 were invited to participate in the study. Participants were recruited through the alumni center of the university, nursing professional organizations for minority nurses, and also by the snowball effect method. A total of 46 nurses were invited and nine agreed to participate. All of the participants were females. None of the male nurses who were contacted about the study responded to the invitation. The ethnicities of the participants included one African American, four Latinos, and four Muslims.

Findings were divided into two major themes; barriers to completion, and facilitators to completion of the nursing program. The three barriers to completion sub themes that emerged were cultural barriers, academic barriers and the structure of the educational system. The four facilitators to completion sub themes that emerged were determination, financial support, social capital, and cultural capital.

The findings of this study could assist nursing educators, nursing programs' leaders, university leaders and policymakers understand the barriers and facilitators to success perceived by African American, Latino and Muslim nursing students. Identifying the barriers and the facilitators will help educators focus their efforts towards improving retention and success of minority students in nursing programs which will in turn improve diversity among nurses. Nursing programs also need to re-evaluate their admission policies to alleviate any potential barriers to access or success that may exist.

EDUCATION

Nursing Competencies in Global Health

*Herica M. Torres Alzate, RN, MSN
Clinician Educator
University of New Mexico
College of Nursing
Albuquerque, NM
hmtorres@salud.unm.edu*

Purpose: The purpose of this study is to explore the literature related to global health competencies, and to describe preliminary work by health professions in the development of competencies in global health.

Background: The importance of global health today cannot be overstated. With increasing population numbers, elderly, chronic diseases, communicable and vector-borne diseases, as well as non-communicable diseases, health care has become the highest priority in most countries. These health issues are compounded by political/military conflicts, poverty, refugee and immigrant migrations, and environmental disasters. In the health care professions such as nursing, medicine, pharmacy, and physical therapy, competency outcomes are more reliable for safe practice than the previously used methods that promoted student 'knowledge'. Developing nursing competencies in global health will prepare nursing students to effectively care for the populations they will serve either in an international or low resource setting.

Methods: The databases used for this literature review included PubMed, Scopus, and CINAHL. The search results were further scrutinized and selected articles were divided into research articles and supporting articles. Descendancy and ancestry approaches to identify key publications were used. Prominent authors in the field were also identified for searches.

Outcomes: Early contributors in the development of global health competencies have been public health professionals, nurses, physicians, pharmacists, and dentists. The Association of Schools of Public Health (ASPH) developed a set of global health competencies for masters level students. International Pharmaceutical Federation and more specifically, the Pharmacy Education Taskforce developed a set of global health competencies as a framework in the development of pharmacy practitioners worldwide. Association of Faculties of Medicine of Canada (AFMC) Resource Group on Global Health and the Global Health Education Consortium (GHEC) developed a list of competencies of seven topic areas, and 18 competencies. Wilson et al derived nursing competencies in an early study that produced 6 subscales: Global burden of disease, health implications of travel and displacement, social and environmental determinants of health, globalization of health and health care, health care in low resource settings, and health care as a human right and development resource.

Conclusions: Preliminary work in the development of global health competencies for the health professions is in its early stages and the need for extensive research is warranted. Discovery of these global health competencies may yield a transformation in undergraduate nursing education for a broader scope of practice relevance.

EDUCATION

Preceptorship in an International Setting: Implications for Collaboration

Eileen M. Smit, MSN, RN, FNP-BC
Professor
School of Nursing
Northern Michigan University
Marquette, MI

Mary Jane Tremethick, PhD, RN, MCHES
Associate Dean and Director
Health, Physical Education and
Recreation
Northern Michigan University
Marquette, MI

Purposes/Aims: To identify and describe the experiences of Honduran nurse preceptors and their American students during a service-learning experience in Central America.

Rationale/Conceptual Basis/Background: An international service-learning program in a developing country that incorporates local, in-country preceptors offers a unique and valuable learning opportunity for students. Due to limited research related to the experiences of preceptors in international settings, exploring the experiences of these preceptors and their American nursing students makes a needed contribution to the literature and guides the development of international service-learning programs that meet the needs of both preceptors and students. Preceptorship has been identified in the nursing literature as a beneficial strategy for clinical nursing education in terms of increased student knowledge, skill acquisition, confidence and professional socialization. Studies have found that nurse preceptors are motivated by satisfaction with student growth, their own intellectual stimulation as well as tangible rewards such as promotion in the work setting, educational development and financial gains. Due to the limited amount of research related to the experiences of preceptors in international settings, exploring the experiences of these preceptors will make a needed contribution to the literature and guide the development of international service-learning programs that meet the needs of both preceptors and students.

Methods: A descriptive exploratory study was conducted in which 15 nurses were interviewed to identify their perceptions of what would be the rewards and difficulties of working as preceptors with students from the United States. Following a service-learning experience with American students in Honduras, three Honduran nurse preceptors and 15 students who had worked with these Honduran nurses were interviewed about their experiences working together.

Results: Honduran nurse preceptors anticipated and experienced that sharing their knowledge and skills with students would be the primary reward of preceptorship. Tangible rewards were desired for their patients rather than for themselves. Students found the active encouragement of the Honduran nurse preceptors and acceptance of student care by Honduran patients provided them with excellent learning experiences. Nurses and students viewed language differences as a challenge.

Implications: Nurse preceptors in Honduras were receptive to working with nursing students from the United States and felt that sharing knowledge with the students was the primary reward for their preceptorship. Students valued the opportunity to practice skills in a supportive environment with receptive patients. Learning about the experiences of Honduran nurse preceptors and American students contributed to an understanding of preceptorship in international settings. Designing service-learning programs that are congruent with the expectations and values of nurse preceptors are more likely to be successful and meet the needs of the both the preceptors and their students.

EDUCATION

Preparing Nurse Scientists in Global Health Research: Opportunities and Challenges

*Susan L. Beck, PhD, APRN, FAAN
Professor, College of Nursing
University of Utah
Salt Lake City, UT*

*Sarah J. Iribarren, PhD, RN
VA Medical Center
Salt Lake City, UT*

*Virginia T. LeBaron, PhD, APRN
Post-Doctoral Fellow
Dana Farber Cancer Institute
Boston, MA*

*Seneca Perri, PhD, RN
College of Nursing
University of Utah
Salt Lake City, UT*

*Katherine Sward, PhD, RN
Assistant Professor, College of Nursing
University of Utah
Salt Lake City, UT*

Purpose: This presentation will share the experience of the PhD Program at the University of Utah in supporting doctoral nursing students to design and implement their dissertation research in low and-middle-income countries (LMICs).

Background: The opportunities for nurse scientists to contribute to understanding and improving the health of populations internationally is greater than ever. LMICs face the double burden of managing infectious diseases along with the growing epidemics of chronic illnesses, such as cancer. The innovative features of the Utah Model of PhD education have facilitated success in international dissertation research. Approach: The presentation will highlight dissertation research completed by three recent graduates, conducted in three continents (South America, Africa, and Asia). Research methods included a pilot randomized trial of a text messaging intervention to promote adherence with TB medications in Argentina, an ethnography exploring moral distress among oncology nurses in South India, and a mixed methods study utilizing an electronic pediatric medical decision support protocol to improve provider-caretaker communication at the point of care in Tanzania. Students were supported to successfully compete for diverse types of private and federal funding. Qualities of the students included risk taking, independence, perseverance, passion, and cultural competence. The Utah Model supported the research via video conferencing, supervisory committee membership and mentorship by faculty with international expertise, and remote faculty supervision. Faculty engagement with data collection and analysis occurred in the field and also once students returned to the U.S. Challenges for students were related to the ethical conduct of research in LMICs, language barriers, housing and transportation difficulties, gender issues, and cultural norms. Challenges for faculty included supporting students to cope with the numerous economic and sociocultural barriers encountered, the realities of fieldwork and data collection in a severely resource constrained setting, and occasional interruption in contact due to internet/power outages.

Outcomes Achieved: The three students have completed their research and are actively engaged in disseminating their findings via publication and international presentations as well as reports to stakeholders within their host countries. Lessons learned from their groundbreaking experiences pave the way for futures students.

Conclusions: These exemplars provide guidance to other programs interested in promoting international dissertation research within PhD education.

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EDUCATION

Sustainability in Global Nursing Education Partnerships

Judy Liesveld, PhD, PNP-BC
Associate Professor¹

Jenny Vacek, MSN, RN
Senior Lecturer II¹

Debra Brady, PhD, RN
Associate Prof., Education Team Chair¹

Myrna A.A. Doumit, PhD, RN
Associate Professor, Assistant Dean²

Nancy Hoffart, PhD, RN
Professor and Founding Dean²

¹*College of Nursing, University of New Mexico, Albuquerque, NM*

²*Alice Ramirez Chagoury School of Nursing, Lebanese American University, Byblos*

Purposes and Aims: Global nursing partnerships for the advancement of nursing education continue to increase. However, literature on two way exchanges is lacking between host and nurse partners. Limitation of the host's perspective impairs mutuality and respect. Indeed, the outcome should focus on sustaining a long-term global partnership. The purpose of this project is to enhance sustainability of a collaborative partnership between the Alice Ramez Chagoury School of Nursing (ARCSON) in Byblos, Lebanon, the host, and the University of New Mexico College of Nursing (UNMCON), the partner.

Rationale/Background: A contractual educational partnership between ARCSON and UNMCON was formed in 2011. The goal was to develop a pre-licensure concept-based curriculum for ARCSON. Conference calls, webinars, and e-mails between the host and nurse partner facilitated exchange of knowledge. Most significant were the ARCSON faculty member visits to UNMCON over a two-year period. A major challenge was the denial by UNM legal department for UNMCON faculty to travel based on the US State Department's advisory against travel to Lebanon. This prevented the nurse partner's full understanding of the context for the concept-based curriculum in the host country and prevented the host partner from truly hosting the experience. Through the use of technology, the partnership was able to develop a concept-based curriculum (CBC) for the ARCSON. The contractual agreement ended in 2013 but efforts to continue sustainability are important.

Description of Approach: Leffers and Mitchell's (2010) Sustainability of Global Health Nursing Interventions model serves as a resource to support sustainability. The key component of **program factor inputs**: what the host country continues to identify as important, and the component of **processes**: ongoing assessment, leadership, collaboration and adaptation to change can guide overall successful partnership outcomes.

Outcomes: Proposed activities for sustainability include joint development of CBC teaching and assessment strategies, collaborative research on student outcomes of CBC, curriculum and program evaluation, faculty development initiatives, and student exchange through on-line discussion.

Conclusion: Mutuality and collaborative voice are important elements in global partnership sustainability. The benefit of these types of partnerships extends to faculty, students, and the global health care arena.

Reference:

Leffers, J. & Mitchell, E. (2010). Conceptual model for partnership and sustainability in global health. *Public Health Nursing*, 28(1), 91-102.

EDUCATION

Teaching Culturally Competent Care to Healthcare Providers in Practice

Bethany Rolfe Witham, DNP, FNP-BC
Assistant Professor
School of Health Sciences
Seattle Pacific University
Seattle, WA

Purposes/Aims: To meet the need for high quality, meaningful cultural competence education for practicing health care providers (APNs and MDs) a cultural competency education program was developed to increase providers' self-awareness; promote clinical excellence and strong therapeutic alliances with patients; and enhance providers' attitudes, knowledge, and skills.

Rationale/Background: Culturally competent care is important because culture shapes patients' beliefs, behaviors, practices, and expectations. Providing culturally appropriate services to all patients has the potential to improve quality of care and patient satisfaction. The Institute of Medicine and numerous accreditation bodies including the Joint Commission have released standards and guidelines to ensure that health care organizations and providers provide culturally and linguistically appropriate services. In order to adhere to accreditation requirements and the Culturally and Linguistically Appropriate Services (CLAS) standards, providers and health organizations seek cultural competence training. Regrettably, cultural competence continuing education for practicing professionals can be haphazard and varying in quality.

Methods: Recommendations and guidelines published by The Office of Minority Health and the California Endowment were used to develop the curriculum for this cultural competency training program. All APNs and MDs (n=16) at a community health center were invited to participate. Informal interviews and a formal questionnaire provided the information needed to tailor the program to meet the needs and desires of the providers, as well as develop material that was relevant and applicable to the providers' practice. Educational sessions/discussions were held on a weekly basis for 4 consecutive weeks during the lunch hour with an average of 6 providers attending each week. A variety of education strategies including lecture, group discussions, interactive exercises, case study analysis, and role playing with feedback were employed. Providers were evaluated through demonstrated application of knowledge, processes, and skills through role play and case study analysis during the sessions, and through observed interactions with diverse patients. A focus group of 8 of the program participants was conducted to evaluate the effectiveness and usefulness of the cultural competence program.

Outcomes: Providers stated that the program was informative, applicable to their practice, and enjoyable. They highlighted the positive impact that the program had on their clinical work in general and in working with patients from diverse cultures. Providers specified that the learning experience heightened their cultural awareness and willingness to conduct cultural assessments with patients. These changes in behaviors and practice demonstrate how the program contributed to the development of cultural competencies that the providers were able to transfer into their clinical practice.

Conclusions: Interactive approaches including discussion of case studies, involvement in a small peer group, provision of feedback on performance, and opportunities for practicing newly learned skills are effective in helping providers learn and apply the skills needed for culturally competent care and serving diverse populations. Future undertakings should evaluate the long term effectiveness of the program in changing the practice of providers in order to direct refinements to the program and ensure improved quality of care and patient satisfaction.

EDUCATION

The Importance of Faculty of Color for Promoting Student Diversity

Kristin F. Lutz, PhD
Assistant Professor, School of Nursing
Oregon Health & Science University
Portland, OR

Dena Hassouneh, PhD
Professor, School of Nursing
Oregon Health & Science University
Portland, OR

Ann K. Beckett, PhD
Assistant Professor, School of Nursing
Oregon Health & Science University
Portland, OR

Purposes/Aims: The study purpose is to develop a substantive grounded theory of the experiences of faculty of color (FOC) in predominantly Euro-American nursing, medicine, pharmacy, and dentistry schools. This presentation will focus on findings related to FOC's relationships and interactions with students of color (SOC).

Rationale/Background: Faculty and student diversity within academic nursing, medicine, dentistry, and pharmacy has been slowly increasing. Yet recent incremental increases in diversity have not kept pace with the larger society. FOC are integral to increasing the number of diverse health professionals in the workforce, decreasing health disparities, and improving the quality and culture of academic programs and environments. Anecdotal reports and increasing evidence document the numerous barriers faced by FOC and SOC in academic environments, thereby limiting opportunities for success. We conducted a critical grounded theory study of the experiences of FOC in predominantly Euro-American health professions schools to begin to address this important issue.

Methods: To date, face-to-face and telephone interviews have been conducted with 95 participants from across the country. Using grounded theory methods, data analysis began with open coding followed by substantive open coding. The ongoing analyses consist of theoretical sampling, and selective and theoretical coding to form the emerging theory.

Results: Findings reveal that school micro-contexts ranged from exclusionary to inclusive, with more inclusive micro-contexts prioritizing recruitment of faculty and students of color. In contrast, more exclusionary micro-contexts yielded hostile environments, making the academic experience of many faculty and students of color challenging and for some traumatic. FOC who continued in their roles responded to these challenges by engaging in the core processes of surviving and thriving through which they either remained in academe despite hardship, or alternatively, prospered in their faculty roles, making steady progress as they matured in their academic careers. Regardless of their micro-context or whether they were survivors or thrivers, FOC exerted a great deal of time and effort on SOC recruitment, satisfaction, and success. Cultivating the pipeline; promoting diversity in admissions; serving as successful role models; along with protecting, guiding, and mentoring SOC were common priorities for FOC. These efforts made a critical difference in promoting diversity within the student body and by promoting student success, ultimately, within the professions.

Implications: These findings document the importance of FOC in cultivating the pipeline, promoting diversity, role modeling, providing a refuge, as well as guiding and mentoring SOC. Future research focused on the meanings, processes, and perspectives of SOC in nursing programs, is necessary to identify current challenges and barriers to SOC, as well as those programs and processes that foster student success in nursing academe and in the profession.

Funding: Supported by Sigma Theta Tau International, OHSU School of Nursing, the OHSU Foundation, and the Josiah Macy Foundation.

EDUCATION

The Lived Experience of Korean Nursing Students in an International Education Program

*Kyoung-Eun Lee, PhD, RN, WHCNP^{1,2};
Ho Soon Michelle Cho, PhD, RN²; Mee Kyung Cho, PhD, RN³;
Catherine Bailey, PhD, RN, CNE²; Margaret Peters, MSN, RN²;
Debbie Tapler, PhD, RN, CNE²; Nola Schrum, MSN, ACLS, CCRN²*

¹Corresponding Author

²College of Nursing, Texas Woman's University, Dallas, TX

³Department of Nursing, Daejeon Health Science College, Daejeon, South Korea

Following the trend of globalization in nursing and the move of nursing into higher education, the opportunities were opened for faculty and nursing student' international education program. Limited number of literature described the development of international education programs in nursing that provide evidence on the impacts of those programs. Furthermore, little is known about the perceptions of nursing students who participated in those programs. The purpose of this phenomenology study was to explore Korean nursing students' lived experience of International Co-operation Education Program (ICEP) in the United States (US).

An ICEP was developed by a team of nurse educators at a university in Texas, US, as a means of outreach to enrich transcultural experiences of nursing students in other countries. A group of ten Korean visiting nursing students participated in 4 weeks of ICEP during winter break in 2011 and 2012. The curriculum of the ICEP was consisted of an intensive two-week session of English as Second Language and following two weeks of academic and clinical sessions. The later sessions focused on the study of cardiovascular disorders, pharmacology, and evidenced-informed interventions, computer-based interactive case studies and virtual simulations, and the use of high fidelity simulation scenarios to cultivate opportunities to increase clinical judgment and nursing knowledge. In addition, the students made rounds in five acute care hospitals, participated in a multicultural exchange day with US nursing students, and visited local cultural destinations.

Hermeneutic phenomenology was selected to guide this study's research methods to gain an in-depth understanding of the ICEP experience from participants' own perspectives and to analyze their perceptions through the reflective interpretations of the researchers who developed and operated the program. On the last day of the ICEP in 2011 and 2012, two bilingual researchers conducted semi-structured group interview using open-ended questions with the Korean nursing students in Korean at a conference room. Benner's hermeneutic analysis process was used to guide data analysis.

The findings in this study revealed seven main themes as meaningful perceptions obtained through the ICEP experience. Those are: (1) inspired by nursing roles in the US, (2) appreciation of supportive US nursing faculty, (3) stimulated by the innovative ways of knowing, (4) awareness of cultural diversity, (5) personal growth resulting from cross-cultural experience in US socio-cultural context, (6) wanting to pursue advanced degrees in the US, (7) motivated to be a global nursing leader.

This study revealed that the ICEP was very meaningful experience for the Korean nursing students resulted in personal and academic growth. Through the experience, participants were motivated to better-prepared for competent nursing care and future role as nursing leaders. This study provides insightful qualitative evidence that providing nursing students in other countries with cross-cultural learning experience of international education program would be an efficient way to cultivate personal and professional growth and to inspire potential global nursing leaders. Further studies are needed to examine the various measurable impacts of an international education program on development of nursing profession that reflect the trend of globalization of nursing career.

EDUCATION

The Myth of Equity and Inclusion in Nursing Education

Kupiri Ackerman-Barger, PhD, RN
Assistant Adjunct Professor
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

kupiri.ackermanbarger@ucdmc.ucdavis.edu

Purpose: Patient outcomes are enhanced when the healthcare workforce includes ethnically and culturally diverse perspectives. Increasing the number of nurses with ethnically and culturally diverse backgrounds is an imperative for schools of nursing. The purpose of this narrative inquiry was to elucidate experiences that nurses of color had with educators and peers that positively or negatively impacted their educations. An understanding of the experiences nursing students of color have while navigating the educational system can provide teaching insight for nurse educators who desire, and perhaps struggle, to meet the learning needs of their students.

Framework: The theoretical framework for this study is Critical Race Theory in Education. There are two important components of CRTE that are foundational to this study. First is the idea of the omnipresence of race. This means that for people of color in the United States race is always a presence affecting both personal experiences and experiences within institutions such as healthcare and education. The second point embraces storytelling. Through storytelling disparities in education can be exposed and solutions for addressing disparities can be sought.

Design/Method: This is a qualitative study using narrative inquiry. Seven women who self-identified as nurses of color participated in the study.

Results: Results were themed into the following categories: experiences of exclusion, benefits of inclusion, and transcendence.

Implications for Practice: Students of color may be a source for undiscovered talent and growth potential that can be nurtured with inclusive behaviors and practices in nursing programs. Indeed, to have come so far despite so many obstacles demonstrates a form of exceptionalism. The reader is invited to reflect on how much underrepresented students could accomplish if given the full opportunity with inclusive and equitable learning environments.

Abstracts of Poster Presentations

END OF LIFE

A MODIFIED MODEL OF PALLIATIVE CARE FOR PATIENTS WITH COPD

Zijing Chen

BARRIERS AND FACILITATORS TO END-OF-LIFE COMMUNICATION IN END-STAGE LIVER DISEASE

Paula Cox-North, Ardith Z. Doorenbos

COMMUNICATION AT END OF LIFE: PERCEPTIONS OF EXPERIENCED PEDIATRIC ONCOLOGY NURSES

Kathleen Montgomery, Verna Hendricks-Ferguson, Kathleen J. Sawin

END OF LIFE

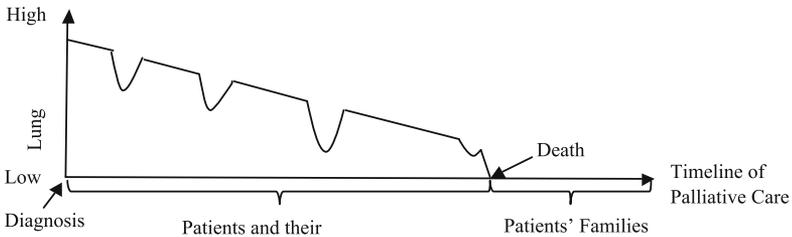
A Modified Model of Palliative Care for Patients with COPD

Zijing Chen, BSN
PhD in Nursing Science Student
School of Nursing
University of Washington
Seattle, WA

Purposes/Aims: The purposes of this project are to 1) identify the problems associated with applying palliative care concepts in chronic obstructive pulmonary disease (COPD); and 2) present a modified model of palliative care for patients with COPD.

Description of the Concept to Be Discussed: There is a general misalignment concerning the application of the generic palliative care model (National Consensus Project for Quality Palliative Care, 2009, p. 6) with that of patients with COPD. In the generic palliative model, as a patient's health status declines, palliative care interventions increase, while life-prolonging therapies decrease. However, patients with COPD usually receive life-prolonging treatment as part of palliative care and continue to use active therapy until death. The problem lies in that non-malignant chronic illnesses, such as COPD, do not follow a predictable illness trajectory, and there is no clear clinical prognostic indicator to guide healthcare providers to identify the shifting needs of patients and families.

Internal Consistency of the Model Developed: A modified model of palliative care is needed as follows that is better aligned to the requirements of dealing with COPD. This model is adapted from the generic model of palliative care and typical illness trajectories for people with heart and lung failure (Lynn & Adamson, 2003, p. 8).



Logic Linking the Model to Nursing Practice or Research Problem: The modified model has the following characteristics: 1) Palliative care interventions start at the time of diagnosis; 2) Palliative care is throughout the course of disease for patients and their families, and it continues to provide care for patients' families after death; 3) Emphasize the concept of palliative care instead of life-prolonging therapy in disease management and support.

Conclusions: Understanding and considering the model of palliative care for patients with COPD may help healthcare professionals to provide multidimensional assistance to their patients and families; in order to reduce the burden they face, due to the difficulty of managing the physical, emotional and social issues over a long period of time.

References:

- Lynn, Joanne, & Adamson, David M. (2003). Living well at the end of life. *Adapting health care to serious chronic illness in old age*: DTIC Document.
- National Consensus Project for Quality Palliative Care. (2009). *Clinical practice guidelines for quality palliative care* (2nd. ed.). Pittsburgh, Pa: National Consensus Project.

END OF LIFE

Barriers and Facilitators to End-of-Life Communication in End-Stage Liver Disease

*Paula Cox-North, PhD, ARNP
Biobehavioral Nursing & Health Systems
University of Washington
School of Nursing
Seattle, WA*

*Ardith Z. Doorenbos, PhD, RN, FAAN
Biobehavioral Nursing & Health Systems
University of Washington
School of Nursing
Seattle, WA*

Purpose: The purpose of this study is to examine the frequency of barriers and facilitators to communication about end-of-life care and identify future targets of intervention.

Background: There are few studies examining end-of-life issues in end-stage liver disease. Studies in other chronic illnesses have identified several patient barriers to end-of-life care communication. These include (a) lack of continuity of care providers, (b) fear or anxiety of making others uncomfortable, (c) inability to initiate EOL conversations in spite of desire to do so, (d) uncertainty related to the future, and (e) personal readiness for information. There is a need for a better understanding of the barriers to and facilitators of communication in end-stage liver disease.

Methods: This study was approved by the human subjects institutional review board. Study visits consisted of one on one interviews with a total of 77 patients. Entry criteria was a diagnosis of cirrhosis, MELD score 6-40, English fluency, age ≥ 18 , and outpatient status at time of interview. Demographic information, barriers and facilitators, and end-of-life communication were all analyzed using descriptive statistics. Chi-square analysis and Mann-Whitney U-tests were used to compare barriers and facilitators to demographic data, and end-of-life communication. For frequency measurements, proportions with 95% confidence intervals are reported. For comparisons between median number of barriers and facilitators and end-of-life conversations, Mann-Whitney U- tests were used. A two-tailed p value of $\leq .05$ was considered statistically significant.

Results: The median number of barriers reported was 4 (95% confidence level, 3-5), with 4 participants reporting no barriers and 1 participant reporting 12 barriers. Only 1 barrier was endorsed by more than 50% of participants: The median number of facilitators endorsed was 8 (95% confidence level, 7-9) with no one endorsing 0 facilitators and 2 patients endorsing all 11 facilitators. There was no difference in the median number of barriers and facilitators endorsed between those that had end-of-life discussions and those that did not have end-of life discussions ($p=0.49$).

Conclusion: Only 1 barrier was endorsed by more than half of the participants which suggested a lack of personal readiness for information. The second most commonly endorsed barriers suggested uncertainty related to future, and lack of continuity of care. Many patients with end-stage liver disease are cared for by multiple specialists and inadequate communication among providers occurs but can cause confusion among patients and their families as to with whom they should discuss end-of life issues. Both of these barriers would be useful targets for future interventions.

Funding: This study was supported by a grant from the Society of Gastroenterology Nursing & Hester McLaws Nursing Scholarship Fund.

END OF LIFE

Communication at End of Life: Perceptions of Experienced Pediatric Oncology Nurses

*Kathleen Montgomery, MS, RN, PCNS-BC, CPHON
Clinical Nurse Specialist
Center for Cancer and Blood Disorders
Children's Hospital Colorado
Aurora, CO*

*Verna Hendricks-Ferguson, PhD, RN Kathleen J. Sawin, PhD, CPNP-PC, FAAN
Associate Professor Professor
School of Nursing College of Nursing
Saint Louis University University of Wisconsin-Milwaukee
St. Louis, MO Milwaukee, WI*

Background: Communication between patients, families, and healthcare providers is a central component of end of life care. Nurse communication during palliative care and end of life is a phenomenon with limited research. It is unclear how the level of nursing experience influences perspectives of nurses communicating during end of life.

Purpose: The purpose of this study was (a) to describe the commonalities of nurses' individual experiences of communicating palliative care and end of life perspectives when caring for a dying child, and (b) to describe nurses' perceptions of factors that facilitate and impede palliative care and end of life communication with dying children, their families, and healthcare providers.

Methods: This study was part of a larger multi-site study that used a qualitative, empirical phenomenology design and represents focus group data gathered from pediatric oncology nurses with greater than 5 years of experience or who were advanced practice nurses not involved in the direct evaluation of other nurses.

Results: Five core themes with corresponding themes and subthemes were identified. The core themes included (a) evolution of palliative care and end of life, (b) skill of knowing, (c) expanded essence of caring, (d) experienced nurse as committed advocate, and (e) one size does not fit all. Findings reflect how the concept of experience transcended the 5 core themes, and capture how experience provided nurses the know-how to fulfill the roles of communication, caring, and advocacy for children and families during palliative care and end of life.

Implications: Enhancing nurse communication skills during end of life requires opportunities to gain experience coupled with clinical strategies, such as standardized curricula, simulation, competency-based orientation programs, mentorship and peer support.

Funding: This study was supported by the following two funding sources: (a) Small Investigator's Grant Award by the Oncology Nursing Foundation (PI: Hendricks-Ferguson, V) and (b) Mid-Level Nursing Grant by the Alex Lemonade Stand Foundation for Children with Cancer Nursing Grant (PI: Hendricks-Ferguson, V).

Abstracts of Poster Presentations

**ENHANCING LINKS BETWEEN PRACTICE
AND RESEARCH IN WOMEN'S HEALTH**

PHD/DNP PARTNERSHIP BRINGS WATERBIRTH OPTION
TO BIRTHING WOMEN IN A HOSPITAL SETTING

Gwen Latendresse, Angela Anderson

ACADEMIC/SERVICE COLLABORATION:
DETERMINING OPTIMAL INTRAPARTUM CARE

Barbara L. Wilson, Connie Phelps, Tammy Passante

ENHANCING LINKS BETWEEN PRACTICE AND RESEARCH IN WOMEN'S HEALTH

PhD/DNP Partnership Brings Waterbirth Option to Birthing Women in a Hospital Setting

Gwen Latendresse, PhD, CNM
Assistant Professor
College of Nursing
University of Utah
Salt Lake City, UT

Angela Anderson, DNP, CNM
Director, Intermountain Nurse Midwives
Intermountain Medical Center
Murray, UT

Purpose: To describe the collaborative efforts of DNP and PhD prepared nurses to effect change in labor and delivery unit policy within two tertiary care facilities and present the results of those efforts, including clinical outcomes.

Aims: The presentation has the following aims: 1) present the background and origins of the DNP/PhD collaborative effort, 2) describe the barriers and facilitators in effecting policy change at the tertiary care facilities, 3) present the successful results and remaining roadblocks to full implementation at both facilities, and 4) report the clinical outcomes achieved at one tertiary care center after introduction of waterbirth as an option under a formal research protocol.

Rationale/Background: The PhD/DNP collaborative effort was initiated by Certified Nurse Midwives attending births at two facilities, who were receiving increasing requests from pregnant women to birth in water as a pain relief option within a hospital setting. Women were frequently choosing to birth at home because this option was not available in hospital. One major barrier to offering this option included a mandate from the obstetrical department directorship to proceed only under the auspices of a research study protocol. DNP/PhD collaborative effort was essential for developing the clinical research project, including documentation of existing evidence in support of maternal/newborn safety, appropriate study design, study methods, development of data management and statistical approach, and application submission for IRB approval.

Outcomes: Since February, 2013, waterbirth has been an option for appropriately selected birthing women at one of the two tertiary facilities, and under a research protocol. To date, 110 women have been consented and enrolled into the study, 103 have delivered, 40 of which were waterbirths, 7 are pending delivery. Monthly reports are reviewed by a Data Monitoring and Safety Board and no adverse events have been observed. Maternal and newborn outcomes for women who birthed in water were comparable to similarly low risk women who did not birth in water. In a Birth Satisfaction Survey, 60% of responding women reported that having a waterbirth option was an important or extremely important factor in choosing where they would give birth, and 35% reported that they would have birthed elsewhere if waterbirth was not an option. All women expressed a high level of satisfaction with the birth experience. However, barriers continue to exist at the second facility and are actively being addressed with continued PhD/DNP and CNM collaboration and ongoing communication with facility leadership and labor/delivery nursing staff.

Conclusions: DNP/PhD partnerships can bring positive, evidence-based clinical change within healthcare facilities by combining clinical and research expertise. The exemplar and outcomes presented reflect successful results, including a well-documented provision of safe maternal/newborn care and a high level of patient satisfaction. All healthcare settings, and the patients they serve, can benefit from collaborations between DNP clinical experts and PhD prepared nurse researchers.

ENHANCING LINKS BETWEEN PRACTICE AND RESEARCH IN WOMEN'S HEALTH

Academic/Service Collaboration: Determining Optimal Intrapartum Care

*Barbara L. Wilson, PhD, RNC-OB
Associate Dean, Academic Programs
University of Utah College of Nursing
Salt Lake City, UT*

*Connie Phelps, MSN, RNC
Manager, Professional Practice
Mercy Gilbert Medical Center
Gilbert, AZ*

*Tammy Passante, BSN, RNC
Perinatal Safety Nurse
Mercy Gilbert Medical Center
Gilbert, AZ*

Purpose/Aims: Although epidural anesthesia has long been recognized as an effective and widely-used method for pain relief during labor, it has been linked with some non-desirable outcomes including (among others) urinary retention, prolonged second stage of labor, and an increased likelihood of operative-assisted births. Hospital practice varies widely regarding bladder management strategies for women with an epidural, with some hospitals inserting an indwelling ("foley") catheter at the time of epidural insertion and others using intermittent ("straight") catheters only if the intrapartum patient is unable to void. Recent studies have questioned the use of continuous bladder catheterizations during labor, noting that indwelling catheters during labor may predispose the women to urinary tract infections (UTIs) in the postpartum period even though the catheters are in place for a relatively short period of time. However, studies empirically comparing both approaches (intermittent vs. continuous) are scant. This study was initiated by staff nurses who were concerned with the hospital practice of routine indwelling catheterizations and sought the help of a nurse researcher to determine the influence of intermittent vs. continuous bladder catheterizations on; (a) duration of second stage of labor; (b) incidence of postpartum UTIs; and, (c) likelihood of cesarean births.

Methods: Consenting term-gestation primiparous women ≥ 18 years of age with a singleton birth requesting an epidural were randomized into one of two groups to receive either intermittent or continuous catheterizations. Patients in both groups were encouraged to void prior to epidural placement. For women that were randomized to the intermittent group, they were catheterized only if unable to void every six hours and/or as needed; and after two intermittent catheters, a foley was inserted if they were still unable to void. The estimated sample size was determined using means of difference between two independent t tests with an effect size of .5, alpha of .05, and power of .95. The final sample size was 123. The small overall occurrence of UTIs made obtaining a sample size with statistical significance in numbers of UTIs unrealistic and therefore were only assessed as a point of discussion for clinical significance (as opposed to statistical significance). Patients in each group were also assessed for similarities in such demographics as maternal age, gestational age, and fetal birth weight.

Results: Maternal demographics between groups were comparable. There were no statistically significant differences in length of labor, and the incidence of UTIs were minimal as expected (1 in the foley group; 3 in intermittent group). However, there was an increased likelihood of cesarean births for women who had a foley ($p < .01$).

Implications: There was a significantly increased likelihood of cesareans in women who had a foley catheter (from either group). The overall cesarean rate in the foley group was 27.2%, compared to the 10.2% in the intermittent group. Intermittent catheters only as needed appear to be best practice for bladder management in laboring women with an epidural.

Abstracts of Poster Presentations

GERIATRIC HEALTH

ACUPUNCTURE TRIALS FOR GERIATRIC CONCERNS: A LITERATURE REVIEW

Lisa Taylor-Swanson

EFFECT OF MUSIC THERAPY ON AGITATION IN RESIDENTS WITH ALZHEIMER'S DEMENTIA

Mehrnaz Khavarian, Shelley Y. Hawkins, Douglas E. Garland, Kathy Shadle James

SINGING AND ALZHEIMER'S DISEASE: A SCOPING REVIEW

Shih-Yin Lin, Musetta Changchi Fu, Basia Belza

REMOTE MONITORING SYSTEMS IMPACT PSYCHOSOCIAL OUTCOMES IN PATIENTS WITH HEART FAILURE

*Lorraine S. Evangelista, Marjan Motie, Hassan Ghasemzadeh, Majid Sarrafzadeh,
Jung-Ah Lee, Carol M. Mangione*

COMMUNICATION AND MESSAGE FRAMING IMPACT ON PNEUMONIA READMISSION REDUCTION

Angela Halpin, Felicia S. Hodge

COGNITIVE FUNCTION IN HIV+ ADULTS AGED 60 AND OLDER

*Hannah J. Jang, Victor Valcour, Margaret Wallhagen,
Lauren Wendelken, Pardis Esmaeili-Firidouni*

CULTURAL INFLUENCES ON OLDER ADULTS' ADOPTION OF SMART HOME MONITORING

Roschelle L. Fritz, Roxanne Vandermause, Cindy Corbett

“YOU DO WHAT YOU HAVE TO DO”: GRANDPARENTING
EXPERIENCES AMONG OLDER AFRICAN AMERICANS

Schola Matovu

HIV-STATUS DISCLOSURE AMONG OLDER MEN
WHO HAVE SEX WITH MEN: A REVIEW OF THE LITERATURE

Steven Simpkins

THE MEANING OF DEMENTIA-RELATED CHANGES:
A META-ETHNOGRAPHIC SYNTHESIS

Allison Lindauer, Theresa A. Harvath

FACTORS ASSOCIATED WITH ENHANCING
PHYSICAL ACTIVITY IN OLDER HISPANICS

Daisy S. Garcia, Basia Belza

JAPANESE CARE WORKERS' PERCEPTION
OF DEMENTIA-RELATED AGGRESSIVE BEHAVIOR

Hiroimi Hirata

GERIATRIC HEALTH

Acupuncture Trials for Geriatric Concerns: A Literature Review

*Lisa Taylor-Swanson, MAcOM, EAMP
University of Washington
ljts369@uw.edu*

Background: Acupuncture and acupressure have been used for two millennia to support wellness, healthy aging, and the treatment of geriatric disease. Controlled Clinical Trials have been conducted in the past two decades to determine efficacy and safety of acupuncture for geriatric concerns such as sleep quality, gait, post-stroke hemiplegia, COPD, Parkinson's Disease and depression. Efficacy and safety must be determined before acupuncture can be widely promoted by nurse practitioners and adopted by patients.

Objectives: To determine the efficacy and safety of acupuncture and acupressure for geriatric concerns.

Methods: A search was performed using PubMed terms “acupuncture” and “geriatric” or “elder” which resulted in thirty-five abstracts. These were reviewed, and seven trials were found that utilized randomization. A single- or double-blind design was not required as the field has not determined an inert sham for acupuncture as many past studies utilizing sham acupuncture have found that the sham employed is not inert. The design and results were summarized in a table.

Results: All seven papers reported on adverse effects, of which there were none. Acupressure was found to be significantly improve sleep quality (Lu, 2013); acupoint stickers and Chinese herbal medicine significantly decreased the frequency & duration of acute exacerbation of COPD and improved the 6-minute walking test and dyspnea grade (Li, 2012); one-time acupuncture of Stomach 34 significantly improved gait (Haner, 2011); trans-electric acupuncture stimulation for 15 minutes each weekday for a month significantly improved depressive mood (Cheng, 2010); Acupuncture for Parkinson's Disease showed non-significant findings (Cristian, 2005); Meridian acupressure provided 10 minutes daily for 2 weeks significantly improved post-stroke hemiplegia (Kang, 2009); Ear acupressure significantly decreased pain related to hip fracture (Barker, 2006).

Discussion: Overall, six of seven trials found significant improvement of the various conditions treated. Three of the studies were pilot trials with less than twenty subjects and appropriately noted the need to conduct future trials with larger populations. There was only one study on each of the conditions examined here; future studies are needed to replicate initial findings of improvement with acupuncture or acupressure for sleep quality, gait, COPD, depressive mood, post-stroke hemiplegia and pain related to hip fracture. Given the low incidence of harms and absence of adverse events, acupuncture and acupressure should be studied in greater depth in order to provide nurse practitioners and patients with data that would suitably inform clinical practice and treatment choice. Acupuncture and acupressure appear very promising in the treatment of geriatric concerns from these initial studies and has a documented record of safety.

Funding: UW SoN Zesbaugh & Crowley scholarships; ARCS Fellowship.

GERIATRIC HEALTH

Effect of Music Therapy on Agitation in Residents with Alzheimer's Dementia

*Mehrnaz Khavarian, ANP/GNP, MSN
Hahn School of Nursing
University of San Diego
San Diego, CA*

*Shelley Y. Hawkins, DSN,
FNP-BC, GNP, FAANP
Director of DNP & MSN NP Program
Hahn School of Nursing
University of San Diego
San Diego, CA*

*Douglas E. Garland, MD
Medical Director
Joint Replacement Center
Long Beach Memorial Medical Center
Long Beach, CA*

*Kathy Shadle James, DNSc, CFNP
Associate Professor of Nursing
Hahn School of Nursing
University of San Diego
San Diego, CA*

Purpose/Aims: The purpose of this evidence-based practice project is to evaluate the implementation of a preferred music intervention on agitation among ten older adults with Alzheimer's disease (AD) and related dementias in a reminiscence unit in an assisted living facility in Southern California.

Rationale/Background: It is estimated that 29.4 million people worldwide have some form of dementia. This number is expected to increase to 120 million by 2050. Alzheimer's disease is the most common cause of dementia, accounting for 60% to 80% of all cases. Behavioral and psychological symptoms of dementia, commonly referred to as "agitated behaviors," are estimated to be present in over 80% of persons with dementia and associated with a number of negative outcomes, such as increased institutionalization. There is evidence that music therapy can reduce intrusive behaviors in agitated residents and decrease the level of stress and burnout in formal and informal caregivers.

Project Process: The incidence of agitation in the project facility was estimated to be 90% based on staff interviews and chart reviews. Using the Pittsburgh Agitation Scale, the actual incidence of agitation was 97% prior to the intervention. All ten residents were diagnosed with AD according to DSM IV criteria and Mini Mental Status Examination (MMSE) with a score of 14 or below. The group will be exposed to music during an afternoon musical activity (thirty minutes twice a week for two months). At the end of each session the agitation level for each resident will be evaluated. The project benchmark has been identified as: 80% of the residents with dementia in the assisted living facility receiving music therapy sessions will exhibit a decrease in agitation of 70% or greater according to Pittsburgh Agitation Scale at the end of the 2 months.

Project Outcomes: Intervention evaluation will be completed by the time of the conference.

Conclusions: Music is an easy, inexpensive, and noninvasive intervention that can and should be incorporated into the daily care regimens of residents with dementia. Until more effective treatments for patients with dementia are realized, evidence-based treatments such as music therapy should be implemented to reduce the negative effects of the disease and to enhance the quality of life for patients.

GERIATRIC HEALTH

Singing and Alzheimer's Disease: A Scoping Review

Shih-Yin Lin, MM, MT-BC
PhD in Nursing Science Student
School of Nursing
University of Washington
Seattle, WA

Musetta Changchi Fu, RN, MM
PhD in Nursing Science Student
School of Nursing
University of Washington
Seattle, WA

Basia Belza, PhD, RN, FAAN
The Aljoya Endowed Professor in Aging
School of Nursing
University of Washington
Seattle, WA

Purposes/Aims: The purpose of this scoping review is to locate and critique the evidence for singing as a musical intervention addressing behavioral and psychosocial issues associated with Alzheimer's disease (AD).

Background: Due to decreasing birthrates and increasing life expectancy worldwide, a fast growing ratio of older adults to the total population and accompanying age-related chronic diseases have become major concerns. One of the age-related chronic illnesses predicted to have the largest global impact is AD. According to the Alzheimer's Disease International, "Alzheimer's disease is among the most significant social, health and economic crises of the 21st century." With the exponentially growing number of cases, effective interventions for AD are urgently needed. There has been an increasing amount of interest on the effect of music on AD. However, in contrast to passive forms of musical interventions such as music listening, there has been scant research that has addressed the benefits of active musical interventions such as singing therapy for AD.

Methods: This scoping review is based on Arksey and O'Malley's (2005) methodological framework for scoping studies. Scoping reviews are intended to map the overall state of research activity for a given topic. Nine electronic databases were searched using two sets of search terms: "singing AND Alzheimer's disease" and "singing AND dementia." The only limiter applied to all databases was "English Language." The databases searched were: CINAHL Plus, PubMed, PsycINFO, Scopus, Web of Science, Embase, ProQuest Dissertations and Theses, Music Index, and The Cochrane Library.

Results: The electronic database search yielded a total of 467 results, including research studies, reviews, conference poster abstracts, news articles, book chapters, dissertations and theses. The researchers are currently manually removing duplicates, eliminating irrelevant abstracts, and obtaining full articles for analysis. An article is included for analysis when the subjects were patients with AD and/or their caregivers, and singing was the major component of the intervention. An article is excluded when the full text is inaccessible, or when the study was not written in English.

Implications: Although a quality assessment of each article is not part of a scoping review, the results of this scoping review will serve to inform a subsequent systematic and critical review of singing as a musical intervention for AD.

Funding: Donna M. Fraser Endowed Scholarship, Nursing Scholarship Fund (Lin); NCATS Grant TLI TR000422 and ARCS Scholarship (Fu).

GERIATRIC HEALTH

Remote Monitoring Systems Impact Psychosocial Outcomes in Patients with Heart Failure

*Lorraine S. Evangelista, PhD, RN,
FAAN
Associate Professor
Program in Nursing Science
University of California, Irvine
Irvine, CA*

*Marjan Motie, PhD
Project Director
Program in Nursing Science
University of California, Irvine
Irvine, CA*

*Hassan Ghasemzadeh, PhD
Research Manager
Computer Science Department
University of California, Los Angeles
Los Angeles, CA*

*Majid Sarrafzadeh
Professor
Computer Science Department
University of California, Los Angeles
Los Angeles, CA*

*Jung-Ah Lee, PhD, RN
Assistant Professor
Program of Nursing Science
University of California, Irvine
Irvine, CA*

*Carol M. Mangione, MD, MSPH
Program Director
RCMAR/CHIM
University of California, Los Angeles
Los Angeles, CA*

Purpose: To compare the effects of a 3-month remote monitoring systems (RMS) intervention on activation, self-care, and quality of life (QOL) of older patients versus a reference group matched on age, gender, race, and functional status (i.e. New York Heart Association classification) who received standard discharge instructions following an acute episode of heart failure (HF) exacerbation requiring hospitalization.

Background: The use of RMS in health care has grown exponentially and has improved the accessibility to and ability of patients to engage in treatment intensification. However, research describing the effects of RMS on activation, self-care, and QOL in older patients discharged following an episode of acute HF exacerbation is limited.

Methods: A total of 21 patients (mean age 72.7 ± 8.9 , range 58-83, 52.4% female) provided consent and were trained to measure their weight, blood pressure and heart rate at home with a RMS device and transmit this information every day for 3 months to a centralized information system. The system gathered all data and dispatched alerts when certain clinical conditions were met.

Results: Baseline socio- demographic and clinical characteristics of the 2 groups were comparable. Overtime, participants in the RMS group showed greater improvements in activation, self-care, and QOL compared to their counterparts. Data showed moderately strong associations between increased activation, self-care, and QOL.

Implications: Our preliminary data show that the use of RMS is feasible and effective in promoting activation, self-care, and QOL. A larger scale, randomized clinical trial is warranted to show that RMS is a new and effective method for improving clinical management of older adults following an episode of acute HF exacerbation requiring hospitalization.

Funding: Grant funding received from the University of California, Los Angeles, Resource Centers for Minority Aging Research/Center for Health Improvement of Minority Elderly (RCMAR/CHIME) under National Institute in Aging (P30-AG02-1684, PI, C. Mangione).

GERIATRIC HEALTH

Communication and Message Framing Impact on Pneumonia Readmission Reduction

Angela Halpin, MN, RN, CNS, PhD(c)
University of California, Irvine

Felicia S. Hodge, DPH
University of California, Los Angeles

Purpose(s):

1. To compare the communication strategies (intervention) of framing effects (positive or negative messages) on the readmission outcome at 30 days post discharge.
2. To assess the extent pneumonia readmissions decrease at 30 days post discharge when communication strategies (CS) include the patient or family in decisions about transitions.
3. To determine the impact of patient agreement with the decided hospital recommendations on pneumonia readmissions.
4. To examine the potential confounding effects on the relationship between framing effects and readmission rates by age, pneumonia severity index, and the number of diagnoses.

Background: As the eighth leading cause of death in the US, pneumonia (PN) is relevant to the health of the elderly and young. According to the Centers for Medicare & Medicaid (CMS) which evaluate mortality and readmissions within 30 days of admission the prevalence of PN readmissions is 17.5% - 19.5%. Accountability for readmission is part of the Affordable Care Act's Hospital Readmissions Reduction Program (RRP) which levies penalty costs for readmissions. Patients with pneumonia are influenced by RRP, accounting for over 1.1M discharges and comprising 18.5% of all readmissions.

Since pneumonia is one of the targets of the RRP, this research proposes that purposeful communication using framing effects can motivate patients to make decisions with providers for care post discharge and can prevent readmissions. Communication strategies (CS), such as framing effects are known to facilitate decision-making about health care choices. Framing effects as a method of reducing readmission have not been examined in the medical condition of pneumonia. The process of making decisions for pneumonia care post discharge requires testing.

Methods: This is a double blind randomized control trial (RCT) with parallel assignment of pneumonia patients to one of three arms, N=247. The three arms will be compared for similarities in diagnosis and demographics. The independent variable (IV) is the communication strategy (framing effects), and the dependent variable (DV) is the readmission. PN patients, as participants of the interdisciplinary team (IT), participate in communication about their transition from hospital to home. Both IV and DV are nominal.

Analysis of data will include both parametric and nonparametric using regression analyses. Independent variable predictors will be analysed using logistic regression. Covariates will include age, gender, ethnicity, and pneumonia severity index. Each covariate is ranked as high or low risk and relationships assessed for predictors for readmission. For intervention arms A and B, an odds ratio difference will evaluate the expected national readmission rate and the study's predictions of readmission reduction rate.

To ensure significant size of the study population, an effect size was calculated using G power. A chi-square test indicates the differences between groups. A Fisher's exact test and an odd's ratio with the effect size of a power of 0.8 and an alpha of 0.05 determined the sample N=247, with each group randomized, Intervention A- positive framing, n=69, Intervention B-negative framing, n=101 and control group, n=77. The comparisons of the groups evaluate readmission rates.

Results: Data Collection is occurring November 2013 through May, 2014.

Implications: Study findings will report on readmission predictors. The potential is to suggest framing effects messages as an aid in the reduction of pneumonia readmission rates in hospital settings. The decision-making strategy incorporates education and understanding of risk by the patient, so the healthcare team can encourage and improve readmission outcomes. Nursing curriculum on communication can be updated with framing effects techniques.

GERIATRIC HEALTH

Cognitive Function in HIV+ Adults Aged 60 and Older

Hannah J. Jang, MSN, PHN, CNL, RN
Doctoral Student
Physiological Nursing
University of California, San Francisco
San Francisco, CA

Victor Valcour, MD, PhD
Professor in Residence
School of Medicine
University of California, San Francisco
San Francisco, CA

Margaret Wallhagen, PhD, GNP-BC,
AGSF, FAAN
Professor
Physiological Nursing
University of California, San Francisco
San Francisco, CA

Lauren Wendelken, MS
Project Analyst
Memory and Aging Center
University of California, San Francisco
San Francisco, CA

Pardis Esmaeili-Firidouni, BS
Staff Research Associate
Department of Neurology
Memory and Aging Center, UCSF
San Francisco, CA

Background: Although increased age and HIV/AIDS may be independent risk factors for cognitive impairment (CI), measures of CI have not been well-studied in persons with HIV over age 60. The research will provide nurses the foundation of knowledge for caring for HIV-positive individuals over the age of 60 and add to the database of patient-centered outcomes research.

Methods: Seventy individuals ≥ 60 completed the Patient's Assessment of Own Function Inventory (PAOFI) and underwent a comprehensive Neuropsychological Testing Battery to identify CI by established (2007) criteria. Linear regression methods were used for the analysis.

Results: Participants had a mean (SD) age of 67 (5.0), CD4 count of 560 (230), and estimated duration of HIV of 19 (7.0) years. Self-assessed CI by PAOFI correlated with objective neuropsychological testing, $r=0.320$, $t=2.79$, $p=0.007$.

Conclusion: The relatively weak strength of the correlation suggests that self-assessment using the PAOFI may not be an adequate CI screen. Research is needed to determine if other self-reported measures are more accurate and assess whether the PAOFI captures a different construct.

GERIATRIC HEALTH

Cultural Influences on Older Adults' Adoption of Smart Home Monitoring

*Roschelle L. Fritz, MSN, RN
PhD Student
Washington State University
College of Nursing
Spokane, WA*

*Roxanne Vandermause, PhD, RN
Associate Professor, Nursing
Washington State University
College of Nursing
Spokane, WA*

*Cindy Corbett, PhD, RN
Professor, Nursing
Washington State University
College of Nursing
Spokane, WA*

Purpose/Aim: The purpose of this pilot study is to inform a larger study about cultural influences on older adults' decisions to adopt smart home monitoring. Aims are to: (1) understand socially constructed predictors and barriers to smart home monitoring adoption, and (2) illuminate older adults' perceptions of smart home monitoring in relation to self-identified culturally based expectations.

Rationale/Conceptual Basis/Background: There is a predicted shortage of healthcare professionals who will address the needs of the rapidly growing population of older adults and innovative solutions are needed. Smart home monitoring may improve quality of life for older adults by helping them age in place with autonomy, safety, and dignity. This monitoring includes artificial intelligence design features capable of learning human patterns of motion, identifying anomalies, predicting and/or identifying changes in health status, and alerting caregivers and/or professionals. Although these technologies are currently available, the adoption rate is less than optimal. Cultural values may influence decisions to adopt monitoring technologies. Understanding the influence of culture may inform culturally mindful engineering design and improve diffusion of this innovation.

Methods: This qualitative descriptive pilot study involves 2 participants, recruited via purposive sampling. Data was collected by email interview exchanges, including both discrete and non-discrete unstructured text-based solicitations from participants. Content analysis was used to analyze transcripts in iterative fashion, resulting in developing themes and representations with low inference, in keeping with the qualitative descriptive tradition. Simple summaries of identified themes supported with participants' own words provide a rich description that remains close to the original source. An analysis of techniques and findings will be used to determine sampling procedures and data collection refinements.

Results: Formative results are revealing novel understandings about the influence of cultural values on smart home monitoring adoption. A completed analysis and proposal of refinements will be reported in this presentation.

Implications: This innovative research is the first to examine cultural influences on older adults' decisions to adopt smart home monitoring. It is important that nurses understand how older adults receive such technology so that they can develop effective roles in implementing its use to serve the needs of a growing aging population.

Funding: This research is funded by the National Science Foundation's Integrative Graduate Education and Research Training (IGERT) Program. Grant Number DGE-0900781.

GERIATRIC HEALTH

“You Do What You Have to Do”: Grandparenting Experiences among Older African Americans

Schola Matovu, RN, BSN

*Doctoral Student, Department of Family Health Care
University of California, San Francisco School of Nursing
San Francisco, CA*

Purpose/Specific Aims: The purpose of this in-process study is to seek understanding of the experiences and mental health of African American grandparents (55-years and older) who provide primary care for their grandchildren. The specific aims are: 1) to explore the range of factors that influence the experience of these older caregivers. 2) to analyze caregivers' perceptions of their decision to care for their grandchildren, including the subsequent potential outcomes; impact on their health, changes in their quality of life, and their relationship satisfaction with significant others. 3) to explore the prevalence of mental health symptoms, especially depression in this population using Beck's Depression Inventory scale.

Background: In the United States, grandparents across class, race and gender lines have recommitted to the parent role as full-time caregivers for their grandchildren. The literature indicates that this time commitment ranges from three to ten years, usually with very limited resources available to support these older adults. Multiple social factors have been identified as influencing this trend on the phenomenon among these elderly caregivers. These include: inability for adult children to take care of their own children as a result of incarceration; effects of substance abuse or other mental illnesses; and other factors such as child abuse and abandonment, unemployment, divorce or death. Consequently, these grandparents have been reported to experience physical, psychological, emotional, social, and financial strain. To date, limited research has been conducted to better understand the experiences of older African American grandparents, particularly, the mental health impact of this role on their psychosocial well-being.

Methods: Using Grounded Theory qualitative method, interviews are conducted with grandmothers recruited from Oakland and the surrounding Bay Area. Snowball sampling technique is used to recruit 55 years and older, English-speaking, African American grandparents providing care to their grandchild for at least six months. The interviews are audio-recorded, transcribed and analyzed using both open and axial coding as well as reflexive and analytic memoing congruent with the methodologically. This iterative analytic process will allow the researcher to identify themes emerging from the data and develop a conceptual framework of the basic social processes surrounding the older African American grandparents who are primary caregivers for their grandchildren.

Findings: To date, the researcher is beginning to notice emerging themes and categories even though these findings cannot be conclusive due to the woefully inadequate sample size at this stage. Some of the emerging themes identified as factors that influence the experience of these older caregivers include *Value System*, *External/Social Factors*, and *The Core*. The data collection and analysis process is continuing with constant comparison of the accumulating codes and themes until theoretic saturation is attained and conceptual framework is developed.

Implications: This could contribute to a better understanding of the experiences of older African American grandparents as caregivers for their grandchildren. This study could also inform other researchers and clinicians who seek explanatory models upon which to design interventions or tailor social services such as childcare and respite care for older adult caregivers to grandchildren.

GERIATRIC HEALTH

HIV-Status Disclosure among Older Men Who Have Sex with Men: A Review of the Literature

*Steven Simpkins, BSN, RN
Biobehavioral Nursing & Health Systems
University of Washington
School of Nursing
Seattle, WA*

Purpose: The purpose of this study was to review current literature on HIV-status disclosure among men who have sex with men over the age of 50.

Background: Older adults are among the fastest growing groups of people living with HIV. While they face similar issues as younger people, they face stigmatization and difficulties with disclosing their HIV-status that are uniquely different. Research suggests disclosure of HIV-status is an effective means of HIV prevention and managing stigma; however, reviews are mixed for older adults. Few studies that explore disclosure have included older adults and even fewer that specifically include older men who have sex with men.

Methods: A search of PubMed, CINAHL Plus, and Web of Science for peer reviewed, English language articles from 2008-2013 yielded 284 articles of which 77 were selected by review of abstracts. Another 18 articles were found using Google Scholar. The 95 articles were examined to identify the study population. Of these 95 articles 17 were used for the final review based on their inclusion of subjects over the age of 50 or relevance to the topic.

Results: Older men who have sex with men may experience stigma and other difficulties with HIV-status disclosure that are similar to that of younger generations. This review, however, found that older gay men face unique stigmatization that may hinder them from sharing their status. They are more likely to disclose to fewer people than their younger counterparts, turn to spiritual practices for strength to disclose, and will disclose to family members more often than others in the community. The experiences of stigma and HIV-status disclosure for these men are individual, reciprocal, and dynamic.

Implications: There are important differences in the experiences of stigma and HIV-status disclosure for older men who have sex with men that have not been fully explored in the current literature and need to be addressed. Further research should focus on the specific experiences of stigma and disclosure. Also, interventions should be developed that support these men in their choice to disclose and, through that choice, manage stigma.

GERIATRIC HEALTH

The Meaning of Dementia-Related Changes: A Meta-Ethnographic Synthesis

Allison Lindauer, MSN, APRN
Doctoral Candidate
School of Nursing
Oregon Health & Science University
Portland, OR

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

Purpose/Aims: To synthesize the qualitative literature which addresses the meanings family caregivers across cultures ascribe to dementia-related changes in their care-recipients.

Rationale/Conceptual Basis/Background: Worldwide, almost 25 million people have dementia. This number is expected to grow and with this growth will be an increase in numbers of family caregivers. Family caregivers provide most of the care for persons with dementia (PWDs) and this care is often described as emotionally and physically burdensome. Ongoing research is needed to identify effective caregiver support strategies so that the growing numbers of PWDs can age at home. Most research on the relationship between caregiving and stress has focused on the meaning of *caregiving*. Only a small fraction of this work has explored the meaning *dementia-related changes* have for caregivers. What illuminating research has been done is, for the most part, qualitative in nature, but no syntheses of this work was identified in the current literature. The meaning of these changes is important because it influences how caregivers respond to, and therefore cope with, the alterations they witness in their care-recipients. Appreciation of culturally-influenced meaning was guided by the philosophical orientation of Heidegger, known for his work on understanding human beings in the context of their world.

Method: Using meta-ethnographic synthesis, 39 qualitative papers published between 2000 and 2013 were examined. Twenty of the papers reflected the diverse experience of caregivers who were not of white, European ancestry. Both reciprocal and refutational syntheses were performed to identify common themes and alternative explanations.

Results: *Reciprocal synthesis.* Three overarching reciprocal themes were identified: loss, role change and stigma. First, across cultures, many caregivers perceived personality and cognitive alterations in care-recipients as losses. The typical response to these losses was pre-death grief. Previous research has found that pre-death grief is associated with burden, sorrow and domestic violence. Second, caregivers felt that dementia-related changes meant that they were forced to change roles, such as that from spouse to parent. Role change was often distressing for caregivers and affected relationship quality. Finally, many caregivers felt as though they and their care-recipients were stigmatized by, and banished from, their communities.

Refutational synthesis. Caregivers also ascribed positive meanings to the dementia-related changes. For example, one Native American family perceived their mother's dementia-related hallucinations as a special ability to communicate with the dead. For other families, such as Iranians, the changes resulted in the need for care. This gave family members an opportunity to repay the care-recipients for their past kindness and attention. Lastly, for some the changes allowed caregivers to assume new powers within family systems.

Implications: Our interpretation of this literature is that dementia-related changes are often equated with loss, but there are important variations across cultures. Interventions that focus on improving dementia family caregivers' quality of life need to consider these meanings. The triad of loss, role change and stigma has an influence how caregivers cope and seek external assistance. Furthermore, lessons about dementia and caregiving can be learned from caregivers who perceive the changes in a positive light.

GERIATRIC HEALTH

Factors Associated with Enhancing Physical Activity in Older Hispanics

Daisy S. Garcia, MSN, RN
Doctorate of Nursing Science Student
School of Nursing
University of Washington
Seattle, WA

Basia Belza, PhD, RN, FAAN
Aljoja Endowed Professor in Aging
School of Nursing
University of Washington
Seattle, WA

Background: There is evidence that regular physical activity among older adults prevents cognitive and physiological decline, which promotes independent functioning and decreases the risk of falls. Compared to Whites, older Hispanics do not regularly engage in physical activity (PA) related to pain and chronic diseases. However, less is known about older Hispanics' personal factors affecting their level of PA. This study explores the association between gender, age, immigration status, and disability with the reported level of activity in older Hispanics who attend the *EnhanceFitness* (EF) program, a community-and evidence-based exercise program for older adults offered throughout the country.

Methods: EF data accrued since 2001 regarding Hispanic participants' ($n = 805$) enrollment information and self-reported frequency of physical activity similar to exercises performed at the EF sessions was used to complete the study's statistical analysis. Outcome variables were directed to learn whether or not older Hispanics engage in PA while attending the EF program and to determine the level of activity of those participants who do engage in PA. Chosen explanatory variables were older Hispanics' age, gender, immigration, and disability status. Descriptive statistics and correlations were computed and logistic and multiple linear regression models were utilized to analyze the data.

Findings: Findings suggest that immigration status was predictive of activity ($b = -0.28$ ($SE = 0.12$), $Wald(1) = 5.75$, $p < 0.05$, $OR = 0.76$), indicating that older immigrant Hispanics were less physically active compared to their U.S. counterparts. Among those participants who engage in PA, immigration status had a negative effect on the level of activity ($b = -0.32$ ($SE = 0.10$), $t(695) = -3.12$, $p < 0.05$). While age and gender were not uniquely predictive on level of PA, having a disability was ($b = -0.23$ ($SE = 0.12$), $t(695) = -2.00$, $p < 0.05$).

Implications: Recommendations for future statistical analysis and inclusion of other relevant factors associated with PA in older Hispanics are offered as well as implications to enhance culturally appropriate strategies to motivate immigrant Hispanic EF participants to be physically active.

Funding: This study was supported in part by the *Geraldine Allen Term Scholarship* and the *Katherine Hoffman Endowed Fellowship for Nursing Science*.

GERIATRIC HEALTH

Japanese Care Workers' Perception of Dementia-Related Aggressive Behavior

Hiromi Hirata, RN, MN
Associate Professor
School of Nursing
University of Shiga Prefecture
Hikone, Shiga, Japan

Background: Aggressive behaviors (ABs) related to dementia among older adults have been associated with increased occupational stress among care workers (CWs) in the US and other western countries and may contribute to staff turnover. However, few studies related to this issue have been done in Japan, where care worker reaction to aggressive behaviors might be different because of cultural and customary differences in how care is provided for older adults.

Purpose: The purpose of this study was to explore Japanese care workers' attributions, beliefs, and cultural explanations of aggressive behaviors.

Method: This was a cross-sectional study using questionnaires. Convenience sampling was used to recruit 137 CWs in ten nursing homes in Japan. The participants were asked three open-ended questions. The answers to those questions were analyzed using a qualitative content analysis, in which a researcher analyzed written verbal data that was directed toward summarizing the informational contents of data categorized in a way that best applied the data.

Findings: 107 of the participants thought that a resident becomes aggressive because of dementia (e.g., not able to verbally express their wishes/thought, or self-protecting and fearful because they can't understand what is happening). Seventy-five of the participants thought that the causes of residents' aggressiveness came from care workers (e.g., bad reaction/response, or not trying to understand what a resident wants to do). Approximately, one-fourth of the participants responded that Japanese values such as *chu* (loyalty) and *joge* (hierarchy) influenced their work with residents with aggressive behavior. Seventeen participants commented either that they respected older people or that they respected elderly people as persons who had had many experiences in life. Forty-seven responses indicated that aggressive behaviors influenced quality of care positively, while 30 responses indicated that those behaviors influenced quality of care negatively. Even though 30 participants responded that quality of care was not influenced by aggressive behaviors, four of these participants indicated that they had negative feelings such as feeling stress, or having unpleasant feelings regarding aggressive behaviors.

Implications: Findings from this study may be used to develop culturally relevant training and educational interventions targeted at reducing aggressive behaviors in individuals with dementia and reducing occupational stress in Japanese CWs.

Abstracts of Poster Presentations

HEALTH IN THE MILITARY

COMPANION ANIMALS AS SOCIAL SUPPORTS

Basilia Basin

FEASIBILITY AND ACCEPTABILITY OF GROUP ACUPUNCTURE IN VETERANS WITH HEPATITIS C: A PILOT STUDY

Patty Taylor-Young, Diane Miller, Linda Ganzini, Sara Golden, Lissi Hansen

EDUCATING MILITARY LEADERSHIP ABOUT DOMESTIC VIOLENCE

Angelia Clark Trujillo, Hayley Claire Torres, Siobhan E. Cassell

HOME TELEHEALTH DECREASES 30 DAY READMISSION RATES FOR VETERANS WITH HEART FAILURE

Laurie Brainerd, Shelley Hawkins, Nancy Downey

HOMEFRONT CAREGIVER PERCEPTION OF FREE RESOURCES AFFECT ON CHILDREN OF DEPLOYED PARENT

Christina D. Mello

PREPARING FOR THE U.S. AIR FORCE FITNESS TEST: THE EXPERIENCE OF POSTPARTUM WOMEN

Nicole H. Armitage, Billie Marie Severtsen, Roxanne Vandermause, Denise A. Smart

TREATMENT OF ACTIVE DUTY SERVICE MEMBERS WITH MILD TRAUMATIC BRAIN INJURY

Joanne Graney, Michael Terry, Barbara Sarter

TRENDS IN RESEARCH OF U.S. MILITARY PERSONNEL: A CLINICALTRIALS.GOV REVIEW

Wendy A. Cook, Ardith Z. Doorenbos

HEALTH IN THE MILITARY

Companion Animals as Social Supports

*Basilia Basin, BS, RN-BC
PhD Student
School of Nursing
Oregon Health & Science University
Portland, OR*

Purpose: To examine the level of evidence when companion animals (CA) are considered social support.

Background: CA are found in 56% of American households and are considered part of the family (63.2%), companions (35.8%) and part of the social support network providing a nonhuman support. Social support can be defined as receiving psychological and material resources from others to cope with stress. Social support is considered a moderator for stress and a predictor of morbidity and mortality. Equally important, stressors are associated with chronic disease, which affects 133 million Americans, killing 7 out of 10 people. Because social support may be a protective factor in stress and chronic disease, it is important for nurses to consider how individuals seek out and benefit from such support.

Methods: A literature search was conducted using *pets*, *human-animal bonding*, and *social support* as combined key words in Medline, CINAHL, and PsycInfo. The search was limited to the English language, adult subjects and research papers between 1946 and 2013. Articles identified (n=37) were screened by title and abstract to exclude irrelevant articles and include articles reporting on personal CAs and social support obtained from the CA. For the (n=13) articles meeting the criteria, reference lists were searched to identify additional key literature, and they (n=10) were added to compose 23 articles to be reviewed.

Outcomes: Majority of the studies describe CA as social supports using various theoretical frameworks, and examine association between CA and health related outcomes such as use of physician services, physical activity, loneliness, psychological well-being, and social support. Common findings emerged include CAs as unique sources of emotional and/or familial support, provide a buffer during times of stress, and their companionship reduce feelings of loneliness. Two studies identified that people who claimed a strong relationship with their CAs made decisions that prioritized their CA's health over their own or other members of the family.

Conclusions/Implications: Nurses engage in patient-centered care need to personalize their care understanding in what is important to the patient. Identifying potential resources to decrease stress and increase social support, for some individual's, may include their CA. Exploration of roles and impact of CAs on stress level, health-related decision-making, and quality of life of patients with chronic illnesses is needed.

HEALTH IN THE MILITARY

Educating Military Leadership about Domestic Violence

Angelia Clark Trujillo, DNP, RN, SANE-A/P
Assistant Professor

Hayley Claire Torres
Nursing Student

Siobhan E. Cassell
Nursing Student

School of Nursing
University of Alaska Anchorage
Anchorage, AK

Purpose: The University of Alaska Anchorage, School of Nursing uses group, service-learning projects for senior level capstone, community health courses. To address issues related to domestic violence in the military the Fall 2013 clinical group developed a two-time event focused on educating military leaders within the US Army, 4th Brigade Combat Team (Airborne), 25th Infantry Division (4/25th), on domestic violence. The goal of this project was to increase awareness, promote prevention, and educate on recognition, response, and referral among military leaders.

Background: Domestic violence is defined as an abusive behavior in a relationship that maintains power and control over an intimate partner. Alaska ranks in the top five states for per capita domestic violence rates. Of the 19,277 reported cases of spouse abuse in the military for FY 2011, 56% were among active duty personnel and of those, approximately 56% were below the E-6 pay grade. The Department of Defense (DoD) estimates that only 11% of the sexual assaults that occur each year are reported to a DoD authority; therefore, 89% of sexual assaults are not reported.

Methods: Key informants, electronic surveys, and a literature review were used to determine the level of awareness of domestic violence among military command staff. This information was used to develop a tailored presentation for military command staff, the Brigade commander, company and field grade officers, and senior non-commissioned officers. The students also used key informants to provide information on available resources in the community, on and off base. The presentation was put into a PowerPoint format and offered twice to maximize attendance around military operation training. In addition to the presentation, information packets containing a CD, resource list, and follow up survey was provided for the participants.

Outcomes: The combined attendance of both presentations was over 250 military leaders. Attendees were encouraged to participate in an open dialog discussion with the students and top ranking 4/25th officers. Afterward the audience was asked to complete a survey with recommendations for additional training, and what was perceived to be the most beneficial information provided. Participants indicated a positive response for the local resources provided in addition to information that can be used when transferred to another duty location. The clinical student group rated their learning as extensive and was encouraged by the genuine interest from military leaders about becoming more sensitive to the issue of domestic violence.

Conclusions: This event promoted awareness, recognition, and prevention strategies of domestic violence among Joint Base Elmendorf-Richardson leadership and lower enlisted personnel. By bringing attention to the problem of domestic violence, leaders are now better equipped to recognize, respond and refer those dealing with domestic violence. Due to the success and powerful impact by the nursing students on such a sensitive subject, the military requested additional training for lower enlisted members.

Funding: Funding for the project was provided by community partners and private donations.

HEALTH IN THE MILITARY

Home Telehealth Decreases 30 Day Readmission Rates for Veterans with Heart Failure

*Laurie Brainerd, MSN, FNP-BC
Hahn School of Nursing
University of San Diego
San Diego, CA*

*Shelley Hawkins, DNSc,
FNP-BC, GNP, FAANP
Faculty Chair and DNP Program Director
University of San Diego*

*Nancy Downey, DNP, FNP, CPHQ
Clinical Mentor and
Chief of Quality Management
Veterans Health Care System, Long Beach*

Project Purpose: The purpose of this evidence-based practice project is to evaluate the effectiveness of Home Telehealth (HT) on decreasing the 30-day readmission rates for Veterans with Heart Failure (HF) in a Department of Veterans Affairs facility in southern California.

Background: Heart Failure (HF) affects 5.8 million Americans, costs health care systems approximately 39.2 billion dollars every year, and is one of the most common reasons for rehospitalization within 30 days of discharge. Early treatment post hospitalization, including interventions such as education emphasizing medication compliance and diet control have been shown to decrease readmission rates to the hospital, decrease costly emergency room visits and improve the quality and length of life for those affected by HF. Readmissions could potentially be prevented if warning signs of decompensation are identified and treated before the patient's condition becomes urgent. The incidence of 30-day readmission rates for HF in the project facility has been estimated to be 24.9% with the established network benchmark at 18.9% as determined by the Strategic Analytics for Improvement and Learning (SAIL) report.

Practice Change Process: Veterans with HF who have been hospitalized and/or made an emergency room visit within the past 6 months will be identified and sorted by primary care provider. An inservice education will be provided to primary care providers to enroll their patients in the 6 month HT program. Following completion of the program, HT 30-day readmission rates will be compared. The project benchmark has been identified as a 10% decrease in 30-day readmission rates over six months for those Veterans participating in HT.

Results and Outcomes: In progress. It is anticipated upon completion of the project that there will be a 10% decrease in 30-day readmission rates for Veterans participating in HT.

Implications and Conclusion: Health information technology can play a vital role in reducing costs, improving access to health care and improving quality of life for older adults with chronic illnesses such as HF. Studies support that given the substantial burden that HF places on patients and the healthcare system, the potential for HT monitoring in promoting self- management is considerable. It is essential that health care providers managing HF patients be informed about the proven benefits associated with HT and be given the opportunity to enroll their patients in HT programs, thereby reducing HF patient emergency room visits and rehospitalizations.

HEALTH IN THE MILITARY

Homefront Caregiver Perception of Free Resources Affect on Children of Deployed Parent

*Christina D. Mello, MS, RN, FNP-S, Ensign
College of Nursing
Seattle University
Seattle, WA*

Since 2003 around 2 million military members have deployed in support of the War on Terror. Those members are not the only ones that serve during a deployment. When the member joins the family joins too. Of those two million members thousands of children remain stateside that are impacted by this deployment. Several studies have shown that during deployment children have increased internalizing and externalizing behaviors in response to the stress of deployment. These behaviors are linked to the mental health of the homefront caregiver, the resources available to children during deployment, and support to the family. As deployments increase in length and frequency family resiliency decreases. Activities such as respite care, sports, or religious groups have been shown to decrease stress in children and the parents. Those activities that are more spiritual help children to cope emotionally with deployment while activities that have set schedules and are physical tend to distract children from the anxiety of deployment. Lastly, these activities act as respite care for the homefront caregiver allowing time for self-care that allows their stress to decrease making it easier to parent and stay resilient. When the family is supported and coping well with the deployment the deployed member is able to focus on his duties, the safety of his or her troops and the mission. This questionnaire will survey the homefront caregiver's perception of which free resources offered through Child Youth Services (CYS) at Joint Base Lewis McChord, Washington helps with decreasing stress. Since deployment has been associated with discrepancies in children and parent perception in stress, several questions will be answered with the child to assess if a discrepancy is present. Recommendations will be made on which resources were found helpful for which age groups. Recommendations will also be made based on homefront caregiver's perception of ease of availability of resources, and information on resources. These recommendations will be given to CYC as well as pediatricians.

HEALTH IN THE MILITARY

Preparing for the U.S. Air Force Fitness Test: The Experience of Postpartum Women

Nicole H. Armitage, PhD
Chief, Clinical Research
Clinical Investigations Facility
60th Medical Group
Travis Air Force Base, WA

Billie Marie Severtsen, PhD
Associate Professor
College of Nursing
Washington State University
Spokane, WA

Roxanne Vandermause, PhD
Associate Professor
College of Nursing
Washington State University
Spokane, WA

Denise A. Smart, DrPH
Assistant Professor
College of Nursing
Washington State University
Spokane, WA

Background: Military personnel undergo periodic assessments for physical fitness. The U.S. Air Force (USAF) fitness assessment consists of four components: abdominal circumference measurement, timed 1 ½ mile run, timed push-up repetitions, and timed sit-up repetitions. Failure of a fitness assessment may have a significant negative impact on a person's career. Pregnant active duty women are exempt from taking the fitness test until 6 months postpartum. However, research suggests that most women do not achieve pre-pregnancy fitness levels by 6 months postpartum. In addition, women may be vulnerable to mental and physical health problems after childbirth. It is unknown how training for the USAF fitness assessment during this time of vulnerability may impact health and well-being. Military nurses are charged with helping to ensure a fit and ready force through developing meaningful nursing interventions and advising senior leadership on policies that impact the health of personnel. Therefore, nurses must understand what contributes to the health and fitness of active duty members.

Purpose/Aim: To develop a deep understanding of the lived experience of active duty women as they train for their first postpartum fitness assessment by exploring and interpreting their experience through a phenomenological study.

Methods: Seventeen participants were recruited from two USAF bases. Data were obtained through face-to-face audio-recorded interviews. Interviews were transcribed into text and then analyzed by a research team using an interpretive methodology informed by Heidegger.

Results: A greater understanding of preparing for the USAF fitness assessment after childbirth was achieved through interpreting the experiences of active duty postpartum women. Participants predominantly described their experience as a difficult struggle which often caused distress and engagement in unhealthy behaviors. They also perceived needing more support and guidance. The researchers identified two overarching patterns that describe what it means to be an active duty woman preparing for the USAF fitness assessment after childbirth. These patterns are: *Striving to Perform under Pressure through Profound Life Transitions of Childbirth*, and *Seeking Understanding from Others*.

Implications: Results of this study can inform future nursing interventions aimed at assisting women prepare for their postpartum fitness assessments while maintaining optimal health. Nurses could also use results to advise USAF leaders in application of existing policy to better support childbearing active duty women.

Funding: TriService Nursing Research Program #HT9404-12-1-TS07/N12-P02.

HEALTH IN THE MILITARY

Treatment of Active Duty Service Members with Mild Traumatic Brain Injury

*Joanne Graney, MSN, FNP-C
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA*

*Michael Terry, DNP, APRN-PMH/FNP
Associate Clinical Professor
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA*

*Barbara Sarter, PhD,
APRN, FNP-BC, DiHom
Associate Clinical Professor
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA*

Project Purpose: The purpose of this project is to evaluate if the implementation of an 8 week multidisciplinary treatment program to treat mild traumatic brain injury (mTBI) will reduce post concussive symptom complaints in combat injured active duty service members and return the members back to unrestricted active duty.

Background: Since 2001 approximately 2.4 million Active Duty Service Members have served in Operation Iraqi Freedom (OIF), Operation Enduring Freedom (OEF), and Operation New Dawn (OND). It is estimated that 1.44 million Service Members have separated from the military and 772,000 have accessed care at the Veterans Administration for persistent physical, cognitive, psychological, and somatic complaints due to mTBI. According to the Department of Defense fewer than 50% of active duty service members, diagnosed with mTBI complaining of multiple persistent post concussive symptoms do not return to active duty. The Veterans Administration/ Department of Defense (VA/ DOD) clinical practice guidelines (CPG) state treat those with mTBI symptomatically. For the patients who require treatment with multiple services, evidenced based guidelines support the use of a multidisciplinary approach to patient care. A multidisciplinary 8 week treatment program was developed using VA/ DOD clinical practice guidelines to treat service members diagnosed with mTBI who complain of multiple persistent post concussive symptom complaints.

Practice Change Process: This evidence-based project will involve implementation of a multidisciplinary 8 week treatment program to treat mTBI. Service members will participate in a coordinated intensive outpatient program (IOP) and receive symptomatic mTBI treatment. The core treatment team is a coordination of services provided by vestibular, speech, and occupational therapy, neuropsychology, mental health, case management, and primary care services. Implementation of mTBI IOP is expected to improve coordination of care and services, and improve patient outcomes.

Results and Outcomes: In Progress. Subjective symptom complaints will be assessed pre and post program using the Rivermead Post Concussion Screening tool. Percentage of service members completing treatment and returning to active duty will be calculated.

Implications and Conclusions: To be determined following review and analysis of results. Evidence based treatment programs are needed. Findings may provide support for implementation of this multidisciplinary treatment option to treat mTBI in this population.

HEALTH IN THE MILITARY

Trends in Research of U.S. Military Personnel: A ClinicalTrials.gov Review

Wendy A. Cook, MSN, RN, CCNS, PhD(c)
Nursing Science Doctoral Student
Biobehavioral Nursing and Health
Systems
University of Washington
School of Nursing
Seattle, WA

Ardith Z. Doorenbos, PhD, RN, FAAN
Associate Professor
Biobehavioral Nursing and Health
Systems
University of Washington
School of Nursing
Seattle, WA

Purposes: The purpose of this study is to review clinical trials registered in the ClinicalTrials.gov database that included active duty (AD) military personnel as subjects to identify trends in and extent of AD military participation in health research.

Background: It is important for members of the armed forces to participate in health research to achieve health advances specific to this population. Recent research focused on war-related injuries has included military personnel returning from wars in Iraq and Afghanistan. The increased need for military-relevant health research and generous funding opportunities have created a demand for military research participants. Efforts to promote research must be balanced with the fact that military personnel are vulnerable research subjects due to superior-subordinate relationships inherent in the military rank structure. Understanding the types of studies in which AD military personnel participate and identifying the trends in such research can provide insights into possible ethical considerations necessary to protect and support this vulnerable group of research participants. ClinicalTrials.gov is a clinical trial registry maintained by the National Library of Medicine. Recent reviews of ClinicalTrials.gov have evaluated trends in pediatric, sports medicine, and rheumatology research. There are no published reviews of military research.

Methods: Review of ClinicalTrials.gov clinical trial registry to identify studies that included AD military personnel as health research participants.

Results: ClinicalTrials.gov contained 139,055 studies with 263 studies identified that included AD US military personnel. Of these, 184 (70%) included AD military and other participants while nearly a third ($n = 79$, 30%) limited inclusion criteria exclusively to AD personnel. Among the 79 studies exclusive to AD military personnel, the total combined estimated enrollment for all 79 studies was 354,565 participants. The mean estimated subject enrollment was 4,791, with a median of 527 participants. Increasing numbers of studies were registered annually from 2009-2012. Most studies (73.4%) were interventional and 21 (26.6%) were observational. Most (91.1%) included both male and female participants. Four (5.1%) included only males and 3 (3.8%) included only females. Of the 79 studies exclusive to AD military personnel, 9 (11.4%) were exclusive to AD military recruits and trainees with mean anticipated enrollment of 5,823 participants.

Implications: AD military personnel participated in health research both exclusively and along with other groups of participants. The increasing number of studies registered in ClinicalTrials.gov which included AD military research participants is consistent with other sources suggesting trends of increased research including this population. As AD military personnel are vulnerable as research participants, particularly recruits and trainees as the most junior military personnel, it is important to ensure adequate human subjects protections are in place with increasing research demands of this population.

Abstracts of Poster Presentations

HEALTH PROMOTION

HEALTH PROMOTING BEHAVIORS OF CRITICAL CARE NURSES

Cherie Rector, Kathleen Gilchrist, Emma Camarena, Shannon Cauthen

IMPLEMENTING PHYSICAL EXERCISE AND DIET MODIFICATION IN PREGNANCY TO DECREASE THE INCIDENCE OF GESTATIONAL DIABETES

Kelechi Irondi, Mary Jo Clark, Cynthia Chao

TEEN TAKE HEART™ WEBSITE: PROMOTING CARDIOVASCULAR HEALTH IN UNDERSERVED COMMUNITIES

Cara Koch, Steven Palazzo

HEALTH PROMOTION

Health Promoting Behaviors of Critical Care Nurses

Cherie Rector, PhD, RN, PHN, Professor Emeritus¹

Kathleen Gilchrist, PhD, FNP, PHN, RN, Professor¹

Emma Camarena, MSN, RN, ACCNS-AG, CCRN, CNS, Critical Care Services²

Shannon Cauthen, RN, BSN, CCRN, ICU Staff Nurse²

¹*California State University, Bakersfield, CA*

²*Kaweah Delta Medical Center, Visalia, CA*

Purpose: Determine the health-promoting behaviors of critical care nurses employed at a 500-bed hospital in a suburban area of California.

Background: Critical care nurses work in a high stress environment. Job stress is a known risk factor for patient safety and the health of employees, yet research on critical care nurses has often focused on staff/patient ratios, job satisfaction, or stressors. The majority of health promotion research involves patients, not nurses. While nurses often lead health promotion interventions for patients, little has been done to examine or intervene in improving nurse health promoting behaviors, especially among critical care nurses (CCNs). Pender's mid-range theory of health promotion was used as a framework for this study. It encompasses individual perceptions and modifying factors, along with barriers and cues that can trigger motivation to act. Health promotion is an important function of patient education, yet almost no research exists on the health-promoting behaviors of CCNs.

Methodology: A descriptive, cross-sectional, quantitative study was conducted utilizing the Health-Promoting Lifestyle Profile II (HPLP II); a tool with an internal consistency (Cronbach's alpha) of .943 (Walker, Sechrist, & Pender, 1997). The HPLP II is a 52-item instrument, utilizing a 4-point Likert scale, comprised of a total score and six subscale scores: health responsibility, physical activity, nutrition, spiritual growth, interpersonal relations, and stress management. A non-randomized, convenience sample of critical care nurses in two ICUs and the ED of one hospital was invited to participate by email. Demographic information and the HPLP II were collected utilizing SurveyMonkey®.

Results: A total of 67 critical care nurses completed the survey, for a response rate of 33%. Mean age was 36.34 years, 73.1% were White, 83.6% were female, and 48.5% had an ADN. Mean years as an RN was 6.55, mean height 65.9 inches (M=69.5, F=65) and weight 163.25 lbs. (M=203.9, F=143). Almost 40% characterized themselves as normal weight (47.1% as overweight). When asked how often they left their units for breaks or meals, 25% said never, and 60% sometimes did. Total HPLP II mean was 2.68 (M=2.38, F=2.75), with subscale means of 2.68 for nutrition, 2.39 for health responsibility, 3.11 for spiritual growth, 2.36 for stress management, 2.42 for physical activity, and 2.99 for interpersonal relations. Years as an RN was significantly associated with total HPLP II scores (p=.039), spiritual growth (p=.011), and physical activity (p=.010). Some gender differences were noted, although the sample consisted of a smaller proportion of males.

Implications: Health promotion is an important component of patient education, and is also important to the health of nurses. These critical care nurses are experiencing health promotion barriers much like their patients. With health care reform, more emphasis is placed on health promotion, and nurses need to be aware of their own health behaviors in order to be effective role models and advocates for healthy lifestyles for their patients. Further research needs to examine specific nursing interventions to assist critical care nurses in better promoting their own health.

HEALTH PROMOTION

Implementing Physical Exercise and Diet Modification in Pregnancy to Decrease the Incidence of Gestational Diabetes

*Kelechi Irondi, RN, BSN, MSN, NPC
DNP Student*

*Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA*

*Mary Jo Clark, PhD
Professor
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA*

*Cynthia Chao, MD
Obstetrician and Gynecologist
Long Beach, CA*

Purpose of the Project: To implement provider and patient education to promote physical exercise with diet modification among pregnant patients in a southern California obstetrics and gynecology clinic, and to decrease HgA1c, high blood glucose levels and the incidence GDM.

Background: Pregnancy is characterized by insulin resistance and hyperinsulinemia, which predisposes some women to develop diabetes. Gestational Diabetes (GDM) is any degree of glucose intolerance with onset or first recognition during pregnancy. The prevalence of GDM is at least 2% and can be as high as 21%. GDM prevalence in California has increased by 60% in seven years. At a southern California obstetrics and gynecology clinic, about 6.0% of pregnant women were treated for GDM in 2011. Physical activity and diet modification during pregnancy or prior to pregnancy have a positive effect on decreasing the risk of developing GDM and its associated complications.

Best Practice: The project involved diet and physical exercise with pregnant women, and compared baseline GDM rates, hgA1c, finger sticks blood sugar with post-intervention rates. Pregnant participants without high-risk issues in pregnancy were enrolled in a moderate exercise program of 30 minutes daily, five days per week and diet modification from the 10th –16th week of pregnancy to delivery.

Results and Outcomes: Result is in progress, data are being collected.

Implications and Conclusions: To be determined following review and analysis of results. It is expected that implementing 30 minutes of moderate physical exercise daily for five days per week with diet modification in pregnancy will decrease HgA1c and decrease high blood sugar level, decreasing the incidence and consequences of GDM.

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HEALTH PROMOTION

Teen Take Heart™ Website:
Promoting Cardiovascular Health in Underserved Communities

Cara Koch, MSN, RN
Public Health Leadership and Program Development
Seattle University
Seattle, WA

Steven Palazzo, PHD, MN, RN
Assistant Professor
Seattle University
Seattle, WA

Keywords: Teen Take Heart; Cardiovascular Disease; At-Risk Adolescents, Health Teaching Websites

Objective: To develop an evidence-based cardiovascular health teaching website targeting underserved Washington high school students, teachers, and communities to support heart-healthy lifestyles.

Purpose: The Teen Take Heart (TTH)™ website provides evidence-based cardiovascular health information, interactive activities, community events, and a student discussion board. It serves as an innovative vehicle to expose students, teachers, and their communities to culturally responsive cardiovascular health education.

Background: Cardiovascular disease is the number one cause of death in the US. Prevention should begin with the recognition of healthy lifestyle habits at an early age; therefore, targeted school-based programs about cardiovascular disease prevention and health promotion are essential (Haymen et al., 2004). By 10th grade, 10% of teens are considered obese, a significant risk factor for coronary vascular disease (Elliott et al, 2007). Web-based health teaching is a proven effective supplement to classroom education that leads to disease control within a population (Francovicova, Prokop, and Usak, 2010). Additionally, interventions targeting the community can change health promotion behaviors (Zyskind, 2009).

Approach: The TTHTM website compliments the TTHTM curriculum being piloted in underserved Washington high schools. Teachers received training on use of the website during the TTHTM Summer Teacher Workshop and will orient students to the site during classroom activities designed to encourage community engagement outside of class hours.

Outcomes: Anticipated outcomes include: frequent use of the “community” dropdown navigational tab during after school hours, increased posts on the student and community discussion board reflecting engagement in cardiovascular health, and teacher’s frequent utilization of their separate log-on reflecting use of web-based tools to integrate into their curriculum. Long-term community measures may include increased heart healthy behaviors such as attendance at community events featured on the website.

Abstracts of Poster Presentations

INNOVATIVE EDUCATIONAL STRATEGIES

EVALUATION OF LEARNING ESSENTIAL CONCEPTS
USING A ROUNDTABLE IN A FLIPPED CLASSROOM

Patricia Frohock Hanes

INCREASED KNOWLEDGE ACQUISITION USING UPDATED
TECHNOLOGY IN FLIPPING A NURSING CLASS

Patricia Frohock Hanes

DEDICATED EDUCATION UNITS: PARTNERSHIP
TO PROMOTE EXCELLENCE IN CLINICAL EDUCATION

Darcy Copeland, Judy Crewell, Jennifer Sorenson

GLOBAL SOCIAL CLASS LUNCHEON

Janet N. Wray

IMPLEMENTATION AND EVALUATION OF A LIBERAL
ARTS ASSIGNMENT IN A CLINICAL SETTING

Christina Pepin, Lorena Guerrero

CURRICULAR INNOVATION TO INTEGRATE THE CONCEPTS
OF EVIDENCE-BASED PRACTICE

Karen LeDuc, Linda Campbell, Traci Snedden

INNOVATIVE EDUCATION IN PALLIATIVE AND
END-OF-LIFE CARE FOR BACCALAUREATE STUDENTS

Cheryl Lacasse, Douglas Cunningham, Linda Perez

NURSING STUDENTS AS CHANGE AGENTS

Carolyn T. Martin

SEXUALITY EDUCATION IN THE BACCALAUREATE
NURSING CURRICULUM

Vicki Aaberg

INNOVATIVE EDUCATIONAL STRATEGIES

Evaluation of Learning Essential Concepts Using a Roundtable in a Flipped Classroom

Patricia Frohock Hanes, PHD, MSN, MAED, RN, CNE

Professor

School of Nursing

Azusa Pacific University

Azusa, CA

Background/Purpose: Student nurses in a nursing theory class are asked to read, understand, and apply theories and theoretical concepts to clinical settings. It is often difficult to ascertain, let alone remember, the essential concepts. This presentation will describe the use of an easy, effective, high-value strategy as part of a flipped classroom to help students work in teams to identify essential concepts of assigned topics, to apply the material to clinical cases, and to moderate a whole class discussion.

Conceptual Frameworks: Multiple theories on adult learning and learning styles, Bandura's social cognitive theory, teambuilding theories.

Methods: This strategy was used as part of a flipped classroom. The roundtable consists of 4 carefully described, timed rounds. Students are placed in groups of 3-4 and are assigned a topic/theory. Students are given few guidelines in how they divide the topic but each student negotiates a portion of the topic to research and present. In 3-5 minute "rounds" each student presents their portion of the topic/theory using only essential concepts. In the following round students examine the topic in clinical application. The final round consists of a whole class discussion moderated by the presenting group.

Results/Implications/Conclusions: This easy, high-value strategy enables students to break down complex concepts into manageable "chunks" that are more easily understood, applied, and retained. Small groups give students the advantage of collaborating in teams and sharing knowledge while still having the direct responsibility to present their share of the project. Requiring participation of all students allows those who might not otherwise speak an opportunity to be heard. The interactivity allows for different learning styles as well as social learning. The rapid pace of the roundtable does not allow for the use of adjunctive aids other than brief notes so students must rely on their ability to speak and present coherently, succinctly, and cohesively—both individually and as a team. Students must analyze and synthesize information to identify essential concepts and apply them in novel situations. Working in teams giving professional presentations in an abbreviated format prepares nurses for the reality of the workplace. This strategy can be used successfully in almost any nursing classroom and can be adapted for use in flipped and online classrooms. Students were asked to evaluate their peers and to articulate several essential concepts as "take away" ideas from the presentation; in a subsequent class, they were asked the same questions. In a post-activity/presentation survey, 90% of students ranked the activity as helpful or very helpful, 10% were neutral. Students reported increased engagement with, and understanding of, the material and were able to apply the theories to clinical situations.

INNOVATIVE EDUCATIONAL STRATEGIES

Increased Knowledge Acquisition Using Updated Technology in Flipping a Nursing Class

*Patricia Frohock Hanes, PHD, MSN, MAED, RN, CNE
Professor
School of Nursing
Azusa Pacific University
Azusa, CA*

Background: In flipped learning, the order of lecture/classroom teaching is “flipped” or reversed with homework/assimilation assignments, allowing application to occur in the classroom while foundational information is acquired prior to class. Students, able to complete class instruction at their own pace, are able to control their learning and “own” the content. A literature search revealed little has been published on flipped teaching with technology.

Purpose: To describe the process of flipping a classroom and to discuss the use of multiple technologies as strategies in the flipping process.

Conceptual Frameworks: Based on adult learning models; a new construct, Composite Cognition; theories of social learning; constructivist learning theory, Mayer’s Cognitive Theory of Multimedia Learning, and Gardner’s Theory of Multiple Intelligences.

Methods/Results: In a nursing theory course, materials were presented prior to class using various technologies with supplemental material available for basic knowledge acquisition. In-class activities were directed towards students’ application of knowledge/material to client families in the classroom. Assimilation activities were conducted in a supported environment. Students performed better in formative and summative assessments than peers in traditional classrooms and reported increased satisfaction with this style of learning.

Conclusions/Implications: Flipped teaching allows for better learning by using class time for application rather than direct information presentation. Using multiple technologies in flipping a classroom is an effective, efficient strategy for interactive, differentiated learning. Moving beyond traditional class boundaries allows for more instructional time and flexibility leading to improved learning outcomes.

Reference: Bennett, B., Kern, J., Gudenrath, A. & McIntosh, P. (2011, October 11). The flipped case revealed. The Daily Riff. Retrieved February 28, 2012 from <http://www.thedailyriff.com/articles/>.

INNOVATIVE EDUCATIONAL STRATEGIES

Dedicated Education Units: Partnership to Promote Excellence in Clinical Education

Darcy Copeland, PhD

*Nurse Scientist/Assistant Professor of Nursing
St Anthony Hospital/University of Northern Colorado
Lakewood/Greeley, CO*

Judy Crewell, PhD

*Associate Professor, School of Nursing
Regis University, Denver, CO*

Jennifer Sorenson, MSN

*Instructor, School of Nursing
Regis University, Denver, CO*

Purpose: The purpose of this presentation is to describe the structure, process and outcomes of a unique Dedicated Education Unit (DEU) model of clinical education.

Background: In 2011, Regis University and St Anthony Hospital created an innovative educational model to enhance the provision of medical/surgical nursing clinical education. The purpose of developing and implementing a DEU model of clinical education was to create an optimum teaching-learning environment for students, clinical RNs, and faculty members.

Description: The DEU model of clinical nursing education developed by the School of Nursing at Flinders University of Australia and subsequent work done at the University of Portland were used as frameworks for our model. Ongoing RN, student, and faculty evaluations were used to continuously refine the program.

Stakeholders from the university and hospital worked collaboratively to formalize the structure and develop processes that enabled the model to be implemented on all hospital units, and for medical/surgical I and medical/surgical II clinical rotations. Staff nurses who attend hospital preceptor training and a one day workshop at Regis become Clinical Teaching Assistants (CTAs). CTAs assume the role of primary clinical teachers. Students and CTAs are paired 1:1 for the duration of the rotation. Clinical faculty members assist with ongoing CTA development.

Outcomes: Program evaluations have been collected from 143 students, 81 CTAs, and 8 faculty members. All evaluations utilized a 5-point Likert scale (1-Very Poor/Never, 2-Poor/Unlikely, 3-Neutral/Same, 4-Good/Perhaps, 5-Excellent/Always). Students rated the following items highest: Overall, the value of this rotation in preparing me for the future was, mean = 4.86; My staff RN and clinical faculty member communicated with one another about my learning, mean = 4.84. CTAs rated the following items highest: I enjoyed working with students, mean = 4.96; I was comfortable providing student(s) feedback about their performance, mean = 4.9. Clinical faculty members rated the following items highest: Desire to return to clinical site, mean = 5; Willingness of unit staff to assist me, mean = 4.88.

Students, CTAs and clinical faculty were also asked, "If you could change one thing about this clinical site/rotation, it would be...", and "One thing about this clinical site/rotation that should not change is..." Overwhelmingly, responses from all 3 groups revolved around the following themes: maintaining a 1:1 student to RN ratio, the benefit of consistency in student/RN pairings throughout the course of a rotation, the sense of welcoming exhibited by all unit employees, and the importance of RN awareness regarding rotation details.

Conclusions: A noteworthy outcome of the implementation of this model is the extremely high, self-reported enjoyment in working with students on the part of CTAs. Historically, a major challenge in clinical nursing education has revolved around strained relationships between students and clinical RNs with whom they work. We have successfully developed structures and implemented processes throughout the entire hospital that have resulted in favorable outcomes for students, clinical RNs and faculty members. The ability to provide consistent 1:1 RN/student pairings optimizes time spent on teaching and learning during clinical rotations.

INNOVATIVE EDUCATIONAL STRATEGIES

Global Social Class Luncheon

*Janet N. Wray, PhD, RN
Associate Professor
Department of Nursing
Mount St. Joseph University*

Purpose: The purpose of this project is to introduce students to the concept of social class based on economics and the relationship of social class to health.

Rationale: One of the challenges of teaching Global Health to students involves assisting them to examine their stereotypes and preconceived notions about people living in poverty and to understand the powerful connection between a person's economic resources and his or her health. Spending meaningful time with people of other social classes is ideal but not always practical. The Global Social Class Luncheon is a high impact teaching strategy designed to facilitate students' learning about global economics, social class, and health.

Approach: The approach used in this project involves the introduction of global class distinction by means of a lunch. Prior to the lunch being served, students randomly select a card describing their yearly income, class position in society, and health condition in a specified third or fourth world country. According to their selected cards, students will fall into one of three groups according to class distinction in proportion to the division of classes within the populace of a particular country chosen for this experience. Students in the upper class are given a complete lunch and seated at a table with a napkin and silverware. Students in the middle class are seated at a table with silverware but are served a lesser lunch. Students in the lower class are seated on the floor and given only one food item for their lunch. As students are eating their lunch, factual information about global poverty and health related problems is taught. Following the luncheon, a class discussion is facilitated to provide an opportunity for students to talk about how they feel in their assigned role and what the impact of a daily diet similar to the lunch served might be on a person's health.

Outcomes Achieved/Documented: This Global Social Class Luncheon has been offered on three previous occasions with undergraduate nursing students, undergraduate athletic training students, and RN to BSN completion students. IRB approval was granted prior to each luncheon to enable the instructor to collect qualitative data from the (voluntary) participants about the impact of the luncheon experience on their learning. The themes that emerged from the qualitative analyses indicated that the luncheon was a powerful tool for achieving the aims of this teaching strategy.

Conclusions: The Global Social Class Luncheon is a high-impact teaching strategy for any course examining the relationship between economics, social class and health, including community health, public health, global health, vulnerable populations, health disparities, and/or health care policy courses.

INNOVATIVE EDUCATIONAL STRATEGIES

Implementation and Evaluation of a Liberal Arts Assignment in a Clinical Setting

Christina Pepin, MSN, RN
Clinical Instructor and Lab Coordinator
School of Nursing
Pacific Lutheran University
Tacoma, WA

Lorena Guerrero, PhD, RN, ARNP
Assistant Professor of Nursing
School of Nursing
Pacific Lutheran University
Tacoma, WA

Purpose: The purpose of this presentation is to describe a new Liberal Arts Assignment (LAA) project that was offered as an alternative or supplement to reflective journaling during a baccalaureate program's Medical-Surgical clinical rotation at a small liberal arts university from February 2012 to December 2012.

Rationale/Background: According to the American Association of Colleges of Nursing's *Essentials of Baccalaureate Education for Professional Nursing Practice*, baccalaureate prepared nurses are required to have a solid base in liberal arts education that will be the cornerstone of their careers. The baccalaureate nurse is the embodiment of the liberal arts education and has a deep knowledge of history, fine arts, literature, languages, and the behavioral, biological and natural sciences. Integration of concepts learned in these areas assists the nurse in critical thinking, clinical reasoning, and a deeper understanding of self and others that contributes to the delivery of safe, quality care.

Description of the Process: Junior students enrolled in their first medical-surgical rotation were chosen to pilot a program developed to evaluate how students integrate their liberal arts education into the nursing program. Students were given a simple description of the assignment which included instructions to create a project of their own creation that represents, "something you have learned in your liberal arts education and use this knowledge to describe or portray a learning experience you had during this clinical rotation. This experience could be a in the form of a short story, poem, research paper, drawing, movie, photograph, song or music that utilizes your liberal arts background". Directions were non-prescriptive so that students could feel free to be as creative as they wish. Students were asked to present their projects and their reflection on the final day of their clinical rotation to their clinical instructor and peers. LAA project evaluations were conducted by both students and clinical faculty members.

Outcomes: The LAA project demonstrated quality and thoughtful application of liberal arts education. A total of 74 student projects were completed. Evaluation of the project was completed by 4 faculty and 39 students. Some students commented that the LAA project offered a welcome opportunity to resurrect a hobby they had not been able to engage in since students entered nursing school. Negative comments focused on the students' stress levels and busy schedules. Surveys indicated that buy-in from individual clinical instructors influenced student participation and quality of the projects. Overall the students' quality of work revealed a much deeper reflection on their individual clinical experience than traditional weekly reflective journaling alone.

Conclusions: The LAA project continues to be utilized within the Medical-Surgical clinical course. The feedback from students has continued to be positive and many express enjoyment on the change of pace. Students report reflective journaling is redundant. The Liberal Arts Assignment project challenged students to think of their experience through a different lens allowed students to articulate and demonstrates skills students learn outside of core nursing courses.

INNOVATIVE EDUCATIONAL STRATEGIES

Curricular Innovation to Integrate the Concepts of Evidence-Based Practice

Karen LeDuc, DNP APN-BC, CNS, CPN, CNE
Associate Professor
Loretto Heights School of Nursing
Regis University
Denver, CO

Linda Campbell, PhD, CNE
Professor
Loretto Heights School of Nursing
Regis University
Denver, CO

Traci Snedden, PhD(c), RN, CPNP, CNE
Assistant Professor, Affiliate
Loretto Heights School of Nursing
Regis University
Denver, CO

Background: Evidence-based practice contains the elements of clinical expertise, patient preferences, and research evidence. However it is often challenging for nursing students to appraise complex research evidence. A defined visual art experience lends itself to application of this concept an important component of evidence based practice and an essential element of baccalaureate nursing education. Word cloud software such as Tagxedo© and Wordle©, uses web-based technology to create a visual weighted summary of text data, appropriate for this art experience.

Purpose: Word cloud software was used as a teaching/learning strategy to contextualize quantitative research evidence from current nursing literature. This application exercise supported students' ability to utilize contemporary technology while appraising the evidence related to clinical practice. The outcome of this exercise yielded a planned practice change.

Methods: Journal clubs were formed to create a word cloud describing an appraisal of a quantitative research study selected by each group from current nursing literature. The word cloud provided fellow students with summary representations of each team's work, meeting multiple objectives within course requirements.

Results/Outcomes: Student feedback and course evaluations documented students' ability to integrate critical concepts of evidence-based using this technology. A team approach to the project allowed for delegation of responsibilities, and collaboration was especially evident project presentations. (Examples will be presented via poster presentation). The visual outcomes facilitated additional inquiry and experiential learning with the tools of evidence-based practice, such as synthesizing evidence and planning a practice change with integration of skills and clinical expertise. The visual representations also eliminated some of the common barriers to evidence-based practice, such as time constraints and difficulty understanding concepts.

Implications for Practice: This methodology is conducive for educational initiatives in both the academic and clinical arenas by providing learning strategies associated with the tools of evidence-based practice. In support of the paradigm shift from traditional and intuitive-driven practice to evidence-based practice, the creative utilization of word cloud technologies supports the conscientious use of current best evidence in making decisions about patient care.

INNOVATIVE EDUCATIONAL STRATEGIES

Innovative Education in Palliative and End-of-Life Care for Baccalaureate Students

*Cheryl Lacasse, MS, RN, OCN
Clinical Professor
The University of Arizona
Tucson, AZ*

*Douglas Cunningham, MSN, RN, CCRN
Clinical Instructor
The University of Arizona
Tucson, AZ*

*Linda Perez, MAdmin, RN
Clinical Instructor
The University of Arizona
Tucson, AZ*

Purpose: To describe an educational module for palliative and end-of-life (EOL) care which provides senior-level BSN nursing students with an opportunity to participate in clinical learning activities to develop knowledge, skills, and attitudes related to palliative and EOL care. Student learning outcomes are based on cognitive, psychomotor, and affective domains of learning and include assessment, critical thinking, and clinical decision-making activities.

Background: Nurses in both community and acute care settings experience patients who require palliative and/ or end-of-life (EOL) care and many new nurses feel inadequately prepared to provide this care. Carefully integrated learning activities focused on the complexities of palliative and EOL care will help novice nurses begin to develop a critical skill set to meet the palliative care needs of patient populations using a holistic approach.

Description of Best Practice: Educational activities designed to address palliative and end-of-life education were carefully designed and integrated into a senior level high acuity care course. These activities included interactive classroom learning using an unfolding case study approach illustrating principles of palliative care, end-of-life care, and comprehensive, holistic symptom management.

An interactive clinical lab experience was developed and implemented which included case study discussion, high fidelity simulation and a creative approach to the symptoms of dying. The small group, case study discussion included patient experiences based on the character portrayed in the movie “Wit” and an interprofessional team approach to holistic care of a patient with a terminal illness. A standardized, life-like patient approach using high fidelity simulation was used to create an EOL patient scenario and included symptom assessment and management and discussion of legal and ethical issues surrounding EOL care using a quality of life framework. Health care policies regarding EOL care were also discussed. The final learning activity included a small group concept mapping exercise in which each group creates a picture of the pathophysiology of the symptoms of dying and their treatments on a classroom whiteboard. After creating their concept map, each student group described their unique view of the symptoms of dying and their management.

Outcomes: Responses of over 300 students have been very positive and most express appreciation for being able to gain a deeper understanding of holistic care at the end of life. Many students visibly change their approach to interacting with the simulated EOL patient in comparison to other types of simulated patients. Students report a deeper understanding of palliative care when they engage in their clinical practice sites.

Conclusions: The development of a comprehensive, integrative palliative care/ EOL curriculum combined with the use of creative, interactive learning activities is an effective approach that could be broadly applied to teaching this challenging area of interprofessional practice.

INNOVATIVE EDUCATIONAL STRATEGIES

Nursing Students as Change Agents

Carolyn T. Martin, RN, FNP, PhD
Associate Professor
School of Nursing
California State University, Stanislaus
Turlock, CA
cmartin2@csustan.edu

Purpose/Aims: The purpose of the health-screening clinic is to provide care for vulnerable and diverse clients who attend a welfare-to-work program. This study describes the participants of a Wellness Clinic and the students' reflection on managing the clinic.

Background: Nurse educators are challenged to develop a new generation of nurse leaders who can redefine our relationship to society and their communities in an environment of changing health care. The clinic serves to attract students who are looking for social engagement and the development of professional citizenship. This project is an educational experience in which students participate in an organized service activity to gain an understanding of course content and an enhanced sense of civic responsibility.

Method: A convenience sample was recruited from participants in a Welfare-to-Work program who attended a Wellness Clinic. Starting in March of 2011, undergraduate nursing students who participate in a Community Health Nursing course measure blood pressure, pulse, height, weight, and blood glucose, and calculate body mass index of those who participate in the clinic. Faculty and graduate nursing students supervise students who manage the clinics. Demographic and health related data are collected from the participants in the clinic. In addition, each undergraduate nursing student completes a written assignment and an evaluation survey related to their experience at the clinic. Quantitative data were analyzed using SPSS. Content analysis was used to evaluate qualitative data and to identify key concepts from open-ended questions.

Results: To date there have been 25 clinics with 197 participants. Fifty-one undergraduate nursing students, six volunteer nursing students, four graduate nursing students, and three faculty have participated. Clinic participants describe their health concerns and their thoughts about working with nursing students. Anthropometric measurements document participants with elevated blood pressures, obesity, and a potential for diabetes. Students report how the clinic assisted them with gaining knowledge about this vulnerable and diverse population and how they obtained a broader appreciation and understanding of how nurses can make a difference in their community. Participants and students gained overwhelming benefit from the clinic.

Implications: The clinic assists in producing graduates who are engaged professional citizens who have an enhanced sense of civil responsibility. Clinic participants gain knowledge about their health and community resources. This service-learning project benefits our community and students.

Funding: Supported by funds from California State University, Stanislaus Faculty Achieving Community Engagement for Students (FACES) grant.

INNOVATIVE EDUCATIONAL STRATEGIES

Sexuality Education in the Baccalaureate Nursing Curriculum

*Vicki Aaberg, PhD, BSN
Assistant Professor
School of Health Sciences
Seattle Pacific University
Seattle, WA*

Nurses should be equipped to provide holistic care for all aspects of human experience related to health, including sexuality. Unfortunately, however, there may be a significant gap in the education of nurses that limits their ability to provide adequate education and care to their clients related to sexuality. More than 30 years have passed since the last scholarly survey of sexuality content in American nursing education. Is sexuality education in nursing programs limited to the mechanics of conception and contraception? Are new graduate nurses currently well-equipped to address client questions and concerns about any sexuality issue in a mature, informed, and professional manner? The focus of this study is to gather detailed information regarding the number of American baccalaureate nursing programs that teach content related to sexuality, the number of hours devoted to multiple critical areas of sexuality education in nursing programs, barriers to teaching sexuality content, and the views of nurse educators about the need for sexuality education in nursing programs. Deans and program directors will be invited to participate by email and data will be collected through surveys. Statistical analysis will be used to evaluate much of the survey data and content analysis will be used to evaluate the open-ended questions. This thorough survey of sexuality education in baccalaureate nursing programs and of the views of administrators will provide a basis for informed discussions and decisions regarding nursing curricula and the ideal way to prepare of nursing students to engage in truly holistic care of clients.

Abstracts of Poster Presentations

INTERNATIONAL HEALTH

BLOOD PRESSURE KNOWLEDGE: OLDER SLAVIC
IMMIGRANT WOMEN WITH HYPERTENSION

Catherine R. Van Son, Holly Heaton, Oksana Stasyuk

DEPRESSIVE SYMPTOMS IN IMMIGRANTS:
HISPANIC AND ASIAN WOMEN IN THE U.S.

Yaelim Lee, Sun Ju Chang, Wonshik Chee, Eunice Chee, Jun Mao, Eun-Ok Im

DISTRESS LEVELS IN NEWLY DIAGNOSED
ETHNICALLY-DIVERSE BREAST CANCER PATIENTS
IN HAWAII

Kameron Noyama, Francisco Conde

EXPERIENCE OF VIETNAMESE IMMIGRANT WOMEN
IN TAIWAN WHO DO NOT REGULARLY UNDERGO PAP TEST

Hsiu Hung Wang, Fang Hsin Lee, Hsiu Min Tsai, Yung Mei Yang

MIDLIFE FEMALE URINARY INCONTINENCE
AND THE INTIMATE DYAD

Lori S. Saiki

TAILORED INTERVENTION TO INCREASE MAMMOGRAPHY
SCREENING AMONG KOREAN AMERICAN WOMEN
IN A COMMUNITY CLINIC

Youngwook Kim, Mary Jo Clark, Victor Kong, Kathy James

INTERNATIONAL HEALTH

Blood Pressure Knowledge: Older Slavic Immigrant Women with Hypertension

Catherine R. Van Son, PhD, RN
National Hartford Centers of Gerontological Nursing Excellence
Claire M. Fagin Fellow/Assistant Professor
College of Nursing
Washington State University
Spokane, WA

Holly Heaton, RN
Graduate Student
College of Nursing
Washington State University
Spokane, WA

Oksana Stasyuk, PhDc
Research Assistant
Slavic Assistance Center
Sacramento, CA

Purpose: To explore knowledge of high blood pressure in older Slavic (from the former Soviet Union-FSU) immigrant women.

Background: Older immigrant groups are disproportionately at risk of developing chronic conditions, and are more likely to experience health disparities. In general, they suffer from poorer overall health and adverse well-being compared to their American-born counterparts. One common chronic condition found in older adults is high blood pressure. Women with hypertension (HTN) experience a higher prevalence and lower control rates than men, and these numbers are even greater for older immigrant women. This ongoing study is being conducted with older Slavic/FSU women to understand their knowledge about hypertension in order to help them manage it more effectively.

Methods: Women over the age of 55 diagnosed with HTN in the Slavic community completed a brief demographic profile and a ten item Blood Pressure Knowledge assessment, translated into Russian. Each item was read aloud to the participant, and their responses were recorded by a Russian-speaking research assistant. None of the women were able to read and complete the questionnaire independently.

Results: To date, 25 older Slavic immigrant women have completed the hypertension (HTN) knowledge assessment. The average age of the women was 66 with 76% having a high school or less level of education. The average length of time diagnosed with HTN was 14 years, with a range of 3 to 31 years. Overall, only 19% answered 9-10 questions correctly indicating high HTN knowledge; 24% answered 8 questions correctly indicating medium HTN knowledge, and 57% answered 7 or fewer questions correctly indicating low HTN knowledge. The results of the Blood Pressure Knowledge assessment found that items with the lowest percentage of correct responses included knowing that hypertension does not cause cancer (84% incorrect), hypertension lasts a lifetime (52% incorrect), losing weight makes blood pressure go down (40% incorrect) and renal failure is a complication of hypertension (36% incorrect). None of the participants reported that their HTN was controlled. We plan to enroll 25 more participants into the study.

Implications: Twenty percent of the 38 million foreign-born people living in the United States are 55 or older and make up America's fastest-growing immigrant group. Thus, identifying the unique educational needs of various immigrant populations is important to assist them in managing their chronic conditions such as HTN. The findings to date in this study indicate that HTN education is needed in older FSU/Slavic immigrant women to help them understand the risks associated with uncontrolled blood pressure.

Funding: John A. Hartford Foundation's National Hartford Centers of Gerontological Nursing Excellence Award Program and Washington State University Seed Grant.

INTERNATIONAL HEALTH

Depressive Symptoms in Immigrants: Hispanic and Asian Women in the U.S.

Yaelim Lee, MSN, RN
Doctoral Student
School of Nursing
University of Pennsylvania
Philadelphia, PA

Sun Ju Chang, PhD, RN
Visiting Scholar
School of Nursing
University of Pennsylvania
Philadelphia, PA

Wonshik Chee, PhD
Research Associate Professor
School of Nursing
University of Pennsylvania
Philadelphia, PA

Eunice Chee
Undergraduate Research Assistant
School of Engineering and Applied Science
University of Pennsylvania
Philadelphia, PA

Jun Mao, MD, MSCE
Associate Professor
School of Medicine
University of Pennsylvania
Philadelphia, PA

Eun-Ok Im, PhD, MPH, RN, CNS, FAAN
Professor and Marjorie O. Rendell
Endowed Professor
School of Nursing
University of Pennsylvania
Philadelphia, PA

Purpose/Aims: The purposes of the study are: (a) to compare Hispanic and Asian midlife immigrant women's depressive symptoms; and (b) identify their relationships with immigration transition.

Background: Midlife immigrant women are often cited as being at risk of depression due to the changes and stress associated with immigration transition and menopausal transition. Despite an increasing multiethnic aging population in the U.S., depression in this population is often overlooked. Subsequently, little is known about depressive symptom experience of midlife immigrant women, especially Hispanic and Asian midlife immigrant women.

Methods: This is a secondary analysis of the data from two national Internet surveys. Among 1,057 multiethnic midlife women in the original studies, 255 Hispanic and 232 Asian women were selected for this analysis. The questions on background characteristics and immigration transition, and the Depression Index for Midlife Women were used in the original studies. The data were analyzed using t-test, chi-square tests, and hierarchical multiple regression analyses.

Results: Asian women reported fewer ($t=3.74, p<.01$) and less severe ($t=3.93, p<.01$) symptoms than Hispanic women. There were no significant differences in the total number and total severity of depressive symptoms by immigration status in both ethnic groups. However, only in Asians, there were significant associations of immigration status to the frequencies of four individual symptoms and to the severity scores of two individual symptoms ($p<.05$). Self-reported racial/ethnic identity, immigration status, the length of stay in the U.S., and the level of acculturation were significant predictors of the total number and total severity of the women's depressive symptoms ($p<.05$).

Conclusions/Implications: Future mental health interventions must consider the influences of immigration transition on midlife women's depressive symptoms.

Funding: This analysis was conducted as a part of a large study funded by NIH/NINR funded study (1R01NR010568-01) entitled "Ethnic Specific Midlife Women's Attitudes Toward Physical Activity."

INTERNATIONAL HEALTH

Distress Levels in Newly Diagnosed Ethnically-Diverse Breast Cancer Patients in Hawaii

*Kameron Noyama
Undergraduate Nursing Student
School of Nursing & Dental Hygiene
University of Hawaii at Manoa
Honolulu, HI*

*Francisco Conde, PhD, APRN, FAAN
Advanced Practice Registered Nurse
Department of Oncology
Queen's Medical Center
Honolulu, HI*

Purpose: To identify demographic, disease, and hospital process variables that are associated with high distress levels among newly diagnosed breast cancer patients in the outpatient cancer center at the Queen's Medical Center (QMC).

Rationale/Conceptual Basis/Background: Psychosocial distress screening of oncology patients is a new standard required by the American College of Surgeon's Commission on Cancer (CoC). The QMC cancer center, an accredited CoC facility, implemented the National Comprehensive Cancer Network (NCCN) distress thermometer (DT) as a psychosocial screening tool on March 1, 2012. The DT assesses 1) patient's rating of distress on a 0-10 scale where higher scores represents higher distress, and 2) variables (e.g. practical, emotional, family, spiritual, physical) that contribute to distress. Patients completed the DT while in the waiting room for their initial consultation. Per NCCN guidelines, patients with a distress level ≥ 4 should be referred for mental health services.

Methods: A retrospective chart review of newly diagnosed breast cancer patients seen in the outpatient cancer center from March 1, 2012 to February 28, 2013 was conducted. Information from the completed DTs, demographic (e.g. age, ethnicity, employment, marital status), disease (e.g. grade, stage, type of treatment), and hospital process (such as referral delays, continuity contacts, number of doctors seen) variables were collected. Correlations were used to determine associations among variables and distress level, and T-test was used to compare mean distress levels.

Results: A total of 33 patients with newly diagnosed breast cancer were identified. Mean age was 59.7 ± 12 years old. Overall mean distress level was 2.97 ± 2.8 ; however, 33.3% had distress level ≥ 4 . Significantly higher mean distress scores were seen in women with depression, worry, sadness, nervousness, fatigue, memory difficulties, referral delays, and insurance/financial problems ($p \leq .05$). Age, stage of disease, grade, type of cancer treatment, and number of co-morbidities were not associated with distress levels.

Implications: In this study, one-third of women with newly diagnosed with breast cancer reported distress levels ≥ 4 . Early identification through psychosocial distress screening is important, and patients should be promptly referred to mental health services (e.g. psychologist, social worker, chaplain).

Funding: Undergraduate Research Opportunity Program at the University of Hawaii at Manoa.

INTERNATIONAL HEALTH

Experience of Vietnamese Immigrant Women in Taiwan Who Do Not Regularly Undergo Pap Test

*Hsiu Hung Wang, PhD, RN, FAAN
Professor
College of Nursing
Kaohsiung Medical University
Kaohsiung, Taiwan*

*Fang Hsin Lee, PhD, RN
Assistant Professor, Department of Nursing
Chung Hwa University
of Medical Technology
Tainan, Taiwan*

*Hsiu Min Tsai, PhD, RN, FAAN
Professor, Department of Nursing
Chang Gung University
of Science and Technology
Taoyuan, Taiwan*

*Yung Mei Yang, PhD, RN
Assistant Professor
Department of Nursing
Kaohsiung Medical University
Kaohsiung, Taiwan*

International migration and marriage immigration are trending upward in many countries. Immigrants usually have poorer health and experience more barriers to the utilization of healthcare services than native populations. Studies have shown a low utilization rate of preventive medical services among immigrants. As immigrant women may not be aware of the healthcare delivery system within their host country, their utilization of and access to healthcare services might be limited. The purpose of this study was to explore the experiences of Vietnamese immigrant women who have never undergone or do not regularly undergo cervical screenings in Taiwan. We used a snowball sampling method to recruit Vietnamese immigrant women living in southern Taiwan. We included women who (a) had never undergone or did not regularly (less than once per year) undergo cervical screening, (b) had national health insurance, (c) were at least 30 years old, (d) had not had a hysterectomy, and (e) were able to communicate verbally in Mandarin or Taiwanese. A total of 20 women participated in this study; data were collected until data saturation was achieved. A qualitative, descriptive design was adopted. This qualitative study employed semi-structured, individual, in-depth interviews. The methodology was qualitative, as this study comprised an inquiry to understand the experiences and barriers faced by Vietnamese immigrant women in Taiwan who have never undergone or do not regularly undergo cervical screenings. Data were analyzed using content analysis. Data saturation was assured by the researchers during the analysis phase; it was achieved when no new significant themes were identified.

The participants ranged in age from 31 to 56 years. Their length of residence in Taiwan was between 2 and 17 years. Eighteen had children, and their average number of children was 1.6. Seventeen participants did not regularly undergo cervical screenings, and three had never received a cervical screening. Seventeen of the participants were married. The experiences and barriers to receiving cervical screening were (a) lack of health literacy (including unaware of policy and the purposes of cervical screening, unaware of where the service is provided, lack of the concept of preventive care, and belief that a cervical screening is not required when there are no symptoms), (b) lack of female healthcare providers (including having a female physician/female nurse perform the cervical screening, and being unable to find a female physician), (c) negative perceptions of cervical screening (including lack of a reminder system within health centers and clinics, insufficient explanation about the test, and uncomfortable feelings), and (d) personal reasons (lack of a role model, being busy; forgetting to have the test, being embarrassed, and being worried about the test results).

The results might serve as a reference for government entities and healthcare providers in Taiwan to improve cervical screening rates; this should help to enhance the effectiveness of healthcare services for Vietnamese immigrant women. The findings can also provide a reference for making appropriate healthcare policies for immigrant women in other countries.

Funding: National Science Council of Taiwan for funding this study (NSC 100-2314-B-037-008).

INTERNATIONAL HEALTH

Midlife Female Urinary Incontinence and the Intimate Dyad

*Lori S. Saiki, MS, MSN, RN
PhD Candidate
College of Nursing
University of New Mexico
Albuquerque, NM*

Purpose: The purpose of this descriptive, exploratory study is to examine the association between midlife female urinary incontinence symptom severity and the quality of the intimate dyadic relationship. The specific aims of this study are to explore: a) the proposed association between midlife female incontinence symptom severity and relationship satisfaction in the intimate dyad, b) the potential mediating effects of select psychosocial factors and relationship dynamics on the association between incontinence symptom severity and relationship satisfaction, and c) the woman and her partner's perceptions of the impact of midlife female urinary incontinence on the intimate relationship. Corbin and Strauss' Collaborative Chronic Illness Trajectory Model (1984; 1988) will be used to guide this inquiry.

Rationale: Urinary incontinence is a major health concern for midlife women (aged 45 – 65), with reported incidence rates ranging from 26.5 – 51%. Urinary incontinence goes undisclosed by 10 – 50% of affected women. Urinary incontinence is a significant source of morbidity in the midlife and early-aging years among U.S. women, and can affect their physical, economic, and psychosocial health. Although the impact of incontinence symptoms on a woman's self-concept, body image, self-esteem, life-style, emotional health, and sexual function have been well documented, the effects of female urinary incontinence on the midlife intimate dyad remain underexplored. Because psychosocial factors have the potential to significantly affect interpersonal relationships, an assessment of the effects of female urinary incontinence on the interpersonal experiences of the intimate dyad is warranted.

Methods: Purposive convenience/snowball sampling will be utilized to recruit 150 midlife women with urinary incontinence, and their partners (target n = 40 intact dyads). Participants will complete questionnaires comprised of established, validated and reliable measures of select biographical (self-esteem, body image, anxiety and depression) and relationship (relational ethics, sexual quality of life, illness communication) factors. Path analysis will be performed on women's scores on these measures as potential mediators between incontinence symptom severity and relationship satisfaction. Paired-sample t-tests will test for congruence between women and their partners on measures of relationship factors. Open-ended questions will be explored by methods of content analysis for themes related to symptom impact on the relationship, and coping as a couple with chronic urinary incontinence.

Implications: This study will offer a re-conceptualization of female urinary incontinence as a chronic condition requiring ongoing, and potentially deteriorating, biographical and relationship work. Biographical and relationship factors may affect the woman's decision to disclose, seek care, or choose a treatment option. Biographical and relationship factors may also affect the woman's self-efficacy in and adherence to urinary health promotion strategies. A better understanding of the mediating effects of biographical work related to self-concept and relationship work related to intimate partners' interactional patterns will help guide psychosocial health assessments of partnered midlife women living with urinary incontinence. New strategies in offering support for midlife women presenting with urinary incontinence in the clinical setting may be suggested.

INTERNATIONAL HEALTH

Tailored Intervention to Increase Mammography Screening among Korean American Women in a Community Clinic

*Youngwook Kim, MSN, FNP, DNP Student
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA*

*Mary Jo Clark, PhD, RN
Professor
Hahn School of Nursing
and Health Science
University of San Diego*

*Victor Kong, MD
Clinic Director
KHEIR Clinic*

*Kathy James, DNSc, APRN,
FAAN, Associate Professor
Hahn School of Nursing
and Health Science
University of San Diego*

Project Purpose: This project was conducted to improve screening mammography rates among Korean American women (KAW) who are living in Los Angeles County, California.

Background: Breast cancer is the most common type of cancer in females and one of the leading causes of death in United States. While Asian American women tend to have lower breast cancer incidence rates than non-Hispanic white or black women, there is a rapidly changing shift toward increased risk for breast cancer. Among Asian American women subgroups, KAW have experienced an increasing incidence of breast cancer, but have consistently remained low in their rate of breast cancer screening, leading to relatively high risk for cancer mortality because of delayed diagnosis. Culturally tailored education coupled with a recommendation for mammography from a health care provider has been suggested as a key factor in increasing screening behaviors of the KAW population.

Practice Change: Project participants were recruited from a Korean community clinic in Los Angeles. KAW aged 40 to 65 years old who had not had a mammogram within 2 years were eligible for participation. The practice change included individual education using a brochure developed for KAW and recommendation for mammography by a health care provider during their regular medical visit. The breast cancer screening rate will be measured before and 3 months after intervention. The data will be analyzed using descriptive statistic, including means, frequencies, and percentages.

Results and Outcomes: Pending data collection and analysis.

Implications and Conclusions: To be determined following data analysis. Due to the sharp increase in incidence of breast cancer in KAW, it is important to find an effective approach to increasing the rate of breast cancer screening. Personally tailored education and direct recommendation by the health care provider when patients visit for medical check up may be an appropriate intervention for KAW in community clinics contributing to a decrease in health disparities.

Abstracts of Poster Presentations

INTERPERSONAL VIOLENCE

PERCEPTIONS AND PRACTICES OF ALASKAN HEALTH CARE PROVIDERS REGARDING INTERPERSONAL VIOLENCE

*Angelia Clark Trujillo, Maureen O'Malley, Elizabeth Predeger,
Catherine Sullivan, Thomas J. Hendrix*

WEB-BASED SURVEYS POST-SEXUAL ASSAULT: OPERATIONALIZATION AND LESSONS LEARNED

Jessica E. Draughon

INTERPERSONAL VIOLENCE

Perceptions and Practices of Alaskan Health Care Providers Regarding Interpersonal Violence

*Angelia Clark Trujillo, DNP, RN, SANE-A/P
Assistant Professor*

*Maureen O'Malley, PhD, RN
Assistant Professor/Associate Director*

*Elizabeth Predeger, PhD, RN
Professor*

*Catherine Sullivan, MSN, CPNP, RN
Associate Professor*

*Thomas J. Hendrix, PhD RN
Associate Professor*

*School of Nursing
University of Alaska Anchorage
Anchorage, AK*

Aims: Interpersonal violence (IPV) comprises a spectrum of sexual and physical violence against individuals. Primary health care providers (HCP) are in a unique position to recognize, report and intervene proactively. Targeted efforts to improve and enhance provider practices can only be developed and implemented if based on a sound understanding of current practices, perceptions and challenges. This study aims to describe the current practices of Alaska HCP regarding IPV.

Rationale: There is a high rate of violence and abuse amongst Arctic populations in circumpolar countries, which bear a disproportionate share of health disparities and inequities, and shared historical trauma among indigenous peoples in these countries. IPV 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 killed by intimate partners at 1.5 times the national average (National Sexual Violence Resource Center, 2000). While there is a significant amount of descriptive research regarding screening for domestic violence, sexual assault and child sexual abuse within circumpolar countries, no literature addresses IPV in its entirety.

Methods: Revision and determination of the psychometric properties of a previously used instrument will be conducted (Parsons, Zaccaro, Wells & Stovall, 1995) in November 2013. A mailed survey of Alaska HCP (nurse practitioners, physicians and physician's assistants) describing perceptions and practices of Alaska HCP will follow. Participants will be recruited through postcard distribution using publicly available licensing databases of Alaska physicians, physician assistants and nurse practitioners. Data analysis will be completed by April 1, 2014.

Results: Current screening practices of Alaska HCP with regard to IPV will be described; measures of perceptions, correlations, barriers and key practices of different types of HCP (nurses, physicians and physician assistants) will be compared. Characteristics of these HCP practices will be described in relation to currently accepted best practices.

Implications: The results of this study will provide data to support recommendations for basic education for Alaska's future primary HCPs as well as for continuing professional education for HCP already practicing in the State.

Funding: Funding for project was provided by a joint grant from the American Nurses Foundation, Western Institute of Nursing and the International Association of Forensic Nurses.

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INTERPERSONAL VIOLENCE

Web-Based Surveys Post-Sexual Assault: Operationalization and Lessons Learned

Jessica E. Draughon, PhD, RN

Postdoctoral Scholar

Department of Community Health Systems

University of California, San Francisco School of Nursing

San Francisco, CA

Purpose: The purpose of the project was to examine factors associated with acceptance and adherence to HIV nPEP following sexual assault via web-based surveys. This presentation provides information on the process of website creation, patient recruitment and follow-up, as well as feasibility and acceptability.

Rationale: The sexual assault patient population is mobile and difficult to reach, especially in the period immediately following the assault. Patients move, change their phone numbers or simply choose to communicate less with care providers and advocates. HIV non-occupational postexposure prophylaxis (nPEP) is a series of 2-3 antiretroviral medications taken for 28 days to reduce the likelihood of HIV infection after an exposure. A series of two web-based surveys was conducted to study sexual assault patients' experience with nPEP during the 4 week medication regimen. The first web-based survey (T1) assessed factors theoretically important to nPEP uptake. The second web-based survey (T2) assessed factors theoretically important to nPEP adherence. Using web-based surveys allowed patients to complete the surveys in a time and place of their choosing, thereby decreasing participant burden and potentially increasing study retention.

Approach: Over one year, participants were recruited from three Forensic Nurse Examiner (FNE) programs in the Mid-Atlantic region of the United States. Participants were recruited by either the FNE or a trained research assistant directly following the sexual assault medical forensic examination. Participants completed written informed consent and provided the study team with contact information. Participants were emailed the T1 web-link within three days of recruitment and if they had chosen to initiate nPEP, the T2 web-link approximately one month post-assault. A subset of participants took part in qualitative interviews.

Outcomes Achieved: Twenty-one (66%) of 32 recruited participants completed at least one web-based survey. Twenty completed T1, and 13 completed T2. One person who completed T1 and was eligible to complete T2 did not complete the second web-based survey – a 93% retention rate. Similarly, one respondent completed T2 without completing T1. The average time to complete for T1, 29 items, was 8 minutes and average time to complete T2, 91 items, was 15 minutes. Qualitative interviewees ($n = 11$) stated participating in the research “was really easy.” Many did not complete the web-based survey until after receiving a telephone reminder. One stated “I never check my email” so although the study was set-up to be non-intrusive, there was a benefit to contacting patients via telephone. Three qualitative interviewees moved between recruitment and completing the web-based surveys, however it did not impact their ability to participate.

Conclusions: Web-based surveys appear to be feasible and acceptable for conducting research in this difficult to access population. Future research should assess utilizing text-message reminders in addition to telephone call and/or email follow-up. In addition, the small sample demonstrates the difficulty in recruiting patients from post-assault care. Recruiting from a population of recently assaulted persons in the internet community may be more effective for future research endeavors.

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Abstracts of Poster Presentations

**INTERPROFESSIONAL EDUCATION:
PROGRAMS THAT REALLY WORK!**

INTERPROFESSIONAL FROM THE START:
A DIGITAL NEW STUDENT ORIENTATION PROGRAM

Barbara Richardson

SBAR INTERPROFESSIONAL ASSIGNMENT:
CLEAR, CONCISE, AND CONCRETE

Susan E. Fleming

INTERPROFESSIONAL COLLABORATIVE PRACTICE:
HOME VISITING TEAMS

Barbara Richardson, Sue Perkins

INTERPROFESSIONAL COLLABORATIVE PRACTICE:
HEALTHCARE IN PERU

Debbie Brinker, Laura Hahn, Sue McFadden, Catrina Schwartz

INTERPROFESSIONAL EDUCATION: PROGRAMS THAT REALLY WORK!

Interprofessional from the Start: A Digital New Student Orientation Program

*Barbara Richardson, PhD, RN
Director, Interprofessional Education and Research
Washington State University
College of Nursing
Spokane, WA*

Purpose: This presentation will highlight the interprofessional (IP) “Goose Chase” event, a creative and educational technology-enabled team building activity designed to familiarize new students with the campus, promote awareness of local health professional programs, start students working in IP teams from day one, introduce basic roles and responsibilities of all health professional, and have fun!

Rationale/Background: Recognizing that all health professional programs need to cover many of the same topics when new students first arrive on campus, and committed to providing IP learning opportunities across curricula, faculty and staff from nursing, pharmacy, medicine, dentistry, speech and hearing sciences, nutrition and exercise physiology, and health policy administration programs committed to incorporating an IP team-based orientation program during new student orientation.

Description: Technology changes the way people communicate, but connecting new students face-to-face builds relationships. Using a cutting-edge mobile platform, teams download an app on their smartphones (1 per team) to access a list of challenges. All missions are displayed simultaneously, so IP teams of 5-6 students must plan their strategy for accomplishing as many missions as possible within the time allotted. Tasks are designed to help new students find their way around campus, practice communication skills within their team and with patients, learn about various health professions, raise awareness about community resources such as the blood bank and organ donation network, challenge students to think about appropriate use of social media, generate empathy for working with older adults, and have fun getting to know one another. Teams snap and upload photos as evidence of completing a mission. The team with the most points at the end of the event wins. The cost to purchase the mobile app and event support (to monitor uploaded photos) was covered by student activity fees and a local corporate sponsor.

Outcomes: Following the Goose Chase event, teams participated in small group debriefing sessions lead by second year nursing and pharmacy students. Program evaluations were also made available online. Most frequent responses included; (1) this was a great way to get to know students in other programs, (2) it was a fun way to learn about the campus and resources available to students, (3) I gained insights about what it means to be a student in a health professional program, (4) I learned about other health professions, and (5) it was a fun activity. Suggestions for improvement included; (1) hold the event in the morning when it’s cooler, (2) shorten the event by 30 minutes, and (3) organize better to ensure consistency in the size of teams.

Conclusions: One of the biggest challenges to implementing large IP programs is finding sufficient time and space to accommodate students across multiple health professional programs. The Goose Chase event effectively overcomes these barriers and sets the stage for future IP collaboration.

INTERPROFESSIONAL EDUCATION: PROGRAMS THAT REALLY WORK!

SBAR Interprofessional Assignment: Clear, Concise, and Concrete

*Susan E. Fleming, PhD, RN, Perinatal CNS
Assistant Professor
Washington State University
College of Nursing
Spokane, WA*

Purpose: The purpose of this part of symposium is to provide an exemplar of an effective interprofessional (IPE) assignment SBAR, which was developed for health profession students (i.e., BSN, D.O., & PharmD) across three settings in Washington State.

Rationale/Background: The SBAR (Situation-Background-Assessment-Recommendation) tool provides a concrete communication framework, which can be used when discussing a patient's condition between members of the health care team (e.g, nurse, physician, pharmacists). Michael Leonard, MD, and his colleagues from Kaiser Permanente, Colorado, developed SBAR. Distinctive professional jargon across disciplines can impact safe effective interprofessional care. TeamSTEPPS team training program, endorses practices such as SBAR, which primary aim is that communication is clearly understood. This presentation offers faculty effective ways to integrate opportunities for students to engage in with other health professions.

Approach: Spring 2013, health professional faculty from three University settings (i.e., Nursing, Doctor of Osteopathy, and PharmD) devised innovative meaningful assignments for their students to collaborate. The professional relationships between a nurse and physician or a nurse and a pharmacist, which is one of trust & respect, guided the development. This assignment specifically addressed using SBAR as a communication technique to provide a framework for communication about a patient's condition between nursing, medical, and pharmacy student members of an interprofessional health care team. Effective communication between disciplines is essential in order to build safer and better patient centered care. SBAR technique can improve safety through clear, concise and structured communication.

Outcomes: This presentation will share evaluation measures and individual comments from students. Providing students with opportunities to engage in joint exercises provided deeper meaning for their current education. Furthermore, this exercise provided students ways to envision creating safe practice for their future health profession career.

Conclusions/Implications: The first step in creating successful IPE assignments is to create successful collaboration between faculty. Developing suitable partnerships with other health professions are essential and enriches learning across disciplines.

INTERPROFESSIONAL EDUCATION: PROGRAMS THAT REALLY WORK!

Interprofessional Collaborative Practice: Home Visiting Teams

Barbara Richardson, PhD, RN
Director, Interprofessional Education
and Research
Washington State University
College of Nursing
Spokane, WA

Sue Perkins, MEd, BSN
Senior Instructor
Washington State University
College of Nursing
Spokane, WA

Purpose: Interprofessional education (IPE) is an essential element of nursing education. Increasingly, IPE is being integrated into existing nursing curricula in classroom and simulation settings. However, few opportunities exist for health professional students to collaborate in practice settings. The purpose of the interprofessional home visiting pilot program was to develop, implement, and evaluate a longitudinal IP collaborative practice opportunity for students in nursing, pharmacy, and social work.

Rationale/Background: As children and families today seek care for increasingly complex health problems, an interprofessional (IP) collaborative approach is necessary to ensure the highest quality patient care and safety. The Institute of Medicine (2003) and the World Health Organization (2010) called for dramatic restructuring of health professions education to ensure all students gain the competencies necessary to deliver patient-centered care and work in IP teams as a means of increasing patient safety and satisfaction. More recently, the Interprofessional Education Collaborative (IPEC, 2011) encouraged the integration of core competencies within health professions curricula including: (1) values and ethics, (2) roles and responsibilities, (3) collaborative communication, and (4) teams and teamwork.

Description: IP teams of students conducted a series of four monthly home visits with an asthmatic child/family. The program objectives were two fold, (1) create an IPCP experience that allowed students to practice the IPEC core competencies within the context of (2) providing a first-hand experience where students gained a better understanding of social determinants of health through interactions with children and families living in poverty, rural or underserved communities. School nurses recruited low-income children / families to participate. Teams worked together to assess health care needs of the child including vaccination status, nutrition, medications, physical activity, and environmental safety. The IP home visits (IP HV) program was incorporated within existing clinical courses.

Outcomes: Participants completed the Readiness for Interprofessional Learning Survey, and Team Assessment Questionnaire, and a program evaluation form. One hundred percent of participants believed learning with other students helped them become a more effective member of a health care team and sharing learning with other health care students increased their ability to understand clinical problems. Results of these assessment tools will be shared.

Conclusion: The IP HV program successfully provided a longitudinal IP collaborative care practice experience for teams of nursing, pharmacy, and social work students. Program evaluation surveys will be distributed to participating families when the program is expanded spring 2014 to include both rural and urban communities. In the future, other health professional students will be included in teams to meet the needs of specific children / families.

INTERPROFESSIONAL EDUCATION: PROGRAMS THAT REALLY WORK!

Interprofessional Collaborative Practice: Healthcare in Peru

*Debbie Brinker, MSN, RN
Assistant Clinical Professor
College of Nursing*

*Laura Hahn, MSN, ARNP
Senior Instructor
College of Nursing*

*Sue McFadden, MSN, ARNP
Instructor
College of Nursing*

*Catrina Schwartz, PharmD
Associate Clinical Professor
College of Pharmacy*

*Washington State University
Spokane, WA*

Purpose/Aims: The purpose of the Healthcare in Peru clinical immersion experience was to develop, implement, and evaluate a longitudinal IPE collaborative practice opportunity through an international experience for students in nursing, pharmacy, and physical therapy.

Rationale/Background: In 2011, Interprofessional Education Collaborative (IPEC) included IP teams and teamwork as a core competency within health professions curricula. To facilitate development of these competencies, Washington State University (WSU) developed an international collaborative program with People of Peru Project (POPP), a non-governmental organization with a mission to improve the health of vulnerable populations in Iquitos, Peru.

Undertaking/Best Practice/Approach/Methods/Process: Health care in Peru uses a community-health focus to model culturally appropriate care to undergraduate and graduate students from a variety of disciplines. Student reflections are used to explore growth in their understanding of community-based services and the impact of team-based, IP care. Multiple pre-departure classes focus on increasing cultural awareness, working with interpreters, travel safety, and common local health problems. In Peru, students work in clinical teams made up of nursing, pharmacy and PT students together with Peru interpreters. We begin with a community assessment then proceed to attend primary care clinics, classes, and tours of various health-related and cultural sites. Out-reach to special populations in need including the local mental hospital and a home for teen mothers are included. Students are debriefed daily, enhancing perspectives re. team development and team-based care. Post-trip, students complete a reflection paper discussing how this experience might impact their approach to team-based care in the future.

Outcomes Achieved/Documented: Our program, partnerships, and interprofessional team collaborative experiences have continued to grow for 9 years. We have had the opportunity to share Peru with over 225 students (typically traveling with 20-25 per summer). Current collaborative efforts are expanding to osteopathic medical students and other health care professionals. Research is in process for a 1 and 3 year follow-up of students who participated in this program to identify how their Peru experience impacted their future international travel and team service.

Conclusions: The Healthcare in Peru program successfully provided a longitudinal IP collaborative care practice experience for teams of nursing, pharmacy, and physical therapy students. Our experience provides a real-world example of how to develop an international partnership with an interdisciplinary group of health care students, staying focused on their learning needs, while still meeting the needs of the most important stake holders—the population with whom we are working, in this case the citizens of Iquitos, Peru.

Abstracts of Poster Presentations

ISSUES IN ONCOLOGY

ORAL CHEMOTHERAPY:
A PARADIGMATIC SHIFT IN ONCOLOGY PRACTICE
Kelsey Hirsch, Allison Miller, Michelle Mitchell

PATIENT-CENTERED FALL PREVENTION
ON A HEMATOLOGIC MALIGNANCIES UNIT
Laura Daudistel, Debra Harris

THE INLAND NORTHWEST COLON CANCER
SURVIVOR'S STUDY
Jeanne Robison, Mel Haberman, Cynthia Fitzgerald, Celestina Barbosa-Leiker

ISSUES IN ONCOLOGY

Oral Chemotherapy: A Paradigmatic Shift in Oncology Practice

Kelsey Hirsch, BSN, RN, Nurse Resident¹

Allison Miller, BSN, RN, Staff Nurse²

Michelle Mitchell, BSN, RN, Nurse Resident¹

¹*Seattle University, Seattle Cancer Care Alliance, Seattle, WA*

²*Seattle University, University of Washington, Seattle, WA*

Purpose: This research project addresses the question, “What are the implications of oral chemotherapy medications, when used for cancer patients, in comparison to other forms of administration of cytotoxic agents?” To answer this question and establish best practices, a literature search was performed; and an exemplar oral chemotherapy protocol, designed to enhance treatment efficacy and safety, implemented at Seattle Cancer Care Alliance (SCCA) was evaluated.

Background: Since 2009, the use of orally administered cytotoxic medications has increased (Weingart et al., 2008). According to the National Comprehensive Cancer Network Task Force Report in 2008, the number of oral chemotherapeutic agents is increasing, with 25% of 400 new chemotherapy medications being developed as oral agents (Weingart, et al.). With increased use of oral chemotherapy comes a dramatic change in independent patient responsibility and expanded self-efficacy. Robust standard policies have evolved for the intravenous administration of chemotherapy; however, a great disparity exists in the policies and procedures established for the use of oral chemotherapy.

Methods: A literature review, focused on accessibility, adherence, and safety of oral chemotherapy, was conducted using CINAHL and Cochran Library. Current literature reveals three components—access, adherence, and safety—as essential issues to consider as possible barriers to the efficacy of oral chemotherapy. Prior research identified the need to improve patient access, adherence, and safety, but only a limited number of studies have shown conclusive evidence as to the best way to assure these. In response to the need for improved care of patients receiving oral chemotherapy, a pilot study (2009) at SCCA was conducted to evaluate the efficacy of follow-up phone calls by pharmacists seven to ten days post initiation of oral chemotherapy.

Results: The results of the pilot study indicated the need for a quality improvement project to establish best practices relative to the use of oral chemotherapy. The project included steps to assure safety and access by a pharmacist prior to prescription dispensing, an initial teaching session by a pharmacist or certified nurse specialist, follow-up phone calls by a nurse to address specific issues of adherence and medication management, and an updated workflow form to standardize the process.

Findings support the recommendation that oncology care institutions establish standard operating policies and procedures for patients taking oral chemotherapy agents including: assistance in accessing the medication, appropriate tools for improving and measuring adherence, and interventions to assure safety.

Implications: Not only are new standards for policies and procedures necessary for the administration of oral chemotherapy, additionally, a modification of the nurse’s role is warranted. The nurse must establish a strong infrastructure to facilitate patient independence, assure patient safety, and produce the best possible efficacy of oral chemotherapy administration.

Further research implications include: the development of tools that facilitate the assessment of endpoints of access, adherence and safety of oral chemotherapy as well as the assessment of quality of life for patients using oral chemotherapy. Additionally, the role of the nurse in facilitating the implementation of the recommended protocol to enhance access, adherence and safety, needs further exploration.

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ISSUES IN ONCOLOGY

Patient-Centered Fall Prevention on a Hematologic Malignancies Unit

*Laura Daudistel, CNS
Professional Practice Leader
Bone Marrow Transplant and Hematologic Malignancies
Oregon Health & Science University
Portland, OR*

*Debra Harris, RN
Nurse Manager
Bone Marrow Transplant and Hematologic Malignancies
Oregon Health & Science University
Portland, OR*

Purpose/Aims: The purpose was to reduce falls through standardizing use of the Get Up and Go test. This assessment is to be performed in a specific way every 12 hours.

Rationale/Background: Analysis of 2 years of fall history indicated that change in patient ability was often under-recognized due to long lengths of stay and gradual decline in function. The culture of the unit maintains patient independence and encourages activity. It was hypothesized that a purposeful Get Up and Go test, which also included the patient's perception of function, would identify patients more readily. Performing the assessment in this way is more meaningful to the patient facilitating their participation in fall prevention strategies.

Methods: All staff were trained to perform the Get Up and Go test according to a Job Breakdown Sheet and to use visual cues outside each patient room to indicate the test has been performed. Daily results are posted on a display board which also tracks reasons the test was not performed and "big issues" or "quick hits" that may interfere with performance of the test. Audits are conducted to ensure the Get Up and Go test is being administered according to the standard.

Outcomes Achieved: Prior to implementing this program our unit averaged a fall a week; our longest period between falls was 18 days. 2 months into this improvement, the unit went 55 days without a fall. The first 3 months have demonstrated promising results. This quarter had the lowest number of falls in the last 10 quarters. Patient participation has been encouraging and crucial for continued success.

Conclusions: Using a standardized method and visual data management has improved staff engagement and consistency of use of the Get Up and Go test has reduced fall rates. Involving the patient in the assessment from day to day improves participation and willingness to partner for safety.

ISSUES IN ONCOLOGY

The Inland Northwest Colon Cancer Survivor's Study

*Jeanne Robison, MN, ARNP; Mel Haberman, PhD, RN, FAAN;
Cynthia Fitzgerald, PhD, FNP-BC; Celestina Barbosa-Leiker, PhD
College of Nursing, Washington State University*

Purpose/Aims: The overall purpose of this study is to describe the trajectory of early survivorship in individuals with colon cancer who undergo both surgical and medical management. The primary question is whether or not there is an interaction between type of surgery and changes in quality of life, sexual function, peripheral neuropathy, and demands of illness following curative resection and adjuvant chemotherapy.

Specific Aims:

1. Describe the demographic and disease characteristics of the sample.
2. Examine the relationships among quality of life, sexual functioning, peripheral neuropathy, and demands of illness for the sample-as-a-whole and by type of surgical resection.
3. Examine within-subject changes in the mean values of scores for quality of life, sexual functioning, peripheral neuropathy, and demands of illness across four measurement occasions.
4. Examine between-group differences in mean values of scores for quality of life, sexual function, peripheral neuropathy, and demands of illness at four discrete measurement occasions.
5. Examine the interaction between time (four measurement occasions) and surgical type (open resection or laparoscopic resection) by mean values of quality of life, sexual functioning, peripheral neuropathy, and demands of illness.

Rationale/Background: The majority of colon cancer surgeries involve the use of an open resection technique; however, laparoscopic colorectal surgery has shown similar outcomes (Bai, Chen, Zhou, & Wu, 2010). Data from over 20,000 patients in 18 clinical trials supported the use of a modified FOLFOX regimen (mFOLFOX) as the superior chemotherapy protocol for providing improved long term disease-free and overall survival in patients with resected colon cancers (Sargent et al., 2009). Yet, what has not been evaluated is whether the method of surgical management of colon cancer alters the experience of mFOLFOX chemotherapy, affects one's quality of life during adjuvant treatment, changes sexual function after cancer or increases the incidence of chemotherapy toxicities, such as peripheral neuropathy.

Methods: A prospective cohort design will be employed to examine the relationship between two types of surgical resection, adjuvant chemotherapy, and the outcomes of quality of life, peripheral neuropathy, sexual functioning and demands of illness in persons undergoing treatment for colon cancer. Data will be collected from 40 participants at four time intervals over the first nine months after surgery to examine the interaction of time and surgical type on the four outcome variables.

Implications: This longitudinal documentation of the study's four major health outcomes may provide data to help nurses provide anticipatory guidance to patients and their families concerned about the impact these therapies may have on quality of life, sexual functioning, persistent toxicities such as peripheral neuropathy, and demands of cancer recovery.

Funding: This research was supported a grant DCN-11-194-01 from the American Cancer Society Doctoral Scholarship in Cancer Nursing.

Abstracts of Poster Presentations

MEN'S HEALTH

BARRIERS TO HPV IMMUNIZATION AMONG MALES

Kelli C. Gora, Kate G. Sheppard

HPV IN MSM: INCREASING HPV VACCINATION UPTAKE

Cara E. Gilbert, Debra Ilchak

MALES WITH ANOREXIA NERVOSA: CULTURE OF RECOVERY

Erin M. Gillingham

MEN'S HEALTH

Barriers to HPV Immunization among Males

*Kelli C. Gora, RN, RT, BSN
Doctor of Nursing Practice Student
The University of Arizona College of Nursing
Tucson, AZ
kgora@email.arizona.edu*

*Kate G. Sheppard, PhD, RN, FNP, PMHNP-BC, FAANP
Clinical Associate Professor and Committee Chair
The University of Arizona College of Nursing
Tucson, AZ
ksheppard@nursing.arizona.edu*

Purpose: To describe barriers to implementing practice recommendation regarding HPV (human papilloma virus) immunization among males.

Rationale/Background: HPV is a source of numerous cancers including cervical, vulvar, penile, anal, and oropharyngeal. More than one-quarter of the HPV-associated cancers in the United States occur in males, in part because males have lower natural immune response to HPV. While there is a downward trend in many cancers, the incidences of HPV-related cancers continue to rise. It is estimated that in the United States, oropharyngeal cancers will exceed cervical cancers by 2020. The Quadrivalent vaccine is approved in boys and is effective in the prevention of genital warts and reducing HPV related cancers. Consequently, the Advisory Committee on Immunization Practices recommends the vaccine for males.

Methods: An extensive literature review was conducted on HPV and vaccinations among males. Search engines included CINAHL, PubMed, MeSH database EBM Search, and Google Scholar. Key terms included “ HPV in men”, “vaccination”, “primary care”, “cancer”, “head and neck”, “risk factors”, “oral sex”, “safe sex”, “barriers”. The initial search generated 9, 390 peer-reviewed articles. The search was narrowed by focusing on research among humans, written in English, full text articles about males, and published in the last five years and yielded 222 articles. Forty-six articles were chosen for synthesis.

Results: The greatest barrier to implementation of HPV practice recommendation is lack of knowledge. There is a lack of knowledge among PCP providers, patients, and parents regarding HPV vaccination among males. The intention to vaccinate or become vaccinated is based on multiple factors including education level, socioeconomic status, race, gender, prior sexual activity, reimbursement, and current parental knowledge of HPV with its associated diseases and risk factors. Some men are unfamiliar with HPV infection and only attribute it to a disease in females. Most males are unaware of how HPV is transmitted. Many patients are also unaware that HPV is associated with cervical cancer or anogenital cancer or that a vaccine to prevent HPV even exists. PCPs routinely recommend the HPV for girls but rarely is the vaccine even discussed with parents and young males.

Implications: The primary care setting provides multiple opportunities for PCPs to educate their male patients and parents regarding HPV and immunization. Parental education should begin early in the child's life and discussions should take place during all routine physical examinations and at the time of routine immunizations. HPV related cancers, in males, would continue to rise worldwide unless immunizations are given before sexual activity begins.

MEN'S HEALTH

HPV in MSM: Increasing HPV Vaccination Uptake

*Cara E. Gilbert, RN, BSN
DNP-FNP Student*

Arizona State University

*College of Nursing and Health Innovation
Phoenix, AZ*

*Debra Ilchak, RN, DNP, FNP-BC, CNE
Clinical Assistant Professor*

Arizona State University

*College of Nursing and Health Innovation
Phoenix, AZ*

Purpose: The purpose of this clinical applied project is to evaluate if a tailored Human papillomavirus (HPV) educational intervention affects willingness to receive and initiate the three-step HPV vaccine series in 18 to 26 year old men-who-have-sex-with-men (MSM).

Background: Human papillomavirus (HPV) is the most prevalent sexually transmitted infection, with more than 79 million individuals currently infected in the United States. High-risk populations, such as men-who-have-sex-with-men (MSM), are 17 times more likely to develop anal, penile, and oropharyngeal cancer related to HPV types 16 and 18. The four most common types of HPV include types 6, 11, 16, and 18. Despite the availability of a quadrivalent vaccine for use in males, age 9 to 26, that can prevent HPV types 6, 11, 16, and 18, less than 1% of adult men ages 18 to 26 have received the vaccine. A systematic search of the literature was performed, and yielded 10 retained studies including seven cross-sectional studies, and three randomized controlled trials that focused on HPV in MSM. The evidence revealed an overall gap in HPV knowledge and awareness regarding anal, penile, and oropharyngeal cancer in the MSM population, as well as limited knowledge regarding the availability of the HPV vaccine for men. The evidence also suggests that tailored HPV educational interventions have been positively correlated with HPV vaccine acceptance and willingness to vaccinate.

Methods: The clinical applied project will be implemented in a family practice clinic that provides primary care services to lesbian, gay, bisexual, and transgender (LGBT) patients in an urban community. MSM participants, meeting inclusion criteria, will complete a pre-intervention survey assessing HPV and HPV vaccine related knowledge and awareness. Following the pre-intervention survey, participants will watch a tailored educational "HPV in Men" video intervention, produced by the American Sexual Health Association (ASHA). Participants will then complete a post-intervention survey to evaluate for increased HPV and HPV vaccine related knowledge and awareness. Participants will be contacted eight weeks following the intervention to evaluate for HPV vaccine initiation. Outcomes that will be measured include HPV and HPV vaccine awareness, HPV and HPV vaccine knowledge, willingness to receive the vaccine, and vaccine uptake.

Outcomes Achieved: This project is currently in progress, and data analysis is scheduled to begin in January 2014. Expected outcomes include increased HPV and HPV vaccine knowledge and awareness, increased willingness to vaccinate, and increased HPV vaccine series initiation.

Conclusions: The use of tailored HPV education is an evidence-based intervention positively correlated with increased HPV and HPV vaccine related knowledge, awareness, and willingness to vaccinate in MSM. HPV is a vaccine preventable illness, and by increasing HPV vaccine knowledge and HPV vaccine uptake in MSM, the burden of HPV related negative sequela could be reduced.

MEN'S HEALTH

Males with Anorexia Nervosa: Culture of Recovery

*Erin M. Gillingham
Doctoral Student
College of Nursing
Washington State University
Spokane, WA*

Purpose: The purpose of this multi-method ethnography study is to examine how the recovery from anorexia nervosa affects the cultural identity of males with this disease using a multi-method approach and develop an explanatory theory to facilitate the development of gender specific, culturally aligned interventions for effective treatment and management of men recovering from anorexia nervosa.

Background: Twenty-four million Americans suffer from an eating disorder. Historically, considered only a female disorder, research indicates an estimated 25% of people with an eating disorder are being recognized as males (Harrison, Tchanturia, Naumann, & Treasure, 2013). Although males with eating disorders exhibit similar symptoms and medical complications as females, they are less likely to seek treatment due to it being considered a 'female' disorder and further stereotyped as a 'gay' disease (CDC, 2013). The existing differences between males and females are predominantly related to gender-identity and gender specific elements such as biological, developmental, and social contexts (Andersen, Cohn, Holbrook, 2000). The motives for restricting calories differ across genders in that women restrict to avoid appearing fat, where as men seek defined muscularity (Greenberg & Schoen, 2008). This is significant because the misconceptions tend to result in males exhibiting higher levels of gender role conflict and traditional masculine ideals resulting in a greater sense of shame (Harrison, et al. 2013). Given the estimated 24 million Americans suffering from an eating disorder, and steady rise among males, it is predicted that the prevalence of anorexia nervosa will also increase. Despite increasing awareness, the ability to predict the course of anorexia nervosa in both males and females, understand the long-term effects of the illness, and effectively prevent relapse remains complicated and poorly understood.

Methods: A multi-method design is being used to explore the interplay of culture, gender, and recovery from the perspective of males, age 18 and older, recovering from anorexia nervosa. Ongoing analysis informs a larger study.

Results: Formative findings are informing ongoing data collection techniques and showing the need for establishing sound research in this area. Initial themes are illustrated in this presentation.

Implications: This ethnographic research study contributes valuable information on the state of the science of recovery from anorexia nervosa in males. Initial findings, presented as themes, provide guidance for nurses and other health care providers working with this population. Honoring the language and meaning of these men will offer insight into how we might help others who are struggling, as well as assist those diagnosed with anorexia nervosa begin to conceptualize what help they may need. It also can provide a framework for clinicians to use in caring for this population. Comprehensive evaluations of recovery that integrate biological, psychosocial and spiritual dimensions will be especially helpful for clinicians and researchers seeking information on how best to evaluate recovery and offering application of findings to future research.

Abstracts of Poster Presentations

MENTAL HEALTH

HEALTH CHALLENGE PROGRAM FOR INDIVIDUALS WITH SEVERE MENTAL ILLNESS

Heeyoung Lee, Erin Neuman-Boone, Sandra Phillips

OLDER ADULTS' PERCEPTIONS OF USABILITY AND ACCEPTABILITY OF REMOTE MONITORING SYSTEMS

*Lorraine S. Evangelista, Marjan Motie, Hassan Ghasemzadeh, Majid Sarrafzadeh,
Jung-Ah Lee, Carol M. Mangione*

PAIN MANAGEMENT EDUCATION FOR PRELICENSURE HEALTH PROFESSIONAL STUDENTS

*Robin Meize-Grochowski, Jeanne F. Boyle, Geoff Shuster, Emily Haozous,
Carla J. Herman, Melanie Dodd, Arti Prasad*

PATIENT PROVIDER COMMUNICATION AND AFRICAN AMERICANS: A SYNTHESIS OF THE LITERATURE

Joycelyn Thomas

SUICIDE PREVENTION IN NATIVE AMERICANS: TRAINING FOR PROVIDERS AND NURSES

Molly McDonnell, Alexandra Lambrou, Benjamin J. Miller

MENTAL HEALTH

Health Challenge Program for Individuals with Severe Mental Illness

Heeyoung Lee, PhD, PMHNP-BC
Assistant Professor
University of Pittsburgh
School of Nursing
Pittsburgh, PA

Erin Neuman-Boone, MEd, CPRP
Recovery & Wellness Supervisor
Peoples Oakland
Pittsburgh, PA

Sandra Phillips, MURP
Executive Director
Peoples Oakland
Pittsburgh, PA

Purpose: The purpose of this study was to describe and evaluate a health challenge program offered by a community-based mental health center in a real-life setting that attempts to manage weight among individuals with severe mental illness (SMI).

Background: Individuals with SMI are suffering an obesity epidemic related to their psychotropic medication and unhealthy lifestyles. The consequences of obesity among individuals with SMI include increased morbidity and mortality, resulting in a 2–3 times higher medical cause of death compared to individuals in the general population. In recent decades, behavioral interventions to manage weight have been tested among individuals with SMI, but little is known about the implementation and sustainability of these programs in real-life settings.

Program Description: A health challenge program for individuals with SMI is currently offered by a community mental health rehabilitation center. It is a voluntary, center-based weight management program in which six counselors are available as health coaches to provide counseling with various strategies (e.g., goal setting, motivational interviewing, etc.) that promote exercise and healthy eating habits. The program supervisor and health challenge coaches have led various activities (e.g., structured cardio and strength training using step aerobics, aerobics, dumbbell exercise, dance, yoga/tai-chi, and walking group, nutritional education groups, and individual counseling) and monitors weight change. Point-of-decision prompts have been used to encourage both exercise and healthy eating habits. Additionally, in order to promote good eating habits, healthy foods at the snack shop are subsidized, whereas “non-healthy” foods like chips and cookies are full-priced. The weight of participants measured and recorded between 2010 and 2012 was used to analyze the outcomes of program.

Outcomes: Currently, 180 individuals with SMI are actively enrolled at a mental health rehabilitation center. Approximately 70% were diagnosed with either schizophrenia or mood disorders, 57% were white, and 66% were males. Approximately 13% of the total members at a center have attended the program (n=24). Health challenge program did not elicit statistically significant change in weight in individuals with SMI ($P_s > .05$) with the exception of individuals involved in spring term in 2010 ($Z = -2.201$, $P = 0.03$).

Conclusion: Multimodal weight management program strategies have the potential to result in positive outcomes; however, they were less likely to be adopted and maintained in individuals with serious mental illness. Barriers identified for participation in the current program include lack of transportation to the center, lack of motivations to participate in the program, and social isolation. Home-based programs with self-monitoring tools aimed at overcoming known barriers should be considered. Strategies to improve potential participant outreach and to overcome barriers for wide implementation and sustainability without overextending available resources and budget should also be considered.

MENTAL HEALTH

Older Adults' Perceptions of Usability and Acceptability of Remote Monitoring Systems

Lorraine S. Evangelista, PhD, RN, FAAN
Associate Professor
Program in Nursing Science
University of California, Irvine
Irvine, CA

Hassan Ghasemzadeh, PhD
Research Manager
Computer Science Department
University of California, Los Angeles
Los Angeles, CA

Jung-Ah Lee, PhD, RN
Assistant Professor
Program of Nursing Science
University of California, Irvine
Irvine, CA

Marjan Motie, PhD
Project Director
Program in Nursing Science
University of California, Irvine
Irvine, CA

Majid Sarrafzadeh
Professor
Computer Science Department
University of California, Los Angeles
Los Angeles, CA

Carol M. Mangione, MD, MSPH
Program Director
RCMAR/CHIM
University of California, Los Angeles
Los Angeles, CA

Purpose: To evaluate the feasibility and acceptability of a remote monitoring systems (RMS) in monitoring health status (e.g. vital signs, HF symptoms) in older adults (≥ 55) with heart failure (HF).

Background: The use of information technology in health care to support patient care provides a potentially feasible option for dealing with the expanding population of older adults with HF who are at greater risk for frequent hospital readmission. However, the use of RMS may pose a challenge to older adults with little or no computer experience.

Methods: Twenty-one patients (10 men, 11 women, mean age 73.1 ± 9.3) admitted to the hospital for HF decompensation and no previous experience using computer programs were trained to measure their weight, blood pressure, and heart rate with a RMS prior to discharge. After 3 months of self-testing and transmission of health data to a centralized system via a Bluetooth wireless link, patients were asked to complete a standardized survey and participate in a focus group to examine their perceptions of RMS.

Results: Most of the patients (76%) characterized self-testing procedures as “not complicated at all.” In 75% of cases, self-testing did not interfere with usual activities, and 83% of patients felt the self-testing required “very little” amount of their time. More than half (58%) felt that daily symptom reporting was too intensive and was the least liked aspect of the RMS experience. The majority of the patients (94%) were strongly interested in using RMS in the future.

Implications: A RMS-based intervention can be successfully implemented in a group of older patients with heart failure with no computer background. Minor adjustments in the frequency and length of the symptom monitoring report may lessen subject burden.

Funding: Grant funding received from the University of California, Los Angeles, Resource Centers for Minority Aging Research/Center for Health Improvement of Minority Elderly (RCMAR/CHIME) under National Institute in Aging (P30-AG02-1684, PI, C. Mangione).

MENTAL HEALTH

Pain Management Education for Prelicensure Health Professional Students

*Robin Meize-Grochowski, RN, PhD, Professor, College of Nursing
Jeanne F. Boyle, RN, MSN, Executive Nurse Manager, Project ECHO*

*Geoff Shuster, RN, PhD, Associate Professor, College of Nursing
Emily Haozous, RN, PhD, Assistant Professor, College of Nursing*

*Carla J. Herman, MD, MPH, Professor & Chief, Div. of Geriatrics, School of Medicine
Melanie Dodd, PharmD, Associate Professor, College of Pharmacy*

*Arti Prasad, MD, Professor & Chief, Integrative Medicine, School of Medicine
University of New Mexico
Albuquerque, NM*

Purposes/Aims: Chronic pain has been described as a public health problem, affecting at least 116 million U.S. adults, and costing the nation up to \$635 billion each year in medical treatment and lost productivity. Interprofessional learning opportunities for prelicensure students may be one way to better prepare future health professionals in pain management.

Rationale/Background: The 2011 IOM Report, *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research*, identified a need for preparing nurses, physicians, and pharmacists who are able to provide holistic, comprehensive care to persons in pain. In response to the report's recommendation for educational reform in prelicensure health professional programs, the NIH Pain Consortium solicited proposals for development of case based scenarios related to pain and pain management. Our project was one of 12 sites chosen as a Center of Excellence in Pain Education (CoEPE).

Description of the Undertaking/Process: We assembled an interprofessional team of faculty from our College of Nursing, College of Pharmacy, and School of Medicine to develop two case studies focused on pain management in older adults. The cases were developed primarily from a nursing perspective, incorporating elements of patient teaching and case management throughout. Learners are directed to review supplemental materials before engaging with the interactive cases. Ideally, learners from nursing, pharmacy, medicine, and allied health (OT, PT, nutrition sciences) would discuss the cases in an interprofessional seminar.

Outcomes Achieved/Documented: One of our cases is a 76 year old Hispanic woman who sustained an injury after a fall in her son's kitchen. Acute pain management is discussed, followed by chronic pain management when the pain persists after a couple of months. Our second case is an 80 year old man with acute gout. Comfort measures and dietary implications are examined as critical components in this case. Students are given an opportunity to explore an integrative approach to gout through discussion of evidence related to cherry intake for possibly decreasing gout recurrence.

The first year of the project ended in fall 2013, with submission of the cases to the NIH Pain Consortium for review. Once we receive feedback, revisions will be made before the anticipated publication to the NIH Pain Consortium web site in 2014. At that time the cases will be available for use in health sciences programs throughout the country and globally.

Conclusion: The goal of the NIH Pain Consortium, through the work of the CoEPEs, is to create a comprehensive, evidence-based repository of materials for the training of health professionals in safe and effective pain management, grounded in an understanding of the biology, psychology, and social contexts of pain. How faculty in individual programs utilize these materials will vary across programs and institutions. On our campus this project brought together faculty and staff from the Health Sciences Center, with a goal of preparing health care professionals who have the knowledge and skills to more effectively manage pain. Funding for a second year will be through a competitive process, with details posted by the NIH Pain Consortium in 2014.

Reference:

IOM (Institute of Medicine) (2011). *Relieving pain in America: A blueprint for transforming prevention, care, education, and research*. Washington, D.C.: The National Academies Press.

Funding: This project was supported by the National Institutes of Health Pain Consortium, as a Center of Excellence in Pain Education (CoEPE).

MENTAL HEALTH

Patient Provider Communication and African Americans: A Synthesis of the Literature

*Joycelyn Thomas, MN, BSN
DNP, FNP Student
School of Nursing
University of Washington
Seattle, WA*

Purpose: The purpose of this review of the literature was to evaluate the current evidence regarding provider to patient communication (PPC) with African American (AA) women regarding HIV prevention and other health care experiences.

Rationale: African American women have a markedly higher rate of HIV infection than any other ethnic group. Would more effective provider to patient communication (PPC) provide an avenue to reduce this disparity?

Process: A search without publication date restrictions was conducted between 2/1/2013 and 6/1/2013 on PubMed, Cumulative Index to Nursing & Allied Health Literature (CINAHL), Psych Info, Agency for Health Research and Quality (AHRQ), and Centers for Disease Control and Prevention (CDC). Key words used were: patient-provider-related, communication-related, and African American-related in title, abstract, and body. Two hundred and ninety-nine sources were retrieved. Two hundred thirty-two were screened out by title and abstract and an additional 44 were screened out by full text review. Goals guiding the search were: 1) AA women's perceptions of PPC related to HIV prevention and in general; 2) evidence about PPC and HIV prevention; 3) factors that impact PPC for AA patients and in general; 4) evidence about positive or negative outcomes related to the quality of PPC: and ways that PPC characterized, experienced, and measured. Nineteen sources met at least one of the goals for this literature review.

Outcomes: The 19 sources critically reviewed provided insights for better understanding AA women's experience of PPC and strategies for improving communication with AA women. AA women's negative experiences with PPC included: 1) not being involved in decision-making; 2) provider use of confusing terminology; and 3) discrimination and disrespect. Negative outcomes associated with poor PPC included disengagement during the encounter, delayed or suboptimal care, and not following provider's advice or treatment plan. Evidence revealed that providers are not always aware of the biases they demonstrate during PPC.

Conclusions: Evidence of adequate quality indicated that PPC with AA women could be improved by increasing providers' insight into the values and culture of AA women, practicing shared decision making; and providing relationship-centered care.

MENTAL HEALTH

Suicide Prevention in Native Americans: Training for Providers and Nurses

*Molly McDonnell, BA, RN, PHMNP Student
College of Nursing
Seattle University
Seattle WA*

*Alexandra Lambrou, BA, RN, APH Student
College of Nursing
Seattle University
Seattle WA*

*Benjamin J. Miller, PhD, ARNP
College of Nursing
Seattle University
Seattle WA*

Purpose: The goal of this project is to develop evidence-based culturally appropriate learning modules to educate non-mental health, healthcare providers in the Emergency Department (ED) on suicide risk, assessment and interventions alongside developing cultural awareness in working with rural Native American Populations. Consequently, we hope that through education, a more conducive and therapeutic environment in the ED will be established, thereby opening a safe avenue for individuals seeking care for suicidal ideation or attempts.

Background: Rural Native Americans, including the Sioux and Assiniboine tribes of the Fort Peck reservation in rural Northeastern Montana, have suffered disproportionately to the rest of the nation. Specifically, access to quality, culturally competent mental health care is a major issue facing rural American Indians, who make up more than 500 federally recognized tribal nations through the United States (Jernigan, 2010). The suicide rate in Native American populations' ages 15-24 is the highest of any racial or age group in the United States (Dorgan, 2010). Specific risk factors for this population including substance abuse, poverty, and other social determinants of health may contribute to the profound rate of suicide completions. The current system in place for individuals presenting to the ED in the Fort Peck region for risk of suicide lacks appropriate assessment tools and interventions for the population. Without cultural competency as well as proper risk assessments and interventions within the ED, the population will continue to suffer the loss of lives by suicide.

Description of Project: The project will be founded in the creation of learning modules for non-mental health healthcare providers in rural ED to provide appropriate medical and psychological care for the suicidal patient. Further, we seek to identify best practices for accessing suicide risk in the ED. Because the nearest tertiary-care facility with mental health services are more than 300 miles away, we aim to develop appropriate interventions and clinical pathways for low, medium, and extreme risk suicidal patients based on current literature.

Outcomes: We are aiming to achieve a safe and therapeutic environment for suicidal patients by educating healthcare providers in utilizing clinical pathways based on risk assessment of the suicidal individual. The environment and interventions, such as room choice, use of restraints, and pharmacotherapy, will be tailored to the individual's risk category of low, medium, or extreme.

Conclusions: We envision that the Emergency Department will become a safe, culturally competent, viable place for those who receive or seek care for suicide attempts or ideation in rural, tribal communities.

Abstracts of Poster Presentations

METHODS

A CORRESPONDING AUTHOR CAN MAKE A DIFFERENCE
TO READERS AROUND THE GLOBE

MarySue V. Heilemann

ACCULTURATION:
ITS VALID MEASURE AND ANALYTICAL METHOD

Cha-Nam Shin

BIBLIOMETRICS: A NOVEL METHOD TO ANALYZE
THEORY IMPACT IN NURSING RESEARCH

Paige Alfonzo, Teresa J. Sakraida, Marie Hastings-Tolsma

COMPARISON OF BAYESIAN VS. FREQUENTIST
META-ANALYSIS

Kyuwon Park

CONTENT ANALYSIS OF NIGHT NURSE NATION WEBSITE
AND FACEBOOK PAGE

Kristen Koprowski, Jane Grassley

RECRUITMENT AND RETENTION STRATEGIES
FOR RESEARCH WITH ADOLESCENT MOTHERS

Jane Grassley

EXPLORING THE DEVELOPMENT OF SCHOLARS
USING WORD CLOUDS

*Barbara Schneider, Rex Suba, Sara Miles, Sara Myers,
Paul Smith, Delene Volkert, Wendy Zeiher*

METHODOLOGICAL ASPECTS OF SOCIAL NETWORK
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*Lauren Clark, Marjorie A. Pett, Jia-Wen Guo, Erin Johnson, Beth Cardell,
Thomas W. Valente*

ONCE UPON A TIME:
A STORY OF PICTORIAL ASSENT FOR CHILDREN

Susan M. Wechter

PRELICENSURE NURSING STUDENT MEDICATION ERRORS:
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Grace R. Kolodychuk

RECRUITMENT AND RETENTION OF OLDER CHINESE
IMMIGRANTS FOR RESEARCH

Wen-Wen Li, Jason Aaron Wong, Janice Y. Tsoh

INSTRUMENT DEVELOPMENT FOR NEAT:
NURSE'S ENVIRONMENTAL AWARENESS TOOL

*Elizabeth C. Schenk, Celestina Barbosa-Leiker, Cindy Corbett, Patricia Butterfield,
Julie Postma*

STRATEGIES FOR CONDUCTING A SYSTEMATIC REVIEW:
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USING MIXED METHODS TO GENERATE DATA
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USING PATH ANALYSIS TO TEST MEDIATION
WITH SMALL SAMPLES

Janet Purath, Sterling McPherson

METHODS

A Corresponding Author Can Make a Difference to Readers around the Globe

MarySue V. Heilemann, PhD, RN
Associate Professor
School of Nursing
University of California, Los Angeles
Los Angeles, CA

Purposes: The goal of this project was to describe the benefits of communication between the author and several researchers around the globe who had read the author's article on the psychometrics of a Spanish translation of the Resilience Scale, originally created by Wagnild and Young (1993).

Rationale/Background: Researchers publish their findings in scholarly journals and often take on the role of the "corresponding author." However, it is rare for the scholarly community to have an avenue to learn about the ongoing interactions that occur between the corresponding author and their readers after publication. In this case, after the author's research team published a paper on the psychometrics of a Spanish version of the Resilience Scale, dozens of researchers from countries all over the world corresponded with the lead/corresponding author via email or telephone to ask various questions related to their local contexts. The present project was undertaken in an effort to organize an assessment of the interactions, learning, and sharing of knowledge that occurred as a result of this exchange.

Brief Description of the Undertaking: In September 2013, the author contacted researchers who had been in communication since 2010 about the article and whose emails were still available. The author asked each researcher to reply to an open ended question about how the article or the psychometrics of the Spanish translation of the Resilience Scale itself had influenced their clinical work, teaching or research. Since the researchers were at various stages of their careers when they first made contact masters or doctoral students, professors or staff researchers), it was unknown if the email addresses were still accurate.

Outcomes Achieved: A total of 29 researchers were contacted via email and of them, 13 researchers responded. The responders were from six different countries (Brazil, Cuba, Mexico, Spain, Sri Lanka, and the US) and five different disciplines (psychology, education, nursing, occupational health, physical education). Of those who responded, six reported the scale itself was very useful to them in research involving samples ranging from patients with depression, to those with cardiac problems, eating disorders, or previous suicide attempts to parents of children with autism spectrum disorders. Four researchers reported that they found the article useful because it served as a well-organized model for their own article on the psychometrics of the Resilience Scale in a different language or in a different variant of Spanish. In addition to research, one spoke about how the article affected practice and another identified how it allowed them to teach about resilience in a country that otherwise did not recognize resilience as a valid phenomenon.

Conclusions: As the communication from various researchers around the world showed, a corresponding author can be engaged in a variety of interactions with readers long after an article is published. Thus, nursing scholars can participate in the global community by responding responsibly to inquiries and communicating with readers of published research reports, thereby strengthening worldwide "communities of scholars" that grow and are sustained by specific shared interests.

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METHODS

Acculturation: Its Valid Measure and Analytical Method

Cha-Nam Shin, PhD, RN
Assistant Professor
College of Nursing and Health Innovation
Arizona State University
Phoenix, AZ

Purposes/Aims: As a part of a larger study, this data analysis was to explore whether proxy indicators were appropriate to measure acculturation, and to determine if simple scoring methods were valid to identify acculturation groups among Korean American adults.

Rationale/Conceptual Basis/Background: Acculturation has been widely examined across ethnic groups as one of the emerging and main topics in health research. Despite widely accepted understanding that acculturation is a bidimensional process involving multiple domains, researchers commonly use one or two proxy indicators that only measure fragments of a complex acculturation process. Moreover, a cut score method or a split scoring method is widely used although it resembles unidimensional measures by using a single score.

Methods: The data for this analysis was collected as a part of a cross-sectional, descriptive study. A convenience sample of 517 Korean American adults was recruited in a Midwestern city. Participants completed a survey in either English or Korean, which consisted of a variety of measures. This data analysis included demographic variables, Lee's Acculturation Scale, and common proxy measure of acculturation, such as arrival age, years of residence and years of education in the United States. Descriptive statistics and cluster analysis were used for data analysis.

Results: The sample was 57.1% female with a mean age of 41.6 ± 13.40 , and 78.4% college educated. When measured acculturation using proxy indicators and analyzed data using cut scores, only two acculturation groups (more acculturated vs. less acculturated) were identified. On the other hand, using a theoretically driven acculturation measure and more rigorous analytical method (cluster analysis) enabled to identify all four groups of bidimensional acculturation models: assimilation, integration, separation, and marginalization.

Implications: The findings support that proxy acculturation indicators are problematic because they do not capture the full scope of acculturation that is a multidimensional process. Simple scoring methods cannot identify distinct acculturation groups of Korean American adults, which is only possible when used a theoretically and empirically validated analytical method. Healthcare professionals and researchers who are working with diverse populations should understand that acculturation is a complex phenomenon involving multiple domains. Further studies on identifying acculturation using valid measures and analytical methods will continue to build an understanding of this complex issue, which is an important concept in health research.

METHODS

Bibliometrics: A Novel Method to Analyze Theory Impact in Nursing Research

Paige Alfonzo, BA, MS
Reference and Instruction Librarian
University of Mary Hardin-Baylor
Belton, TX
palfonzo@umhb.edu

Teresa J. Sakraida, PhD, RN
Assistant Professor, College of Nursing
University of Colorado Denver
Aurora, CO
teresa.sakraida@ucdenver.edu

Marie Hastings-Tolsma, PhD, CNM
Professor, Nurse Midwifery, College of Nursing
University of Colorado Denver
marie.hastings-tolsma@ucdenver.edu

Purpose/Background: Scientists commonly weigh the strength of a theory by observing the existing level of evidential support and its sustained contributions to research and scholarship. Bibliometrics, a statistical method used in citation and content analysis, affords a powerful quantitative approach for showing output and for analyzing value and merit. While widely used in information science, it has received less attention in nursing and healthcare. The purpose of this presentation is to demonstrate the utility of bibliometric methods to highlight the use of nursing theory in doctoral dissertations in the United States. This exemplar presents bibliometric mapping as a highly visual platform for demonstrating the evolution of nursing theory impact.

Methods: Visualization Of Similarities viewer, or VOSviewer, bibliometric mapping freeware (see www.vosviewer.com), was used to construct and display maps of 4102 nursing dissertation citations using bibliometric coupling and coword analysis techniques. VOSviewer was chosen because of its text mining functionality and specific focus on intuitive graphical representations of bibliometric maps. The data were derived from citation abstracts obtained by searching the *ProQuest* database of Dissertations & Theses Abstracts & Index for the years 1980-2013. Relevant dissertations were identified using selected keywords: specific nursing theory/model names, general theory terms, and type of doctoral degree with nearly 90% deemed relevant for bibliometric mapping. After establishing inter-rater reliability, citations were retained if conducted by nurses completing dissertation work at U.S. colleges/universities. Citations were then prepared and calculated to represent theory use overtime, nursing study category, and theory name in a two dimensional bibliometric map. Impact was demonstrated by university affiliation profile by research region based on the number of dissertations produced.

Outcomes: Bibliometric mapping demonstrated substantial use of borrowed theory in dissertation work and increased over time. The preponderance of dissertations identified use of theory and largely focused on nursing practice. A shift towards middle range theory and new theory development was observed in all nursing research regions.

Conclusion: VOSviewer was used as an exemplar for production of bibliometric mapping. Such mapping offers large data visualization for assessing the quality of scientific output and highlights impact by increasing awareness about an issue; in this case the changing trend of theory use in dissertations. Bibliometric mapping should be used by nurse scientists to measure and visualize the quality and impact of work within the field. Faculty need to educate students in bibliometric mapping techniques for data visualization displays. Future inquiry is indicated to establish the global influence of nursing theory in guiding research.

METHODS

Comparison of Bayesian vs. Frequentist Meta-Analysis

*Kyuwon Park, MS, RN
School of Nursing & Health Studies
University of Miami
Miami, FL*

Background: Evidence-based care resulted in an explosion in the use of meta-analysis, the quantitative synthesis of the previous studies for a numerical summary effect of an intervention. Following the traditional frequentist statistical approach, fixed and random effect models are specified and a parameter of the effect sizes are estimated. Lately Bayesian statistical approach gains more popularity in health care studies including meta-analyses.

Aim: This study aims to show the difference between Bayesian and frequentist meta-analysis through the NCLEX-RN predictor studies.

Methods: The study tracks back all the published NCLEX-RN predictor studies including dissertations and collects the effects sizes of the relationship between NCLEX-RN outcome and various predictors. Random effect models of the collected effect sizes are specified to estimate the means and their 95% confidence intervals following the frequentist tradition. As for Bayesian analysis, non-informative prior is used because this study is the first attempt of Bayesian meta-analysis on NCLEX-RN predictor studies. The posterior distribution of the mean of the effect sizes relies more heavily on the previous studies themselves. The parameter and the credible intervals are estimated by MCMC (Markov Chain Monte Carlo) simulation.

Results: Since the study uses non-informative prior, the results are expected to be similar. The major difference between Bayesian and frequentist approach is the way the results are interpreted. Bayesian approach can provide the direct probability statement of the estimated parameter while frequentist inference is limited to the falsification of the null hypothesis and the subsequent significance of the estimated parameter.

Implication: Thanks to the advances in computational methods to solve the complex Bayesian parameter estimation, Bayesian meta-analysis became more frequently used in health care studies for quantitative evidence synthesis. Nursing research can also utilize this powerful analytical approach to shed a light on the difficult research questions in nursing. The more nursing scientists use Bayesian approach, the more empirical evidences nursing research community can build for the next generation of care.

METHODS

Content Analysis of Night Nurse Nation Website and Facebook Page

Kristen Koprowski
Student Nurse
School of Nursing
Boise State University
Boise, ID

Jane Grassley, PhD, RN
Faculty Advisor
School of Nursing
Boise State University
Boise, ID

Purpose/Aims: The purpose of this project was to analyze the content of a website and its accompanying Facebook page, which is sponsored by a company that produces infant formula, particularly related to information about infant feeding. A specific aim was to evaluate the website's content using the World Health Organization's (WHO) International Code of Marketing for Breast-milk Substitutes.

Rationale: Although exclusive breastfeeding is considered best for infant health, 24% of newborns in the United States receive infant formula during the first two days of life. Healthy breastfeeding newborns have an increased risk of receiving infant formula before hospital discharge if they are born during the night and/or stay more than one night in the hospital. A greater percentage of initial formula supplementation occurs at night. This early formula supplementation can have a detrimental impact on a mother's plans to breastfeed. Breastfeeding support, therefore, seems to be a challenge on the night shift. *Night Nurse Nation* is a website marketed as a resource to provide education and support for night nurses working in perinatal and neonatal units.

Methods: Qualitative content analysis was used to explore the website and its related Facebook page for language themes related to information about infant feeding. The WHO code was used as a lens to analyze messages about breastfeeding promotion and support. The website was also evaluated for its statements related to purpose, audience, and marketing tools as well as what sites link to the website, who owns and funds the domain name, and what top keywords from search engines send traffic to this website.

Results: The website is well-designed and advertises itself as "an informational resource on continuing education for nurses, infant research, nutrition, and development for night nurses." It claims to have been created "in recognition of the extraordinary job night nurses perform night after night." Language found on the website and Facebook page emphasized the challenges of breastfeeding and the importance of options, personal choice, and the convenience of formula. Marketing of formula was subtle. Statements such as "when" instead of "if" are used to describe supplementing with formula. *Night Nurse Nation* is a '.com' website. Its stated purpose and audience are to provide night nurses with support and education. Nurses can earn CEUs from the website. Although the website states it is for health professionals, mothers can easily be directed to this webpage through search engines. This practice breaks the WHO code by advertising formula directly to the public, by using words that idealize artificial feeding, and by lacking a disclaimer to only use formula at the advice of a health care provider.

Clinical Relevance: The *Night Nurse Nation* website and Facebook page appear to use subtle marketing tools to lure night nurses to access its informational materials under the pretense of support and continuing education, thus gaining their loyalty and simultaneously exposing them to formula marketing. Nurses need to be savvy about evaluating the increasingly stealthy marketing strategies used by companies that produce infant formula.

METHODS

Recruitment and Retention Strategies for Research with Adolescent Mothers

*Jane Grassley, PhD, RN, IBCLC
Associate Professor
School of Nursing
Boise State University
Boise, ID*

Purpose: The purpose of this study was to explore effective strategies for recruitment and retention of adolescent research participants.

Background: Recruitment and retention of adolescents as research participants present unique challenges. In many states parental consent is required before adolescents can be recruited as study participants. In planning a study to evaluate a breastfeeding support intervention with adolescent mothers in a rural community, the researcher decided to ask adolescents parents their perceptions of best strategies to recruit and retain adolescents in a research study.

Methods: Twenty-four adolescent parents from a WIC clinic and an alternative high school participated in a focus group or an individual interview. Data were collected using a structured interview guide and asked participants for their ideas about best ways to recruit, when and how to gain consent from their parents if they are under 18 years old, and effective follow-up strategies. Participant responses were recorded on the interview guide, compiled, and analyzed for common responses.

Results: Both the study process and findings provided valuable information about research involving adolescents. As a vulnerable population, they were more likely to inquire about a study if they received a study flyer from a person they trusted, such as the school counselor or the WIC staff. Texting expedited initial contact. Participants wanted to know what was expected of them by a study, how findings would be used, and what they would receive for their time. Retention strategies included using texting for follow-up reminders and receiving a merchant gift card for their participation.

Implications: The findings from this study have implications for nursing scholarship and practice. Where and how the nurse researcher approaches this vulnerable population is important in recruiting and retaining them as study participants. They value being treated respectfully and knowing their opinions matter. Recruitment and retention of adolescent study participants is facilitated when researchers partner with professionals who work closely with this population, such as school nurses. For nurses in practice, the findings provide insight into the importance of texting as a preferred means of communication for this population. The challenges of conducting research with this population can be overcome through using strategies that adapt to their preferences and demonstrate respect for their opinions.

Funding: This research project received funding from the Boise State University College of Health Sciences, Funded, \$4,997.60.

METHODS

Exploring the Development of Scholars Using Word Clouds

Barbara Schneider, DNSc, RN, Associate Professor, School of Nursing

Rex Suba, MEd, Instructional Designer, Office of Online Education

Sara Miles, MSN, RN, CCRN, PhD Student

Sara Myers, MPH, MSN, RN, PHCNS-BC, PhD Student

Paul Smith, MN, RN, CCRN, CNE, PhD Student

Delene Volkert, MSN, RN, PhD Student

Wendy Zeiher, MSN, RN, CNOR, PhD Student

University of Nevada, Las Vegas

Las Vegas, NV

Purposes/Aims: The purpose of this project was to share perspectives about the themes, principles, and best practices of the formation of scholars using word clouds during an asynchronous, online knowledge development course.

Rationale/Background: In a knowledge development course, part of the content centers on understanding and sharing certain points of view or perspectives. Although these perspectives can be shared between the student and instructor, all students benefit when these perspectives can be shared among the entire class. When the knowledge development course is asynchronous and online tool, the discussion tool is usually the primary method of sharing these perspectives. However, for each student, the reliance on the discussion tool across a 15-week semester can become monotonous and fatiguing. For these reasons, the learning community of an asynchronous, online knowledge development course needs multiple tools to share perspectives. Besides the discussion tool, another tool that can be brought into an asynchronous course to share perspectives is the word cloud. A word cloud is made from a body of text, and typically consists of words of varying font size. This variation in font size is usually based on the frequency of the words within the body of the text. For example, a body of text in which the word, scholars, is repeated 20 times will be produced in a larger-sized font than another word that is only repeated three times. This visual distinction allows a reader to begin to understand the writer's perspective.

Approach: Students enrolled in an asynchronous, online knowledge development course read the book, *The Formation of Scholars*, and created two word clouds, using a tutorial developed by the course instructional designer. The first and second word clouds were generated after reading the forward/Chapters 1-3 and Chapters 4-7 of the book. During the generation of these word clouds, a subset of students recorded notes about the feasibility and their technical experience. After each submission, the instructor distributed the set of word clouds to all students. Upon viewing these word clouds, a subset of students analyzed and synthesized perspectives about the themes, principles, and best practices of the development of scholars.

Outcomes Achieved: Two outcomes will result from this project: (a) first-year PhD students' perspectives about the themes, principles, and best practices of the formation of scholars, and (b) a word cloud tutorial for sharing and communicating perspectives in an online course.

Conclusions: This project is in progress. However, we anticipate that conclusions will focus on the value and feasibility of using word clouds in an asynchronous, online course to learn about the development of scholars.

METHODS

Methodological Aspects of Social Network Interventions in Nursing Research

Lauren Clark, RN, PhD, Professor¹
Marjorie A. Pett, MStat, DSW, Research Professor¹
Jia-Wen Guo, RN, PhD, Assistant Professor¹
Erin Johnson, PhD, Research Associate¹
Beth Cardell, PhD, OTR/L, Assistant Professor (Clinical)²
Thomas W. Valente, PhD, Professor³

¹*College of Nursing, University of Utah, Salt Lake City, UT*

²*College of Health, Occupational Therapy, University of Utah, Salt Lake City, UT*

³*Keck School of Medicine, University of Southern California, Los Angeles, CA*

Purpose: The purpose of this presentation is to provide the theoretical background and a methodological overview of health-related social network interventions. We discuss advantages and cautions for nurse-researchers employing social network interventions.

Conceptual Basis: Social network interventions are grounded in social learning theory and social network theory. Influential others in social networks establish referential behavioral norms and apply pressure for individuals to engage in healthy or unhealthy behaviors. Four typical network intervention types are described in the literature: Individual, segmentation, induction, and alteration. Selecting an intervention type depends on the type of behavior change being addressed, the environmental situation, and the kinds of network data available.

Methods: Nurses can design network interventions that tap into naturally-occurring networks or purposefully constitute social networks as part of an intervention. Social network interventions rely on data about individual and group social networks in order to accelerate behavior change. Designing intermediate measurement of social network variables at key points during a longitudinal intervention can be used to adjust a network intervention, essentially feeding-forward emergent network characteristics into the intervention. Outcome analyses of social network interventions are most informative when qualitative descriptions are paired with statistical models of network changes. Personal and group-based network measures can be analyzed for density and types of connections (such as homophily, transitivity, centralization). Specialized software is available to both calculate and display aspects of social networks. Using a proposed study of adolescents with disabilities as an example, we illustrate the design, data collection, and social network analysis methods suited to a social network intervention intended to increase physical activity and reduce overweight. We outline methods for describing existing social networks, establishing the feasibility of a social network intervention, and scaling up the intervention to a larger sample.

Results: Social network data can be used to generate social influence, accelerate behavior change, improve performance, and achieve desirable outcomes among individuals or groups through process. One anticipated challenge is the likelihood that peers in a high-risk intervention cohort will continue to enact behavioral norms that maintain their shared high-risk behaviors. Another concern is ethical, in that knowing and sharing network positionality is not without risks. Intervening to purposefully change networks also raises ethical concerns about autonomy for research participants.

Implications: Social network science has matured over the last half-century, with social network interventions emerging on the research scene very recently. Social network science and network interventions may aid nurse-researchers who study health behaviors within groups to accelerate the diffusion of health behavior change.

METHODS

Once upon a Time: A Story of Pictorial Assent for Children

*Susan M. Wechter, PhD, RN, PNP-BC
Doctoral Candidate
University of New Mexico
Albuquerque, NM
SWechter@salud.unm.edu*

Purpose: To describe a newly designed pictorial assent tool piloted within a child-centered clinical research study.

Background: Assent is defined as a child's affirmative agreement to participate in research (Oxford English Dictionary, 2008). Regulations by the Federal Policy for the Protection of Human Subjects (2011) identify a child's age, maturity, and psychological state should be considered when assessing capacity to assent to research. These regulations and the APA Ethics Code (2002) guide researchers to uphold a child's rights, dignity and respect by communicating with them honestly, do them no harm, treat them fairly, and protect their autonomy and privacy (Diekema, 2003; Fisher, 2003). Researchers are charged with creating conditions for a child to give permission that promote meaningful and informed participation including: a) clear explication of the research purpose and a genuine commitment to listen to and take the child seriously; b) assurances that the child's participation is voluntary and relevant; c) child-centered ways of working to affirm and maintain positive self-esteem and confidence, including child-friendly spaces and languages; d) statements that ensure safety from physical and psychological harm, confidentiality, anonymity and respect for personal boundaries and e) efforts to appropriately involve children in decision making about the research process (Freeman & Mathison, 2009). However, the elements of child assent are determined by the context of the research and require understanding of a child's way of thinking (Fisher, 2003). Prior research on child assent is focused on a child's decision-making ability with little emphasis on practical advice and tools for gaining assent. Consequently, there is a lack of research offering assent methods appropriate for a child's developmental, social and emotional capabilities.

Description of Method: A pictorial assent tool is designed and piloted to address ethically sound and developmentally appropriate issues of child assent in research. The tool is trialed in a study of 30-60 child/parent dyads exploring perceptions of stress of school-age children ages seven to nine years of age. A draw and tell technique is utilized as one of many child empowering techniques in the study methodology. The research process begins with gaining child assent through a story-telling procedure with the pictorial assent tool. A pictorial assent script (Bray, 2007) is utilized to help children visualize and conceive the concepts of research, confidentiality, privacy, data management, and refusal/withdrawal from the study.

Outcomes: Preliminary outcomes suggest heightened enjoyment, engagement and intimacy for the child and researcher through the pictorial assent process. The use of the tool elicits comfort, safety, and caring prompted from the child's relationship with storytelling in their childhood. Benefits include: a) instant rapport and trust between the researcher and the child; b) enhanced child participation; c) enhanced parental informed consent; d) smooth data collection process with less unanticipated events due to affirmative informed assent through the storytelling with the pictorial assent tool.

Conclusion: Research is recommended for evaluation of this instrument from a child and parent lens. Child comprehension, measurement of recruitment timeframe, and child and parent satisfaction with the pictorial assent tool warrants further investigation.

METHODS

Prelicensure Nursing Student Medication Errors: Survey Development

*Grace R. Kolodychuk, MSN
PhD Student
Washington State University
Spokane, WA*

Purpose: The purpose of this study is the development of a survey to gather important information about prelicensure student nurse medication errors from the perspective of the individual who made the error including: characteristics of the medication error, factors that the individual attributes to the occurrence of the medication error, and the resulting client outcomes.

Background: Medication errors make up a significant proportion of medical errors that create risk for patients receiving care in health care facilities and can impede optimal patient outcomes. While much attention has been directed to the study of medication errors, little is known about the experiences of prelicensure student nurses who make medication errors. Current knowledge of medication errors made by prelicensure student nurses is primarily based upon retrospective review of medication error reports to national databases or documents such as incident reports, or small qualitative studies. Knowledge of the characteristics of medication errors made by prelicensure student nurses, factors that these individuals attribute to the occurrence of the medication errors, and the resulting client outcomes can add to our understanding of the experience. Human Error Theory provides the conceptual framework for understanding these medication errors.

Methods: The survey tool was developed and reviewed by content experts, including nurse educators and practicing nurses, who identified gaps in the content of the tool and assessed the clarity and relevancy of the items. Alpha testing of the tool is underway with 10 practicing nurses to determine appropriateness of the format, clarity of the tool, and ease of use. Pilot testing of the tool with a convenience sample of registered nurses that made medication errors as prelicensure student nurses follows.

Results: This presentation describes the development of a survey used to gather information about the experience of prelicensure student nurses having made medication errors and preliminary findings of the pilot study. Results of the multi-method data analysis, in progress, include a summary of the characteristics of medication errors, factors related to the medication errors, and client outcomes using correlation, chi square, and descriptive statistics, and a description of themes using content analysis in a qualitative descriptive tradition.

Implications: This knowledge is particularly important for nurse educators so that current teaching practices for medication therapy can be optimized to: (1) support student learning regarding appropriate medication administration, and (2) ensure patients' safety while in the care of prelicensure student nurses.

METHODS

Recruitment and Retention of Older Chinese Immigrants for Research

Wen-Wen Li, RN, MS, PhD
Assistant Professor
San Francisco State University
San Francisco, CA

Jason Aaron Wong, BA
Graduate Student
San Francisco State University
San Francisco, CA

Janice Y. Tsoh, PhD
Associate Professor
University of California, San Francisco
San Francisco, CA

Purpose: To identify successful strategies for recruiting and retaining older Chinese immigrants for health research studies through the literature review and an analytical description of the relevant experience of a pilot study.

Background: Cultural background, health beliefs, and practices have contributed to the challenges in recruiting older Chinese research participants. However, little is known regarding the efficacy of recruitment strategies. We conducted a comprehensive review of current literature and described the experiences from our pilot study to add to this body of knowledge on the strategies that have improved participant recruitment and retention.

Methods: A search of journal databases (e.g., PubMed, CINAHL, etc.) was conducted to identify relevant studies that examined methods to recruit older Chinese immigrants for research projects. We designed our study based on the recruitment strategies suggested by the literature: 1) **Design:** A longitudinal, single group pre- and post-intervention study design was used. 2) **Sample:** Twenty participants were recruited through convenience sampling. Inclusion criteria were: Chinese immigrant; ≥ 65 years old; on Western, antihypertensive medication once a day; and able to speak/read Chinese. 3) **Procedure:** Qualified participants were recruited in San Francisco from local agencies, and personal referrals via word-of-mouth, cold calling, community center visits, and flyer postings and a patient list offered by a health clinic. Patients were visited four times throughout a six-month study period and given a \$20 gift card each visit to incentivize participation through study end. The data presented herein represents observation on both recruitment process and participant retention. Successful retention was defined as completing the 6-month protocol.

Results: Our literature review shows that advertising on ethnic media, offering incentives, and partnering with health care providers for referrals are good ways to recruit Chinese participants for trials. Among the various approaches used, our highest recruitment rate [50% (11/22)] was obtained from personal referrals. Our pilot study resulted in a 91% (20/22) retention rate. One person withdrew due to lack of motivation and another because of medical issues, leaving 20 (our target sample size) who completed the study.

Conclusions and Implications: Our 50% recruitment rate via convenience sampling confirmed that personal referral is the best approach for recruiting participants, as suggested by the literature. This is due to the fact that Chinese Americans ordinarily require connection through their friends, care providers, and community leaders to establish trust with strangers, particularly Western health providers/researchers. Our high retention rate was maintained by frequent incentives (i.e., a gift card per visit) and reminder calls (a call before an appointment). Because a high number of our participants were recruited via personal referral, our high retention rate may be also due to the value Chinese place on fulfilling obligations to friends. In addition, as suggested by both the literature and our pilot study, training qualified, culturally and linguistically competent research team members also will greatly benefit recruitment efforts.

Funding: Individual Investigator Research Grant, Office of Research and Sponsored Program; Research Mini-grant, School of Nursing, San Francisco State University.

METHODS

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 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 has been developed and analyzed in two testing cycles. The tool consists of 6 scales measuring nurses' awareness of the environmental impacts of nursing practice and mitigating factors that may influence nurses' behaviors at home and work. The results from two cycles of exploratory factor analysis of the six scales will be described.

Conceptual Basis/Background: The study was guided by two conceptual frameworks: The Integrated Change Model which links awareness to behavior change and the EWTE Wheel which describes the four domains of environmental impacts addressed (energy, waste, toxic chemicals, engagement). 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.

Methods: A pool of items (160) was developed based on the two conceptual frameworks. The pool of items linked awareness to behavior in the four domains (energy, waste, toxic chemicals, engagement). After item development, the draft scales were tested in two cycles, using a web-based electronic survey format. The pilot phase queried 306 registered nurses from four hospitals in California and Washington. The study phase queried 389 registered nurses in three hospitals in Oregon and Washington. Using the responses from each phase, analysis was performed using descriptive statistics, exploratory factor analysis, and by measuring Cronbach's alpha. After each phase the scale was refined.

Results: Six 1-factor scales of 9 to 11 items each were derived. Five of the six scales had Cronbach's alphas over 0.700, ranging from 0.785 to 0.934. The sixth scale had a Cronbach's alpha of 0.676, which merits further examination and refinement to strengthen the scale. Next steps in development of NEAT will include Confirmatory Factor Analysis and ongoing testing of each of the constructs in different samples.

Implications: The Nurses Environmental Awareness Tool is the first psychometrically analyzed instrument to measure nurses' awareness of the environmental impacts of nursing practice. The NEAT will provide opportunities for further research, including studying differences in nurse awareness across demographic features, and studying links between awareness of environmental impacts of nursing practice and behaviors to mitigate those impacts. The scale gives researchers an opportunity to study professional ecological behaviors: actions nurses can take at the work place to decrease their environmental impacts. By having a tool to objectively study this issue, nurses in acute care settings can begin to examine their practice and advance toward meeting their professional standard to practice in an environmentally safe and healthy manner.

METHODS

Strategies for Conducting a Systematic Review: The HAN Wayfinding Project

*Nai-Ching Chi, CNS, RN
PhD in Nursing Science Student
School of Nursing
University of Washington
Seattle, WA*

*Basia Belza, PhD, RN, FAAN
Aljoja Endowed Professor in Aging
School of Nursing
University of Washington
Seattle, WA*

*William Satariano, PhD, MPH
Professor
School of Public Health
University of California, Berkeley
Berkeley, CA*

*Laura Farren, BS
Project Coordinator
Health Promotion Research Center
University of Washington
Seattle, WA*

*Members of the CDC Healthy Aging Research Network (HAN)
Community Wayfinding Project*

Purpose: The overall purpose of the project was to conduct a systematic review to describe innovative community wayfinding technologies that improve older adults' wayfinding ability. This presentation focuses on the methods used to conduct this systematic review.

Background: Wayfinding refers to the ability to determine a location or route so to find a destination. Wayfinding ability diminishes with age due to the deterioration in cognitive, hearing, and/or vision and spatial ability. Through applying effective technology aids and/or environmental cues, older adults' acquisition of spatial knowledge can be enhanced, thereby increasing their mobility, independence and social interactions.

Methods: Members of the CDC Healthy Aging Research Network (HAN), graduate students, and a librarian collaborated on this project. The 15-member team is located in seven universities and at the Centers for Disease Control and Prevention.

Results: The team identified the research question, created an initial taxonomy of technologies, and documented a process for the literature search and review process. The inclusion criteria were that the literature was about wayfinding and technology and had been published in the past 10 years. The team created abstract reviewer guides and online abstraction tools. A total of 591 papers were located; 106 met our inclusion criteria. An elaborate abstraction process was developed and piloted. A shared space (Central Desktop) housed the 106 papers and 20+ supporting files. An online data entry system (Catalyst) was used for the abstractions. Primary (n=106) and secondary reviews (n=106) of each paper were conducted by team members. Discrepancies between primary and secondary reviews were addressed via reconciliation forms.

Conclusions: This method has allowed for an effective and efficient systematic review process that could be replicated for other topical areas. Teams can effectively work remotely if there is adequate infrastructure.

Funding: The CDC Healthy Aging Research Network is a Prevention Research Centers program, funded by the CDC Healthy Aging Program. Supported in part by cooperative agreements from CDC's Prevention Research Centers Program: U48-DP-001911, 001908, 001921, 001924, 001936, 001938, and 001944.

METHODS

The MSU CAM Health Literacy Scale

Jean Shreffler-Grant, PhD, RN
Professor
Montana State University
College of Nursing
Bozeman, MT

Elizabeth Nichols, PhD, RN, FAAN
Professor Emerita
College of Nursing
Montana State University
Bozeman, MT

Clarann Weinert, SC, PhD, RN, FAAN
Professor Emerita
College of Nursing
Montana State University
Bozeman, MT

Purpose: To present the MSU CAM Health Literacy Scale, a knowledge-based measure of health literacy about complementary and alternative therapies (CAM).

Background: Health literacy, or the degree to which individuals have the capacity to obtain, communicate, process, and understand basic health information and services needed to make appropriate health decisions, has become a public health priority. Inadequate health literacy is associated with a wide variety of adverse health outcomes. Growth in the use of CAM adds to the complexity of being sufficiently health literate. In a series of studies, our research team found that older rural residents used a considerable amount of self-prescribed CAM and often had limited health literacy about therapies they used. The Institute of Medicine cited a critical need for additional reliable and valid measures of health literacy and also for research on how consumers obtain, understand, and evaluate information about CAM. Accordingly, the team embarked on development of a measure of CAM health literacy.

Methods: A conceptual model of CAM health literacy was developed and used to guide the construction of the instrument. Multiple items for each empirical indicator in the model were developed and a 4 point Likert response option was selected. The draft instrument was reviewed by experts and focus groups, refined by the team, and administered by telephone interview to a sample of 600 randomly selected older adults. Exploratory factor analyses, reliabilities, and conceptual considerations were used to determine which items to retain. An assessment of convergence validity was conducted with data from 110 older adults in which scores on the MSU CAM Health Literacy Scale were compared with scores on general health literacy measures.

Results: The MSU CAM Health Literacy Scale consists of 21 items with Cronbach's alpha .753 and 42.27% explained variance. The validity assessment revealed weak but significant correlations between the scale and general health literacy measures. A person's basic knowledge about the conceptual components of CAM Health Literacy, Dose, Effect, Safety, and Availability can be evaluated with the instrument. The full instrument with scoring instructions will be available to WIN participants.

Implications: The MSU CAM Health Literacy Scale has promise for use in future research and clinical endeavors. Informed use of CAM can support well-reasoned decision-making regarding self-care. A goal of this program of research is to develop an intervention to enhance CAM health literacy among older rural adults, particularly those with chronic health conditions.

Funding: NIH/NCCAM NIH R15 AT095-01, R15 T006609-01; NIH/NINR 1P20NR07790-01; MSU College of Nursing Block Grant.

METHODS

The Use of Reflective Journal Entries as a Data Collection Method

*Kayla Harvey, MS, RN, ARNP
Pediatric Nurse Practitioner
Cardiac Surgery
Mary Bridge Children's Hospital
Tacoma, WA
Kayla.harvey@multicare.org*

*Andrea Kovalesky, PhD, RN
Associate Professor
Nursing and Health Studies
University of Washington Bothell
Bothell, WA*

Purpose: Discuss the use of reflective journal entries in descriptive qualitative studies of parents of children facing a serious medical condition.

Background: Reflective journaling has been used in qualitative studies as a data collection method, sometimes concomitant with interviewing and/or quantitative methods, and sometimes as a stand-alone method.

Description: In our study describing the experiences of mothers of infants with congenital heart disease who underwent cardiac surgery, (Harvey et al., 2013) reflective journaling was used as the primary means of data collection. The use of journaling as a data collection method was chosen in an effort to provide the least intrusive method of inquiry to subjects that have experienced a stressful event. Furthermore, this form of personal sharing allowed the participants full control over their narration.

Outcomes Achieved: Despite the retrospective nature (up to several years in this study) and the control over content that journaling provides, mothers wrote similar comments about their experiences of time before, during, and after heart surgery. Analysis of this data led to the development of consistent and comprehensive themes that were used to describe their experience. These findings were subsequently validated by other mothers. Our experience in this study suggests that reflective journaling was an effective data collection method for gaining insight to the subject's experience.

In journal entries of the 8 mothers few negative stressors were mentioned, although the literature indicates quite a few of them have been identified through interviewing and quantitative methods. This made us question if the time lapse of retrospective journaling impacted the mother's recollections of some negative stressors.

The literature addresses a number of challenges concerning journaling as a data collection method, including participation rates, feeling exposed, and staying on track (Hayman et al., 2012). We could not identify whether any mothers found journaling to be a physical, mental or linguistic burden, or how it may have affected their recall. The participation rate among the 15 mothers invited to participate in the larger study was 73%, indicating that the majority of mothers did not find journaling to be burdensome.

In contrast, other researchers studying families with children with congenital heart disease found there was positive psychosocial impact of sharing their personal stories through journaling (DeMaso et al., 2000). Another study, using a different population, found in that in some cases there were cognitive and emotional benefits of journaling about stressful events (Ulrich & Lutgendorf, 2002). Future research in this area is needed to determine if reflective journaling as a method of data collection could have therapeutic benefits.

Conclusions: Journaling as a data collection method has a firm history in qualitative studies, but the researcher must consider a host of factors before determining if this method is the right one for the research question.

METHODS

Thematic Illustrations of Health for the Oldest Old Living at Home

*Marleen Thornton, MSN, RN
Doctoral Candidate*

*Jacqueline Jones, PhD, RN, FRCNA
Associate Professor*

*Kathy Magilvy, PhD, RN, FAAN, FWAN
Professor Emerita*

*University of Colorado
College of Nursing
Aurora, CO*

Purpose: The purpose of this study was to explore home in the context of health for the oldest old. Specific aims were to 1) identify the meaning and experience of home for the oldest old, and 2) describe the meaning and experience of home in terms of health for the oldest old. This presentation aims to describe the experience of health for the oldest old living at home.

Background: The home environment represents the center of individual and family life throughout the lifespan and is commonly overlooked as an important and influential factor in overall health and the human experience of health. The oldest old are the fastest growing segment of both the total population and older adults. The majority of oldest old desire to age in place at home, emphasizing the pressing need to learn more about their experiences of home and perceptions of health to underpin the development of future nursing interventions. The home will become the primary place of care for many older adults as they become part of the population age 85 and over aging in place.

Methods: Informed by interpretive description, this qualitative study explored home in the context of health for the oldest old using a convenience sample of 10 participants. Recruitment took place through local churches in Suffolk County, NY. Criteria for inclusion: 85 years of age and older, community dwelling, able to speak English, and able to consent for participation. Semi-structured interviews were conducted on two occasions in participants' homes. Photo elicitation using digital photography was used as a projective technique, enriching participant sharing and enhancing reflection during each second interview. An inductive approach was used to analyze narrative transcripts and photographs. Demographic data were analyzed using simple quantitative analysis.

Results: Participants experienced health functionally in their ability to care for the home and themselves within the home. Participants' experiences of health and home were interpreted as: *a landing spot, a social space, a place of artifacts, and the smaller world*. These thematic illustrations of health and home also demonstrate the home's function and the participant's function in the home. While multiple themes embodied experiences over time, a single theme was representative of each participant's present experience. Photographic and interpretive representations of health differed between the researcher and participants, highlighting the meaning of adaptive changes and their influence on experiences of home and health.

Implications: Assumptions about the meaning and experience of home and health for the oldest old are called into question here. Increased awareness is necessary when considering the functional purpose of the individual's home and how it influences the subjective experience of health. Future research should address more specifically the function of the home in maintaining health for the oldest old and its impact on future care models.

Funding: This study has been supported by the Building Academic Geriatric Nursing Capacity Program.

METHODS

Using Mixed Methods to Generate Data with Women Participating in U.S Microenterprise

Rebekah J. Salt, PhD, RN

Assistant Professor

Department of Family and Community Health Systems

*University of Texas Health Science Center at San Antonio, School of Nursing
San Antonio, TX*

Purpose: This project is in collaboration with Accion, Texas and women who have received at least one microloan from the organization to start a microenterprise. The purpose of this mixed method pilot study is to: 1) explore how women discuss the challenges of employment and health within the context of U. S. microenterprise, and 2) assess the feasibility of using on-line health instruments to collect data with this population.

Background: Microenterprise is globally popular. The United States (US) has seen a steady growth in these programs over the past three decades. Microenterprise organizations provide vulnerable populations, the majority of whom are women without credit or collateral, access to educational and financial resources to start or sustain small businesses. Some programs use a group-lending model where clientele are required to join groups and others use an individual-lending model where clientele have access to resources but do not join groups. This project is based on the results from two previous qualitative research studies that explored women's experiences and health within the two different microenterprise models. There were similarities in responses in both studies related to the time-intensive nature of a small business and difficulty in prioritizing self-care. One difference that emerged was that some of the women in the individual-lending model reported feeling isolated and depressed. It is possible that the socialization in the group-lending model provides protective factors against isolation and depression. The decision to use on-line surveys for this population was based on: 1) current practice as microenterprise business information is often collected using surveys; and 2) on-line technology can be an important business tool for women who participate in U. S. programs.

Methods: Accion, Texas will assist with the recruitment of women for 50 surveys and four focus groups. Research Electronic Data Capture (REDCap), a web application that allows for the secure building and management of surveys and databases, will be used to administer The Center for Epidemiologic Studies Depression Scale (CES-D) and the SF-12 health survey. In addition to a demographic survey, the women will be asked to complete a feasibility questionnaire regarding the use of on-line methods to collect data. All focus groups will be conducted at Accion, Texas. Focus group transcripts will be coded and analyzed individually and then collectively using content analysis. Descriptive statistics will be used to analyze composite scores for the CES-D and the SF-12 and the resulting scores will be analyzed with means and standard deviations.

Implications: In order to consider future interventions, it is necessary to generate a larger sample size. The findings from this project will inform a grant to further investigate women's health within the two microenterprise models in the United States. Women have been shown to be good social and economic investors and a strong link to generational health, however; attention to self-care has been a reported issue for this population. Identifying health challenges for women microentrepreneurs and focusing on interventions that enhance self-care has the potential to decrease health disparities and improve population health.

Funding: This study was supported, in part, by a grant from the Nursing Advisory Council-University of Texas Health Science Center at San Antonio-School of Nursing.

METHODS

Using Path Analysis to Test Mediation with Small Samples

Janet Purath, PhD
Associate Professor
College of Nursing
Washington State University
Spokane, WA

Sterling McPherson, PhD
Assistant Professor
College of Nursing
Washington State University
Spokane, WA

Aim: This paper aims to discuss and demonstrate the use of bootstrap sampling to test mediation effects in intervention research.

Background: In intervention research, mediation seeks to clarify the relationship between an outcome and the independent variable. Rather than testing direct causal relationships, mediation evaluates whether the independent variable influences a mediator which then influences the outcome. Conducting such analyses can provide specific information about *how* an intervention does or does not have an impact on our outcomes of interest.

Methods: Using data from completed research, we will use bootstrap sampling for a single-step mediator analysis to demonstrate mediation with data from a clinical trial of a physical activity intervention with older adults.

Conclusions: Statistical methods such as mediation analyses serve to give us a better understanding of the relationships between an intervention and outcome variables and can give nurse researchers and methodologists a better understanding of known findings.

Abstracts of Poster Presentations

THE NEXUS JOURNEY: WHAT'S NEXT?

OVERVIEW: THE NEXUS JOURNEY: WHAT'S NEXT?

Janice Hayes

THE JOURNEY: MOVING OUTSIDE THE WEST

Michele C. Clark

THE ROAD FROM AFFILIATE TO COLLABORATIVE MEMBER

Roxanne Vandermause, Eileen Swalling

THE NEXUS JOURNEY: PICKING UP A PARTNERSHIP

J. Kathy Magilvy

THE DESTINATION: SUSTAINABILITY, COLLABORATION,
AND THE OPPORTUNITY TO DREAM

Gail Houck

THE NEXUS JOURNEY: WHAT'S NEXT?

Overview: The NEXus Journey: What's Next?

*Janice Hayes, PhD, RN
Professor, School of Nursing
University of Northern Colorado
Greeley, CO*

Purposes/Aims: This presentation will provide a brief analysis and overview of the origination of the NEXus consortium.

Rationale/Background: NEXus is a unique collaboration among schools offering doctoral programs in nursing. It has experienced significant growth and development since its inception.

Description: The collaborative agreement began as a way of addressing the faculty shortage related to PhD education in the West. Since its beginning, it has grown from 4 members to 17 members, added DNP programs, expanded to other areas of the U.S., and undertaken new partnerships.

Outcomes: NEXus has significantly increased enrollments in doctoral courses meeting the needs of students for specialized content or availability of courses that they needed to progress. It has done this through the addition of new members and new initiatives.

Conclusions: NEXus is a successful collaboration that provides enhanced education to doctoral students in nursing. It stands on the brink of an active future with some new partnerships and initiatives.

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THE NEXUS JOURNEY: WHAT'S NEXT?

The Journey: Moving outside the West

*Michele C. Clark, PhD, RN
Associate Professor
School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV*

Purpose/Aims: This presentation will discuss the mechanisms that influenced the decision to include schools outside of the western region and the unanticipated outcomes that resulted from the decision. The relationship between expanding the NEXus collaborative and NEXus sustainability will be used to highlight the processes that directed this new initiative.

Rationale/Background: A critical component in sustaining and enhancing the mission of the NEXus is to expand the collaborative, increase the number of courses that reflect the new trends in nursing research and scholarship, and develop partnerships to collaboratively present courses representing educational gaps in the academic settings.

Description: The influence of the original funding structure to finance NEXus and how it informs the newly developed strategies to ensure sustainability will be presented. The HRSA funding objectives will be used to explain the present outreach strategies for enrolling PhD and DNP programs outside the western region. Unanticipated outcomes, such as the Collaboration between National Hartford Centers of Gerontological Nursing Excellence and NEXus will emphasize the growth and novel approaches in developing important partnerships with PhD programs. Anticipated outcomes from the collaboration with PhD and DNP programs outside the western region will also be discussed.

Conclusions: Expanding the NEXus beyond the western region has allowed the collaborative to include courses that meet the new trends in nursing science. As well, new partnerships have developed that has strengthened the education focus in NEXus. Faculty members from around the country share ideas and expertise to improve and enhance courses.

THE NEXUS JOURNEY: WHAT'S NEXT?

The Road from Affiliate to Collaborative Member

*Roxanne Vandermause, PhD
Associate Professor; PhD Program Director
College of Nursing
Washington State University
Spokane, WA*

*Eileen Swalling, BA
PhD Program Coordinator
College of Nursing
Washington State University
Spokane, WA*

In this symposium, which describes the evolution (journey) of an educational consortium bound by principles and desired outcomes of institutions seeking to actualize the directives of the American Academy of the Colleges of Nursing (AACN), various paths to engagement are possible. The purpose of this presentation is to identify and interpret the experiences of our institution in becoming an affiliate, then a collaborative member of the consortium. As the community of members of various institutions offering doctoral programs has grown, reached out, and worked with respective members, we have observed benefits and challenges to our involvement in the *NEXus Journey. What's Next (?)* can best be answered by examining what has been, and by juxtaposing this history with the AACN call for national introspection in reviewing research focused doctoral programs and doctoral education in nursing. The way in which institutions engage in consortium activities may be unique to their goals and requires thoughtful evaluation of the institutional involvement in NEXus activities. The aims here are: 1) to compare the roles of affiliate and collaborative membership, 2) delineate the assets and barriers to involvement in each role, and 3) suggest a course of action for institutions to consider as they design curricula and expand program capacity to meet the needs of their students. This will be accomplished through a self-summary and reflection of our own institutional process in becoming a collaborative member of the consortium. It is intended to provide anticipatory guidance for schools seeking involvement in the consortium, to explicate the ways in which consortia can enhance or detract from doctoral education, and to document the journey of a growing network in the discipline. Interested prospective members will gain understanding of the various ways to engage the program and will be able to develop for themselves criteria for evaluation of their possibilities and prospects in applying such membership to their own educational programs.

THE NEXUS JOURNEY: WHAT'S NEXT?

The NEXus Journey: Picking up a Partnership

*J. Kathy Magilvy, PhD, RN, FAAN
Professor Emerita
University of Colorado
College of Nursing
Aurora, CO*

Purposes/Aims: This presentation outlines a newly developed partnership between the NEXus consortium and the National Hartford Centers for Geriatric Nursing Excellence (NHCNE). The aims are to describe the development of the partnership, identify mutual benefits, and to describe how such a partnership can contribute to sustainability of both.

Rationale/Background: NEXus has grown over the past decade into a consortium with strong membership and large catalog of courses. Sustainability is a continued issue as the economic situation is tight in higher education and colleges/schools of nursing have numerous financial obligations. Consortia need to offer members applicable and tangible benefits to survive. The NHCNE is a newly developed national consortium built upon 9 strong individual centers of geriatric nursing excellence. The two entities have compatible goals to increase the preparation of doctorally educated nurses who can prepare the next generation of educators, researchers, and clinicians.

Approach, Process, Description: The development of the NEXus – NHCNE partnership is described in this paper. The grant-supported NHCNE evolved from the original Hartford Centers to continue the goals of increasing the expertise of nurses to care for the older population. As the NHCNE was established, a partnership was proposed with NEXus to invite schools of nursing with expertise in geriatric nursing to join NEXus and thereby increase geriatric nursing content in NEXus and provide expanded course offerings in all areas to newly joining schools. The development activities, partnership agreements, RFA to potential schools, and preparation and support of newly joining members will be discussed. Mutual benefits of this partnership are described, such as increasing course offerings available to doctoral students, providing targeted expertise in geriatric nursing and research, and promoting the sustainability of both consortium and continuation of the partnership.

Outcomes: A partnership between two established nursing education collaboratives has strong potential for success and several benefits to each organization are identified. Sustainability and growth are issues of concern for consortia in an environment of limited resources. This partnership has potential for supporting growth in consortia, such as development of additional partnerships between NEXus and other population or content focused organizations with compatible goals and activities.

Conclusion: This partnership has exciting potential for future expansion of both innovative nursing projects and future innovations in nursing education, research, and practice.

THE NEXUS JOURNEY: WHAT'S NEXT?

The Destination: Sustainability, Collaboration, and the Opportunity to Dream

*Gail Houck, PhD, RN, PMHNP
Professor
School of Nursing
Oregon Health & Science University
Portland, OR*

Purposes/Aims: This presentation will describe strategies for achieving sustainability for a collaborative mechanism in higher education, the benefits of collaboration, and the new opportunities on the horizon for addressing challenges in nursing doctoral education.

Rationale/Background: NEXus was fortunate to have obtained grant funding that allowed for the development of a functional infrastructure and eventual sustainability for this collaborative. Others can bypass grant funding to develop their own sustainable collaborative by drawing from the NEXus example and lessons learned.

Description: Lessons learned from the development of a solid infrastructure for this collaborative and that contributed to achieving sustainability will be described. The key features and benefits of collaboration will be identified, with particular focus on those that present expanded opportunities for addressing the challenges of doctoral education in nursing.

Outcomes Achieved/Documented: Sustainability has been achieved and gaps in doctoral education for nursing have begun to be addressed.

Conclusions: The NEXus collaborative offers unique opportunities beyond the mechanism of course exchange that will serve to ameliorate the challenges presented by a faculty shortage.

Abstracts of Poster Presentations

NURSE PRACTITIONER: PRACTICE AND EDUCATION

A PILOT SELF-ASSESSMENT SURVEY TO ASSESS NURSE PRACTITIONER COMPETENCIES

DoQuyen Huynh, Benjamin J. Miller

DEVELOPMENT OF A FAMILY NURSE PRACTITIONER POST-GRADUATE RESIDENCY

DoQuyen Huynh, Benjamin J. Miller

CHARACTERISTICS OF COMPLEX AND NON-COMPLEX PATIENTS IN PRIMARY CARE

Jill Mount, Jay Teachman, Michael Massanari

CONGRUENCY OF NURSE PRACTITIONER PRECEPTOR AND FACULTY CLINICAL EVALUATIONS

Janet DuBois, Ted Rigney

AN INNOVATIVE STRATEGY FOR AN INTERPROFESSIONAL PRIMARY CARE CURRICULUM

*Donna Velasquez, Gerri S. Lamb, Karen J. Saewert, Robin P. Bonifas,
Michele Lundy, Pamela J. Thompson, Carolyn Bae*

DIGITAL STORYTELLING IN NURSE PRACTITIONER EDUCATION: NEW PATHWAYS OF LEARNING

Melody Rasmor

PANEL MANAGEMENT FOR DNP STUDENTS: PROVIDING QUALITY DATA-DRIVEN LONGITUDINAL CARE

Anne Poppe, Catherine Kaminetzky, Kameka Brown, Joyce Wipf

APNS AND THE POPULATION HEALTH
IN FRONTIER COMMUNITIES

Lynn Jakobs, Jeri L. Bigbee

PROVIDER USE OF OREGON'S PRESCRIPTION
DRUG MONITORING PROGRAM

Katherine C. Hammond, Kristi Vaughn

SURVEY OF PRIMARY CARE PROVIDERS ON PERCEIVED
BENEFITS AND BARRIERS TO PAINTRACKER

*Melissa M. Schorn, Ardith Z. Doorenbos, Deb Gordon,
Mark D. Sullivan, Patricia G. Read-Williams*

TEACHING SHARED DECISION MAKING
IN INTERPROFESSIONAL PRIMARY CARE EDUCATION

Linda C. Pyke, Maryann Overland, Anne Poppe

NURSE PRACTITIONER: PRACTICE AND EDUCATION

A Pilot Self-Assessment Survey to Assess Nurse Practitioner Competencies

*DoQuyen Huynh, MSN, ARNP, DNP Student
College of Nursing
Seattle University
Seattle, WA*

*Benjamin J. Miller, PhD, ARNP, (Advisor)
College of Nursing
Seattle University
Seattle, WA*

Purpose: The purpose of this study is to determine the level of self confidence in addressing the National Organization of Nurse Practitioner Faculty's (NONPF) core competency for Family Nurse Practitioners in their first year of clinical practice. The aim of this study is: examine self-reported data using a 5-point likert scale evaluating the nine core competencies and 54 specific objectives for nurse practitioners

Background and Rationale: The push for autonomous advance nursing practice necessitates better prepared and educated nurse practitioners (NPs). In 17 states and the District of Columbia, NPs have an autonomous scope of practice and are expected to practice to the full scope of licensure. New graduate nurse practitioners face anxiety and lack of confidence during their first year of independent practice due to lack of experiential training (Flinter 2005). Upon graduation, NPs who are not well prepared to care for complex patients face higher burn-out rates and thus experience lower job satisfaction.

Methods: To determine the effectiveness of NP education, an online survey was developed to assess the self-reported confidence in the core competencies described by the National Organization of Nurse Practitioner Faculty (NONPF) during their first year of practice. The survey is a 5-point Likert scale, using the Benner Model of Novice to Expert. Coordinators from selected family nurse practitioner programs from Washington and Connecticut were contacted to disseminate the survey link to their respective graduates. Distribution and completion of the survey were anonymous. This study was determined to be exempt from the Seattle University IRB. Demographic data were analyzed with descriptive statistics. Results from each competency were averaged giving an overall competency rating as well as examination of each of the 54 objectives.

Results: An unknown number of NP's received the survey because of academic institutions regulating access; Initially 19 people started the survey including one participant from Connecticut; however, only 14 respondents completed the survey and were included in data analysis. Females accounted for 86.7% (13) of the respondents and 53% were under the age of 30 and 47% were between the age of 30 -39. All respondents who completed the survey graduated from a FNP program in Washington State. Examining the mean values for each competency, scientific foundations, (2.01), healthcare ethics (2.4) and Independent practice (2.2) ranked the highest consistent with advance beginner. The other Competencies: Leadership (1.9), Quality (1.8), Practice Inquiry (1.8), Technology Literacy (1.9), Policy (1.6), and Healthcare Delivery (1.8) were all rated in the novice category.

Implications: This study is a pilot to examine self-reported levels of confidence in NONPF core competencies. The sample size is small and the program represents a homogenous group from Washington State. The data suggests graduates from FNP programs are novice or advance beginners; however, most NP's are expected to enter a practice setting functioning as an independent and autonomous provider. Further studies are needed to determine if these graduates from other states are similar.

NURSE PRACTITIONER: PRACTICE AND EDUCATION

Development of a Family Nurse Practitioner Post-Graduate Residency

DoQuyen Huynh, MSN, ARNP, DNP Student
College of Nursing
Seattle University
Seattle, WA

Benjamin J. Miller, PhD, ARNP (Advisor)
College of Nursing
Seattle University
Seattle, WA

Purpose: the purpose of this project is to design a Family Nurse Practitioner Residency Program at International Community Health Services (ICHS). The goal of this program is to train highly autonomous, effective, competent, and culturally appropriate family nurse practitioners who will serve as primary care providers in community health settings.

Background/Rationale: There is continuing increased needs for and lack of qualified family nurse practitioners (FNPs) to serve as primary care providers in Federally Qualified Community Health Centers (CHC) in Washington State and throughout the nation (Affordable Care Act – What It Means for You, 2013). Community Health Centers are facing primary care provider recruitment and retention problems, which will only be increased as the patient load expands with the implementation of the Affordable Care Act (ACA) (2013). It is estimated that an additional 835,000 non-elderly adult Washingtonians will become insured in 2014 due to the ACA. The shortage of primary care providers not only negatively affects access in clinics like International Community Health Services (ICHS), a CHC clinic in Washington, but it also compounds the problem because CHCs often have very complex patients who require additional care. Therefore, most new graduates are not prepared to work in the community settings (Flinter, 2011) due to the lack of experiential training necessary to transition them from the student role to professional role. A nurse practitioner residency program will address these problems.

Description/Approach: Current similar programs, such as one in Community Health Center in Connecticut, have proven successful in training competent providers well prepared for the complex patients in community health settings (Flinter, 2011). A feasibility study was conducted through researching these existing programs and the needs of the community specific to ICHS. The program designed for ICHS emulate existing models, which will be a one year salaried intensive medical training focusing on family practice, with additional specialty rotations. The nurse practitioner residents will have dedicated preceptors and will undergo a combination of clinical supervision and additional didactic training. In addition, this program will seek a post-graduate certificate from Seattle University, which makes this the first program of its kind to receive academic recognition.

Results: ICHS's executive team has approved the program proposal, including a detailed financial evaluation showing that this pipeline project will be budget neutral in the worse-case scenario. A program curriculum is in the development phase while ICHS is working to recruit future residents at the end of 2013.

Conclusion/Recommendation: Nurse practitioner residency provides much needed post-graduate training to create autonomous, competent and culturally appropriate family nurse practitioners ready to serve the complex patients in community health settings. Currently, there are about 12 such programs throughout the US which are functioning individually without an overseeing entity. It is recommended that an organization is established to govern the quality and accreditation for all family nurse practitioner residency programs throughout the US, to create a uniform level of training which needs to be measurable and effective.

NURSE PRACTITIONER: PRACTICE AND EDUCATION

Characteristics of Complex and Non-Complex Patients in Primary Care

Jill Mount, RN, PhD

Assistant Professor

RN to BSN Program

Jay Teachman, PhD

Professor, Department of Sociology

Western Washington University

Bellingham, WA

Michael Massanari, MD, MS, FACP

Critical Junctures Institute

Purpose: The aim of this study was to learn how primary care providers define the characteristics of complex and non-complex patients.

Background: Older adults over 65 years of age have more health issues and almost four times the rates of hospitalization than their younger counterparts (CDC, 2007). With older adult population projections reaching 20% of the US population by 2030 (He, Sengupta, Velkoff, & DeBarros, 2005) it is important for primary care providers to allocate time and resources to effectively provide patient care. Patient complexity is a concept well known to primary care providers but to date it has not been well defined. To more accurately treat complex patients it is important to determine what characteristics make a patient “complex.” The Minnesota Complexity Assessment Method (Peek, Baird, & Coleman, 2007) tool has been used but it is very complicated, a simpler instrument that can be used by busy primary care providers is needed.

Methods: Two self-identified complex patients, two nurses, three physicians and several social scientists met to share their understandings of patient complexity. Patients shared personal narratives and providers shared patient case studies. A subset of conference attendees created a complex patient screening instrument consisting of 13 variables. This tool was piloted by 12 primary care physicians, using a convenience sample of 267 of their patients.

Results: Complex patients were found to differ significantly from non-complex patients for 12 of the 13 variables. Latent class analysis using the Bayesian Information Criterion revealed a model in which two classes indicated the best fitting model. For non-complex patients, about 90% of patients fell into class 1 and 10% of patients fell into class 2. Class 1 represents patients with no discernable pattern of health issues and class 2 represents patients who are described as having mental health and insurance issues. For complex patients, 42% fell into class 1 and 59% fell into class 2. Class 1 for complex patients consisted of patients with multiple diagnoses. Class 2 is composed of patients with mental health issues, multiple diagnoses and a lack of activation. The results demonstrate a substantial difference between non-complex patients and complex patients in class structure.

Implications: This study found significant differences between complex and non-complex patients. Although it was piloted with primary care physicians, future iterations of the instrument will be used by nurse practitioners and clinic nurses. The findings from different providers will be compared to better define patient complexity. Following the third recommendation of Institute of Medicine’s Future of Nursing report, nurses will be “full partners with physicians and other healthcare professionals in redesigning health care” to identify primary care complex patients and treat them more effectively.

NURSE PRACTITIONER: PRACTICE AND EDUCATION

Congruency of Nurse Practitioner Preceptor and Faculty Clinical Evaluations

*Janet DuBois, DNP, ARNP,
FNP-BC, FAANP
Clinical Assistant Professor
The University of Arizona
College of Nursing
Tucson, AZ*

*Ted Rigney, PhD, ANP, ACNP-BC, FAANP
Director, DNP Program
Clinical Associate Professor
The University of Arizona
College of Nursing
Tucson, AZ*

The purpose of this study is to determine if there are differences between preceptor and faculty clinical evaluations of nurse practitioner students in an online Doctor of Nursing Practice (DNP) program. Aim #1: To calculate the scores of the clinical evaluation instrument assigned by faculty over an 18 month period. Aim #2: To calculate scores of the clinical evaluation instrument assigned by preceptors over an 18 month period. Aim #3: To determine significant differences in scores assigned by faculty and preceptors using the clinical evaluation instrument.

Clinical site evaluations are a significant part of the required clinical competency evaluation in advanced practice nursing programs. A review of literature failed to produce any previous studies discussing the congruence of preceptor and faculty evaluations of clinical students. It is important that evaluations are congruent in order to ensure students receive the type of experiences essential for success in achieving course objectives in their program as well as demonstrating progressive competency.

Student evaluations by faculty and preceptors were collected from an online clinical records system for students enrolled in four clinical courses in an online DNP program (N=109) during the previous 18 months. The current evaluation tool used in the College of Nursing consists of 20 questions based on the seven domains of advanced nursing practice (National Organization for Nurse Practitioner Faculty). Each question is scored on a Likert scale of 1 (omits element or achieves minimal competence even with assistance) to 5 (mostly independent practice). A one tailed t-test was used to compare average scores awarded by faculty and clinical preceptors for each of the questions.

Aim #1: Faculty evaluation scores: Course 1 scores ranged from 4.5 to 4.8 (mean = 4.6); Course 2 scores ranged from 4.4 to 4.8 (mean = 4.6); Course 3 scores ranged from 4.4 to 4.9 (mean = 4.6); Course 4 scores ranged from 3.8 to 4.3 (mean = 4.0). Aim #2: Preceptor evaluation scores: Course 1 scores ranged from 4.3 to 4.8 (mean = 4.6); Course 2 scores ranged from 4.1 to 4.6 (mean = 4.3); Course 3 scores ranged from 4.3 to 4.7 (mean = 4.7); Course 4 scores ranged from 4.0 to 4.4 (mean = 4.1). Aim #3: In courses 1, 2 and 3 faculty scores were significantly higher than the corresponding preceptor scores (course 1 $P=0.035$; course 2 $P=0.001$; course 3 $P=0.05$). In course 4, the preceptor scores were significantly higher than the faculty scores ($P=0.017$).

Findings from this study are highly significant for nurses and nursing faculty. Differences between faculty and preceptor evaluations in the clinical setting should be largely congruent and reflect an accurate evaluation of each student's clinical competency and their progression through their program. Developing and implementing a formal faculty and preceptor orientation to the clinical evaluation instrument would help to foster better congruence. Reviewing congruency of evaluations between clinical faculty and preceptors should be considered as part of the overall programmatic evaluation process and utilized for overall program improvement.

NURSE PRACTITIONER: PRACTICE AND EDUCATION

An Innovative Strategy for an Interprofessional Primary Care Curriculum

Donna Velasquez, PhD, FNP-BC, FAANP
Clinical Associate Professor
College of Nursing and Health Innovation¹

Gerri S. Lamb, PhD, RN, FAAN *Karen J. Saewert, PhD, RN, CPHQ, CNE,*
Associate Professor *ANEF, Clinical Professor*
College of Nursing and Health Innovation¹ *College of Nursing and Health Innovation¹*

Robin P. Bonifas, PhD *Michele Lundy, MD, FAAFP*
Assistant Professor *Chair, Interprofessional Design Group*
School of Social Work¹ *College of Medicine²*

Pamela J. Thompson, MD, CCFP *Carolyn Bae, PharmD*
Assistant Research Professor *Clinical Pharmacist*
College of Health Solutions¹ *College of Pharmacy²*

¹Arizona State University, Phoenix, AZ

²The University of Arizona, Phoenix, AZ

Purpose/Aims: The purpose of this 3-year project (IRB Protocol # 1304009052) is to implement, evaluate, and activate innovative strategies to sustain a new interprofessional curriculum to prepare students for collaboration and teamwork in primary care practice.

Rationale/Background: Interprofessional collaboration is as an important strategy for mitigating the global health workforce crisis (WHO, 2010). The United States is on the brink of such a crisis as the population ages and increasing numbers of patients seek primary care as a result of the Affordable Care Act. The extent to which health care providers are prepared to work as interprofessional team members is critical to effective team functioning and patient outcomes.

Description: Interprofessional education (IPE) is included in the curricula of most health professions, occurs most frequently in classroom and simulation based settings, and is generally focused on hospital-based rather than primary care practice. Much is to be gained by better understanding best IPE practices for application in clinical settings, including primary care. This project's curricular innovations include: (a) design, implementation, and evaluation of faculty coach role; (b) long-term clinical primary care partner development; (c) student, faculty, clinical partner participation in rapid-cycle change model; and (d) curricular design, interprofessional precepting, and meaningful evaluation conducted in collaboration with clinical partners.

Outcomes: Project outcomes aligned with IPEC core competencies and student learning needs, interests, and priorities are captured with the use of new competency-based tools designed to capture IPE intervention "dose" and student, faculty coach activities.

Conclusions: There is increasing evidence that an interprofessional team approach results in better patient outcomes. Effective collaboration is essential to providing safe and efficient healthcare and responding to the looming primary care need. This project responds to the challenge of health professions education is how best to create meaningful real-life student experiences in the clinical environment to support the education and graduation of collaboration ready health practitioners.

Funding: Josiah A. Macy Jr. Foundation.

NURSE PRACTITIONER: PRACTICE AND EDUCATION

Digital Storytelling in Nurse Practitioner Education: New Pathways of Learning

Melody Rasmor, EdD(c), FNP, RN
Assistant Clinical Professor, College of Nursing
Washington State University
Vancouver, WA

Purpose: The purpose of this qualitative descriptive study was to examine nurse practitioner (NP) students' experience of creating a digital story. Scant research exists that focuses on the use of digital storytelling (DS) in graduate nursing education. Digital stories are short personal narratives such as autobiography, philosophical statement, and personal professional journey told in the first person by using power point, iMovie, movie-maker or other media programs. Theoretically, DS can provide NP education with new media pathways to insight, learning and creativity.

Aims: 1) Explored the various processes students' used in the development of their DS. 2) Explored students' learning experience as they listened to and interacted with classmates after their presentations. 3) Identified new insights from students' about self and others.

Background: Nurse practitioners listen to hundreds of patient stories throughout their education and career as primary care providers. This research examined how students reflected on their own personal narratives. The digital story was assigned to students in a core NP course with the objective of sharing their presentation on the first day of class. This assignment allowed students to share introductions, reflections and personal information while deconstructing and reconstructing their own culture and identity as a part of self-identity and role transition during NP education.

Method: This research design utilized the work of Bogdan & Biklen (2007), focusing on qualitative research as a method to understand the meaning of events and interactions for ordinary people in particular situations using narrative inquiry (Clandinin & Connelly, 2000). A survey tool was developed during a pilot study in 2010 with 23 NP students. Those results informed the development of this study's interview tool. Taped interviews were transcribed and analysis was managed using *Ethnographv*.6. Independent and interactive analyses of transcripts were conducted and shared by 3 graduate students and 2 faculty members.

Results: Seven female and three male NP students were interviewed for approximately one hour. Ethnicity self-identified was 7 Caucasian, 1 Bosnian, 1 Iranian and 1 Pacific Islander. Participants ranged in age from 27-52 years with the (mean=37). The participants represented a range of specialty and educational levels from BSN to master's degree.

Analysis: Revealed several themes 1) students could define a DS; 2) students felt the assignment promoted classroom bonding; 3) students found the technology and creativity stimulating; and 4) unexpected themes related to classroom safety, disclosure and the importance of understanding we are multi-dimensional beings.

Implications: DS has promising implications for nurse education. As a bonding experience that blends narrative pedagogy, creativity and technology to help students develop self-reflection skills, it provides opportunities to listen to stories, create stories and practice active narrative-based learning that bridges age, gender and culture gaps. This may be applied in a variety of educational and healthcare settings.

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NURSE PRACTITIONER: PRACTICE AND EDUCATION

Panel Management for DNP Students: Providing Quality Data-Driven Longitudinal Care

*Anne Poppe, PhDc, MN, RN
Catherine Kaminetzky, MD, MPH
Kameka Brown, PhD, MBA, FNP
Joyce Wipf, MD
Center of Excellence in Primary Care Education
Veteran Affairs Puget Sound Health Care Systems
Seattle, WA*

Background: The American Association of Colleges of Nursing (AACN) has endorsed the Doctor of Nursing Practice (DNP) terminal degree. Meanwhile, the Institute of Medicine (IOM) has recommended interprofessional collaborative care as the best approach for managing the complex health care needs of the aging population. Additionally, the IOM, Institute for Health Care Improvement (IHI), and government entities have issued urgent calls to improve the quality of health care. One method to meet this challenge is through Panel Management, a patient-centered approach in which the primary care provider (PCP) utilizes objective data to care proactively for patients between traditional clinic visits. However, few PCPs receive training in using panel data to provide longitudinal continuous care for their patients with chronic co-morbid conditions. As the crisis shortage of PCPs calls for more advance practice registered nurses (APRNs) to meet that need, nursing education in data-driven management of populations of patients using metrics and benchmarks is an absolute necessity.

Purpose: The purpose of this paper is to describe the framework for Panel Management and its utility for APRNs in primary care, specifically Nurse Practitioners (NPs). We also describe a Panel Management session as an exemplar to demonstrate application of Panel Management principles.

Process/Best Practice: The Seattle VA Center of Excellence in Primary Care Education (CoEPCE) designed an innovative, interprofessional Panel Management curriculum that teaches DNP students, physician residents, and pharmacy residents how to evaluate their performance data for their own continuity panel. Participants learn to effectively apply evidence-based practice, utilize system resources, and provide continuous care for all of their patients, not only those presenting for clinic appointments. Panel Management is a multi-year curriculum within CoEPCE and is one pillar of our Quality Improvement (QI) curriculum. Our Panel Management seminars include discussion of the elements of quality pertinent to a particular chronic condition (e.g., tobacco abuse, or diabetes mellitus) or health care metric (e.g., emergency department utilization) followed by discussion and editing of a tool to assist data collection in chart review. At the end of each session, participants identify areas for system improvement, thereby linking the improvement of individual patients' care to future, systems-level QI projects. This is a progressive, evolving curriculum.

Outcomes: Outcomes include learner satisfaction, learner confidence with Panel Management skills, processes of care (e.g. referral rate/pattern), and patient outcomes (e.g. diabetes mellitus chronic disease performance measures). Preliminary data show that learners are highly satisfied with this curriculum, and are more likely to utilize clinical pharmacists in their disease management plan.

Conclusions/Implications: Training in Panel Management can prepare DNPs to better care for the complex health care needs of aging populations in primary care by expanding their understanding of available system resources and interprofessional expertise. Learning the process of accessing and utilizing performance data may be critical to long term commitment to practice improvement, and stimulates ideas for system improvement for quality health care.

Funding: This project has been funded by the Centers of Excellence in Primary Care Education of the Office of Academic Affiliations, US Department of Veterans Affairs.

NURSE PRACTITIONER: PRACTICE AND EDUCATION

APNS and the Population Health in Frontier Communities

Lynn Jakobs, MSN, FNP
Doctoral Student
College of Nursing
University of North Dakota
Grand Forks, ND

Jeri L. Bigbee, PhD, RN, FNP-BC, FAAN
Adjunct Professor
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Purposes/Aims: The purpose of this study is to evaluate the relationship between APN (Advanced Practice Nurse)-to-population ratio and population health outcomes in U.S. frontier counties.

Conceptual Basis: This study utilizes the concept of “Nurse Dose”, which includes three components: dose, nurse, and host response. In this study “dose” refers to the ratio of the number of APNs per 100,000 population by county, “nurse” refers to APNs residing in the county, and “host response” refers to county morbidity and mortality rates. Morbidity is a composite variable which includes the percentage of the population reporting poor/fair health, number of poor physical health days, number of poor mental health days, and low birth weight percentage.

Methods: A cross-sectional secondary analysis of existing national data, compiled as part of the Nurses and the Population’s Health study, will be completed using U.S. frontier counties as the unit of analysis (population density of <7 persons/square mile). This study will evaluate data from 308 frontier counties from 16 states and 858 licensed APNs residing in those counties. Health outcome data were obtained from the 2012 County Health Rankings database and information regarding APN numbers by county of residence in 2013 was obtained directly from the respective state boards of nursing. Population health outcomes in counties with APNs (n=214) will be compared to those counties without APNs (n=94) using t test analyses. Correlational analysis will be conducted to evaluate the relationship between APN-to-population ratio and health outcomes. Further multivariate analysis may be conducted based on the bivariate results.

Results: Initial descriptive analysis indicated a mean county population of 6,595, with a density 3.1 person/square mile (range=0.2-6.9); mean square mileage of 2,321 (range= from 413 to 18,181 miles); and a mean number of 2.8 APNs per county (range=0-29). The mean APN-to-population ratio was 41 (range=0-290). Additional analyses are in progress.

Implications: Previous research indicates that increasing rurality is associated with poorer health outcomes, owing to a reduced supply of health care providers and resources. This is the first study to evaluate the effects of APN dose to population outcomes and has the potential to influence workforce policy.

Funding: The “Nurses and the Population’s Health Study” was funded by the National Council of State Boards of Nursing Center for Regulatory Excellence.

NURSE PRACTITIONER: PRACTICE AND EDUCATION

Provider Use of Oregon's Prescription Drug Monitoring Program

*Katherine C. Hammond, DNP, FNP-C
Clinical Instructor, School of Nursing
Graduate Program - Family Nurse Practitioner Program
Oregon Health & Science University
Portland, OR*

*Kristi Vaughn, DNP, ACNP-BC, FNP-C
Assistant Professor, School of Nursing
Graduate Program - Family Nurse Practitioner Program
Oregon Health & Science University
Portland, OR*

Background: The Oregon Prescription Drug Monitoring Program (ORPDMP) is a web based prescription drug monitoring system that tracks dispensed scheduled II-IV medications. This program started in September of 2011. The OR PDMP is considered a public health tool to aid in safe prescribing practices. In this program's infancy, it has shown to be highly underutilized. Oregon providers have the option to use the OR PDMP. Other than passing legislation requiring providers to use prescription drug monitoring programs, there is currently a lack of literature on how to increase usage of these programs.

Objective: The purpose of this project was to develop and present an educational presentation for providers with the aim to increase utilization of the OR PDMP.

Methods: Medical doctors, nurse practitioners, physician assistants, and doctors of osteopathic medicine at a primary care clinic and its affiliated emergency department were recruited via email in May 2013. The email contained a description of the project, an attached presentation, and a link to an online survey. The presentation contained fifteen slides and took approximately ten to fifteen minutes to read. The providers were asked to take a five question online post presentation survey. The survey results were collated and analyzed for themes.

Results: Results support an association between further educating health care providers about prescription drug abuse and the OR PDMP and increasing provider use of the OR PDMP. Survey results show that 72 percent of providers agree that educational presentations such as the one viewed could potentially increase usage of the OR PDMP. Additionally, of the providers who were surveyed, 55 percent of them stated they would increase their use of the ORPDMP, after viewing the presentation. Barriers to use of the ORPDMP were identified as time, difficulty accessing the website, and technical problems.

Conclusions: Findings of this project offer preliminary data on how to increase provider use of the ORPDMP. Further education potentially can increase provider use. Secondly, time and technology are barriers to this program and efforts need to be put forth to overcome these matters. Future efforts should be geared towards those who are not currently using this program, to see if further education would increase utilization. Prescription drug abuse and misuse is a vast public health problem, and findings from this project offer some potential insights into one strategy for alleviating this serious issue.

NURSE PRACTITIONER: PRACTICE AND EDUCATION

Survey of Primary Care Providers on Perceived Benefits and Barriers to PainTracker

Melissa M. Schorn, RN, BSN, OCN, Doctoral Student¹ mschorn@u.washington.edu

Ardith Z. Doorenbos, PhD, RN, FAAN, Associate Professor¹

Deb Gordon, RN, DNP, FAAN²

Mark D. Sullivan, MD, PhD, Adjunct Professor³

Patricia G. Read-Williams, MD⁴

¹*Biobehavioral Nursing and Health Systems
University of Washington, Seattle, WA*

²*Dept. of Anesthesiology and Pain Medicine
Harborview Medical Center, Seattle, WA*

³*Bioethics and Humanities
University of Washington, Seattle, WA*

⁴*UW Medicine Issaquah Clinic
Issaquah, WA*

Purposes: To assess perceived benefits of and barriers amongst primary care providers in a multi-neighborhood clinic system in the use of PainTracker, a patient reported outcomes survey for patients with chronic pain.

Background: Development and management of treatment plans for patients with chronic pain can be complex and challenging. A successful treatment plan that leads to improved outcomes requires the participation of the patient. Patient outcomes surveys can help assist the patient to communicate their symptoms with their provider and engage the patient in treatment planning and evaluation.

Methods: A Web survey was used to assess provider perceived benefits and barriers to use of PainTracker. The survey encompassed eleven items addressing the main themes of 1) ease of use, 2) barriers to use and 3) clinical usefulness/patient outcomes and several demographic questions. Item responses are “strongly agree, agree, no opinion, disagree or strongly disagree”. Participants were also asked to share their general opinions about the PainTracker and how often they use PainTracker in practice.

Results: Preliminary analysis revealed 59.09% of respondents agree the PainTracker is easy to use. Fifty percent of respondents agreed that the PainTracker helps patients participate in their pain management. Forty-five percent of respondents agree with the statement “the PainTracker improves efficiency in understanding how patients are doing during the clinic visit”. Forty percent of respondents agreed with the statement “Overall, I am satisfied with the PainTracker”. One of the items that elicited the most negative response was “It is easy to visualize change in pain outcomes that correspond to changes in pain treatments by viewing the PainTracker in the electronic record” with 40.9% disagreeing. Emerging common themes in what is liked about the PainTracker include the functional assessment information gathered, improving patient involvement in their pain management planning and being able to see changes in pain outcomes over time. Areas for future modifications and study include usefulness of PainTracker in patients with stable pain treatment; continued mistrust in high pain scores and dysfunction scores with patients who may be seeking to increase or avoid decrease of their opioid prescription; difficulty viewing in the electronic medical record; and some concern about patient confusion over certain items on the PainTracker.

Conclusions: There are few patient reported outcome surveys related to chronic pain made specifically for the primary care setting. Gaining understanding of how such a tool has been received by providers in a clinic system is an important first step in supporting the use of PainTracker in the primary care setting. The results of this study revealed that there is relatively high satisfaction with PainTracker and most providers find that it increases patient participation in their treatment plan.

Funding: This project is supported by National Institute of Nursing Research of the National Institutes of Health under award number R01NR012450, and has been conducted within the University of Washington system in conjunction with the University of Washington Neighborhood Clinic System.

NURSE PRACTITIONER: PRACTICE AND EDUCATION

Teaching Shared Decision Making in Interprofessional Primary Care Education

*Linda C. Pyke, MN, FNP-BC
Clinician Educator*

*Maryann Overland, MD
Clinician Educator*

*Anne Poppe, PhDc, MN, RN
Research Coordinator*

*Center of Excellence in Primary Care Education
Veteran Affairs Puget Sound Health Care System
Seattle, WA*

Purposes/Aims: The purpose of the Shared Decision Making (SDM) curriculum was to promote SDM strategies through the use of clinical scenarios and decision aids, which further enhance interprofessional clinical education.

Rationale/Background: The Center of Excellence (COE) in Primary Care Education is an educationally funded program partnered with a major medical center to train medical residents and nurse practitioners in Primary Care. Within the program, interdisciplinary curriculum development is designed to prepare trainees to work together while learning primary care practices.

Undertaking/Best Practice/Approach/Methods/Process: Clinician educators, consisting of a nurse practitioner and a physician, developed clinical case scenarios to be utilized with trainees to practice SDM techniques. Some of these case scenarios were videotaped prior to the seminars with nurse practitioner and physician faculty interacting with standardized patient actors to demonstrate SDM techniques. Teaching seminars with trainees were conducted in two parts: Session I introduced SDM principles, videotapes of SDM were shown, and trainees practiced with standardized patients during seminars. Session II trainees were paired in clinic with each other, observing their clinic patient interactions and were provided feedback with faculty oversight. The OPTION tool was used to assess the extent to which SDM was utilized during interactions. All COE faculty were given training regarding use of the OPTION tool prior to the sessions and were asked to use the tool to observe their paired COE trainees prior to and following the seminar sessions.

Outcomes Achieved/Documented: Sessions were evaluated by trainees with the assistance of a research coordinator who developed a 5 point Likert scale for each of the following criteria: content, interactive, adequate time, quality, likelihood to use, confidence increase. Participant comments were categorized by take home points, remaining questions, usefulness for different types of patients, improvements/recommendations, and other comments.

Conclusions: Teaching SDM to nurse practitioner student and resident trainees in an interdisciplinary setting utilizing clinically relevant scenarios increased provider confidence. Future areas of development include further decision aid development to increase trainee clinical confidence when practicing SDM, utilization of the OPTION tool to assess pre and post seminar SDM skills, and further development of standardized patient scenarios.

Funding: The Center of Excellence in Primary Care Education is funded by the Department of Veterans Affairs Office of Academic Affiliations.

Abstracts of Poster Presentations

**PACK YOUR BAGS: SHARED INSIGHTS
OF A GLOBAL HEALTH PROGRAM**

OVERVIEW: PACK YOUR BAGS:
SHARED INSIGHTS OF A GLOBAL HEALTH PROGRAM
Debra Edmunds, Sheri P. Palmer, Cheryl Corbett, Debra Wing

SELECTION AND SUSTAINABILITY
OF A GLOBAL HEALTH PROGRAM SITE
Cheryl Corbett, Karen Miller Lundberg

COLLABORATION IN A GLOBAL HEALTH PROGRAM
Debra Edmunds

ON THE GROUND WITH GLOBAL HEALTH COURSES:
LOGISTICAL WISDOM
Leslie Miles, Debra K. Wing

ASSESSMENT: AN INTEGRAL PIECE OF A GLOBAL HEALTH
AND CULTURAL COMPETENCY COURSE
Sheri P. Palmer

PACK YOUR BAGS: SHARED INSIGHTS OF A GLOBAL HEALTH PROGRAM

Overview: Pack Your Bags: Shared Insights of a Global Health Program

Debra Edmunds, MSN, RN, CNE
Assistant Professor

Sheri P. Palmer, RN, DNP
Associate Professor

Cheryl Corbett, APRN, MSN, NP-C
Associate Professor

Debra Wing, Maj, USAFR, NC, MSNEd
Assistant Professor

College of Nursing
Brigham Young University
Provo, UT

Purpose/Aims: Global Nursing Education is a multi-faceted entity and is much more than just packing your bags. This symposium will describe an effective process for developing a global health program. Essential components will include (a) selection and sustainability of the sites, (b) interprofessional and community collaboration, (c) logistical issues and on-the-ground planning, and (d) evaluation of the effectiveness of the program.

Rationale/ Background: Emphasis is being placed on educating nursing students to provide culturally competent care. One way of accomplishing this is for nursing schools to develop a carefully selected, sustainable global health program in which to immerse students in another culture. Students from other disciplines may be included for interprofessional collaboration to broaden the global health experience. Establishing connections within the community is vital to a successful global health course. We have utilized many international sites over the years for over 800 student clinical placements including Australia, Argentina, England, Ecuador, Finland, Ghana, Guatemala, Jordan, Russia, Taiwan, and Tonga. Each of these sites has posed unique challenges in setting up effective cultural nursing learning experiences. These challenges range from establishing clinical contracts to navigating different support organizations and governments. Besides clinical placement issues, we have had multiple experiences with planning and organizing transportation, housing, and safety measures. These on-the-ground experiences place us in a position to share our experiential learning on how to address logistical issues when implementing a successful global health program. Evaluating the effectiveness of this global health program can be challenging. To gain as much knowledge as possible about the efficacy of this nursing course, we utilize different methods of assessment.

Description: The initial process for selecting an international site is based on key factors including student interest, cultural diversity, language feasibility, and potential healthcare opportunities. Ultimately, sites are chosen based on the criteria of sustainability, safety, diversity, cultural experiences and clinical opportunities. Our institution offers mentoring awards and research scholarships which have enabled graduate nursing students to serve as adjunct faculty members in several of the international sites. Students are able to practice collaborative care along with culturally-competent nursing care. Collaboration with health care partners in the community is vital to a successful program. “Lessons-learned” examples and wisdom pearls will address what to expect in different countries and how to be prepared for unexpected issues such as unsafe water, sick/injured students, family emergencies, safety, and individual student issues. Measurement of student cultural competency includes pre-/post-test surveys, reflective writing papers, and nightly discussion groups. The challenges and successes of using these various methods of assessment will be presented.

Outcomes/Conclusions: Global health programs for nursing students can be a benefit to students, faculty and partners. Collaboration has provided enriching experiences preparing students to deliver culturally appropriate care. A safe and positive learning environment impacts student satisfaction and creates a rich learning environment. It is critical we provide deliverable data of the impact on the student’s education through effective evaluation. We are eager to share our knowledge and experience for the benefit of all Global Nursing Education.

PACK YOUR BAGS: SHARED INSIGHTS OF A GLOBAL HEALTH PROGRAM

Selection and Sustainability of a Global Health Program Site

Cheryl Corbett, APRN, MSN, NP-C
Associate Professor
College of Nursing
Brigham Young University
Provo, UT

Karen Miller Lundberg, MS, RN, CNE
Associate Professor
College of Nursing
Brigham Young University
Provo, UT

Purpose: To describe an effective process of selecting and developing an international site for a global health program including challenges faced by nurse educators.

Rationale/ Background: An increasing emphasis is being placed on educating nursing students to provide culturally competent care. One way of accomplishing this is for nursing faculty to develop a global health program in which to immerse students in another culture. However, the process of site selection, development and sustaining an international program can be a challenge to establish. Our institution has developed a global health program offering undergraduate nursing students clinical and cultural experiences in national and international sites. This program currently offers international sites in Taiwan, Tonga, Finland/Russia, Ecuador, Ghana and India. Each site admits 8-14 students for a three or four week cultural immersion program.

Description: The initial process for selecting an international site is based on key factors including student interest, diversity of locations, culture, language feasibility, and potential healthcare opportunities. After determining program needs and interests, possible in-country organizations are contacted for prospective partnerships. Organizations may include non-government organizations, government organizations, academic institutions and private institutions. During the development period, faculty visit the site to ensure expectations are correct and promote communication. Ultimately, sites are chosen based on the criteria of sustainability, safety, diversity, cultural experiences and clinical opportunities. Following site selection, a contract is created and signed by both the college and the international organization.

Outcomes: This global health program has grown from a few clinical sites in 2007 to its current status of six international sites. International sites have been added to meet the increased student interest in a nursing study abroad program. Several sites have been eliminated when the required criteria is no longer met such as safety, or lack of clinical opportunities. Collaboration with international partners has provided enriching clinical experiences preparing students to deliver culturally appropriate care to many diverse populations. In addition, faculty have also had opportunities to develop international relationships for research and personal development.

Conclusions: Nurse educators interested in developing a global health program can benefit through careful site selection. Utilizing sustainable international organizations allows students ready access to clinical experience. Global health programs for nursing students can be a benefit to students, faculty and partnering organizations.

PACK YOUR BAGS: SHARED INSIGHTS OF A GLOBAL HEALTH PROGRAM

Collaboration in a Global Health Program

*Debra Edmunds, MSN, RN, CNE
Assistant Professor
College of Nursing
Brigham Young University
Provo, UT*

Purpose/Aims: The purpose of this project is to describe the development of a meaningful global health program in Tonga for Spring Semester 2013 by incorporation of interprofessional and community collaboration.

Rationale/Background: Previous experiences in Tonga and other global health sites have demonstrated the value of interprofessional collaboration. Our program has utilized graduate nursing students serving in an affiliate faculty role to mentor undergraduate students in clinical settings in global health sites. Graduate nursing students are able to provide humanitarian service and give back to the college, while mentoring the next generation of nurses. An undergraduate dietetics student accompanied the Tonga group as our settings were conducive to her diabetes research. Students from other health disciplines could also be included, as appropriate. Collaboration with members of the community is vital to a successful global health program. Connections with hospitals, schools, and other community agencies were established to facilitate learning experiences for the students.

Description: The graduate nursing students were surveyed to assess interest in mentoring undergraduates in a global health program. Two Family Nurse Practitioner students with pediatric nursing backgrounds were selected to accompany the Tonga group. Graduate Studies Mentoring Assistantship Awards are available at our institution and were obtained for the graduate students. The dietetics student also received a grant for her research. The interprofessional students joined the undergraduate nursing students in a cultural preparation course during winter semester where plans were made for the Tonga experience. Plans for the graduate students included supervising and mentoring undergraduate students in teaching presentations and health assessments in various community settings on three islands in Tonga and one community in Fiji. We planned for the dietetic student to join us in clinical settings as appropriate, such as schools, health fairs, and a diabetes outpatient clinic. The purpose of her project was to assess the level of understanding and education among Tongans about Diabetes. She was able to assist us with teaching principles of healthy living to the Tongan people to reduce the risk of diabetes. The students were able to practice collaborative care along with culturally-competent nursing care. Community connections were made in advance through school, church and government agencies to facilitate clinical experiences.

Outcomes/Conclusion: Immersion in other cultures provides lifelong benefits. As healthcare is becoming more globalized, this experience assisted all of the students in becoming more culturally competent. These insights will be shared with other students in other disciplines to add to their knowledge of global health and human diversity. The global health program in Tonga was extremely meaningful. An essential component was the incorporation of interprofessional and community collaboration.

PACK YOUR BAGS: SHARED INSIGHTS OF A GLOBAL HEALTH PROGRAM

On the Ground with Global Health Courses: Logistical Wisdom

Leslie Miles, DNP, APRN, BC, Assistant Teaching Professor
Debra K. Wing, Major, USAFR, NC, MSNEd, RN, Assistant Teaching Professor

College of Nursing
Brigham Young University
Provo, UT
debra-wing@byu.edu

Purpose: This session will elucidate the challenges and successes over the years of logistical clinical and on the ground planning for an ongoing multi-site global health program.

Background: Brigham Young University College of Nursing has utilized many international sites over the years for student clinical placements: Australia, Chile, England, Ecuador, Finland, Ghana, Guatemala, Jordan, Russia, Taiwan, and Tonga. Each of these sites has posed unique challenges in setting up good cultural nursing learning experiences from establishing clinical contracts to navigating different support organizations and governments. Besides clinical placement issues we have had multiple experiences with planning and organizing transportation, housing, security, safe food and water, immunizations, visas, cultural activities, student issues, and emergency medical care. These on-the-ground experiences places us in a position to be able to share our experiential learning on how to address logistical issues when implementing a successful global health program.

Description: This presentation will address the variety of logistics that faculty will encounter in planning a successful global health experience. Lesson learned examples and wisdom pearls will address what to expect in different countries and how to be prepared for unexpected issues: unsafe water, sick/injured students, family emergencies, safety, and individual student issues. In addition, emergency evacuation procedures for disasters and plans for disruptive students will be included. ‘Backup Plans’ for the group become essential when considering an ever-changing world environment. Consistent logistical and contingency planning has become a cornerstone of our program that has made it successful over the years.

Outcomes:

- 1) Attendees will recognize logistical preparation needs when planning a global health learning experience.
- 2) Attendees will discuss potential emergency situations that may arise in a global health learning experience.

Conclusion: A global health program that addresses and plans for how to handle expected and unexpected program logistics is the often overlooked but essential component of a well-designed cultural experience. A safe and positive learning environment impacts student satisfaction and creates a rich learning environment where students can focus on understanding of how to provide culturally sensitive care.

PACK YOUR BAGS: SHARED INSIGHTS OF A GLOBAL HEALTH PROGRAM

Assessment: An Integral Piece of a Global Health and Cultural Competency Course

Sheri P. Palmer, RN, DNP, CEN
Associate Teaching Professor
College of Nursing
Brigham Young University
Provo, UT

Purpose: Various methods of assessment are used to gain knowledge about the efficacy of a Global Education Nursing course.

Background: In our College of Nursing, students spend anywhere from \$500-5000 for a “cultural nursing experience” to increase their knowledge of healthcare and global diversity. With this expenditure being a large portion of the economic expectation of the nursing program, it is imperative to evaluate the experience. Evaluating the effectiveness of this Global Health and Cultural Competency course can be challenging. The challenges and successes of using these various methods of assessment will be presented during this symposium.

Methods: Three different quantitative tools to measure student cultural competency have been used over the past few years (Braskamp, Braskamp, Merrill, 2010; Caffrey, 2004; Camphina-Bacote, 2002). Over 450 pre-/post-test surveys have been returned. In addition, other methods used are: students compose reflective writing papers to answer four thought-provoking questions, site directors lead nightly discussion groups that reflect upon the daily learning that occurs, and culture classes are taught prior to and during each trip. Finally, students have developed and presented posters and podium presentations across the country.

Outcomes: The three quantitative tools we have used indicated that all students, no matter where they completed their clinical experience, improved in their global perspective skills, knowledge and attitudes. Reflective writing papers have been analyzed for general thematic content and constructs have been shared between faculty and students. Students and site directors are influenced by the nightly discussion groups and share their learning privately in their journals as well as between each other. Public sharing is encouraged by student’s blogging with their cohort students across the globe. Finally, appropriate venues for presentations are encouraged by the faculty, where they mentor students from the proposal process to the actual presentation. Many times faculty are able to travel with the students for their presentations.

Conclusion: The information gleaned from various assessment methods are used to better understand student progress in their nursing education. We also use the information for quality improvement to determine what experiences and teaching techniques best assist students to increase their cultural and global health perspectives. With the amount of student dollars and resources invested in this program, it is critical we provide deliverable data of the impact of the course on their education.

Abstracts of Poster Presentations

PAIN MANAGEMENT

A PROPOSED FRAMEWORK FOR UNDERSTANDING TAI CHI: A SYSTEMS BIOLOGY APPROACH

Maxine Maxwell Hicks

A REVIEW ON THE USE OF CAM MODALITIES FOR THE TREATMENT OF CHRONIC NON-CANCER PAIN

Brianna Wilson, Ardith Z. Doorenbos, Deb Gordon

CREATING A COMMUNITY OF PRACTICE FOR PAIN MANAGEMENT

Alexa R. Meins, Ardith Z. Doorenbos

EFFECT OF COUNSELING AND YOGA ON STRESS AND COPING AMONG INFERTILE WOMEN

*Ganapathi Neelakshi, S. Rajeswari, B. Sreelekha,
Linda H. Eaton, Ardith Z. Doorenbos*

EFFECTS OF AROMATHERAPY ON ANXIETY AND NAUSEA IN CANCER PATIENTS UNDERGOING PORT ACCESS

Heather Roberts, Margaret M. Downey, Alia Crandall

EVALUATION OF NURSING DOCUMENTATION OF EVIDENCE-BASED CANCER PAIN MANAGEMENT

Wenjia Song, Linda Eaton, Ardith Doorenbos, Christine Hoyle, Deb Gordon

FAMILY PERCEPTIONS OF PALLIATIVE CARE IN DIVERSE POPULATIONS

Jane M. Georges, Kathleen Stacy, Cynthia D. Connelly

USING COGNITIVE BEHAVIORAL PAIN MANAGEMENT STRATEGIES IN AI/AN POPULATIONS

Emily A. Haozous, Ardith Doorenbos, Susan Stoner

PAIN MANAGEMENT

A Proposed Framework for Understanding Tai Chi: A Systems Biology Approach

*Maxine Maxwell Hicks, MSN, ARNP
PhD Student
College of Nursing
University of Central Florida
Orlando, FL*

Purpose: The purpose of this paper was to argue for the benefits of applying Wayne and Fuerst's (2013) systems biology approach for understanding Tai chi's effectiveness in improving health and wellbeing.

Description of Theory: Wayne and Fuerst (2013) developed the systems biology approach to Tai Chi that involves the study of eight elements, awareness, intention, active relaxation, spiritual embodiment, social support, natural, freer breathing, strengthening and flexibility, and structural integration. This recently developed framework is a combination of systems biology and complexity theory. Accordingly, the dynamic integration between these elements determines the characteristics and performance of the system. All eight elements have been found to be enhanced through the practice of Tai Chi.

Internal Consistency of the Theory: Structural congruence and consistency in content and context are evident. Examples are provided from recent Tai chi research studies to reveal the interrelated contributions of the concepts on cognitive, psychosocial and physical well-being.

Logic Linking the Theory to Research Problem: The concepts of Wayne's et al. (2013) systems biology approach to studying Tai chi illustrate the diverse nature of Tai chi and its all-encompassing effect on physical and cognitive health. The decision to participate in exercise for benefits extending beyond physical function to cognition is a novel concept. Remarkably, physical activity, such as Tai chi, has been associated with a decreased risk for Alzheimer's disease and age related cognitive decline in older adults (Weinstein, et al. 2012). Meanwhile, physical inactivity, a leading risk factor for global mortality, is now recognized as a global pandemic (WHO, 2009) from which over three million people die each year (Pratt et al. 2012).

Conclusions: A systems biology approach can be used to develop an understanding of the influence of Tai chi exercise on the body and mind. The knowledge obtained would have relevance for nurse researchers in developing health promotion interventions using Tai chi exercise that can affect both physical and cognitive function.

PAIN MANAGEMENT

A Review on the Use of CAM Modalities for the Treatment of Chronic Non-Cancer Pain

Brianna Wilson, MN, ARNP, FNP-BC, Doctoral Student
Ardith Z. Doorenbos, PhD, RN, FAAN, Associate Professor
Deb Gordon, RN, DNP, FAAN
School of Nursing, University of Washington, Seattle, WA

Purpose: The aim of this project was to conduct a systematic review of the evidence on the efficacy of select complementary and alternative medicine (CAM) therapies for integrative chronic non-cancer pain management.

Background: The use of CAM therapies has increased in the US over the past decade and are widely used by patients. Pain problems are one of the most common reasons for CAM consultations, with back pain being the most frequent. CAM is being utilized more as adjunct therapies for pain management as it is becoming more accepted and understood by health care providers; therefore, creating a summary of the evidence for CAM pain therapies for providers is an important step in supporting integrative medicine in managing chronic pain.

Methods: RCTs between the years 2005 and 2013 using CAM therapies on common chronic pain conditions of arthritis, fibromyalgia, back pain, neck pain, and chronic headache were abstracted using PubMed and compared with systematic reviews published by the Cochrane Library to exclude studies that have already been reviewed. A systematic review was performed using the Oxford Pain Validity Scale and Jadad Score to rate the studies validity and quality respectively.

Results: A total of 49 RCTs and systematic reviews were identified through database searches. Of these 49 studies, 37 were excluded that did not meet the inclusion criteria, yielding 12 relevant articles all on the modality of acupuncture and chronic pain conditions of low back pain (LBP), neck pain, osteoarthritis and chronic headache. There were five studies on chronic low back pain (one with high validity and quality, two with moderate validity and quality, and two with low validity and quality); four on chronic neck pain [one shared with LBP, (three with moderate validity and quality, and one with low validity and quality)]; two on osteoarthritis (both with moderate validity and quality); and two on chronic headache (one with moderate validity and quality, and one with low validity and quality).

Findings: All twelve RCTs on acupuncture utilized traditional/standard acupuncture with six studies comparing standard acupuncture with Sham acupuncture. Four studies added a third group of no acupuncture or wait list. Two studies compared acupuncture with pharmacologic treatment. The consensus from the studies on chronic LBP is that either standard or Sham acupuncture were more effective in relieving pain and improving patient's function when compared to standard practice without acupuncture. For chronic neck pain the consensus of the four studies was that standard acupuncture decreased disability and increased functional and quality of life when compared to the controls. For osteoarthritis, acupuncture in combination with a NSAID significantly improved functional and neck mobility. There was a significant reduction in the number of moderate and severe headaches in the acupuncture group when compared to a standard pharmacologic treatment using topiramate.

Implications: The review of current literature and recent systemic reviews suggest that the CAM modality acupuncture can be beneficial in the treatment of various chronic pain conditions when used in conjunction with standard treatment. Although further high quality research is needed on CAM modalities for the treatment of chronic non-cancer pain, a multi-model approach including the use of integrative medicine should be considered a part of chronic pain treatment.

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PAIN MANAGEMENT

Creating a Community of Practice for Pain Management

*Alexa R. Meins, BS
PhD Student
School of Nursing
University of Washington
Seattle, WA*

*Ardith Z. Doorenbos, PhD, RN, FAAN
Associate Professor
School of Nursing
University of Washington
Seattle, WA*

Purposes/Aims: The purpose of this project is to define a community of practice (CoP) and to provide evidence of the successful development of a teleconference series as a community of practice for chronic pain management in rural communities.

Background: Chronic pain management specialists are primarily located in urban areas, creating access barriers to populations living in rural communities. In response to this issue, a weekly teleconference series called TelePain was developed in March 2008. Using the model of a community of practice used by the business and education sectors for over 20 years, TelePain brings together primary care providers from the WWAMI and Oregon region and a multidisciplinary panel of pain specialists. Through participation in the TelePain CoP, providers receive education on how to provide evidence-based care to chronic pain patients. In addition, providers receive specialty consultation for their most complex pain patients resulting in individualized treatment plans that patients may not otherwise have access to. Since the beginning of TelePain, over 400 providers from over 100 unique locations have participated.

Methods: Participant observation was conducted at TelePain meetings to assess the presence or absence of ‘Wegner’s Indicators for the Presence of Community of Practice’ in order to evaluate the successful implementation of the CoP model. In addition, evaluation surveys completed by primary care providers about their participation in TelePain were summarized.

Results: All 14 of Wegner’s Indicators were present, thus TelePain qualifies as a CoP. The surveys showed that continued participation in TelePain increased providers’ knowledge and confidence in their ability to provide chronic pain management in their clinics.

Implications: CoPs can be extremely effective in addressing the problem of chronic pain specialty care access. The use of telecommunication to bridge geographical barriers that exist when specialists are located almost exclusively in urban areas and the implementation of the CoP model is a feasible way in which chronic pain care can be improved on a large scale.

Funding: This project is supported by National Institute of Nursing Research of the National Institutes of Health under award number R01NR012450.

PAIN MANAGEMENT

Effect of Counseling and Yoga on Stress and Coping among Infertile Women

*Ganapathi Neelakshi, PhD, RN
Professor, Department of Psychiatric Nursing¹*

*S. Rajeswari, PhD, RN
Reader, Department of Maternity
Nursing¹*

*B. Sreelekha, PhD, RN,
Reader, Medical Surgical Nursing¹*

Linda H. Eaton, MN, RN, AOCN²

Ardith Z. Doorenbos, PhD, RN, FAAN²

¹Faculty of Nursing, Sri Ramachandra University, Chennai, India

²Biobehavioral Nursing and Health Systems, University of Washington, Seattle, WA

Purpose/Aim: To determine the effectiveness of counseling and yoga on stress and coping among infertile women.

Rationale/Background: Infertility is not only a global health issue; it is one of the gynecological problems in India. The experience of infertile women results in poor coping and multidimensional stress. Comprehensive interventional counseling with yoga may help the women to express their feelings and experiences, acquires tips to improve their coping abilities to manage every day stress.

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 was obtained from the institutional ethics committee. Study participants were recruited from Specialized Fertility Research Centre in South India. Simple random technique (lottery method) was used to assign the study participants to intervention and control group. After obtaining informed consent baseline information was collected including background variables, stress level by fertility problem inventory, and coping abilities using coping check list. Women randomized to the intervention received, a 1:1 three-session, 30-minutes each, informative, supportive and therapeutic counseling. Additionally, five types of yoga Titali asana, Spinel flex, Pranayama, Meditation and Shavasana was demonstrated by the investigator as in group sessions consisting of 5 – 7 participants for 30 minutes from third to tenth day. Additionally, a booklet on “stress free life” was issued to the intervention group. The control group received only routine care. The posttest was assessed at 12th day and 28th day after the intervention for both the groups. After the posttest 2 book let was given to control group. Data were analyzed using Repeated Measures of ANOVA.

Results: Analysis revealed an improvement in overall coping for the intervention group compared to the control group (p <0.001). The intervention group had a greater reduction in Global stress than the control group (p <0.001).

Implications: The comprehensive counseling intervention for infertile women undergoing IVF treatment may be successfully implemented by nurses working in hospitals, fertility center and community settings. The “stress free life” booklet on counseling and specific yoga types developed by the investigator can be used to educate infertile women to manage stress. The continuous participation in counseling session and regular practice of yoga techniques may be advised to maximize positive coping; thereby minimize stress level among infertile women during the course of IVF treatment.

PAIN MANAGEMENT

Effects of Aromatherapy on Anxiety and Nausea in Cancer Patients Undergoing Port Access

*Heather Roberts, BSN, RN
SLHS Research Fellow
St Luke's MSTI
Twin Falls, ID*

*Margaret M. Downey, PhD, RN,
AHN-BC, CHTP, CNE
Associate Professor
Boise State University
School of Nursing, Boise, ID
SLHS Research Fellow Mentor*

*Alia Crandall
Nursing Student
SLHS Research Fellow
Research Assistant
Boise State University
School of Nursing, Boise, ID*

Purpose/Aims: To determine if the utilization of Aromatabs® will reduce nausea and/or anxiety related to PORT access in breast cancer patients at MSTI-MV clinic. A secondary objective is to examine the relationship between nausea and anxiety. Based on results from this pilot study, the team intends to conduct a larger follow-up study.

Background and Significance: Aromatherapy is a non-invasive integrative therapy that may provide relief to a wide variety of oncology patients undergoing treatment. Aromatherapy is becoming more recognized within the modern practice of medicine. Research shows that it may be helpful in decreasing side effects of cancer treatment including anxiety, nausea and discomfort. Although this study is small the intent is to determine if aromatherapy could become an effective integrative intervention in patients with PORT access at St. Luke's Mountain States Tumor Institute-Magic Valley (MSTI-MV) oncology clinic.

Methods and Study Design: This is an experimental pilot study. 20 participants (10 treatment and 10 placebo) will be selected from newly diagnosed breast cancer patients, 18 and older, with PORT access. Following informed consent, the treatment group will be given the Aromatabs® and those assigned to receive placebo, will be provided a blank Aromatab® (no essential oils). All participants will continue to receive standard of nursing care. The treatment group will be educated on the use of Aromatabs® and given the orange-peppermint scent for use before, during and after PORT access, for three trials. The placebo group will be given the same information and a blank Aromatab® for use before, during and after their PORT access, for three trials. Aromatabs® will be utilized along with the customary RN care. Prior to and after PORT access, participants will rate their anxiety and nausea via reliable visual analog scales.

Results: The quantitative data analysis will focus on the effects of the aromatherapy on nausea/anxiety as compared to placebo. Repeated measures ANOVA (2 groups x 3 sessions) will be conducted to compare pre- and post-treatment symptom evaluation. Correlation coefficients between anxiety and nausea will also be computed.

Implications: The significance of this study is that patients may be relieved of anxiety and/or nausea during PORT access. The results would be used for a nursing practice policy with implementation of Aromatabs® for MSTI-MV. The results of this study will also add to the existing research on the use of aromatherapy in clinical cancer care.

Funding: This study was supported by St Luke's Health System Nursing Research Fellowship program and Boise State University School of Nursing, Boise, Idaho.

PAIN MANAGEMENT

Evaluation of Nursing Documentation of Evidence-Based Cancer Pain Management

Wenjia Song, BSN, MN, RN, ARNP¹

Linda Eaton, PhD(c), RN, AOCN, Doctoral Student¹

Ardith Doorenbos, PhD, RN, FAAN, Associate Professor¹

Christine Hoyle, DNP, ARNP, FNP, Clinical Assistant Professor¹

Deb Gordon, RN, DNP, FAAN²

¹*University of Washington*

²*Harborview Medical Center*

Purpose: The purpose of this study is to evaluate the use of evidence-based pain management practices performed by cancer nurses by examining electronic medical record documentation. The development of a modified data collection tool, the challenges encountered during data collection process, and the implications of this research project are presented.

Background: In order to ensure that cancer pain management is based on best practices, it is important to understand how nurses are currently caring for patients with cancer pain. The implementation of evidence-based pain management (EBPM) can be monitored through documentation. Multiple instruments such as the Cancer Pain Practice Index (CPPI), the Summative Index for Quality of Acute Pain Care, and the Pain Management Chart Audit Tool, have been used to measure evidence-based pain management documentation. The CPPI, with its established reliability and validity, is the only instrument that provides a measurement of the essential indicators of evidence-based cancer pain management.

Method: The CPPI was modified to incorporate the nursing care requirements indicated in the pain management policy at an academic medical center where EBPM documentation was evaluated. Data were collected from one surgical oncology unit as part of a larger study looking at barriers and facilitators to evidence-based cancer pain management. Electronic documentation (in ORCA system) of nursing pain management provided to patients (N = 40) was reviewed. Pain documentation was evaluated through multiple indicators including pain assessment, reassessment with a valid pain scale, initiation or review of care plan, pharmacological and non-pharmacological interventions, communication with physicians, and patient education. Each pain documentation was assigned a score, from 0 (indicating worst possible) to 12 (best possible), to reflect the delivery of evidence-based pain management. A score could be lower because some of the indicators were not applicable to certain documentation of nursing pain management.

Results: Several challenges were encountered in evaluating pain management documentation. Data collection was a lengthy and arduous process due to the fragmented nursing pain documentation. The research nurse found the areas where pain management data were most fragmented and/or uncompleted in the daily nursing care were: 1) flow sheet, 2) progress note, 3) medication administration record, and 4) care plan. The least complete documentation included non-pharmacological interventions, pain-related patient education, and the discontinued time of pharmacological interventions. The range of scores of all nursing pain documentation varied from 5 to 12. The mean score is .78, meaning nurses at this academic medical center were documenting 78% of the evidence-based practice indicators.

Implication: Use of electronic medical record documentation to evaluate evidence-based practice is of growing interest however challenges exist. Our modified instrument is currently being used to collect data at another medical center that uses a different electronic documentation platform. The usability of the instrument and the process of evaluating pain management documentation will be taken into consideration in further use of the modified CPPI instrument.

Funding: This project is supported by National Institute of Nursing Research of the National Institutes of Health under award number R01NR012450 and has been conducted within the University of Washington Medical Center.

PAIN MANAGEMENT

Family Perceptions of Palliative Care in Diverse Populations

Jane M. Georges, PhD, RN
Associate Professor
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA

Kathleen Stacy, PhD, RN
Clinical Nurse Specialist
Palomar Medical Center
Escondido, CA

Cynthia D. Connelly, PhD, RN, FAAN
Professor, Hahn School of Nursing
and Health Science
University of San Diego
San Diego, CA

Purposes/Aims: The overall purpose of this qualitative research study is to explore the perception of palliative care referral in family members of palliative care patients from diverse populations. The aims of this qualitative study are to: 1) explore family members' perceived meaning of a palliative care referral as initially proposed to them by a health care professional; 2) identify family members' perceptions of reasons, purposes, and ends for the proposal of palliative care.

Background: The palliative care paradigm is a relatively new approach to patient care and can be of benefit to patients in multiple environments, including the critical care unit. However, factors such as family misperception of the purposes of palliative care or cultural communication barriers can result in the initial non-acceptance of palliative care services by key decision makers in the family structure. Currently, no published reports exist of culturally competent interdisciplinary interventions designed to enhance communication between health care providers and families around the issue of referral to palliative care.

Methods: Design. This in-progress qualitative study utilizes the narrative approach suggested by Martin (1990). The use of Martin's (1990) deconstructive approach for this study is appropriate, as it is congruent with the purposes/aims of the study to uncover the elements of perceived meaning, reasons, purposes, and ends for proposing palliative care.

Sample. The sample is drawn from a major medical center in Southern California that serves diverse ethnic populations and includes adult family members who played a key role in decision-making during a palliative care patient's inpatient stay.

Data Collection Procedures. A private, recorded, semi-structured interview is conducted using questions congruent with the specific aims. Interview questions meet the specific aims of the study by exploring perceptions of reasons, purposes, and ends for the proposal of palliative care.

Data Analysis. Following transcription of the interviews, analytic strategies proposed by Martin (1990) for deconstruction are used, including dismantling dichotomies and examining silences. Narrative exemplars of principal themes are identified.

Results: This study is currently in-progress. Six interviews have been conducted.

Implications: Results from this study can provide a basis for future development and testing of structured culturally competent interventions designed to enhance communication regarding palliative care across diverse populations.

PAIN MANAGEMENT

Using Cognitive Behavioral Pain Management Strategies in AI/AN Populations

Emily A. Haozous, PhD, RN
Assistant Professor
University of New Mexico
College of Nursing
Albuquerque, NM

Ardith Doorenbos, PhD, RN
Associate Professor
University of Washington
College of Nursing
Seattle, WA

Susan Stoner, PhD
Research Scientist
Talaria Inc.
Seattle, WA

Purposes/Aims: The purpose of this study was to build an understanding of the chronic pain experience for American Indians and Alaska Natives (AIs) and to identify whether CBPM would be culturally appropriate in this population.

Background: Pain is the primary reason people seek medical care. While medication the first line of defense against pain, empirical support for the effectiveness of cognitive-behavioral pain management (CBPM) techniques is growing. Empirically supported CBPM techniques include diaphragmatic breathing, progressive muscle relaxation, and guided imagery. Used alone or in conjunction with pharmacological treatment, CBPM techniques have been shown to significantly reduce both cancer-related and non-cancer related pain.

Methods: This study is part of a larger project developing an internet-delivered, culturally tailored multimedia training (PATINA- Pain Management Training in Native American Communities), that is teaching empirically-supported CBPM techniques to providers serving rural communities. We used a semi-structured interview guide with focus groups in the Southwest and Pacific Northwest to identify whether CBPM is culturally acceptable and feasible in AI/AN communities.

Results: The participants provided rich qualitative data regarding chronic pain and willingness to utilize CBPM strategies. Themes include dissatisfaction with medical care, eagerness to try CBPM, and prior experiences with CBPM.

Implications: Results suggest CBPM is a viable and culturally appropriate approach for chronic pain management in AI/ANs, and there is room for improvement in chronic pain care in this population.

Abstracts of Poster Presentations

PEDIATRIC HEALTH

ASSESSING CHILDREN'S PHYSICAL ACTIVITY LEVELS AT SCHOOL USING DIRECT OBSERVATION

Ipuna Estavillo Black

CHALLENGES TO BREASTFEEDING INFANTS WITH PKU

*Sandra A. Banta-Wright, Sheila M. Kodadek,
Robert D. Steiner, Gail M. Houck*

BEST PRACTICE FOR MANAGING INOTROPIC INFUSIONS

Kate M. Bullock, Jennifer Peterson, Vicky Bowden

BEST PRACTICE FOR SURGICAL PEDIATRIC PATIENTS WITH MITOCHONDRIAL DISEASE

Brenda Senger

EFFECT OF INFANT MASSAGE ON MATERNAL BONDING IN NEWBORNS WITH CONGENITAL HEART DISEASE

Jennifer Peterson, Jill Berg

EFFECTS OF VIBRATION THERAPY IN PEDIATRIC IMMUNIZATIONS

Arika Benjamin, Thomas Hendrix, Jacque Woody

EVALUATION OF A PEDIATRIC CLINIC'S USE OF A DEVELOPMENTAL SCREENING TOOL

*Rhys A. Parker, Billy McCarty, Pauline Stajner, Margaret Ryan,
Maria D. Devore, Joseph Burkard*

IMPLEMENTING THE CLASSROOM PORTION OF THE 5-2-1-0 PROGRAM

*Rana Halabi Najjar, Angie Docherty, Lanoi Akita, Nichole Bergstrom,
Elizabeth Larson, Amy Seitzinger*

PARENT'S AND CLINICAL STAFF'S PERCEPTIONS
OF FEVER IN AN URGENT CARE SETTING

Madeline R. Barbera

LIVING ON THE EDGE OF ASTHMA:
EXPLORATION OF FAMILIES' EXPERIENCES

Michele R. Shaw, Gail Oneal

PROMOTING BREAST MILK NUTRITION
IN INFANTS WITH CLEFT LIP AND/OR PALATE

Nicole Diane L. Burca, Connie Miller

RAISING YOUTH WITH TYPE 1 DIABETES
AND CELIAC DISEASE: PARENT EXPERIENCES

Kerri Erickson, Barbara Mandleco, Donna Freeborn, Susanne Roper, Tina Dyches

RELIGIOSITY AND SIBLING RELATIONSHIPS
IN PARENTS RAISING A CHILD WITH DIABETES

Caitlin Peterson, Barbara Mandleco, Donna Freeborn, Tina Dyches

SEARCHING THE SIGNAL
FOR PREMATURE INFANT SLEEP CYCLES

Lauren Thorngate, Shuyuann Wang Foreman

SWEAR TO CARE: SAYING NO! TO CHILD ABUSE

Angelia Clark Trujillo, Ralph Pasana, Caitlin Ulrich

THE ACA, THE U.S. CHILD HEALTH SYSTEM
AND NURSING: A POLICY ANALYSIS

Eileen K. Fry-Bowers

USE OF WEIGHTED BLANKET ON INFANTS
EXPERIENCING DRUG WITHDRAWAL SYMPTOMS

*Shuyuann Wang Foreman, Lauren Thorngate, Nicole Roehrig,
Colleen Widden, Cheri Puetz*

WECAN PROGRAM TO CHANGE HEALTH BEHAVIORS
IN FAMILIES WITH OVERWEIGHT AND OBESE CHILDREN

Kristin Agtarap, Kathleen Sweeney, Lynne Scannell, Mary Jo Clark

PEDIATRIC HEALTH

Assessing Children's Physical Activity Levels at School Using Direct Observation

*Ipuna Estavillo Black, MSN, APN, RN
PhD Student
School of Nursing
University of Nevada, Las Vegas
Las Vegas, NV*

Purpose: The purpose of this presentation is to discuss the use of System for Observing Play and Leisure Activities (SOPLAY), one method to assess physical activity levels of children through direct observation, in the playground environment.

Background: SOPLAY is a direct observation tool designed to assess the number of students, their physical activity levels, and environmental contexts during play and leisure activity opportunities in each Target Area. A Target Area is a predetermined observation area in which students may potentially engage in physical activity.

Methods: Three observers were trained using the SOPLAY DVD created by the author of the tool, Dr. Thomas McKenzie. The Mapping Strategies portion of the SOPLAY tool was used to create specific Target Areas on the playground at two Henderson elementary schools: Bartlett and Kesterson. SOPLAY has an application for the IPAD that is new called ISOPARC. An attempt was made to create maps of the Target Areas on the playground using this application, but the application had some limitations, making it difficult to create the maps. Therefore, Scribblemaps was used to obtain aerial views of both playgrounds. The Target Areas were created using Scribblemaps, and each area space was measured using the satellite view function in Scribblemaps. Additionally, pictures of each Target Area were uploaded into Scribblemaps. The Mapping Variables Data Collection sheet was completed by two independent observers and compared for any discrepancies. An application for the iPhone to assist with data collection was downloaded by the three trained observers called Tally Counter for Four by Shigeto Takagi. Two observers collected data on the playground for two days at each school for reliability in identifying the levels of physical activity and the number of children present in each Target Area.

Results: Only two observers were needed for data collection. The third observer was available as a reserve. Bartlett had 16 Target Areas and Kesterson had 14 Target Areas. Correlations were high for both physical activity level interobserver agreements and identifying the number of boys and girls for each school ($r = .86 - .99$). Each playground could only be scanned once during the 15 minute leisure period before school hours.

Implications: An environmental assessment of the physical activity levels of children on two playground environments can provide insight on whether certain types of playground areas are more effective in promoting increased physical activity and inviting use. Researchers wanting to use this tool need to understand some of the disadvantages of using this tool, including it is time consuming, requires training and practice, requires accessibility to all observed locations, and potentially subjects may react uncomfortably during the direct observation. Nevertheless, SOPLAY is an objective tool for quantifying physical activity levels of children in elementary schools and has low subject burden, which is important in conducting studies in this type of setting and with this young population.

PEDIATRIC HEALTH

Challenges to Breastfeeding Infants with PKU

Sandra A. Banta-Wright, PhD, RN, NNP¹

Sheila M. Kodadek, PhD, RN²

Robert D. Steiner, MD³

Gail M. Houck, PhD, RN, PMHNP²

¹School of Nursing, University of Washington, Seattle, WA

²School of Nursing, Oregon Health & Science University, Portland, OR

³Marshfield Marshfield Clinic Research Foundation, Marshfield, WI

Introduction: Despite documented benefits of breastfeeding and breastmilk, the incidence and duration of breastfeeding when infants have phenylketonuria (PKU) continues to be less than with healthy, full-term infants who do not have PKU. No study has examined the particular challenges and barriers encountered by mothers attempting to breastfeed infants with PKU.

Purpose: Identify and describe barriers to successful continuation of breastfeeding for mothers with an infant diagnosed with PKU.

Sample: Mothers met the following inclusion criteria: 1) At least twenty-one years of age, 2) able to read and write in English, 3) have a breastfed child with PKU, and 4) live in the US or Canada at the time of the study.

Method: Mothers in the US and Canada were recruited from the PKU Listserv. Mothers who responded to the recruitment post were emailed a copy of the research information sheet and instructions for the survey. Mothers were also informed that survey completion would be evidence of their agreement to participate. A frequency count approach was used to begin the analysis of the open-ended responses to the internet survey, composed of mothers' descriptions of barriers and challenges when breastfeeding infants with PKU. Specific questions were asked within the open-ended responses to identify categories; responses were tabulated. The number for each category was divided by the number of respondents. Intercooder reliability was 91% agreement.

Results: Three categories of barriers to breastfeeding infants with PKU were identified: Common breastfeeding issues, breastfeeding and PKU, and no challenges. The largest category was common breastfeeding issues ($n = 56, 75\%$), and yielded four subcategories: *breast pumping* ($n = 34, 45\%$), *breast milk supply issues* ($n = 26, 35\%$), *nipple confusion* ($n = 21, 28\%$), and *common breastfeeding problems* ($n = 12, 16\%$). Breastfeeding and PKU ($n = 49, 65\%$) had three subcategories: 1) *management* ($n = 43, 57\%$), 2) *"how much"* ($n = 22, 29\%$), and 3) *time* ($n = 16, 21\%$). Several mothers ($n = 10, 13\%$) identified *no challenges* to breastfeeding infants with PKU, the third category.

Discussion: This study provided the first description of mothers' challenges and barriers when breastfeeding an infant with PKU. Within the common breastfeeding issues category, all four challenges can be identified in the breastfeeding literature, but for these mothers the issues are heightened due to frequent phenylalanine (Phe) testing to monitor Phe levels. Breastfeeding and PKU revealed mothers' struggles to adapt breastfeeding and maintain desired Phe levels. A few mothers have no challenges or barriers while breastfeeding infants with PKU and are the exception and not the norm.

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PEDIATRIC HEALTH

Best Practice for Managing Inotropic Infusions

*Kate M. Bullock, BSN, RN
Clinical Nurse III, CVICU
CHOC Children's Hospital
Orange, CA*

*Jennifer Peterson, MS, RN, CCNS
Clinical Nurse Specialist, CVICU
CHOC Children's Hospital
Orange, CA*

*Vicky Bowden, DNSC, RN
Professor, School of Nursing
Azusa Pacific University
Azusa, CA*

Purpose: The purpose of this evidenced-based project is to identify changeover methods for inotropic infusions that have been reviewed and evaluated in the literature, provide recommendations for implementing a standardized protocol for managing this changeover in critically ill children, and evaluate outcomes of practice standardization.

Background: Inotropic or vasoactive infusions, due to their short half-life, require limited interruption when changing over to a fresh infusion. Hemodynamic instability following the changeover of these infusions is a common problem in the pediatric intensive care unit, and may lead to serious adverse events. The changeover must be approached with critical thinking, skill, and confidence. Variations in this nursing practice, regardless of years of professional experience, may result in patient morbidity (Argaud et al., 2007).

Methods: Databases searched for this review of practice included: CINAHL, Pub Med, and Medline (EBSCO). Little evidence on best practices for the changeover of inotropic infusions was found. Two primary changeover methods were identified: "double pumping" and the "quick change." Factors identified that relate to changing out the infusions include type of pump and features, cost of additional tubing and medication, adverse effects to patient, infection control, and experience and knowledge of the critical care nurse (Trim & Roe, 2004).

Outcomes: Based on limited evidence available, a practice standardization guideline was developed, using the "quick change" method. Nursing and provider staff have been educated on the rationale for standardization and method. Data collection, including hemodynamic response to the standardized changeover method, as well as Vasoactive-Inotrope score (VIS) (Gaies, et al, 2010), is being collected prospectively on all inotrope infusion changeovers for six months and will be analyzed to determine relationships between the quick change method and hemodynamic stability during and after the changeover.

Implications: The effect of inotrope changeover procedures on hemodynamic stability has not been extensively studied and reported. Adverse reactions to interruption of inotropic infusion can lead to patient harm. Standardizing the changeover method and utilizing an evidence-based method may help improve safety in critically ill children.

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PEDIATRIC HEALTH

Best Practice for Surgical Pediatric Patients with Mitochondrial Disease

Brenda Senger, RN, PhD(c)
PhD Student/Faculty Lecturer
College of Nursing
Washington State University
Spokane, WA

Mitochondrial disease (mito) is a group of rare, inherited, chronic, life-limiting, incurable neurodegenerative disorders known to affect children early in life, that result from failure of the mitochondria to turn food into energy.

Purpose: The purpose of this best practice study is to describe special surgical considerations when caring for a child with a mitochondrial disease.

Rationale/Background: Mitochondrial dysfunction commonly affects the central nervous system, heart and muscular systems because of their high energy demands, but dysfunction can also occur in the gastrointestinal tract, eyes, ears, brain, and autonomic nervous system, and alter metabolic demands and cognition. Clinical presentation of a child with a mitochondrial dysfunction may include seizures, cardiomyopathy, arrhythmia, muscle weakness, dysmotility, vomiting, blindness, acidosis, deafness, developmental delays, and/or heat and cold intolerance. Surgical anesthetics, such as Propofol, have primary effect in tissue that requires high-energy demands sustained by mitochondrial function. Dysfunction in the mitochondria can pose a challenge to surgical patients requiring general anesthesia. Mitochondrial function is further compromised for the surgical patient with mito during periods of prolonged fasting pre-operatively, intra-operatively and post-operatively, increasing the risk of metabolic complications and muscle weakness, especially in muscles that support respiratory function.

Best Practice: Special consideration must be given to the patient with mitochondrial disease regarding pre-operative, intra-operative and post-operative care to support and maintain optimal mitochondrial function and recovery. Recommendations include conducting a comprehensive assessment, minimizing time for fasting, avoiding hypoglycemia with highly-concentrated dextrose IV solutions, closely monitoring for respiratory and central nervous system depression, carefully selecting anesthetics, meticulously managing post-operative nausea and vomiting, and extending pre-operative and post-operative monitoring times.

Outcomes: Best practice associated with surgical considerations for a child with mito can result in adjusted dosing and choices for anesthesia, a decrease in surgical complications associated with fasting, and closer monitoring for signs and symptoms and complications associated with mitochondrial distress.

Conclusions: Health care professionals are not always aware of the special needs of mitochondrial pediatric patients before, during, and after surgery. Increased knowledge about best practices associated with surgical risks will result in improved patient outcomes with fewer complications associated with mitochondrial disease.

PEDIATRIC HEALTH

Effect of Infant Massage on Maternal Bonding in Newborns with Congenital Heart Disease

Jennifer Peterson, MS, RN, CCNS
Clinical Nurse Specialist, CVICU
CHOC Children's Hospital
Orange, CA

Jill Berg, PhD, RN
Associate Professor
Program in Nursing Science
University of California, Irvine
Irvine, CA

Purpose: The purpose of this study is to examine the effect of mother-administered infant massage on maternal attachment in newborn infants with severe congenital heart disease. The infant's physiologic responses to the massage will also be studied.

Background: Parents of infants with severe congenital heart disease face obstacles to the normal newborn bonding process. Infant massage, a form of nurturing touch, has been investigated as a means to improve weight gain, improve sleep/wake patterns, attenuate pain response, enhance oral feeding ability, improve mother/infant interaction, and reduce energy expenditure in medically stable preterm infants (Kulkarni, Kaushik, Gupta, Sharma, & Agrawal, 2010, Lee, 2006).

Methods: A quasi-experimental design with a control group will be used to evaluate the effect of infant massage on maternal attachment. Secondary aims include the examination of infant physiologic outcomes to the massage intervention such as heart rate, blood pressure, and oxygen saturation through repeated assessments. The sample will include 20 dyads of neonatal patients with congenital heart disease that requires surgical intervention in the first two weeks of life, and their mothers. Mothers will complete a postpartum depression measure at baseline, and an attachment measure at baseline and at 2 week intervals following the infant's cardiac surgical procedure. Subjects randomized to the intervention group will receive training in a modified technique for infant massage by the Principal Investigator. The intervention group subjects will be encouraged to provide a modified massage to their infant daily. Exclusion criteria include congenital heart disease not requiring surgical intervention in the first 2 weeks of life, previous discharge to home, parent's inability to read or understand English or Spanish, parent's inability to provide massage at least three times per week, or physician preference for no massage.

Outcomes: This study has received IRB approval and is enrolling subjects. Preliminary results will be presented.

Implications: The effect of infant massage on infants with congenital heart disease has not been evaluated and reported. Infants with severe congenital heart disease require invasive, high-technology medical care during an important developmental period in their lives. The interruption of the normal maternal-infant attachment process may have later deleterious psychological and developmental effects.

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PEDIATRIC HEALTH

Effects of Vibration Therapy in Pediatric Immunizations

*Arika Benjamin, MSN, RN
School of Nursing
University of Alaska Anchorage
Anchorage, AK
arikabenjamin@hotmail.com*

*Thomas Hendrix, PhD, RN
School of Nursing
University of Alaska Anchorage
Anchorage, AK*

*Jacque Woody, MSN, RN
School of Nursing
University of Alaska Anchorage
Anchorage, AK*

A randomized clinical trial of 100 children (52 boys, 48 girls) ages 2 months to 7 years was conducted to evaluate the effect of vibration therapy on pain. A convenience sample was recruited at two sites, a state-sponsored immunization clinic and a private group pediatric practice. Participants were randomly assigned to receive vibration therapy via a specialized vibrating device or standard care. All children, regardless of intervention group, were allowed to be distracted and soothed by parents. Pain was evaluated using the FLACC score, which was assessed by two nurses at 3 points in time: prior to, during, and after the injection(s). Data was analyzed using a 2 independent samples paired t-test. Results show that vibration therapy had no effect on pain scores in the younger age groups studied (2 months - 1 year, 1 year to 4 years). In the oldest age group (4-7 years of age), a heightened pain reading was found in the period from pre-injection to post-injection periods ($p = 0.045$). These results indicate that immunizations are clearly stressful for children, and vibration therapy in addition to standard soothing techniques is not indicated for use with immunization pain. Recommendations include further evaluation of interventions.

PEDIATRIC HEALTH

Evaluation of a Pediatric Clinic's Use of a Developmental Screening Tool

LT Rhys A. Parker, NC, USN, DNP Student, Hahn School of Nursing and Health Sciences, University of San Diego; CDR Billy McCarty, MC, USN, CDR; Pauline Stajner, NC, USN, Department of Pediatrics; Margaret Ryan, MD, MPH; Maria D. Devore, MS, Naval Hospital, Camp Pendleton, CA; Joseph Burkard, DNSc, CRNA, Hahn School of Nursing and Health Sciences, University of San Diego

Background: The American Academy of Pediatrics (AAP) policy statement on Identifying Infants and Young Children with Developmental Disorders (2006) states that infants at 9-months, 18-months, and 24-months of age are at highest risk for developmental delays and recommends the use of a generalized developmental screening tool during preventive health visits. The Ages & Stages Questionnaires Third Edition (ASQ-3) is a parent-completed child monitoring system developed by experts in early intervention and human development that provides parents, providers, and the medical home team an opportunity to identify patients who are in need of further interventions and evaluations. The Pediatric Medical Home Port Team at Naval Hospital Camp Pendleton embraced a new change in practice by utilizing ASQ-3 for patients in high-risk age ranges during preventive health visits.

Purpose: The goal of our Evidence Based Project was to promote the use of a generalized developmental screening tool while evaluating the subsequent provider utilization rate of the tool and changes in referral patterns in the pediatric medical home.

Design/Methods: The AAP policy statement and ASQ-3 scoring and referral training program was implemented in medical home team environment in August 2013. The team was trained to document ASQ-3 results within the EMR. A retrospective electronic record review of all 9-month, 18-month, and 24-month preventive health visits in the pediatric medical home port three months prior to ASQ-3 implementation and six months post implementation. Record review will examine documentation of ASQ-3, child's age, provider type, and any referrals made.

Outcomes: Results pending. Descriptive statistics will show the proportion of encounters with ASQ-3 documented. Results may be stratified by age-at-encounter and provider-type. Chi-square analyses will compare the proportion of outcomes over the time periods before and after implementation of the anticipated practice change. Multivariable regression analyses may be applied to evaluate whether the probability of ASQ-3 screening was associated with period-of-encounter, age-at-encounter, and/or provider-type. The proportion of encounters associated with specialty referrals will be similarly described over the review period.

Conclusions/Implications: Generalized developmental screening utilizing the ASQ-3 will improve early referral to appropriate professional services. A future evidence-based project may include use of ASQ-3 for all preventive health visits with subsequent evaluation.

PEDIATRIC HEALTH

Implementing 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, Nurse;
Nichole Bergstrom, Nurse; Elizabeth Larson, Nurse; Amy Seitzinger, 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 (blood pressure and body mass index), food intake (fruit and vegetable consumption and ingestion of sweetened beverages), physical activity, screen time, and eating patterns in an intervention versus a matched control group.

Background: The prevalence of obesity appears to have decreased from 15.2% to 14.9%, however, the rates of obesity in children and adolescent has tripled since 1980. In addition, research has revealed the highest number of new cases of obesity occurring in the 7 – 11 year old age group. Therefore, interventions need to start in early in childhood and before puberty. Raising awareness at the local community level and implementing an intervention focused on eating a healthier diet and exercising very critical to not only arresting but reversing the rates of obesity.

Oregon Health & Science University School of Nursing in Monmouth launched 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) lasted for 30 days and teaches children how to incorporate healthy habits in their lives.

Methods: A quasi-experimental design was employed for this study and participants were recruited from the 6th and 7th grade of two different schools. The sample size had 123 participants and baseline data was collected at both sites and included demographic characteristics, blood pressure, BMI, and an eating patterns questionnaire was distributed. A 30 day intervention was implemented with weekly reminders of the 5-2-1-0 message. Participants were encouraged to fill out goal trackers to keep a diary of food intake, amount of physical activities, recreational screen time, and amount of sweetened beverages ingested. Post intervention data was again collected at 5 week, 8 months, and one year after 5-2-1-0 was implemented.

Data analysis included descriptive statistics and univariate analysis (Pearson Product) to determine the correlation between BP, BMI, eating patterns, food intake, and other variables of interest. In addition, difference-in-means tests are used to assess whether there are significant differences in these factors which could influence differences in the trajectory of health changes between the two groups.

Results: The intervention group (n=52) included 18 males and 34 females with a mean age of 11.6 years and the control group (n=71), included 33 males and 38 females with a mean age of 11.7 years.

The overweight/obese rate of the intervention and control group is 27 % and 31% respectively. There were no significant changes in BMI between baseline and post intervention 5 weeks later. The intervention group had a significantly higher index level on the Eating Patterns Questionnaire before the intervention ($p<0.05$), and it also had a (weakly) significantly higher index level by week 5 ($p\text{-value}=0.07$), indicating that this group was more anxious about eating and more prone to binge eating.

Implications: No significant difference in BMI in both groups at the beginning and 5 week data measurement. Differences in BMI were not expected immediately post intervention since changes in diet will not affect BMI that quickly.

Higher index levels on the Eating Patterns Questionnaire indicated the intervention group participants were more anxious about eating and more prone towards binge eating than the control group. Follow up data in November 2013 (1 year after implementation of intervention) to determine long term changes. Analysis of the 8 month and 1 year post intervention data points still to follow. Our participants had high overweight/obese rates; therefore, it is evident that interventions need to focus on enhancing children's knowledge of healthy foods and appropriate amount of physical activity and screen time. Moreover, testing interventions which encourage improvement in healthy lifestyle may provide data to refine existing interventions or develop new approaches to reduce obesity rates.

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PEDIATRIC HEALTH

Parent's and Clinical Staff's Perceptions of Fever in an Urgent Care Setting

Madeline R. Barbera, BSN, RN, CPEN

Registered Nurse

North Campus Urgent Care

Children's Hospital Colorado

Aurora, CO

Madeline.Barbera@childrenscolorado.org

Purpose: The purpose of this descriptive study was to gain perspective on why parents seek medical attention in the Urgent Care for low acuity fever. To understand parent perceptions of fever, a survey was administered in spring of 2013 to parents of children that fit the classification of low acuity fever. Urgent Care clinical staff was also surveyed in order to identify staff perceptions of families' educational needs regarding fever. The ultimate goal is to use the information collected from these surveys to improve fever education for families seen in the Urgent Care.

Background: From October, 2008 - September, 2011, the Urgent Care saw over 50,000 patients. Twenty-three percent of those patients presented with a chief complaint of fever. Seventy-nine percent of these patients who had a chief complaint of fever were given a low acuity rating of L4 or L5 on the Emergency Severity Index scale (a five-tiered rating scale used to triage patients in the Urgent Care). According to anecdotal and statistical evidence, it was apparent to staff that families were lacking information on fever.

Methods: Data for this descriptive study was collected via exploratory surveys. Parents of children with low acuity fever were surveyed to assess baseline knowledge, intervention, perceived comfort level, and additional desired education on fever. This survey was given in person and the data was entered into a database. Clinical staff members were surveyed in an on-line format to explore staff perceptions of parents' knowledge of fever.

Results/Outcomes: The results outline parent demographics, perceptions of fever, known treatments, and identify desired education on fever. The clinical staff survey outlines the professional demographics of the healthcare professionals and the staff's perceptions of parent knowledge on fever. Additionally, the staff survey analysis includes the similarities and differences between the parents' perceptions of fever and staff perceptions of parent knowledge.

Conclusions: The staff and parent perceptions combined with parent demographical data, education level, desired fever content and method of delivery will drive the creation of a teaching tool used to increase parent knowledge of fever and decrease unnecessary visits to the Urgent Care for low acuity fever.

PEDIATRIC HEALTH

Living on the Edge of Asthma: Exploration of Families' Experiences

Michele R. Shaw, RN, PhD
College of Nursing
Washington State University
Spokane, WA
michele_shaw@wsu.edu

Gail Oneal, RN, PhD
College of Nursing
Washington State University
Spokane, WA
goneal@wsu.edu

Purpose: The purpose of this study was to identify predominant categories involved in the process leading up to hospitalization and/or an emergency department (ED) visit, categories arising during the hospital experience, as well as those occurring post discharge of children (0-18 years) who had recently experienced an acute asthma attack requiring hospitalization or ED observation.

Background: Asthma is the most common chronic condition associated with pediatric hospitalizations and visits to an ED. Previous studies have demonstrated that asthma related hospitalizations are often preventable. There is a critical gap in the literature related to studies focusing on preventative measures aimed at reducing hospital visits by children with asthma.

Methods: Qualitative inquiry using a grounded theory (GT) approach was utilized to provide an in-depth picture of the multi-factorial variables surrounding this process. Fourteen, semi-structured interviews were completed to gather data. Participants included 10 families, with a total of 12 parents and 10 children. Families could participate if their child had visited the hospital or ED for asthma during the previous 6 months.

Results: We identified the process of *Living on the edge of asthma*, as the emergent theory developed from the rich data provided by the participants. The theory incorporates 4 categories: balancing, losing control, seeking control, and transforming. Categories overlap and affect how families form decisions leading up to the hospital visits, as well as the healthcare experience during the hospital stay and follow up after discharge. In addition, categories describe the barriers families encounter, as well as the strengths the families develop to help balance their quality of life. Findings illuminate how families dealt with the hospital experience and the transitions that occurred after discharge.

Implications: The emergent theory, *Living on the edge of asthma*, provides a thorough account of the entire acute asthma experience beginning with the process families go through leading to the decision to visit the hospital, the experience of the hospitalization/ED stay, as well as what occurs once families are home. The families' perspective and input on this process is crucial in developing successful, preventative nursing interventions aimed at decreasing overall hospital visits among this vulnerable population. Findings provide specific key areas to focus on for the development of such interventions.

Funding: This study was funded by Washington State University's New Faculty Seed Grant Program.

PEDIATRIC HEALTH

Promoting Breast Milk Nutrition in Infants with Cleft Lip and/or Palate

*Nicole Diane L. Burca
BS Nursing Honors Student
The University of Arizona
College of Nursing
Tucson, AZ*

*Connie Miller, MSN, RNC
Clinical Assistant Professor
The University of Arizona
College of Nursing
Tucson, AZ*

Purpose: The purpose of this poster is to present a best practice model for supplying breast milk nourishment to infants with cleft lip and/or palate in the Philippines, as a means for optimal nutrition and development.

Background: The craniofacial defect of cleft lip and/or palate involves an altered physiological anatomy that affects an infant's ability to generate negative pressure for proper suction during feeding sessions. A cleft lip affects an infant's ability to establish a complete seal around the nipple for proper latching while a cleft palate affects an infant's ability to coordinate intraoral muscle contractions for negative pressure generation. Infant feeding issues associated with cleft lip and/or palate include weak suction, nasal regurgitation, and exhaustion. Difficulties in feeding may compromise normal growth and development. In addition, feeding difficulties may disrupt the maternal-infant bonding process. According to the World Health Organization, the incidence of oral clefts is 1/600 live births with higher rates among persons of Filipino origin. The Philippines has a high poverty rate and financially lacks the necessary resources to facilitate proper feeding in cleft lip and/or palate infants. Medical organizations in developing countries provide cleft repair surgeries, however, to achieve optimal outcomes, infants with cleft lip and/or palate must be of sufficient weight prior to surgical intervention.

Methods for Developing Best Practice: Review of the literature (CINAHL and PubMed) was conducted using keywords cleft feeding, cleft lip and palate nutrition, cleft lip and palate breast feeding, breast feeding support, and Philippines cleft epidemiology. Twenty-eight articles met inclusion criteria. In addition, two interviews will be conducted with an International Board Certified lactation consultant and a representative of the Arizona Breastfeeding Coalition. Both of these informants have expertise in providing breastfeeding education and support for mothers of infants with cleft lip and/or palate.

Outcomes: The proposed best practice model for education and support for breast milk feeding of infants with cleft lip and/or palate must consider: 1) infants fed breast milk have a decreased incidence of infections, 2) infants have a decreased feeding efficiency compared with infants without craniofacial abnormalities, 3) mothers require additional education and support in feeding their infants, and 4) various methods, equipment, and techniques are available for feeding infants with cleft lip and/or palate.

Conclusions: Implementation of this proposed best practice model for supplying breast milk nourishment to infants with cleft lip and/or palate in low-resource countries such as the Philippines requires health care professionals and/or lay health workers to support and educate mothers on the nutritional and overall health benefits of breast milk.

PEDIATRIC HEALTH

Raising Youth with Type 1 Diabetes and Celiac Disease: Parent Experiences

Kerri Erickson, RN, MS;

Barbara Mandleco, RN, PhD, ANEF; Donna Freeborn, APRN, PhD;

Susanne Roper, PhD; Tina Dyches, EdD

*College of Nursing; College of Home, Family and Social Sciences;
McKay School of Education; Brigham Young University; Provo, UT*

Aim: To examine parent experiences raising children/adolescents with both Type 1 diabetes (T1D) and celiac disease (CD).

Background: T1D is one of the most prevalent chronic illnesses diagnosed in childhood and CD is an autoimmune condition commonly associated with T1D. Most studies discussing these diseases identify their genetic connection/prevalence, rather than examining parent experiences raising children/adolescents with both diseases.

Method: After signing a consent form, 30 parents (25 mothers, four fathers, one custodial grandmother), raising 21 daughters and five sons with T1D and CD (mean age 12.5; SD = 3.1) participated in a 30-60 minute digitally recorded interview exploring their experiences raising children/adolescents with both diseases. Participants were asked IRB approved open-ended questions including how the diseases affected their family; specific concerns and challenges; and experiences with healthcare providers/extended family/community. Participants were encouraged to talk freely and clarifying questions were asked if needed. The digitally-recorded interviews were transcribed verbatim, checked for accuracy, and entered into NVIVO 9 for data storage and management before being destroyed. Transcriptions were then examined for patterns/themes according to qualitative methodology. Saturation was reached when no new information was identified. Direct quotes best representing themes were chosen through selective coding.

Results: Analysis revealed six themes: parents are concerned about (1) long/short-term health complications of T1D; (2) challenges of daily disease management; (3) expenses required to manage both diseases; (4) their child/adolescent's emotional/mental health; (5) support from healthcare providers; and (6) community support/understanding. Interestingly, how participants viewed the themes influenced their and their child/adolescent's adaptation to T1D and CD. Parents also noted because these diseases will never go away, constant vigilance, awareness, and attention over the course of the youth's life are needed, 24 hours a day, seven days a week, and 365 days a year. Both parents and children/adolescents are exhausted with the reality of having to worry about the inconveniences required to stay healthy and manage both diseases. However, after a time of learning and adjusting, it does get easier and become a part of life, as families do what has to be done; a new normal is established and they become less overwhelmed.

Implications: Parents raising youth with both T1D and CD face daily challenges as they learn to manage both diseases. It is important for them to have access to and support from healthcare providers for up-to-date education, treatment options, and community resources. Positive provider relationships were identified as being responsive to parent's questions, willing to listen, having open and honest dialogues, establishing a personal relationship with the youth, and becoming a patient advocate. Financial burdens, support at school, and the child/adolescent's emotional well-being are additional parent concerns needing attention by providers. Future research is warranted to look at a broader ethnic and varied socioeconomic population; a quantitative study would be useful in assessing variables impacting parent experiences across different ethnic/socioeconomic groups.

Funding: This project was funded by the College of Nursing, the Family Studies Center, and the Graduate Studies Office at Brigham Young University, Provo, UT.

PEDIATRIC HEALTH

Religiosity and Sibling Relationships in Parents Raising a Child with Diabetes

Caitlin Peterson, BS¹; Barbara Mandleco, RN, PhD, ANEF¹;
Donna Freeborn, RN, PhD¹; Tina Dyches, EdD²

¹College of Nursing; ²School of Education
Brigham Young University, Provo, UT

Aim: To examine religiosity and sibling relationships in families raising children with type 1 diabetes (T1D) to (a) determine if differences exist in sibling relationships and religiosity according to parent gender and (b) identify if sibling relationships are linked to religiosity.

Background Raising a child with T1D impacts the entire family, since the disease requires parental vigilance to ensure dietary/medication compliance, and sibling understanding. Clearly, religion serves as an important resource to couples and families; however, it may also act as a resource for families who are raising a child with T1D. In fact, qualitative and empirical studies alike show religious practices and spiritual beliefs predict relational outcomes, which may also be related to sibling relationships.

Method: After IRB approval, 60 families living in the west and raising a child with T1D participated. Most families earned more than \$50,000 a year and were Caucasian. Most fathers worked full time (mean age 43.54 years; SD = 5.51), and almost half the mothers (mean age 40.62 years; SD = 5.39) worked part time. Most siblings (mean age 12.84; SD = 2.85 years) and children with T1D (61.7%, mean age 13 years; SD = 2.85) were female. 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 13-item religiosity instrument measuring spirituality, and public and private religious practices. Spirituality included how often individuals felt their prayers were answered and how much God influenced their life. Private practices included items measuring how often individuals read scriptures, read religious materials, prayed, and felt they led a religious life by treating others with kindness and respect. Public practices included items measuring how often individuals attended church meetings. Mothers also completed a demographic questionnaire. Analyses included descriptive statistics and correlations.

Results: Parents were very spiritual, attended services monthly, and practiced private religion weekly. Both parents saw the child as never-to-seldom avoidant, sometimes-to-often involved and kind, and often empathic. T-tests indicated significant difference between mothers' and fathers' perception of their spirituality ($t = 3.79$; $p < .001$); mothers' scores ($M = 6.30$) were higher than fathers' scores ($M = 5.81$). Differences between parental perceptions of sibling empathy toward the child with T1D approached significance ($t = 1.91$; $p < .06$), with mothers rating ($M = 4.06$) the siblings higher than fathers ($M = 3.88$). Significant relationships were found between mothers' and fathers' perceptions of public/private religiosity and spirituality and their perceptions of sibling relationships. Correlations ranged from .47 (private religiosity) to .64 (spirituality) and from .39 (Kindness) to .70 (Avoidance). There were no significant relationships between religiosity and sibling relationships.

Implications: Nurses caring for families raising children with T1D need to be aware of sibling relationships and provide siblings with information about T1D so their relationships continue to be positive. It would also be useful to be aware of differences in parental perceptions related to spirituality so appropriate interventions can be offered.

Funding: This project was funded by the Office of Research and Creative Activity at Brigham Young University.

PEDIATRIC HEALTH

Searching the Signal for Premature Infant Sleep Cycles

Lauren Thorngate, PhD, RN, CCRN
Postdoctoral Research Fellow
Biomedical and Health Informatics

Shuyuann Wang Foreman, PhD, RN
Clinical Assistant Professor
Family and Child Nursing

University of Washington
Seattle, WA

Background: Sleep is a critical contributor to brain growth; cortical development, sensory system function and the progression of neuronal pathways leading to neurodevelopmental organization in fetal and early neonatal life. Patterns of brain function reflecting emerging cortico-thalamic connections are detectable by electrical signal transmitted to the scalp and measured as electroencephalogram (EEG). Sleep state changes and cycling are difficult to reliably identify by observation among premature infants. In the Neonatal Intensive Care Unit, premature infants are frequently handled and experience noise, light and other sensory exposures that are developmentally unexpected. Promoting premature infant sleep is a shared goal of clinicians and researchers, yet identification of sleep states and cycling are not routine in the care delivery setting.

Aim: The aim of this analysis is to employ machine learning to automate the detection of emerging changes in EEG signal using spectral density features to identify early indicators of sleep and wake cycling in premature infants less than 30 weeks postmenstrual age (PMA).

Method: These data represent a small subset of a sample of premature infant EEG signal output from an earlier descriptive study. Data from 5 premature infants (3 female) with mean PMA 27.17 weeks, SD 1.82; birth weights ranging from 0.54 -0.79 kg are included in this analysis. We obtained raw EEG signal as output from a single channel amplitude-integrated EEG device (*CFM 6000, Natus Pediatrics, San Carlos, CA*) after application of three hydrogel sensors to the scalp using a standard protocol and P3/P4 placement by modified International 10-20. The data were bandpass filtered and smoothed by a custom signal processing approach then blocked into 6 second epochs before removing segments with electrode impedance values thought to represent movement or other artifact. Unsupervised machine learning using K-means clustering is planned to classify state differences within subject.

Results: Preliminary results of clustering on more mature (>33 weeks PMA) infants show promise that EEG patterns reflecting continuity (active sleep or wake) and discontinuity (quiet sleep) can be automatically classified using attributes known to be associated with each.

Implications: Power spectral densities may yield useful information as features for classifying otherwise undetectable state changes. Brain function patterns as captured by EEG require extensive training to interpret by eye and often involve qualitative judgments for scoring. Exploration of machine learning techniques for EEG and sleep state analysis will provide a platform for integration of physiologic data into practical and reliable applications for clinical and research use. Enhanced understanding of sleep state progression in early life will serve to enhance the care of premature infants and optimize neurodevelopmental outcomes.

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American Nurses Foundation, Hyundai Motors Scholar, Integra Neuroscience Nursing Foundation, Sigma Theta Tau, Psi Chapter at Large.

PEDIATRIC HEALTH

Swear To Care: Saying No! to Child Abuse

Angelia Clark Trujillo, DNP, RN, SANE-A/P, Assistant Professor

Ralph Pasana, BS, RN

Caitlin Ulrich, BS

University of Alaska Anchorage, School of Nursing, Anchorage, AK

Purpose: The purpose of this project was to increase community awareness of interpersonal violence and child physical and sexual abuse. The University of Anchorage Alaska (UAA) School of Nursing spearheaded this project for its second year. Our iteration of this awareness fair became known as Swear To Care, which brought students, nurses, faculty, and community agencies to collaborate together. A second purpose was to facilitate the development of advanced community assessment skills in senior level nursing students through service learning.”

Background: Alaska leads the country in interpersonal violence rates, with Anchorage comprising the majority of reported cases. Service learning provides an invaluable opportunity for neophyte nurses to understand the spectrum of abilities nurses must possess to practice effectively at the community level.

Methods: The venue for Swear to Care was a popular Anchorage municipal park where three high traffic trails converged, providing a community of opportunity for our intervention. Four student booths presented awareness-related information that focused on domestic violence, sexual assault, elder abuse, and child physical and sexual abuse. We distributed paper “passports” to encourage attendees to visit each student booth. After completion, attendees could submit their completed “passports” as a raffle entry.

Our group was tasked with addressing the subject of child physical and sexual abuse. The goal of our project was to promote awareness of child physical and sexual abuse and to empower individuals to take appropriate action when faced with the issue. To reach this goal, two modalities were utilized. One focused on empowering children to assert their boundaries and report abuse. The focused intervention for children was teaching the “No, Go, Tell” technique, which we learned from additional training from a key informant at Standing Together Against Rape (STAR), a local agency whose mission is to provide support for individuals and families affected by sexual assault. The other was directed towards educating teens and adults to report suspected child abuse with a sense of confidence. Teaching evaluation was immediately performed and assessed what new information was gained and future likelihood of reporting suspected abuse.

Outcomes: The attendance at Swear To Care was lower than projected due to competing community events and choice of location within the park. However, all community member attendees reported gaining new information from the various student booths. Student participants reported an increased understanding of the problem of IPV and of the skills needed by nurses to practice effectively in community settings. Through community outreach, education, and increasing awareness, we as caregivers hope to reduce hospital visits and comorbidities associated with the sequela of interpersonal violence.

Conclusions: The success of Swear To Care demonstrates the positive impact by nursing students promoting awareness of community health issues. We recommend future nursing students continue with the medium of a community fair to promote awareness of interpersonal violence. To enhance attendance and increase the efficiency of scale for promotion, we recommend partnering with another event or organization and reevaluate timeframe and location. Overall, our interventions were effective and well received based on positive feedback from the community.

Funding: Community partners and private donations provided funding for this project.

PEDIATRIC HEALTH

The ACA, the U.S. Child Health System and Nursing: A Policy Analysis

Eileen K. Fry-Bowers, PhD, JD, RN, CPNP

Associate Professor

Loma Linda University School of Nursing

Loma Linda University Institute for Health Policy and Leadership

Loma Linda, CA

ekbowers@llu.edu

Purpose: This presentation describes an analytic process used to examine the Patient Protection and Affordable Care Act of 2010 (ACA) and its direct and indirect impact on the US child health system, and makes recommendations for future nursing research to inform nursing practice and promote advocacy.

Background: Much of the current policy discourse about the ACA focuses on health care coverage and service delivery for adults. Yet a number of delivery system, finance and market reforms in the ACA introduce change and uncertainty to the patchwork of programs, funding mechanisms and services that constitute the US child health system.

The locus of children's health care delivery is highly dispersed and includes outpatient clinics and physician offices, school-based health centers, early intervention programs for developmentally delayed infants and toddlers, and a host of other specialized programs. While Medicaid is the largest payer for children's healthcare, a variety of other state-funded or state administered programs provide essential services for defined populations with special risks and needs. This complex and fragmented set of child health care services is uniquely vulnerable to policy changes, including those embodied in the ACA.

Process: Using a modified Bardach (2000) approach to policy analysis, specific provisions of the ACA were examined for their effects on the delivery of child health services. A comprehensive literature review, interviews with stakeholders (e.g., pediatric providers, clinics, hospitals, advocacy organizations, federal agencies) and exploration of contextual factors (e.g., state laws/regulations) informed analysis.

Outcomes: Analysis reveals several major areas of substantial concern that bear close scrutiny. The ACA represents such a major transition in health care delivery that there are likely to be additional unintended consequences for children's health. Specifically, Medicaid expansion to previously uninsured adults is likely to influence child access to health services. Marketplace pressures, changes in funding and implementation of Accountable Care Organizations (ACOs) may threaten the stability of Children's Hospitals and the regionalization of pediatric health care. Insurance Exchanges/Essential Health Benefits fall short of meeting the needs of special pediatric populations. An analytic framework for monitoring direct and indirect effects of the ACA on children's health care was developed for use by nurse researchers, as well as other disciplines.

Conclusions: The unique health care needs of children highlight the importance of monitoring the effect of the ACA on the child health system. Although children's health care is relatively inexpensive, the unique needs and vulnerabilities of children, and the long-term consequence of poor child health outcomes make the stakes for society high. Therefore, researchers must track policy effects in real time to avoid unnecessary harm, take deliberate and strategic action to preserve critical child health services, and leverage opportunities presented by the ACA to improve the child health system. Nurses, as frontline health care providers, are in a prime position to survey the impacts and identify the challenges experienced by children and families in this evolving system.

Reference: Bardach E.(2000). *A practical guide for policy analysis, 2nd ed.* New York, NY: Chatham House.

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

PEDIATRIC HEALTH

Use of Weighted Blanket on Infants Experiencing Drug Withdrawal Symptoms

*Shuyuan Wang Foreman, PhD, RN
Clinical Assistant Professor, Family and Child Nursing
University of Washington
Seattle, WA*

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

*Nicole Roehrig, MSN, RN, CPN
Pediatric Clinical Nurse Specialist
Swedish Medical Center
Seattle, WA*

*Colleen Widden, BSN, RN
Pediatric Staff Nurse
Swedish Medical Center
Seattle, WA*

*Cheri Puetz, BSN, RN, CPN
Pediatric Staff Nurse
Swedish Medical Center
Seattle, WA*

Purpose: To examine the effects of weighted blankets as a supportive intervention on state organization of hospitalized infants experiencing drug withdrawal symptoms.

Background: The rate of neonatal drug exposure with withdrawal has been increasing in the past decade and poses a significant public health concern. Prenatal drug-exposed infants often experience symptoms of withdrawal called neonatal abstinence syndrome (NAS). NAS is a cluster of physiologic and behavioral symptoms due to central and autonomic nervous system irritability, and gastrointestinal dysfunction. Disturbed sleep is a common symptom and indicator of compromised neurodevelopment. Caring for the NAS infants is challenging for nurses and families. Pharmacotherapy has been the standard to treat NAS. However, to improve the quality of care and optimize neurodevelopmental outcomes, nonpharmacologic supportive interventions are essential. Weighted blanket (WB) emphasizes the application of deep touch pressure to support sensory regulation, and has shown to offer comfort and improve sleep in people with sensory integration dysfunction, such as the autistic population. WBs may provide a non-invasive support for the NAS infants to facilitate self-regulation and improve sleep.

Methods: A within-subjects design is used. The target sample size is 20 infants with NAS. The infants will serve as their own controls and be measured during three successive study sessions (i.e., standard swaddling, WB plus swaddling, and standard swaddling) within one day while in the hospital. Subject inclusion criteria are full-term infants (38-42 weeks gestation), history of prenatal opioid exposure, documented neonatal abstinence syndrome, at least 48 hours of life, no severe brain hemorrhage, no chromosomal and/or congenital abnormality, and not experiencing medical conditions that might potentially confound the expression of withdrawal symptoms (e.g., gastroenteritis, pneumonia, and sepsis). Custom-made WBs will be applied specially for this study. Sleep of infants will be measured continuously by amplitude-integrated EEG (aEEG) using a single channel brain monitor. Repeated-measures analysis of variance (ANOVA) will be used to examine the effects of WB on the sleep variables (quiet sleep, active sleep, awake, and sleep-wake cycling).

Results: The study is in progress with projected enrollment starting in late 2013.

Implications: This study is the first to examine the use of WBs as a supportive intervention adjunctive of pharmacotherapy in the NAS infant population. WB is similar to the standard newborn blanket with small, removable weights offering an easy way to apply deep touch pressure, is inexpensive, and non-invasive. This study may help to establish evidence-based practice for WB as a tool to optimize the care and outcomes of the NAS population.

Funding: UW School of Nursing Elizabeth Giblin Research Fund.

PEDIATRIC HEALTH

WECAN Program to Change Health Behaviors in Families with Overweight and Obese Children

*Kristin Agtarap, BSN, RN, CPN, DNP Student
Hahn School of Nursing and Health Science
University of San Diego
San Diego, CA*

<i>Kathleen Sweeney, DNP, CPNP-PC Associate Professor Hahn School of Nursing and Health Science University of San Diego</i>	<i>Lynne Scannell, MD Pediatrician Scripps Santee Clinic</i>	<i>Mary Jo Clark, PhD, RN Seminar Faculty Hahn School of Nursing and Health Science University of San Diego</i>
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Aim/Purpose of the Project: The project, introduced in a pediatric primary care clinic, was designed to increase knowledge, behaviors, and change attitudes related to energy balance, portion size, healthy eating, healthy foods, physical activity and screen time.

Background: Childhood obesity has more than tripled over the past 30 years (CDC, 2013); in 2008, an estimated third of U.S. children and adolescents were overweight or obese (CDC, 2013). Children who are overweight and obese are at increased risk of developing type II diabetes, hyperlipidemia, hypertension, bone and joint problems, and sleep apnea. Development of these chronic diseases at such young ages puts children at increased risk for long-term complications, including stroke, cancer, osteoarthritis, blindness, and amputations at younger ages. The WECAN (Ways to Enhance Children's Activity and Nutrition) program is a family-based education curriculum developed by the National Institutes of Health to educate families with children to develop healthy behaviors within the family that will reduce behaviors associated with overweight and obesity.

Practice Change: Families were recruited to the six-session curriculum of the WECAN program if their 8-13-year-old children's BMIs were $\geq 85^{\text{th}}$ percentile during their well visits or based on EMR review. The sessions incorporated education related to healthy eating, physical activity and reducing screen time in families. The WECAN survey was completed by families prior to the intervention, at the end of the six sessions, and one month after the program to compare behavior changes before and after the program.

Results and Outcomes: In progress.

Implications and Conclusions: To be determined following review and analysis of results. It is expected that the WECAN program will increase knowledge, behaviors and build positive outlooks related to energy balance, portion size, healthy eating, healthy foods, physical activity and screen time; thereby decreasing obesity and overweight and promoting better overall health.

Abstracts of Poster Presentations

PERINATAL AND WOMEN'S HEALTH ISSUES

CHILDBIRTH: A COMPARISON OF NURSE-MIDWIFERY
AND PHYSICIAN CARE IN WASHINGTON STATE

Molly Altman, Sean M. Murphy, Kenn B. Daratha

DEPRESSION AND VITAMIN D IN THE PERINATAL PERIOD

Amy Morton Lamb, Calvin Hobel, Melanie Lutenbacher

EFFECTS OF GENDER DISCRIMINATION ON THE HEALTH
OF WOMEN IN RURAL INDIA

Cheryl Corbett

GESTATIONAL DIABETES:
EFFECT OF LIFE STYLE MODIFICATION

Priscilla N. Amalu, Kathy James, Ha Son Nguyen, Mary Jo Clark

IDENTIFYING AFRICAN AMERICAN WOMEN
AT HIGH PSYCHOSOCIAL RISK
FOR POOR BIRTH OUTCOMES

*Jann Murray-García, Alondra Thompson, Annette Robinson,
Gloria Belonwu, Holli DeVon*

LISTENING TO OTHERS ABOUT BIRTHING VIA THE
INTERNET: A 21ST CENTURY PHENOMENON

Susan E. Fleming, Roxanne Vandermause, Michele Shaw

MEASURING NURSE ATTITUDES ABOUT CHILDBIRTH

Martha S. Levine, Nancy K. Lowe

POLICY STRATEGIES TO IMPROVE MATERNAL HEALTH
OUTCOMES IN DEVELOPING COUNTRIES

Mabel Ezeonwu

PRENATAL CARE CURRICULUM FOR WOMEN
WITH SUBSTANCE ABUSE

Laura McGraw Anderson

REDUCING PRIMARY CESAREAN DELIVERIES
DUE TO FAILED ELECTIVE INDUCTIONS

Nicole Hall, Joann Lee, Ruston Taylor, Nan Ybarra

PERINATAL AND WOMEN'S HEALTH ISSUES

Childbirth: A Comparison of Nurse-Midwifery and Physician Care in Washington State

Molly Altman, MN, CNM, MPH
College of Nursing
Washington State University
Spokane, WA

Sean M. Murphy, PhD
Department of Health Policy
and Administration
Washington State University
Spokane, WA

Kenn B. Daratha, PhD
College of Nursing
Washington State University
Spokane, WA

Purposes/Aims: The purpose of this study is to examine the hospital cost of childbirth and rates of interventions in Washington State, particularly examining nurse-midwives as compared to care by physicians. A multi-center, multi-payer cohort design including data from women's births in Washington State from 2009-2012 is used. This study addresses the following aims: 1) To compare the cost of care between nurse-midwives and physicians during the birth hospital stay; and 2) To compare rates of intervention use between nurse midwives and physicians during the birth hospital stay.

Rationale/Conceptual Basis/Background: Pregnancy and childbirth contribute to approximately one in four hospitalizations, often involving multiple elective and expensive interventions that may increase costs without improving outcomes. There is a critical need to examine such interventions and challenge the current obstetrical care system to better contain costs while continuing to maintain optimal outcomes. Nurse-midwives, who are Masters- or Doctoral-prepared registered nurses with specialized training in normal pregnancy, labor, and delivery, currently attend to 8% of all births in the United States. While numerous studies have shown that nurse-midwives provide care that involves fewer interventions with comparable if not improved patient outcomes compared to their physician counterparts, few have examined the impact of nurse-midwifery care on health care resource utilization and hospital cost.

Methods: Using the Washington State birth certificate data linked with the Comprehensive Hospital Abstract Reporting System (CHARS), this study compares low-risk women who delivered in the hospital setting between 2009-2012 by either nurse-midwives or physicians. Regression analysis methods are utilized to examine differences between provider groups. Cost is obtained using cost-to-charge ratios and compared across provider groups. Comorbid conditions are derived using the Elixhauser method.

Results: Expected results will provide insight as to the comparative cost of childbirth and use of interventions during deliveries attended by nurse-midwives and physicians in Washington State.

Implications: This project, with an estimated sample of hundreds of thousands of live births from all community hospitals in Washington State between 2009 and 2012, is innovative, as it will provide a level of inquiry that has not previously reported. The expected outcome of this research is to challenge the current obstetrical care system and to consider care by nurse-midwives as a potential avenue for cost savings. This novel approach has the potential to revolutionize obstetric care in U.S, using a system that provides quality care with potentially reduced burden than our existing system.

PERINATAL AND WOMEN'S HEALTH ISSUES

Depression and Vitamin D in the Perinatal Period

*Amy Morton Lamb, MSN, PhD
Doctoral Candidate/Nurse-Midwife
Obstetrics & Gynecology and Nursing
Cedars-Sinai Medical Center and Vanderbilt University*

*Calvin Hobel, MD
Miriam Jacobs Chair
Maternal Fetal Medicine Obstetrics
& Gynecology and Pediatrics
Cedars-Sinai Medical Center
Los Angeles, CA*

*Melanie Lutenbacher, PhD, APRN, FAAN
Associate Professor of Nursing
and Medicine
Nursing and Pediatrics
Vanderbilt University
Nashville, TN*

Aims: Examine the longitudinal association between depressive symptoms and vitamin D among a diverse sample of women during the perinatal period.

Background: Depression is a serious problem affecting 14-23% of all pregnant and postpartum women. Current research suggests that women with low vitamin D levels are at increased risk for depression; however research in this area is limited. In addition, many pregnant women have significantly low vitamin D levels despite taking prenatal vitamins. In light of rising rates of depression, growing concern over vitamin D deficiency in pregnancy, and increasing evidence suggesting an association between depression and vitamin D during the perinatal period, this study is investigating the hypothesized association.

Methods: Women (N=126) were recruited from an obstetric clinic of a large medical center. Structured interviews to collect data on demographics, health, and depressive symptoms were completed at baseline, in the third trimester and postpartum. Depression symptoms were measured using the Edinburgh Postnatal Depression Scale (EPDS). Maternal serum vitamin D was collected at baseline, at time of delivery, and postpartum. Cord blood was sampled at time of delivery. Vitamin D levels are quantified by measuring serum 25OHD and epi-25OHD using mass spectrometry. Participants' medical records are reviewed upon study completion.

Results: Preliminary analyses were conducted. Participants (N =126) tended to be older (M (IQR) = 33 (31-36.5)), with normal BMIs (M (IQR) = 24.2 (22-27.7)), middle to upper class (M (IQR) = 80k (50k-120k), well educated (mean (SD) = 16.3 (2.5) yrs), married (79.2%), having planned their pregnancy (71.2%), intending to breastfeed (96%), and working (73.2%). Familial depression was reported by 20% of the women with over half (52.2%) reporting they consumed caffeine daily. None of the participants reported smoking and only 2.4% noted recreational drug use. About 30% of the women reported elevated depressive symptoms. A significant difference between vitamin D levels of women with elevated depressive symptoms as compared to those without ($t=3.01$, $p= 0.003$) was noted. Preliminary findings suggest that women with still births had lower mean 25OHD values as compared to those without (20.1 vs. 42.1ng/ml). Final outcomes will be examined after data collection is complete.

Implications: Research is still ongoing, but early findings suggest an association between low vitamin D levels and elevated depressive symptoms and stillbirth in this sample. These findings are useful for guiding nurses caring for women in the perinatal period. Research on vitamin D supplementation and its relationship to the prevention of depression and stillbirth is needed.

Funding: The project described is supported by CTSA award No. UL1TR000445 from the National Center for Advancing Translational Sciences.

PERINATAL AND WOMEN'S HEALTH ISSUES

Effects of Gender Discrimination on the Health of Women in Rural India

*Cheryl Corbett, APRN, MSN, NP-C
Associate Teaching Professor
College of Nursing
Brigham Young University
Provo, UT*

Purpose: Describe gender inequality in rural India and issues that contribute to lower levels of health in rural women. Illustrate how nursing students can have a positive influence in resolving challenges.

Background: Many significant factors contribute to the multitude of problems that currently persist in India concerning the healthcare of women.

Social Disparities: For many women in India difficulties of life do not originate solely from poverty or harsh living conditions. Frequently, Indian women's suffering and lack of opportunities to progress stem from a preventable problem; they are a result of social disparities and gender inequality.

Preference for Sons: Gender discrimination begins before birth. Indian society has a strong preference for male children often leading to female selective abortion. Once born, daughters are prone to being neglected and often fed less than sons.

Social Culture: India is a patriarchal society where women are subservient and considered a financial liability due to customary dowries. In rural areas women frequently sleep on the floor while the husband sleeps on a bed. In markets, businesses and health clinics men receive preferential service before women.

Education of Women: Gender inequality is manifest in the low education rates of women. School drop-out rates for girls are high in India resulting from arranged marriages at young ages. A significant factor in access to healthcare is the education level of a woman.

Healthcare Access: Gender inequalities are directly related to poor health outcomes for women. Barriers preventing women from achieving health stem from the low status of women in Indian society, particularly in the rural and poverty-affected areas. A significant factor in access to healthcare is the education level of a woman. Women lack autonomy in decision-making related to healthcare choices and must obtain permission from a husband to seek healthcare resulting in significant delays in obtaining emergency medical care.

Project Method: Nursing students partnered with an NGO in India as part of a global health course working with women in various settings in rural India. Students were positive role models and encouraged girls to stay in school to empower them with education. Girls were taught healthcare, self-worth and development of leadership attributes.

Outcomes: Girls were eager to receive the teaching and mentoring and were motivated to become future advocates for their healthcare. Nursing students became more aware of gender inequality causing barriers to healthcare for women in India. They recognized how it may influence nursing care for Indian women in the United States.

Conclusions: Gender inequalities are related to poor health outcomes for women. Ongoing efforts towards alleviating social disparities is crucial to healthcare outcomes for women in rural India. With an increasing awareness of gender issues that exist, nurses are better prepared to understand and make positive contributions toward resolving these challenges.

PERINATAL AND WOMEN'S HEALTH ISSUES

Gestational Diabetes: Effect of Life Style Modification

*Priscilla N. Amalu, MSN/NP, DNP Student
Hahn School of Nursing and Health Science
University of San Diego*

*Kathy James, DNSc, RN
Faculty Chair
University of San Diego*

*Ha Son Nguyen, MD
Clinical Mentor
Ha Son & Diemchi Inc.*

*Mary Jo Clark, PhD, RN
Seminar Faculty
University of San Diego*

Background: The number of women with glucose intolerance is steadily climbing and many women have unrecognized pre-gestational diabetes. Gestational Diabetes Mellitus (GDM) is an elevated blood sugar with first onset during pregnancy in a woman who does not have diabetes. The state of pregnancy brings about insulin resistance and, therefore, predisposes some women to develop diabetes. The prevalence of GDM is increasing rapidly, between 2% to 25% in the past few years. In California, the prevalence of GDM has increased 60%, from 3.3 % in 1998 to 5.3% in 2005. Up to 30% of the Hispanic patients in a southern California clinic setting gain excessive weight and approximately 10%-15% progress to GDM.

Purpose: The purpose of this project was to decrease the incidence of diabetes mellitus through modification of dietary and exercise behaviors among pregnant women, with special emphasis on the Hispanic population.

Best Practice: Thirty pregnant Hispanic women were educated on life style modification related to diet and physical activity. Pre and post implementation data were collected on current weight, fasting blood sugar levels, HgA1C, and weight gain throughout pregnancy. The education series included a total of six group classes, each lasting an hour. Post project data collection was completed after delivery and comparison of results used to evaluate the effect of the project.

Results: In progress.

Conclusion/Implication: If results show that modification of life style through diet and exercise does decrease the incidence of GDM, recommendation will be made to include a training program as part of routine prenatal care at the clinic site. Positive results will potentially make an economic difference related to the care of GDM-related complications at state and national levels, and will lessen the costs to the state Medical insurance system.

PERINATAL AND WOMEN'S HEALTH ISSUES

Identifying African American Women at High Psychosocial Risk for Poor Birth Outcomes

Jann Murray-García, MD, MPH
Assistant Adjunct Professor
Betty Irene Moore School of Nursing
University of California, Davis
Sacramento, CA

Alondra Thompson, LCSW
Counselor and Birth Advocate
Sacramento, CA

Annette Robinson, MSW
Counselor, The Birthing Project Clinic
Sacramento, CA

Gloria Belonwu
Undergraduate Student Researcher
University of California, Davis

Holli DeVon, PhD, RN
Professor
University of Illinois at Chicago

Purpose/Aims: The purpose of this descriptive, comparative pilot study is to examine the influence of previously unstudied psychosocial stressors on birth outcomes in African-American (AA) women, applying the newest science in life course analysis to this area.

Rationale/Conceptual Background: The U.S. infant mortality rate among African Americans is 2.5 times greater than among White Americans, and this gap has increased over the last two decades. These longstanding racial disparities in infant mortality rates are driven by higher rates of preterm birth (PTB, <37 weeks gestation) and low birth weight (LBW, <2500 grams). While recognizing the important role of prenatal care and neonatal intensive care in preventing suboptimal birth outcomes, neither of which has eliminated racial gaps in birth outcomes, we are interested in applying the newest science in lifecourse analysis and social determinants of health to reduce racial disparities in birth outcomes. We explore the association of two measures not previously investigated for their association to birth outcomes, or as a potential explanation for racial disparities in birth outcomes: Adverse Childhood Events (ACE) and the MacArthur Subjective Social Status Scale (SSS).

Methods: African American women patients at a Northern California low-income, urban perinatal clinic completed a written survey during their prenatal period. The survey included three psychosocial tools embedded within it: the Detroit Area Study Discrimination Scale (DAS-DS), the ACE scale, and the SSS. We use a 2-group design, with a total of 130 survey respondents. Women are categorized according to scores on the DAS-DS, ACE, and SSS scales. For each scale, those who score "at or above" or "below" the sample median will be categorized as "high" and "low" scorers, respectively. Both Chi-square and logistic regression will be used to establish the statistical significance of associations to birth outcomes. Our overall hypothesis is that those women who report high levels of psychosocial stress on these measures will experience a higher number/proportion of suboptimal birth outcomes (LBW and PTB).

Results: Data collection is ongoing until the end of the 2013 calendar year and is anticipated to yield unprecedented evidence for the usefulness of such psychosocial assessment measures to predict suboptimal birth outcomes and to intervene preventively throughout the lifecourse.

Implications: The ultimate, longterm goal of this study is to develop an instrument that can identify African American women at highest risk for poor birth outcomes because of psychosocial stressors. Informed by the lifecourse framework (ACE scores), and further by self-perceived social identity and status (SSS), this study further seeks to go beyond the identification of risk to address issues at the core of a woman's identity.

PERINATAL AND WOMEN'S HEALTH ISSUES

Listening to Others about Birthing via the Internet: A 21st Century Phenomenon

*Susan E. Fleming, PhD
Perinatal Certified Nurse Specialist
Assistant Professor*

*Roxanne Vandermause, PhD, RN
Associate Professor, PhD Program
Director*

*Michele Shaw, PhD, RN
Assistant Professor*

*Washington State University
College of Nursing
Spokane, WA*

Purpose: To explore the meaning of the modern-day phenomenon of first time mothers electronically connecting with others as a means to be informed and prepared for birthing in hospitals.

Background: As we are entering the 21st century we are witnessing a surge of self-educating and connecting with others with electronic media (e.g., Internet sites, Smartphone technology, television and/or videos). This surge is particularly relevant for first time mothers as they self-prepare for birthing. New mothers are often eager to connect with 'others' and find out more information about their births. Today, childbearing women can electronically connect with 'others' in a swift and easy manner, and instantly receive advice about birthing. However, the electronic communication may be taken out of context and be given by Internet users, who are unknown to the mothers, and may lack expertise. This phenomenon of "Listening to Others" is deeply ingrained in contemporary perinatal education and warrants an in-depth investigation to uncover the meaning of 'how' mothers connect with others through electronic media for birthing in hospitals.

Methods: A secondary analysis of one theme "*Listening to Others: Providers, Family, Friends and Strangers*" from a previous larger phenomenological study: *Birthing-in-an-Electronic World: A 21st Century Phenomenon* was conducted. Initially, one-to-one in-depth interviews of a purposive sample of first time mothers (n = 7) from the Pacific Northwest of the USA who self prepared for birthing in hospitals via electronic media were interviewed and a Hermeneutic analysis of the data was initiated. This current study expands on the original analysis by re-analyzing the data specifically relating to the emerging phenomenon of self-preparing for birthing in hospitals by electronically connecting to others.

Results: Childbearing women are seeking the human interaction of connecting with others to be informed and prepared for birthing in hospitals. At times this educated them and some of them became more knowledgeable or informed, however, also what occurred was a debilitating effect, which often increased their level of anxiety and fear.

Implications: Educate childbearing women that online chatting and linking with others about birthing needs to be done with caution. Encourage childbirth classes, which can offer mothers safe opportunities to meet other mothers and discuss their births. Suggest the use of a doula as a *maternal life coach* who can help navigate and interpret the electronic birthing information. By addressing first time mothers needs for birthing information and connecting with others, they can give 'birth with confidence' as they enter the electronic world of preparing for birthing in a hospital.

Funding: Washington State University SEED GRANT, Spokane #119651-001.

PERINATAL AND WOMEN'S HEALTH ISSUES

Measuring Nurse Attitudes about Childbirth

Martha S. Levine, MS, RNC-OB, C-EFM

PhD Candidate

College of Nursing

University of Colorado Denver Anschutz Medical Campus

Aurora, CO

Nancy K. Lowe, PhD, CNM, FACNM, FAAN

Professor & Chair

Division of Women, Children, & Family Health

College of Nursing, University of Colorado Anschutz Medical Campus

Aurora, CO

Objective: Researchers have found that nursing care can influence patient outcomes during childbirth. The attitudes and beliefs of labor and delivery nurses may affect their care decisions and interventions. To conduct further research on nursing care and patient outcomes, a reliable and valid instrument to measure nurse attitudes and beliefs about childbirth is needed.

Design/Setting: The Nurse Attitudes and Beliefs Questionnaire-Revised (NABQ-R) contains 42-items in 5 theoretically derived domains. Each item is scored with a 4-point Likert scale from 1 (strongly disagree) to 4 (strongly agree). A higher score indicates more positive attitudes towards physiologic birth.

Participants/Methods: This online survey study provided an initial psychometric test of the NABQ-R. An e-mail invitation containing a link to a secure electronic survey was sent to all Colorado AWHONN members. The response rate was 21.6% with complete surveys returned from 84 labor and delivery nurses with a mean age of 46.7 years and 18.9 years of perinatal nursing experience. The sample was 98% White with an educational distribution of 17.9% diploma/associate, 42.9% baccalaureate, and 39.3% graduate degrees.

Results (Data analysis): The NABQ-R scores ranged from 82–156 with a mean of 121.99 ± 12.77 . Cronbach's α internal consistency reliability estimate was .90. Analysis of variance demonstrated a significant effect of education on NABQ-R scores such that nurses with graduate degrees had significantly more positive attitudes than nurses with baccalaureate ($p = .003$) or diploma/associate degrees ($p = .002$). To study construct validity, an exploratory factor analysis (EFA) using principal component analysis and varimax rotation was conducted. Factors with an eigenvalue ≥ 1 were retained and the scree slope suggested a 5-factor solution. Next, a varimax rotation was used with 5 specified factors that accounted for 46.11% of the variance with all items loading on at least one factor. We named the factors: (1) Women's Experience of Birth; (2) Women's Autonomy; (3) Medical Model Conflict; (4) Breech Safety; and (5) Intervention Influence.

Conclusion/Implications for Nursing Practice: We consider this analysis preliminary to a more robust psychometric testing of the NABQ-R with a larger sample. Our results support acceptable initial psychometric properties for the NABQ-R and the EFA results were consistent with existing theory. The development of a theoretically and psychometrically sound instrument to measure nurse attitudes toward physiologic birth will foster additional research to expand our understanding of how nurse attitudes affect the process and outcomes of labor and birth.

Reference: This research was supported by the University of Colorado Denver Anschutz Medical Campus, College of Nursing, Doris Kemp Smith Faculty and PhD Student Research Award and in part by NIH/NCATS Colorado CTSI Grant Number UL1 TR000154. Contents are the authors' sole responsibility and do not necessarily represent official NIH views.

PERINATAL AND WOMEN'S HEALTH ISSUES

Policy Strategies to Improve Maternal Health Outcomes in Developing Countries

*Mabel Ezeonwu, PhD, RN
Assistant Professor, Nursing and Health Studies Program
University of Washington Bothell
Bothell, WA*

Purpose: To discuss the perspectives of nurse experts on policy strategies to improve maternal health services delivery and outcomes in developing countries using Nigeria as a case example.

Background: Maternal health issues present significant public health and economic burdens to all global societies. The United Nation's millennium development goal #5 is to decrease maternal mortality by 75% between 1990 and 2015. Most developing countries particularly those in sub-Saharan Africa have made insufficient progress toward achieving this goal. In Nigeria for example, pregnancy and childbirth present major health risks for women. With a low contraceptive prevalence (modern type) of 15% (United Nations Population Fund, 2011), a total fertility rate (TFR) of 5.5 and only 39% of life births attended by skilled personnel (WHO, 2012), the risk of maternal mortality and morbidity remains high. Although Africa is home to several interventions seeking to improve the health of women, desired results are still not achieved in the sub-Saharan region. There is therefore urgent need for targeted interventions to improve reproductive and maternal health. Since nurses and midwives are the most popular on-the-ground maternal health providers in Nigeria, their views on realistic improvement strategies are critical to all policy discussions globally.

Method: In this descriptive study, a qualitative approach was used to explore the perspectives of nurse leaders in Nigeria on effective strategies to improve maternal health outcomes. Qualitative content analysis was used to analyze data collected through semi-structured face-to-face interviews of a convenient sample of twelve experienced nurses.

Results: Key policy recommendations include:

1. Removal of financial barriers to health services access and utilization
2. Spousal, family and community inclusiveness in maternal plan of care
3. Health systems-related physical and human infrastructural improvements particularly nursing workforce-related infrastructure.

Implications: Pragmatic policy approaches are important in improvement efforts. The emphasis on removal of financial restrictions is essential due to the persistent poverty among women particularly in the rural villages. Policy makers must embrace the principle that a woman's financial and educational status, and where she lives (urban or rural) would not affect her access to reproductive and maternal health services. Furthermore, nurses and midwives are at the center of maternal health care delivery in developing countries including Nigeria although they operate under the shadow of physicians. Adequate funding, legislative and political support for nursing education is necessary to ensure that there are adequately well trained nurses that not only care for mothers and their families, but also are active participants in developing maternal health policies that enhance the wellbeing of mothers particularly in countries that are characterized by dismal maternal health statistics.

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PERINATAL AND WOMEN'S HEALTH ISSUES

Prenatal Care Curriculum for Women with Substance Abuse

*Laura McGraw Anderson, BS, BSN
University of Utah College of Nursing
Salt Lake City, UT*

Purposes/Aims: The goal of this project is to develop a group prenatal care curriculum for women on Methadone and Suboxone therapies. This curriculum will implement best practices based on the most current research to provide prenatal care for women currently receiving treatment for substance abuse.

Background: In the 2010 National Survey on Drug Use and Health 4.4% of pregnant women report illicit substance abuse within 30 days of the survey. Women with addictive disease form a high-risk cohort with specialized needs and increased risk for poor maternal and neonatal outcomes. During pregnancy women who use illicit substances require more time with their providers for medication management, therapy, counseling, education on parenting and nutrition, and preparatory guidance for labor and delivery. These women have increased rates of premature birth, lower breast-feeding initiation rates, and increased Neonatal Intensive Care admission rates. Group prenatal care is an innovation that would deliver specialized pre-natal care without using more provider time or clinic space. Group models of prenatal care have been shown to increase breast-feeding initiation rates, decrease rates of premature birth and subsequent Neonatal Intensive Care admissions. Current group prenatal care curriculum has been developed for women with non-complicated pregnancies and does not meet the needs of women on Methadone and Suboxone therapies.

Methods: A literature search was conducted using PubMed and CINAHL. Search terms used include: group prenatal care, Methadone/Suboxone, Self-efficacy theory, substance abuse, and providers' beliefs. Articles were only included if published between Jan 2007 to Oct 2013.

Process: Curriculum will consist of five units centered on Bandura's Self-efficacy model. Each unit will begin with an assessment, proceed to education and skill building activities, and end with a social support component. The education and skill building component will be specifically designed to create self-mastery experiences that Bandura's theory hypothesizes will create self-efficacy. The five units will cover traditional group prenatal care topics, such as: nutrition, exercise, relaxation techniques, pregnancy problems, infant care and feeding, and parenting and childbirth preparation. Additional topics specific to women on Methadone and Suboxone maintenance therapies will be included, such as Neonatal Abstinence Syndrome and pain control options during the intra-partum and postpartum period. An introductory section will be included to train facilitators to identify personal barriers when working with women from this population. Facilitators' biases and beliefs can negatively impact the success of implementation of this curriculum.

Results: The curriculum will be presented to an Obstetric clinic that serves women on Methadone and Suboxone therapies in the greater Salt Lake City area for implementation.

Conclusion: The development and implementation of a successful curriculum for pre-natal care of women with addictive disease will be described for adoption by general Obstetric practices. After completion of this curriculum further research will be conducted to assess the validity of curriculum. Women will self-select into either traditional prenatal care or group prenatal care, the traditional group will serve as a control. Both groups of women will be given a Likert type scale to evaluate self-efficacy in preparedness for delivery and infant care prior to the curriculum and also at completion of the program. A chart review will also be conducted to compare pregnancy outcomes of those who participate in the group model of care in comparison to traditional prenatal care. If the curriculum is successful participants in the curriculum program will have improved self-efficacy to parent and/or improved pregnancy outcomes in comparison to those who participate in traditional prenatal care.

PERINATAL AND WOMEN'S HEALTH ISSUES

Reducing Primary Cesarean Deliveries Due to Failed Elective Inductions

*Nicole Hall, MD, BCM, Assistant Professor; Maternal Fetal Medicine
Joann Lee, MBA, Director, Strategic & Financial Analysis, Women's Services
Ruston Taylor, PharmD, BCPS, BCNSP, Clinical Pharmacy Specialist
Nan Ybarra, MBA, BSN, RN, Assistant Director, Labor & Delivery*

*Texas Children's Hospital Pavilion for Women
Houston, TX*

Purposes/Aims: To reduce the number of primary cesarean sections performed due to failed elective inductions.

Rationale/Background: The first cesarean section increases a mother's risk for surgical delivery with future pregnancies and the risk of abnormal placentation is increased significantly with each cesarean section. Scope of project focused on patients scheduled for an elective induction of labor and their cervical Bishop score. Prior to our project the process for scheduling an elective induction of labor did not require care provider's to provide the patient's Bishop score.

Undertaking/Best Practice/Approach/Methods/Process: Reviewed all patient's admitted for elective induction of labor for their admitting Bishop score, method of delivery and if applicable reason for cesarean delivery. Data evaluated and inverse relationship between the Bishop score and mode of delivery revealed. Role of clinical nurse coordinator created with scheduling inductions as a part of her role. Policy changed to reflect requirement of Bishop score of at least 7 to schedule elective induction. Care providers required to send data detailing the patient's Bishop score prior to the clinical nurse coordinator scheduling the induction. Audit and feedback provided to providers to provide awareness. Adherence to the policy enforced. Providers provided the coordinator with Bishop score upon scheduling the induction. This score was compared to the Bishop score upon admission. Mode of delivery was recorded and those with a failed induction resulting in cesarean section consistently had low Bishop scores upon admission. Individual data provided to providers upon request and data provided to practices as a whole and to the OB/Gyn service meeting.

Outcomes Achieved/Documented: All patients with Bishop score of 8 or greater scheduled for an elective induction had successful induction of labor resulting in a vaginal delivery. Patients with an unfavorable cervix, as defined by the Bishop score, had a 1 in 4 risk of having a cesarean section as a result of a failed induction. Control chart, showing Bishop scores upon admission, and outcome of delivery (vaginal, cesarean) revealed median admission Bishop score just under 6. After increased audit and feedback to providers, the adherence to induction policy increased from 40-50% to 70% with median Bishop score still under policy requirement, but increased compliance with policy. With increased discussion the unit experienced a decline in scheduled elective inductions. Decrease in overall number then leads to decrease in number of primary cesarean deliveries.

Conclusions: Reduction of cesarean sections due to failed elective inductions revealed with increased adherence to policy. Enforcing requirement of Bishop scores of ≥ 8 to ensure a favorable cervix prior to elective induction of labor is a best practice and one that improves outcomes for patients during their current delivery and positive implications for future pregnancies.

Abstracts of Poster Presentations

**PROMOTING COMPETENCIES
OF ADVANCED PRACTICE NURSES
IN CARING FOR OLDER ADULTS**

OVERVIEW: PROMOTING COMPETENCIES OF ADVANCED
PRACTICE NURSES IN CARING FOR OLDER ADULTS

Basia Belza

HOT TOPICS FORUM: BUILDING COMMUNITY
AND STUDENT INTEREST IN GERONTOLOGY

Musetta C. Fu, Basia Belza, Phyllis Christianson

ENGAGING A/GNP STUDENTS IN LEARNING GERONTOLOGY
USING AN UNFOLDING CASE

*Phyllis Christianson, Basia Belza, Elisabeth J. Lindley,
Sun H. Kim, Hilaire J. Thompson*

ELECTRONIC LEARNING RESOURCES TO SUPPORT
ADULT/GERONTOLOGY ADVANCED PRACTICE NURSING

Hilaire Thompson, Phyllis Christianson, Musetta Chang-Chi Fu, Basia Belza

PROMOTING COMPETENCIES OF ADVANCED PRACTICE NURSES IN CARING FOR OLDER ADULTS

Overview: Promoting Competencies of Advanced Practice Nurses in Caring for Older Adults

*Basia Belza, PhD, RN, FAAN
Aljoya Endowed Professor in Aging
University of Washington School of Nursing
Seattle, WA*

Demographic trends in the US reveal that the percentage of adults age 65 and older is increasing. Between 2000 and 2030, the population of adults age 65 and older is projected to increase by 136% in Washington, ranked 12th in the US for this change. This trend heralds increased health care needs in Washington, where about 80% of older adults have at least one chronic condition. Advance practice nurses who provide primary care and lead programs in varied health service venues must be prepared to provide health screening and clinical management to prevent the onset or slow the progression of chronic diseases and symptom conditions in older adults. As part of this preparation nursing faculty need to develop and deploy innovative learning strategies to engage and prepare the next generation of providers. The purpose of this symposium is to share innovative curricular initiatives that were developed with the intent to improve competencies of advanced practice nurses in the care of mid-life and older adults. Our training grant conducted a baseline needs assessment of clinical preceptors and graduate students and used the findings to drive the development of these resources.

The first poster presents a newly developed, unfolding case of an older adult with confusion. This product was developed in partnership with students, graduates and faculty from the Adult/Gerontology track. Unfolding cases can be used in distance learning courses and students can progress at their own pace.

The second poster focuses on the development and outcomes of an in-person forum called *Hot Topics in Gerontology*, an opportunity to enhance our community-academic linkages. This forum was offered quarterly, speakers were community partners, the target for the forums was graduate students, and the topics were selected based on student requests. Speakers were invited to share cases use a Q and A approach versus a presentation format.

The third poster highlights the development and dissemination of the Top 25, a list of electronic learning resources with annotations for use by advance practice nurses. The Top 25 provides our clinical preceptors with resources to support evidence-based care of older adults. Through a collaborative effort with faculty and students, the team searched, identified, and critically evaluated electronic resources specific to older adults that built on course content. A benefit of many of the ELRs is that they have an option of applying for CNE/CME.

In conclusion, feedback from users of these 3 resources has been extremely positive. Our goal is to continue to determine ways to sustain these beyond the grant funding. These curricular innovations build the skills of advanced practice nurses in providing direct care services in a complex, evolving health care system to older adults.

Funding: From the Division of Nursing, Bureau of Health Professions (BHPr), Health Resources and Services Administration (HRSA), Department of Health and Human Services under grant #D09HP18978-01-00 (PI: Belza).

PROMOTING COMPETENCIES OF ADVANCED PRACTICE NURSES IN CARING FOR OLDER ADULTS

Hot Topics Forum: Building Community and Student Interest in Gerontology

*Musetta C. Fu, RN, MM
PhD in Nursing Science Student
School of Nursing
University of Washington
Seattle, WA*

*Basia Belza, PhD, RN, FAAN
Aljoya Endowed Professor in Aging
School of Nursing
University of Washington
Seattle, WA*

*Phyllis Christianson, MN, ARNP
Senior Lecturer
School of Nursing
University of Washington
Seattle, WA*

Increasingly, there are national mandates that require nursing curricula to include gerontology content. The America Association of Colleges of Nursing (AACN) (2012) believes that gerontology content should be infused into courses and clinical experiences. This infusion will be instrumental to improving the quality of care for older adults as well as building a skilled workforce competent to care for an aging population (Institute of Medicine, 2008). The AACN identified strategies to strengthen nursing programs' gerontological curriculum. These strategies include (but are not limited to): cultivating community, developing clinical partnerships, and creating and supporting student interest in gerontology. To that end the purpose of this symposium is to describe the development and evaluation of an innovative forum *Hot Topics in Gerontology*.

At the outset of our training grant we surveyed our clinical preceptors and students as to their learning needs. Based on our findings we developed *Hot Topics in Gerontology* as a forum in which our clinical preceptors present to small groups of graduate students on gerontology topics. The forums were offered either in the afternoon or early evening to accommodate student and presenter schedules. Presenters were encouraged to use case studies and allow ample time for discussion.

From 2011-2013, we offered 9 quarterly forums. Topics included advanced nurse practice roles, end-of-life care, women's health, elder mistreatment, cultural aspects in palliative care, and care transitions. We had, on average, 14 attendees at each session. The majority of attendees were graduate students (Doctor of Nursing Practice and PhD) and faculty. The evaluations were consistently and strongly positive. Attendees wrote on their evaluations they valued the small group discussions, use of real-life case presentations, opportunity for networking, and meeting and learning from community providers.

In sum, educators are challenged to develop, implement and sustain innovative and meaningful learning opportunities to enhance and stimulate student learning and increase exposure to gerontological content. The *Hot Topics in Gerontology* Forum is one such opportunity.

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PROMOTING COMPETENCIES OF ADVANCED PRACTICE NURSES IN CARING FOR OLDER ADULTS

Engaging A/GNP Students in Learning Gerontology Using an Unfolding Case

Phyllis Christianson, MN, ARNP
Senior Lecturer
School of Nursing
University of Washington
Seattle, WA

Basia Belza, PhD, RN, FAAN
Aljaya Endowed Professor in Aging
School of Nursing
University of Washington
Seattle, WA

Elisabeth J. Lindley, RN, MN, APRN-BC
Harborview Medical Center
University of Washington
Seattle, WA

Sun H. Kim, MN, RN
School of Nursing
University of Washington
Seattle, WA

Hilaire J. Thompson, PhD, RN, CNRN, ACNP-BC, FAAN
Associate Professor
School of Nursing
University of Washington
Seattle, WA

Background: The aging of the population and national advanced nursing practice initiatives mandate that ANP students be prepared to manage medically complex elders. Based on content gaps in the UW ANP curriculum, strategies were chosen to integrate new or enhance existing content so to move to a curriculum that supported certification as an A/GNP. Additions to or reconceptualization of seminar cases was selected as a means to accomplish this integration. The case goals were to engage the learner and stimulate and evaluate critical thinking. An online, unfolding format retained the benefit of case-based learning while allowing students to analyze information at their own pace.

Methods: The inaugural case was built from a case on confusion due to SIADH. Teaching assistants converted the case in consultation with faculty and a technology support team. Development decisions included outcome objectives, choice of technology, ability to create interactive experience, sustainability and upgrade ease as well as the method of evaluating student learning. Supporting resources from The Hartford Institute for Geriatric Nursing, including tools and a video clip demonstrating delirium were used. Audio clips and interactive activities were used. Case content included confusion assessment, delirium, and the diagnostic evaluation of hyponatremia. The process allowed the student to consider data and select the differential diagnoses, choose the diagnostic workup, and practice selection of the correct diagnosis using an evidence-based paradigm. The case was initially developed in Adobe Presenter, critiqued by one ANP clinical cohort, and revised. The revision included migration of the case to Adobe Captivate, which provided a more interactive student experience and required less faculty technology expertise. Students liked “putting the pieces together” at their own pace, receiving immediate “expert” feedback with rationale, and the interactive style. Content was applicable to future practice.

Conclusion: Unfolding online cases can engage students in learning new content and applying content from didactic coursework at their own pace. Building evaluation of student learning into the available technology presented a challenge.

Funding: Division of Nursing, Bureau of Health Professions (BHP), Health

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Abstracts of Poster Presentations

PROVIDING AN EVIDENCE BASE TO UNDERGRADUATE CLINICAL EDUCATION

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TO UNDERGRADUATE CLINICAL EDUCATION

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Ann Nielsen

IMPACT OF SIMULATION ON NURSING STUDENTS'
ATTITUDES TOWARDS SCHIZOPHRENIA

Glenise McKenzie, Stephanie Sideras, Joanne Noone, Tiffany Allen

PROVIDING AN EVIDENCE BASE TO UNDERGRADUATE CLINICAL EDUCATION

Overview: Providing an Evidence Base to Undergraduate Clinical Education

*Joanne Noone, PhD, RN, CNE
Associate Professor and Campus Associate Dean
Oregon Health & Science University
School of Nursing
Ashland, OR*

Purpose/Aims: The purpose of this symposium is to describe current state-of-the-art clinical education research in undergraduate nursing education.

Rationale/Background: Clinical education in undergraduate nursing education continues to rely on untested versions of the apprenticeship “total patient care” model of clinical education. This continued reliance was documented in a landmark study of prelicensure nursing education in 2008 conducted by the National League for Nursing (NLN). Their recommendations included developing evidence-based pedagogical practices, clinical models and learning outcomes.

Methods: This symposium presents five completed studies of undergraduate clinical education research. The first presentation is a study which used a qualitative descriptive design to describe the interactions between clinical faculty and undergraduate nursing students and how clinical faculty teach for the development of clinical reasoning in undergraduate nursing students in the clinical setting. The second presentation is a report of an international study using a mixed methods study design to determine the effect of expert role modeling on nursing students’ clinical judgment in the care of a simulated geriatric surgical patient and to explore the transfer of learning from simulation to bedside. The third paper is a report of a study using multiple case study research to explore and describe concept-based teaching and learning in the context of clinical nursing education practice, when Concept-Based Learning Activities (CBLAs) are used. The fourth paper presents findings from a qualitative descriptive study which explored undergraduate students’ perceptions of and experiences with pressure ulcer prevention. The fifth presentation reports findings from a multi-site, quasi-experimental study on the impact of an innovative two-phase simulation on attitudes and empathy of undergraduate nursing students related to individuals with schizophrenia.

Results: The papers in the symposium contribute to knowledge development in the following priority areas for nursing education research identified by the NLN: 1) Evaluation of the use of situated coaching in a variety of clinical education settings; 2) Identification of the effectiveness of various creative teaching-learning approaches to foster development of clinical reasoning in situated patient care contexts; 3) Identification and evaluation of education models focused on delivery of team-based, patient-centered care to diverse patient populations in a variety of clinical settings and 4) Development and evaluation of teaching-learning approaches that relate knowledge acquisition and evidence-based practice to the patient’s actual care experience.

Implications: Clinical education research has the potential to improve health outcomes and quality of care through its contribution to understanding how clinical learning activities assist in the development of practitioners who can clinically reason and provide patient-centered, evidence-based care. It is recommended that funding for nursing education research and recognition of the scholarship of nursing education research be priorities for our profession.

PROVIDING AN EVIDENCE BASE TO UNDERGRADUATE CLINICAL EDUCATION

Faculty and Undergraduate Student Interactions in the Clinical Setting

*Anjanette M. Raber, PhD, RN
Research Associate
Oregon Health & Science University
Portland, OR*

Purposes: The purposes of this study were: 1) To describe the interactions between clinical faculty and undergraduate nursing students, and 2) To describe how clinical faculty teach for the development of clinical reasoning in undergraduate nursing students in the clinical setting.

Background: Clinical experiences are an integral component of a nursing education. Faculty are charged with supporting students' learning and the development of clinical reasoning, and are essential to guiding and supporting students. However, research provides us with little description of how faculty implement strategies to help support learning and the development of clinical reasoning as they interact with students in the clinical setting. Understanding the strategies faculty use to support students learning will help identify areas for faculty development and inform national efforts focused on nursing education reform.

Methods: A qualitative descriptive design was used to explore and describe faculty and undergraduate nursing student interactions in the clinical setting. Faculty participants met the following inclusion criteria: 1) undergraduate clinical faculty, 2) teaching a clinical rotation fall term 2012, and 3) clinical rotation set within an acute care setting. Nine undergraduate clinical faculty were consented to participate in the study and three data collection methods were used. First, faculty and students were observed on two separate occasions for three to four hours in the clinical setting focusing on their interactions. After each observation, faculty participated a post-observational debrief to discuss the findings from the observations. Following transcription and thematic analysis of the observations and post-observational debriefs, a faculty focus group was held both as a member checking session and to delve more deeply into the identified themes. Finally, the focus group was transcribed and analyzed using thematic analysis. Comparisons were made within and across all data collection methods.

Results: Faculty primarily used two strategies to support students' learning and the development of their clinical reasoning during their clinical experience: questioning and coaching. Faculty questions focused on four areas: ensuring patient safety, ensuring completion of tasks, assessing the need for supervision, and providing anticipatory guidance. Although questions were used to support learning, more commonly, questioning focused on the needs of the patient. In order to directly support student learning, faculty also used coaching for clinical reasoning; although coaching was a less commonly used strategy than questioning. Further, coaching for clinical reasoning was more directly focused on the students' learning needs.

Implications: This study provides the first detailed description of faculty and undergraduate nursing student interactions in the clinical setting and begins to address the lack of research in clinical nursing education. Results provide important information for faculty regarding the use of questioning and coaching within the clinical setting and how these strategies are used to support the student's learning and development of clinical reasoning. Future research will focus on a better understanding of the student perspective, and a more in-depth understanding of the use of questioning and coaching.

PROVIDING AN EVIDENCE BASE TO UNDERGRADUATE CLINICAL EDUCATION

Role Modeling for Clinical Judgment Development: Lessons Learned

Kathie Lasater, EdD, RN, ANEF
Associate Professor, School of Nursing
Oregon Health & Science University
Portland, OR

Elizabeth Johnson, PhD, RN
Assistant Professor
College of Nursing
Ball State University
Muncie, IN

Patricia Ravert, PhD, RN
Dean and Professor
Brigham Young University
Provo, UT

Doris Rink, MN
Instructor
Portland Community College
Portland, OR

Purposes/Aims: An international mixed methods study was conducted in 5 programs to determine the effect of expert role modeling on nursing students' clinical judgment in the care of a simulated geriatric surgical patient and to explore the transfer of learning from simulation to bedside.

Rationale/Conceptual Basis/Background: Bandura (1997) posited that observation of an expert role model provides a foundation for students to later use the observed behaviors. To develop mastery, behaviors are best practiced in a safe environment before transferring to an actual work environment (Bandura), supporting simulation as a learning strategy. Clinical judgment development is critical to prepare students to meet the needs of an aging population. Tanner (2006) offered a research-based model for clinical judgment while Lasater (2007) defined dimensions for student development of clinical judgment.

Methods: A treatment group at each site watched a video of an expert nurse caring for a simulated geriatric surgical patient in addition to the standard preparation for simulation. The control group did the standard preparation only. A 3-part unfolding case study of a simulated geriatric patient provided opportunity for 94 students (a subset of the total N=275), engaged as the lead nurse, to demonstrate aspects of clinical judgment. Trained raters scored aspects of clinical judgment, using the Lasater Clinical Judgment Rubric. These data were analyzed using descriptives and ANOVA. Following the simulation, all students (N = 275) responded to guided reflection questions based on the 11 dimensions of the Lasater (2007) Clinical Judgment Rubric. After caring for a human older adult surgical patient, a subset (N = 134) reflected on the same questions plus one question addressing transfer of learning. Researchers from 4 of the 5 sites analyzed the qualitative data, using thematic and content analyses. Consensus was reached through group discussion and verified by each researcher.

Results: The quantitative findings revealed a statistically significant difference in 3 or the 4 clinical judgment aspects among treatment group participants ($p < .001$). The qualitative data supported a higher level of confidence among the treatment group participants following the simulation. The differences were less clear in the students (N=134) who cared for a human geriatric surgical patient 4 weeks after the simulation but offered evidence for transfer of simulation learning to practice. Unexpected qualitative findings centered on ageism, the importance of all role models, and students' need for scaffolding in the development of their clinical judgment.

Implications: Faculty should consider the value of expert role modeling for developing aspects of students' clinical judgment, particularly in students who are challenged in their development. The unexpected findings provide critical feedback for faculty and preceptors to address.

Funding: This study was funded in part by the National League for Nursing Foundation.

PROVIDING AN EVIDENCE BASE TO UNDERGRADUATE CLINICAL EDUCATION

Pressure Ulcer Prevention: Nursing Students' Experiences and Attitudes

Layla Garrigues, BSN, BS, RN
Clinical Instructor, Doctoral Candidate
School of Nursing
Oregon Health & Science University
Portland, OR

Juliana Cartwright, PhD, RN
Associate Professor
School of Nursing
Oregon Health & Science University
Portland, OR

Purpose: The purpose of this study was to analyze senior undergraduate nursing students' attitudes about and experiences with pressure ulcer prevention.

Rationale: Annually, 2.5 million people experience pressure ulcers in the United States (U.S.), and about 60,000 patients die due to complications despite established pressure ulcer prevention (PUP) practice guidelines. Pressure ulcers are a nursing-sensitive indicator of quality of care, and nurses are expected to engage in and/or supervise PUP in a range of settings. Little is known about students' experiences with or attitudes regarding PUP as they prepare to enter practice.

Methods: A qualitative exploratory design guided this study. Sixteen students were interviewed during their final term in a baccalaureate school of nursing. A semi-structured interview guide with open-ended questions was used to collect text data. Qualitative content analysis of the interview transcripts was used to identify a range of attitudes and experiences associated with PUP. Line-by-line coding of interview data led to recognition of themes representing students' attitudes and experiences, and associated properties.

Findings: Participants' attitudes ranged from passionate about PUP to ambivalent. Students who were passionate considered PUP to be important, a high care priority, and achievable. Ambivalent students had little interest in PUP, considered PUP not very important, a low care priority, and difficult to achieve. Specific types of clinical experiences were associated with students' attitudes about PUP. All of the students who had positive attitudes towards PUP and identified PUP as important had at least one of the following experiences: (a) Hands-on experiences with skin team audit checks (e.g., quarterly pressure ulcer prevalence surveys), clinical experiences in the operating room, experiences with clinical preceptors who were designated "skin champions", or (b) Direct observation of at least one stage IV pressure ulcer. These students observed and interacted with nurse role models who intentionally addressed PUP. These students reflected on their PUP experiences as helping them to develop clinical reasoning skills and creating a sense of empathy for patients' suffering associated with a stage IV pressure ulcer. Students who did not identify PUP as important or a care priority recalled no experiences with nurses who valued PUP, and no observations of advanced stage pressure ulcers.

Implications: The findings from this study are significant as the scant literature on students' attitudes suggests PUP is not viewed as a care priority. These findings suggest that students recognize the importance and complexity of PUP when they have intentional learning experiences with nurses who value and engage in PUP in a range of settings. Additional research is required to better understand how specific learning experiences can influence students' attitudes towards PUP and their intent to practice PUP when they become registered nurses.

PROVIDING AN EVIDENCE BASE TO UNDERGRADUATE CLINICAL EDUCATION

Implementation of Concept-Based Learning in the Clinical Environment

Ann Nielsen, MN, RN

Jonas Scholar and Doctoral Candidate, University of Northern Colorado

Assistant Professor, Undergraduate Program

Oregon Health & Science University

Portland, OR

Purpose: The purpose of this multiple case study research was to explore and describe concept-based teaching and learning in the context of clinical nursing education practice, when Concept-Based Learning Activities (CBLAs) (Heims & Boyd, 1990; Nielsen, 2009) are used. This symposium presentation will focus on findings related specifically to CBLA implementation.

Background: The current clinical environment and increasing demands on nursing practice challenge nurse educators to provide learning experiences that integrate theory with practice in meaningful ways. Concept-based learning, one element of a comprehensive clinical education curriculum used in one western state, is used to direct students' to explore key aspects of the patient situation and principles of nursing care, without responsibility for total patient care. A small research study demonstrated that students who used CBLAs during clinical study showed statistically significantly higher scores in measurement of clinical judgment (Lasater & Nielsen, 2009). Student in this study reported that CBLAs were implemented in various ways by difference clinical educators.

Research: Four clinical groups, educators and their undergraduate nursing students, each an individual case, were participants in this research. Sampling was purposive for educators who had experience and skill in CBLA implementation. Clinical groups observed for the entire clinical experience of studying a concept. Student focus groups and educator interviews were conducted. Study guides, student written work, and educator feedback were reviewed. Teaching and learning foci and interactions were identified. Themes related to the experience of teaching and learning when using CBLAs were identified from the qualitative data. Cross-case analysis was conducted.

Findings: Concept-based learning activities were implemented in various ways. Commonalities included all students focusing on one concept, structuring the experience so that students had significant amounts of time in clinical with the educator to discuss the concept and patient findings, pairing of students for assignments, use of study guides to support student preparation for clinical study and direct students to salient assessment information related to the concept. Differences among cases included types of concepts studied- traditional nursing problems vs. medical diagnoses, use of pre-conference, and student written assignments. Study guides, while present in all cases, did not all contain learning outcomes or a reflective component. Selection of a patient who exemplifies the concept was endorsed by student participants.

Implications: Approaches to implementation by experienced educators in this research provide guidance to other educators who use CBLAs in acute and long-term care settings. More research is needed to identify which approaches to implementation are most critical to student learning.

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PROVIDING AN EVIDENCE BASE TO UNDERGRADUATE CLINICAL EDUCATION

Impact of Simulation on Nursing Students Attitudes towards 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

Tiffany Allen, BS
Research Assistant, School of Nursing
Oregon Health & Science University
Ashland, OR

Purposes/Aims: The purpose of this paper is to report on the impact of an innovative two-phase simulation on attitudes of undergraduate nursing students towards individuals with schizophrenia.

Rationale/Background: An estimated 2.3 million Americans currently suffer from schizophrenia and they experience the highest burden of stigma and discrimination. Nurses in all practice areas 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. Attitudes and behaviors toward individuals with severe mental illness have been shown to improve when empathy and opportunities to interact are increased. However, the likelihood that undergraduate nursing students will encounter individuals with schizophrenia during clinical rotations is highly variable.

Methods: This multi-site study used a quasi-experimental comparison of treatment and control groups of students enrolled in a chronic illness course in their second year of undergraduate nursing education. The control group consisted of students exposed to traditional didactic classroom education along with practicum experiences. The treatment group experienced the classroom education and practicum experiences along with an innovative simulation learning intervention. This intervention included individual simulated auditory hallucinations followed by a standardized patient interaction with an individual with schizophrenia. Variables measured at the beginning and the end of the ten week course included empathy (Jefferson Scale of Empathy-JSE), attitudes about schizophrenia (Attitudes Questionnaire-AQ20) and fear and behavior intentions (Fears and Behaviors Inventory-FABI). An analysis of covariance (ANCOVA) model was used to test for differences between the intervention and nonintervention groups on post outcome scores while controlling for outcome scores at baseline. The moderating effect of experience with people with mental illness was also examined.

Results: A total of 145 nursing students completed the pre and post measures. When compared to the control group, the intervention group showed significantly lower negative emotional perceptions. Differences in empathy as measured in this study were not significant. The difference between intervention and control was greater for participants with less experience at baseline. The moderating effect of level of experience was evident for student report of decreased fear and intent to interact.

Implications: Using new approaches to instructional technology in simulation positively impacted undergraduate nursing student's attitudes. Student experience at baseline moderated the effect of the intervention. Evaluating student baseline experience with severe mental illness may inform targeted clinical assignments. Providing opportunities for students to gain real or simulated experience with schizophrenic clients may reduce student negative perceptions of clients, leading to patient-centered care and reduced stigma.

Funding: Funding from the National League of Nursing Research Grant.

Abstracts of Poster Presentations

SIMULATION

IDENTIFYING DEBRIEFING PRACTICES THAT CONTRIBUTE TO STUDENT LEARNING

Shelly J. Reed

NURSING ORIENTATION: BLENDING SIMULATION CONCEPTS AND SKILLS COMPETENCY

Leslie Hadley, Jeanne Rowell

SIMULATION IN PSYCHIATRIC MENTAL HEALTH NURSING EDUCATION

Hyun Jung Kim, Karen G. Schepp

SIMULATION STATIONS: DO THEY WORK?

*Kathleen Gilchrist, Denise Dawkins, Anne Baker, Jennifer Fitzsimmons,
Sarbjit Dubb, Maria Rubolino*

SIMULATION

Identifying Debriefing Practices That Contribute to Student Learning

*Shelly J. Reed, DNP, APRN, CNE
Associate Teaching Professor
Brigham Young University*

Purpose: The purpose of this project is to examine, from a participant perspective, debriefing practices that promote learning.

Background: Debriefing has been identified as a crucial part of the simulation learning experience. It is where feelings are resolved, learning is solidified, and plans are made linking this knowledge to future clinical performance. Simulation experts have identified key aspects important for debriefing; however, these components have been primarily unsubstantiated from a debriefing participant perspective.

Practice: Best debriefing practices from a student perspective were examined. As there was no instrument evaluating debriefing from a participant perspective, a tool was created. This tool, the Debriefing Experience Scale, started with 37 items identified by the literature as important to debriefing. The tool was then submitted to three nationally known nursing simulation experts for review. As a result of this review, the scale structure and wording were refined and two items were added. The scale was then used in two separate research studies examining the student debriefing experience. Factor analysis was performed with each study with 20 items remaining after the two-step factor analysis process. Studies examining the debriefing experience using the scale continue, both with this researcher and with other researchers around the world.

Outcomes: The concepts of establishing trust and psychological safety, emphasized by some debriefing experts, did not survive the factor analysis process. This indicates that in at least these studies, students did not identify these components as an important part of their debriefing experience. Learning was identified as an important part of the debriefing experience, as well as facilitator skill and behaviors. In subsequent studies, a comparison of video-assisted debriefing and oral debriefing showed no benefit of one over the other. In another study, written debriefing, which is purported to extend learning, showed no learning benefit.

Conclusions: With both students and experts identifying learning as a product of the debriefing experience, establishing evidence-based debriefing practices is essential to maximize learning. Studies that compare video playback, oral debriefing and written debriefing need to be replicated in order to firmly identify which of these contributes most to learning. Many other components of debriefing also need examined, for example group size, the content of the facilitator feedback, debriefing environment, and length of debriefing.

SIMULATION

Nursing Orientation: Blending Simulation Concepts and Skills Competency

*Leslie Hadley, MSN, RN
Regional Education Consultant
Urban North Region
Intermountain Healthcare
Ogden, UT*

*Jeanne Rowell, BSN, RN
Unit Education Consultant
Intermountain Medical Center
Intermountain Healthcare
Salt Lake City, UT*

Purpose: In newly hired (<1 year) acute care RNs, how does the implementation of blended skills and concepts with low fidelity simulation in Nursing Unit Orientation (NUO) vs. orientation without the use of blended skills and concepts simulation affect skills competency? Current studies suggest simulation is an effective way to learn new skills and competencies for selected nursing cares and interventions. This study will test the efficacy of blending skills and concepts using low fidelity simulation in increasing new hire competency in a safe patient learning environment.

Background: The standardized NUO competencies and equipment lists contain multiple skills required to be passed off during the orientation process. The required competencies are sometimes not capable of being completed at the bedside due to competing demands, including high census and patient acuity. Simulated scenarios using blended skills and concepts will be used to help facilitate competency of all required skills.

Methods: The approach to develop the project involved reviewing current literature on simulation for nursing unit orientation. A post survey of orientation will be given to newly hired nurses in the 2013 year to gather data on current competency confidence and orientation practices. The same survey will be given to newly hired nurses in 2014 year after incorporating blended skills and concepts competency simulation scenarios. Survey results will be compared and contrasted. For both groups, we will collect selected sociodemographic information including age, experience at hospital (internal and external – where have they worked before?), CNA yes/no, degree (ADN, BSN, MS, and beyond), and unit and hospital where currently employed. Scenarios will be built using blended skills and concepts to cover all identified competencies. Validation of the skills will use the Donna Wright™ method for competencies verification.

Desired Outcomes: The project outcomes are to test the efficacy of blended skills and concepts simulation adjunct to current NUO practices. Validation of the practice will be the standard for orientation best practices. Implementation plans include a target start date, January 1, 2014 with the blended scenarios. Study will be conducted for one year, and results will be disseminated within the corporation.

Conclusions: As nursing educators, we are preparing our new hires as quickly and efficiently to have them competent to work on the units. It is unlikely that nurses face all situations prior to independence on the unit. Blended skills and concept simulation will provide the opportunity to address the majority of situations as per standard. It will allow the orienteer to ask questions and the educator to address new hire needs prior to actual practice in a safe patient learning environment.

SIMULATION

Simulation in Psychiatric Mental Health Nursing Education

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
Professor/Interim Chair, Psychosocial & Community Health
University of Washington
Seattle, WA

Purpose: The purpose of this presentation is to describe nursing students' experiences of simulation utilizing a training program designed to resemble psychotic symptoms.

Background: Schizophrenia is one of the most severe and challenging mental disorders. The prominent features of the illness include psychotic symptoms including delusions, hallucinations, and disorganized behaviors and speech. These symptoms have been associated with the stigmatization of individuals with schizophrenia, consequently creating a social distance between the individuals and the rest of the world. Stigma and social distance issues are especially important for health care providers as the issues can interfere with developing therapeutic relationships, which is the essence of mental health care. Among the previously mentioned psychotic symptoms, auditory hallucinations are commonly observed in clinical setting. The challenge, however, is that these are highly subjective, personal experiences to the point where no one person's experience is exactly the same. Therefore, it is not easy to create the phenomenon of voice-hearing in a realistic way for non-voice hearers.

Methods: This qualitative study is based on simulation required as a part of psychiatric mental health nursing clinical practicum, utilizing the program, "Hearing voices that are distressing: A training and simulation experience." The eight hours of simulation consisted of multiple tasks nursing students had to complete while hearing voices through earphones. The data included total of 106 nursing students' reflection papers after simulation and observation notes during simulation both from the students and the instructor.

Results: Themes associated with the nursing students' experiences of voice-hearing simulation were: 1) physical changes such as exhaustion, vital sign changes, and headaches; 2) emotional changes by feeling irritable, frustrated, paranoid, and anxious; 3) cognitive changes such as distraction, disorientation, and self-consciousness; 4) behavioral changes including communication difficulties, mannerism, inappropriate laughs, withdrawal, and exaggerated responses. Due to the changes stated above, nursing students reported that they had a better insight into the day-to-day challenges individuals hearing voices encounter. Students also indicated feeling comfortable and confident about working with individuals with auditory hallucinations.

Implications: After simulation, clinical instructors reported changes in attitudes among nursing students during mental health clinical rotation. Although more objective measures are needed in the future, observation and self-report indicated that simulation can improve an understanding of psychotic symptoms and the level of empathy toward the individuals with the symptoms among nursing students. The changes can dissipate social distance and the paucity of understanding and prepare nursing students to offer more efficient, better quality care for the individuals with psychotic symptoms.

SIMULATION

Simulation Stations: Do They Work?

*Kathleen Gilchrist, PhD, FNP, PHN, RN Denise Dawkins, DNP(c), CNL, RN
Anne Baker, SN Jennifer Fitzsimmons, SN
Sarbjit Dubb, SN Maria Rubolino, FNP-C, MSN, RN
California State University, Bakersfield*

Purpose: To determine if incorporating OB simulation skill stations will increase student OB knowledge.

Background: Orientation of new students to an obstetrics course can be challenging. Many nursing students are young and may not have had children of their own or ever even seen a birth. Research conducted by Bantz, Dancer, Hodson-Carlton, and Van Hove, 2007 (as cited in Jeffries et al., 2009); Partin, Payne, and Slemmons (2011); and Hansel, Kathman, Hendricks, and Ball (2012) acknowledged positive experiences with simulation. Jeffries, Bambini, Hensel, Moorman, and Washburn (2009) purport, “Clinical simulations have the potential to bridge gaps and provide learners an opportunity to prepare for real-world clinical situations” (p. 615). Senior nursing students with the assistance of the OB Simulation Director, developed five stations: Attaching a Fetal Heart Rate Monitor, Interpreting a Fetal Heart Rate Strip, Vaginal Exam, APGAR Scoring of Newborn, and Head to Toe Newborn Assessment.

Methodology: Three senior nursing students conducted an exploratory, quantitative research project under the supervision of two nursing professors. Each student researcher underwent Human Subjects Protection Training and completed a research course. All of the junior subjects regularly attend a Simulation Lab for OB instruction and have Simulation Exercises. Subjects were assigned a random number and a pre-test was administered on-line through Survey Monkey© prior to going through the five Simulation Stations to practice OB skills and assess the nursing students’ level of knowledge. After completing the Simulation Stations and debriefing, the subjects took a post-test through Survey Monkey© to determine if their knowledge level increased. Data were entered into Excel and descriptive statistics were used to analyze data. A paired t test determined if there were any differences in the pre/post-test knowledge scores of the junior students ($p \leq 0.5$).

Results: Twenty percent of subjects were males and 80% females, ranging in age from 22-48 years ($n=30$). The majority were in their 20’s, with an entry GPA of 3.59. One hundred percent participated. The highest pre-test score was 9 and the lowest score was 3. On the post-test the highest score was 10 and the lowest score was 5. The t test = 5.623794; p is < 0.00001 , indicating there was a significant difference between the pre-test and post-test scores and learning did occur.

Implications: Even though the post-test scores were higher, one cannot conclusively state that the increase in knowledge was from the five simulation stations. The senior student researchers believe there may be a difference between utilizing a patient simulator with a scenario versus breaking down the OB skills into simulation stations as completed here. Senior student researchers determined that the pre and post-test questions should be more specific and there should be more specific learning objectives for this simulation including a check list for each skill’s simulation station. Conducting this research has impacted the three senior nursing students’ by allowing them to experience IRB training, gain IRB approval, undertake the study, and analyze data. The senior students hope to conduct the research again in Winter/Spring 2014 with a new cohort of junior students.

Abstracts of Poster Presentations

SYMPTOMS, SYMPTOM CLUSTERS AND SYMPTOM MANAGEMENT: CONCEPTUAL FRAMEWORKS

OVERVIEW: SYMPTOMS, SYMPTOM CLUSTERS
AND SYMPTOM MANAGEMENT: HEURISTICS

Nancy Fugate Woods

SYMPTOM CLUSTERS: AN IPAD APPLICATION
TO STUDY MIDLIFE WOMEN'S HEURISTICS

Rita Ismail, Lauri A. Linder, Catherine Fiona Macpherson, Nancy Fugate Woods

SYMPTOM CLUSTER: ACCEPTABILITY AND USABILITY
OF THE C-SCAT WITH MIDLIFE WOMEN

Rita Ismail, Lauri A. Linder, Catherine Fiona Macpherson, Nancy Fugate Woods

COMPARING ADOLESCENTS/YOUNG ADULTS AND MIDLIFE
WOMEN USING C-SCAT FOR DATA COLLECTION

Lauri A. Linder, Catherine Fiona Macpherson, Rita Ismail, Nancy Fugate Woods

TRADITIONAL EAST ASIAN MEDICINE APPROACHES
TO IDENTIFYING SYMPTOM CLUSTERS

Lisa Taylor-Swanson, Nancy Fugate Woods

STRESSFUL EXPERIENCES DURING MIDLIFE:
THEORETICAL FOUNDATIONS FOR STUDYING SYMPTOMS
DURING THE MENOPAUSAL TRANSITION

Annette Thomas, Nancy Fugate Woods

SYMPTOMS, SYMPTOM CLUSTERS AND SYMPTOM MANAGEMENT: CONCEPTUAL FRAMEWORKS

Overview: Symptoms, Symptom Clusters and Symptom Management: Heuristics

*Nancy Fugate Woods, PhD, RN, FAAN
Biobehavioral Nursing
University of Washington*

Background: Nurse scientists have advanced the science of symptoms and symptom clusters as well as symptom management with contributions ranging from concept analysis to hypothesis drive studies. To foster translation of research motivated by these concepts and theories to practice, a synthesis of the conceptual and theoretical models of symptoms and symptom clusters with that of symptom management is needed.

Purpose: To synthesize conceptual and theoretical foundations related to symptoms and symptom clusters and symptom management.

Methods: Analysis of conceptual, theoretical, and empirical works related to symptoms, symptom clusters, and symptom management focused on elements commonly included in nursing literature.

Results: The bulk of empirical work on symptoms and symptom clusters has relied on statistical derivation of symptom clusters. Limited attention has been devoted to the heuristics people use in their mental models of symptoms and symptom clusters. Although there have been significant strides in studying symptom clusters, studies of symptom management do not appear to be motivated by consideration of the heuristics that people identify when thinking about their symptoms. Models that take into account constructs such as symptom awareness, evaluation of the meaning of symptoms or clusters, framing of symptoms and clusters, and attributions about symptoms and clusters can provide links to symptom management strategies consistent with people's heuristics. Studies of people's responses to symptoms and symptom clusters are rare. Responses are predicated on evaluation of the symptoms or clusters and may range from discretionary non-action to seeking information for self-management, behavior change such as resting, use of self-care remedies including over the counter therapies, seeking advice or help from one's social network, and/or seeking care from a health care professional. The relationship of symptoms, clusters, heuristics and these responses remains to be clarified.

Implications: Models that take into account constructs such as symptom awareness, evaluation of the meaning of symptoms or clusters, framing of symptoms and clusters, and attributions about symptoms can provide conceptual and theoretical links to symptom management strategies consistent with people's heuristics. Recommendations for future work include attending to common definitions and measures of symptoms and symptom clusters while incorporating the heuristics that guide people's thinking about their symptoms; specifying the models for symptom management derived from consideration of people's heuristics about their symptoms or symptom clusters; and generating testable theoretical propositions about symptom management grounded in these understandings.

SYMPTOMS, SYMPTOM CLUSTERS AND SYMPTOM MANAGEMENT: CONCEPTUAL FRAMEWORKS

Symptom Clusters: An iPad Application to Study Midlife Women's Heuristics

Rita Ismail, RN, MPH, MTD (HE)
Biobehavioral Nursing and Health Systems
School of Nursing
University of Washington
Seattle, WA

Lauri A. Linder, PhD, APRN, CPON
University of Utah
College of Nursing
Primary Children's Hospital
Salt Lake City, UT

Catherine Fiona Macpherson, PhD, RN
Family and Child Nursing
School of Nursing
University of Washington
Seattle, WA

Nancy Fugate Woods, PhD, RN FAAN
Biobehavioral Nursing and Health Systems
School of Nursing
University of Washington
Seattle, WA

Purposes/Aims: To determine whether an iPad application, the Computerized Symptom Capture Tool (C-SCAT), can be used to study symptom cluster heuristics related to menopause in a sample of midlife women.

Rationale/Conceptual Basis/Background: The Seattle Midlife Women's Health Study has revealed that women experience multiple co-occurring symptoms that cluster together in unique ways that vary with women's progression through stages of reproductive aging. A recent study in adolescents and young adults with cancer highlighted that one notable feature of the C-SCAT application is that it allows users to judge if the final graphical image adequately represents their symptom experience prior to completing data collection.

Methods: Women experiencing symptoms they attribute to the menopausal transition were recruited through flyers posted on campus and in clinics. Participants completed the C-SCAT application using an iPad. Data from the C-SCAT application were downloaded to a secure network, Amazon Web Services account, and saved as screen images in order to preserve the graphical images and text elicited from the application.

Results: Sixteen women completed the application and 94 per cent judged the final image to be an accurate representation of their symptom experience. The median symptoms that women reported was 12 (range: 3 to 22 symptoms). The median number of symptom clusters was 2 (range: 1 to 4). Hot flashes/sudden warmth was the most important symptom, while fatigue/tiredness was the most frequent symptom in the most bothersome cluster. Psychological/physical changes and effect of hormonal changes were some of the causes women identified for their symptom clusters. Women named their symptom clusters based on the symptoms in each cluster, such as "night problem", "51", and "Pure CRAZINESS". Some women did self-treatment such as resting, drinking more water, doing exercise, and sleeping to reduce their symptoms, while others taking herbal therapies and having counseling.

Implications: Women were able to use an iPad application to provide accurate data on their heuristics. Most women were able to validate the accuracy of the symptoms cluster diagrams yielded as the final graphical image.

SYMPTOMS, SYMPTOM CLUSTERS AND SYMPTOM MANAGEMENT: CONCEPTUAL FRAMEWORKS

Symptom Cluster: Acceptability and Usability of the C-SCAT with Midlife Women

Rita Ismail, RN, MPH, MTD (HE)
Biobehavioral Nursing and Health Systems
School of Nursing
University of Washington
Seattle, WA

Lauri A. Linder, PhD, APRN, CPON
University of Utah
College of Nursing
Primary Children's Hospital
Salt Lake City, UT

Catherine Fiona Macpherson, PhD, RN,
CPON, Seattle Children's Hospital
Family and Child Nursing
School of Nursing
University of Washington
Seattle, WA

Nancy Fugate Woods, PhD, RN FAAN
Biobehavioral Nursing and Health
Systems
School of Nursing
University of Washington
Seattle, WA

Purpose: The purpose is to evaluate acceptability and usability of the Computerized Symptom Capture Tool (C-SCAT), an iPad application, with midlife women.

Background: Pilot interviews with participants of the Seattle Midlife Women's Health Study revealed that women can provide narrative information about their heuristics, including how symptoms cluster, presumed causes and sequence, and symptom management strategies that women use. The Consortium to Study Symptoms in Adolescents with Cancer tested the feasibility of an iPad application, the C-SCAT, and found that adolescents and young adults with cancer receiving myelosuppressive chemotherapy could readily provide data about their symptom heuristics using the C-SCAT iPad application.

Methods: Women responded to 8 questions about their symptoms over the last 24 hours using an iPad and through an in person interview. The C-SCAT application guided participants through its features directing women to select symptoms from a list, draw temporal and causal relationships between them, and identify symptom clusters. After completing the C-SCAT, women completed a 27 item survey to assess their experience with using the iPad application and to obtain brief demographic data. Interview responses were recorded verbatim and coded for analysis using a computer program, SPSS, for data management.

Results: Sixteen women aged 40 – 60 years completed the C-SCAT. Fifty six percent agreed that the application instructions were extremely/very easy. Sixty three percent of women affirmed that the time to complete the application was about right. Almost none of them felt bored while completing the application. They reported that the application was interesting and made them think what was happening to them. Although most women used computers in their work, some had difficulties in completing the application, particularly drawing on the symptom cluster screen. Overall, 56% of participants assumed women in their age group would prefer using an iPad than paper for completing the application. Improving on the cluster (grouping) screen, a longer time frame for rating symptoms, including more other physical symptoms such as eye dryness, having a rating scale on the screen, and providing an introductory overview (video, PPT) to guide C-SCAT use were some suggestions to improve the application.

Implications: The C-SCAT adaptation for menopause demonstrated acceptability and usability with midlife women.

Funding: University of Washington School of Nursing, Research Intramural Funding Program.

SYMPTOMS, SYMPTOM CLUSTERS AND SYMPTOM MANAGEMENT: CONCEPTUAL FRAMEWORKS

Comparing Adolescents/Young Adults and Midlife Women Using C-SCAT for Data Collection

Lauri A. Linder, PhD, APRN, CPON^{1,2} Catherine Macpherson, PhD, RN, CPON^{3,4}
Rita Ismail, RN, MPH, MTD (HE)⁴ Nancy Fugate Woods, PhD, RN, FAAN⁴
¹University of Utah ²Primary Children's Hospital
³Seattle Children's Hospital ⁴University of Washington

Purpose: The purpose of this presentation is to compare experiences of adolescents and young adults (AYA) with cancer and midlife women in completing newly a newly developed symptom cluster heuristics application (app), the Computerized Symptom Capture Tool (C-SCAT).

Background: The C-SCAT is a newly developed symptom cluster heuristics app delivered via an iPad. The C-SCAT guides individuals to create a graphic image of their symptom experience in the past 24 hours. Individuals also enter free text responses to name symptom clusters and the impact of their symptoms/symptom clusters on their day-to-day lives. The initial version of the C-SCAT was created for AYA with cancer and features 30 cancer-related symptoms. The midlife women's version of the app includes 54 symptoms identified through the Seattle Midlife Women's Health Study.

Although AYA with cancer and midlife women experience multiple, co-occurring symptoms, their confidence using mobile technology is likely to differ. These groups may have different experiences and preferences for representing their symptom experience using mobile technology.

Methods: Seventy-two AYA (13-29 years) with cancer completed the C-SCAT (cancer version) within 24 to 96 hours of initiating a chemotherapy cycle, and 16 midlife women (40-60 years) completed the C-SCAT (midlife women's version) during a scheduled in-person interview. A research team member was present to respond to questions or sources of difficulty in completing the C-SCAT. Participants also completed a questionnaire addressing the C-SCAT's acceptability.

Results: All participants completed the C-SCAT in a single session. AYA completed the C-SCAT in a mean of 25 minutes (SD=17; range 2-83). Midlife women completed the C-SCAT in a mean of 40 minutes (SD=18; range 6-65). The time to complete the C-SCAT was positively correlated with the number of symptoms reported ($r=.43$; $p<.01$). Both AYA with cancer and midlife women communicated a wide range of individual variation in their symptom experience, including number of symptoms reported, relationships between symptoms, and the number of symptom clusters. Symptom cluster names reflected physical, emotional, and relational aspects of their symptom experiences.

Observer notes identified fatigue among AYA participants related to dosing of antiemetic medications with sedating side effects. The administration schedule of these medications also created challenges in scheduling sessions to complete the C-SCAT. Some midlife women reported difficulty reading the iPad screen without reading glasses. Other women encountered difficulty with some features of the C-SCAT related to the sensitivity of the iPad touch screen. Both groups reported that the C-SCAT helped them to see how their symptoms were related. More AYA (95%) than midlife women (56%) endorsed a preference for using the iPad versus a paper-and-pencil version of the tool.

Implications: Both AYA with cancer and midlife women were able to use their respective versions of the C-SCAT to communicate their personal symptom experiences. Each group also encountered unique issues related to their health status and developmental characteristics warranting consideration in future studies involving the C-SCAT.

Funding: St. Baldrick's Foundation Supportive Care Grant (Linder, PI) and University of Washington School of Nursing, Research Intramural Funding Program (Woods, PI).

SYMPTOMS, SYMPTOM CLUSTERS AND SYMPTOM MANAGEMENT: CONCEPTUAL FRAMEWORKS

Traditional East Asian Medicine Approaches to Identifying Symptom Clusters

Lisa Taylor-Swanson, MAcOM, EAMP, lts369@uw.edu
Nancy Fugate Woods, PhD, RN, FAAN

University of Washington

Aims: This project aims to describe menopausal transition symptom clusters as organized by Traditional East Asian Medicine (TEAM) theory, differential diagnosis and treatment protocols. A second aim is to use this information to illustrate the nursing clinical relevance of identified menopausal transition and early postmenopausal symptom clusters.

Background: Previous work by Cray, Woods, Herting & Mitchell (2012) 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. Symptom clusters are also identified in the clinical practice of TEAM. Clusters of symptoms, along with signs such as pulse and tongue assessments, are the foundation for TEAM differential diagnosis and treatment.

Methods: Existing clinical textbooks and research articles on TEAM treatment of symptoms experienced by women traversing the MT were reviewed and summarized.

Outcomes Documented: Specific treatment principles, acupuncture protocols, and Chinese herbal formulas are associated with each TEAM differential diagnosis. These treatment principles address the entire clustered symptom presentation. Differential diagnoses include: Kidney Yin deficiency, Kidney Yang deficiency, combined Kidney Yin & Yang deficiency, Liver Qi constraint, Spleen Qi deficiency, Gall Bladder Qi instability, Heart & Kidney not harmonized and Blood stagnation.

Conclusions: At least eight different MT symptom clusters have been identified in TEAM clinical and research literatures. Clinical texts note that women often present with more than one concurrent differential diagnosis. Research is needed to identify which patterns predict healthy aging characterized by less intense symptoms and/or better coping, as this literature does not currently exist. TEAM heuristics of symptom clusters may be of use in this endeavor.

Reference:

Cray, L., Woods, N. F., Herting, J. R., & Mitchell, E. S. (2012). Symptom clusters during the late reproductive stage through the early menopause: Observations from the Seattle Midlife Women's Health Study. *Menopause, 19*, 864-9.

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SYMPTOMS, SYMPTOM CLUSTERS AND SYMPTOM MANAGEMENT: CONCEPTUAL FRAMEWORKS

Stressful Experiences during Midlife: Theoretical Foundations for Studying Symptoms during the Menopausal Transition

*Annette Thomas, RN, MS, PhD Student
Nancy Fugate Woods, PhD, RN, FAAN
University of Washington*

Purpose: To review theoretical literature on stress and stress response as a basis for the study of stressful experiences and symptoms during the menopausal transition, and to examine evidence in published literature on the relationship of stress during the menopausal transition.

Methods: Theoretical literature was examined to identify commonly used theoretical models in studies of stress. For example, McEwen (2007) identifies chronic life stressors, such as interpersonal conflicts, caregiving, pressure at work and/or crowded and noisy conditions at home or work to be responsible for a pre-existing stress load of brain and body. These stressors may result in chronic anxiety and depressed mood with poor quality sleep that can contribute to health damaging behaviors (or self-medication) such as overeating, heavy drinking, smoking, and/or no exercise. These behaviors dysregulate the normal physiologic activities and create a chronic stress burden called “allostatic overload.” There are four types of physiologic responses that lead to allostatic load and overload. There is a prolonged response as well as an inadequate response, both related to individual differences in the stress response. Also there is a repeated exposure response and a lack of adaptation response that are both related to chronic stressor characteristics. The health consequences of allostatic load or overload are early indicators of potential diseases such as hypertension, obesity, increased cholesterol, bone mineral and muscle protein loss, memory impairment and increased anxiety. Although McEwen’s theoretical model addresses maladaptive behaviors, it does not address positive coping mechanisms, cultural overlay or stress management for the alleviation of allostatic overload.

Results: A Pub Med literature review was done to examine evidence in published literature on the relationship of stress and the menopausal transition. Keefer and Blanchard (2005) investigated distress in women during the menopausal transition using a cognitive-behavioral perspective and explained that stress and cognitive factors impacted the experience of vasomotor symptoms and can be addressed through psychological and behavioral interventions. Hunter and Chilcot (2013) also tested a cognitive model of hot flushes and night sweats (HFNS) and found that stress, anxiety and somatic amplification predicted HFNS problem rating via their impact HFNS beliefs. Woods, Mitchell, et al. (2009) reported that the effects of menopausal transition factors on perceived stress were not significant; however, employment, a history of sexual abuse and depressed mood were associated with significantly higher levels of stress.

Conclusions: The relationship of stress and the menopausal transitions appears to be multifactorial. Therefore, it is important for its underlying theories to include factors such as major life events, how symptom awareness affects perceived distress, social support, cultural overlay, and coping strategies.

Abstracts of Poster Presentations

THEORY

A CONCEPTUAL FRAMEWORK FOR RESILIENCE CAPACITY IN CHILDREN OF ALCOHOLICS

Sihyun Park, Karen Schepp

A CRITICAL ANALYSIS OF *SOCIAL JUSTICE* IN NURSING DISCOURSE

Kristin G. Cloyes

BUDDHA, NIGHTINGALE, AND GLOBALIZATION: PERCEPTIONS OF NURSE-PATIENT THERAPEUTIC RELATIONSHIP IN SRI-LANKA

Sunny Wijesinghe, Judy Liesveld

CRITIQUE OF PROMINENT BURNOUT THEORIES TO GUIDE NURSING RESEARCH AND INTERVENTION

Rachael Kay Eccles, Catherine Vincent

DEVELOPMENT OF A CONCEPTUAL FRAMEWORK FOR WOMEN'S EXPERIENCE OF CHRONIC PELVIC PAIN

Yaelim Lee, Eun-Ok Im

DOES THE AFFORDABLE CARE ACT THREATEN AMERICAN LIBERTIES?

Jenny Palisoc, Joachim Voss

RETHINKING FAILURE TO RESCUE AND NORMAL BIRTH: A CONCEPT ANALYSIS

Marie Hastings-Tolsma, Anna G. W. Nolte

SITUATED COGNITION IN UNDERGRADUATE
NURSING EDUCATION

Janet M. Banks

SITUATED IN THE CONTEXT OF NURSING PRACTICE:
A CONCEPT ANALYSIS

Laura Mood

USING THEORY TO DRIVE INFLUENZA RELATED
TEXT MESSAGING INTERVENTIONS

Patricia Wiseman, Kathie Records

WHY ISN'T EVERY NURSE AN EXPERT?
EXPLORATION OF KNOWLEDGE DEVELOPMENT

DeeAnn Mulcahy

THEORY

A Conceptual Framework for Resilience Capacity in Children of Alcoholics

*Sihyun Park, PhD
Doctoral Student
School of Nursing
University of Washington
Seattle, WA*

*Karen Schepp, PhD, PMHCNS-BC, FAAN
Interim Chair & Professor
Psychosocial & Community Health Department
School of Nursing
University of Washington
Seattle, WA*

Purpose: The purpose of this paper is to present a conceptual framework to describe the dynamics of resiliency development in COAs. The framework is an adaptation of the society-to-cells resiliency model by Szanton and Gill's (2010).

Background: Adverse childhood experiences resulting from parental alcoholism have a considerable negative impact on the development of children of alcoholics (COAs). Many previous studies have demonstrated the long-term consequences of parental alcoholism in adult COAs (ACOAs) and younger COAs, such as depression, anxiety, suicidal ideation or substance abuse. However, not all COAs exhibit such problems. In spite of their adverse experiences, some COAs develop normally, much like children who grow up in families untouched by alcoholism. In other words, some children appear to be much more resilient to such adverse experiences. On the other hand, some COAs are much more vulnerable to such trauma, exhibiting worse consequences than most. Thus, identifying why some children are highly resilient and others are highly vulnerable, even when both have grown up in alcoholic families, is important in terms of preventing or minimizing the negative consequences of family alcoholism.

Description of Theory or Definition of Concept: The conceptual framework shows how COAs' resilience capacity is determined by the interaction between their risk and protective factors, and how negative outcomes can be worsened or improved by their resilience capacity. The following key points are covered in the description of the framework, (1) the possible negative outcomes of growing up in an alcoholic household that COAs can experience according to previous studies; (2) the concept of resilience capacity in COAs; and (3) both the risk and protective factors throughout multiple levels from society to cell based on systematic literature review. In addition, (4) since the adapted conceptual framework is based on this society-to-cell model of resilience (Szanton & Gill, 2010), a brief description of that model will be presented. Finally, (5) the adapted model for resilience capacity in COAs will be presented.

Implication for Nursing Practice or Research: The conceptual framework adapted for COA's will act as a guide for professionals to develop more effective evidence-based interventions in order to directly help children of alcoholics in terms of preventing or minimizing the negative outcomes they might experience in their developmental trajectories.

Conclusion: Even if children have adverse experiences at home, if appropriate interventions can be provided at the societal and community levels for those children, those affects can reduce the negative outcomes of parental alcoholism. This framework visually illustrated these dynamic factors in COAs and provided a holistic view of how COAs develop.

THEORY

A Critical Analysis of *Social Justice* in Nursing Discourse

*Kristin G. Cloyes, PhD, MN, RN, Associate Professor
University of Utah College of Nursing, Salt Lake City, UT*

Purpose: This study explores how the term *social justice* is used as a signifier in nursing discourse, based on examination of actual language in use within nursing texts.

Background: North American nursing scholarship on social justice has been critiqued for failing to assert definite content or concrete positions on social justice, leaving it an abstract concept not fully developed into calls for specific actions or public policies. This study takes a critical linguistic approach to examine how nurse scholars represent nursing theory, practice, education and values in relation to the term *social justice* across a variety of journals and genres.

Methods: An internet search identified English language texts published in peer-reviewed nursing journals 2000-2012 that had *social justice* in the title or key word list. This sample was divided into four categories according to stated purpose, content focus and publication context: Academic/Theoretical, Education, Practice, and Editorial. The five most frequently cited texts in each of these categories were selected for analysis (n= 20). Comparative analysis of these texts combined techniques of quantitative content analysis (analysis of word frequencies, concordances, collocations, positive and negative valence and z-tests to compare between-group differences) and critical discourse analysis.

Results: The most frequently occurring words associated with *social justice* were *nursing/nurses, our, their, not, health, care, community, moral, and culture/cultural*. The Academic and Education texts used antagonistic constructions (i.e. *us/them, our/their*) significantly more often than the Practice and Editorial texts: Academic vs. Practice texts ($z = 7.719, p < 0.01$); Academic vs. Editorial texts ($z = 4.81, p < 0.01$); Education vs. Practice ($z = 7.101, p < 0.01$); and Education vs. Editorial ($z = 4.627, p < 0.01$). Across all categories, negative terms associated with *social justice* indicated intellectual or cognitive functions—insight, causality, knowing, thinking, perception and recognition, and included the words *burden, conflict, vulnerability, disagree/ment, tension, difficulty, doubt, ignorance, reluctance, anxiety, suffering, threat, loss, and failure*. In contrast, positive terms associated with *social justice* more affectively and interpersonally oriented: *acceptance, agreement, benefit, care, commitment, freedom, share, support, good, value and ideal*. The following were the conceptual terms most associated with social justice within each category: Academic/Theoretical (*theory/theories, feminism, system, reform*); Education (*education, teaching, students, definition, development and experience*); Practice (*care, role, principles, perspective, practice*); Editorial (*advocate, need/s, applied, decisions, life*). In the Academic, Practice and Editorial categories, *nurse, nurses or nursing* were the subject terms most collocated with *social justice*; only in Education was another definite group of subjects, *student/s*, regularly present. Notably missing across categories were close, regular linkages between *social justice* and definite political or economic terms.

Implications: This analysis shows how an array of nurse authors used *social justice* to position nursing—and themselves—in complex, ideological, yet not always overtly political ways. Critical analysis of these articulations and their effects highlights the potential for more explicit political messaging. Strategic engagement in public discourse on human health and social justice is emerging as an increasingly critical site of intervention in a global, digitally mediated and socially networked public sphere.

THEORY

Buddha, Nightingale, and Globalization: Perceptions of Nurse-Patient Therapeutic Relationship in Sri-Lanka

*Sunny Wijesinghe, MS, MPH, PhD, RN
Research Associate, Nursing
University of New Mexico
Albuquerque, NM*

*Judy Liesveld, PNP, PhD, RN
Associate Professor, Nursing
University of New Mexico
Albuquerque, NM*

Purpose: This research aims to explore factors that color the perceptions of nurse-client therapeutic relationship in the healthcare delivery system in Sri-Lanka.

Rationale: Achieving patient-centered-care has become the mission of many a health care delivery system. Patient centered care can be multifaceted, but one of the essential aspects of achieving patient centered care is effective communication between the health provider and patient. The health worker that a patient reaches first in need is the nurse. Many studies show that nursing has a significant impact on healthcare outcomes. Research also identifies barriers to effective communication between nurse and patient. Are nurses always aware when they are perceived as inattentive or unkind? What criteria do patients use to assess a therapeutic relationship between nurse and client?

This research sheds light on nursing care in Sri Lanka because there is a paucity of literature that addresses issues of patient centered care. Sri Lanka, a former British colony, has maintained a public health nursing service since 1926, which has since undergone several changes. Its cadre of nurses can readily be identified by their uniform from the Nightingale era.

Consequences of globalization have contributed to an increased caseload of afflictions related to non-communicable illnesses in Sri Lanka today, which stretches the boundaries of an effective free and fair health care system too far. In this predominantly Buddhist nation one is also mindful of the Buddha's definition of a good nurse as someone who attends not only to the physical care of a patient but fills the patient with noble ideas. Little research thus far has examined how Sri-Lankan nurses perceive their relationship to their patients and what patients expect from nurses. Is it Nightingale, Buddha or the globalization that influences nurse-patient relationship in Sri Lanka?

Method: This study used a secondary analysis of the data obtained from two previous IRB approved research conducted in Sri Lanka; First study had explored the role of Buddhist spiritual practice in the lives and health of Sri Lankan Buddhist nuns living with a chronic illness using 45 Sri Lankan Buddhist nuns with a chronic condition and 20 lay people as secondary informants. The second study had described the health behavior of 10 Buddhist nuns with type 2 diabetes. The number of nurses interviewed during these studies was 10. In the current study content analysis was used to reduce data and identify themes.

Results: Themes identified from nurses' conversations were: Service, duty/ obligation, and work overload. The age of nurse, type of training (private or government sponsored), and the level of nursing education influenced their perception of nurse-patient therapeutic relationship. Patients coined nurse-client relationship in terms of compassion and kindness. The level of satisfaction with the quality of the nurse-patient relationship from both, nurses' and patients' sides, was higher in private healthcare facilities.

Implications: These findings have implications to nursing practice, education, research and health policy in that a satisfactory nurse-client relationship is integral to maintaining the gains Sri Lanka has made through a free and fair healthcare delivery system.

THEORY

Critique of Prominent Burnout Theories to Guide Nursing Research and Intervention

*Rachael Kay Eccles, RN, BSc, BScN
PhD Candidate, Health Systems Science
College of Nursing
University of Illinois at Chicago
Chicago, IL
rkay3@uic.edu*

*Catherine Vincent, RN, PhD
Associate Professor, Women, Children,
and Family Health Science
College of Nursing
University of Illinois at Chicago
Chicago, IL*

Nurse burnout is of interest to nursing researchers globally and is associated with negative outcomes for nurses, including increased risk of turnover, anxiety, depression, and suicide among nurses. Continued interest in solving the problem of nurse burnout demonstrates that effective interventions have yet to be designed and exploratory work in burnout has been criticized for the apparent hap-hazard selection of independent variables that are not derived from burnout theories. The goal of theory use in nursing is the design of pragmatic interventions based upon scientific knowledge, but the process of translating research findings into theory, and theory into practice, relies on the utility of theoretical frameworks for application to both research and intervention design. The first step in designing both impactful nursing burnout research and nursing interventions to combat burnout is to identify the theory of burnout that is best suited for use in the nursing discipline.

The purpose of this presentation is to critique Maslach, Shaufeli, and Leiter's Multidimensional Theory of Burnout and Pines and Aronson's Existential Model of Burnout on the utility of these theories in guiding nursing research and nursing intervention. Fawcett's method of theory analysis and evaluation guides the critique. The critique employs a unique perspective, as the nurse is considered to be the patient and burnout is the health phenomenon of interest to the wellbeing of the patient. These theories have been borrowed from psychology and exploration of their congruence with nursing is crucial.

In the Multidimensional Theory of Burnout, burnout is defined as a combination of emotional exhaustion, depersonalization, and a lack of sense of personal accomplishment. Mismatch between a nurse and their worklife in the areas of workload, control, reward, community, fairness, and/or values leads to nurse burnout. In the Existential Model of Burnout, burnout is characterized by a state of physical, emotional, and mental exhaustion. A nurse has goals and expectations about work that will provide a sense of significance if achieved and a sense of failure if achievement is prevented by elements of the environment. This sense of failure leads to burnout. Fawcett describes two major processes in her method: the analysis, and the evaluation of the theory. Analysis involves a description of the scope, context, and content of the theories. Evaluation involves an examination of the theories' significance for the discipline of nursing, internal consistency, parsimony, testability, empirical adequacy, and pragmatic adequacy. The theories are critiqued and compared based on these criteria.

Results of the critique and subsequent comparison show that these theories are similar in many respects; however, the lesser-known Existential Model of Burnout has more potential for utility in nursing, based on greater significance to the discipline and more explicit avenues for practical intervention. Nursing researchers should seriously consider the use of the Existential Model of Burnout as a theoretical framework to guide future work. Educators involved in nursing curriculum design and those designing interventions may find the Existential Model of Burnout to be useful in identifying opportunities for burnout prevention among present and future nurses.

THEORY

Development of a Conceptual Framework for Women's Experience of Chronic Pelvic Pain

*Yaelim Lee, MSN, RN
Doctoral Student
School of Nursing
University of Pennsylvania
Philadelphia, PA*

*Eun-Ok Im, PhD, MPH, RN, CNS, FAAN
Professor & Marjorie O. Rendell Endowed Chair
School of Nursing
University of Pennsylvania
Philadelphia, PA*

Purposes: Despite an increasing number of studies on women's experiences of chronic pelvic pain, very few theories and/or conceptual frameworks are available to guide the studies. The purpose of this paper is to present a conceptual framework of women's chronic pelvic pain experience (WCPPE) that was developed based on an existing model and a systematic integrated literature review.

Methods: The WCPPE was developed using the theory development process suggested by McCormack and McCance in 2006. The WCPPE was designed through the theoretical lenses of post-colonial feminism and symbolic interactionism. First, existing conceptual frameworks related to women's chronic pelvic pain experience were analyzed, and a literature review on their usages in empirical studies was conducted. Then, one of the existing conceptual frameworks—the Symptom Management Model—was critiqued on its use in addressing women's experience of chronic pelvic pain, and the framework was assessed for its necessity of refinement. Finally, the WCPPE was derived by adopting several major concepts from the model and adding new concepts that were identified in the literature review.

Description of Theory: The WCPPE is based on several assumptions on respect for women's lived experience and the diversity in their experience from the post-colonial feminism and symbolic interactionism. The WCPPE includes four major concepts that shape women's chronic pelvic pain experience: (a) chronic pelvic pain care, (b) women's quality of life, (c) individual factors, and (d) environmental factors. The concept of chronic pelvic pain care has 3 sub-concepts (characteristics of pain, pain management, and outcomes of and response to pain management). The concept of women's quality of life includes 5 sub-concepts (functional health status, psychological distress, sense of wellbeing, sexuality, and relationship with others). The concept of individual factors includes 5 sub-concepts (demographical, physiological, psychosocial, developmental, and spiritual factors), while the concept of environmental factors includes 2 sub-concepts (social interaction and societal factors). These four major concepts affect each other in shaping women's experiences of chronic pelvic pain.

Conclusions and Implications: The WCPPE will contribute to development of knowledge base on women's chronic pelvic pain experience by theoretically guiding nursing research and practice with the specific population. The WCPPE needs to be further developed through its actual applications in nursing research and practice with various groups of the specific population.

THEORY

Does the Affordable Care Act Threaten American Liberties?

*Jenny Palisoc, BSN, RN
PhD Student
University of Washington
Seattle, WA*

*Joachim Voss, PhD, RN, ACRN, FAAN
Associate Professor
Biobehavioral Nursing and Health Systems
University of Washington
Seattle, WA*

Background: The Patient Protection and Affordable Care Act of 2010 (PPACA) is the subject of much controversy, however many Americans lack knowledge about its implications. One of Americans' greatest fears is that through the PPACA, democracy will erode and the U.S. will be transformed into a socialist nation.

Purpose: We will identify evidence that will support or refute this notion by evaluating the ideologies of collectivism and individualism in the context of the debate. By exploring arguments for and against the PPACA about whether they jeopardize our civil liberties, we strive to uncover the strengths and weaknesses of the law. This in turn will influence how healthcare providers conceptualize the effects of the PPACA so that they can advocate for patients and increase awareness of how the PPACA will affect access to care.

Concepts: The U.S. Declaration of Independence states that it is our right to "life, liberty, and the pursuit of happiness." Liberty is understood as "the power of choosing, thinking, and acting for oneself; freedom from control or restriction," and it reflects the perspective that health care should be based on individualism and outside the Federal government's reach. This concept is consistent with the principles of neoliberalism. In direct opposition is the ideology of collectivism: the concept of "centralized social and economic control," which supports the notion that health care is a positive right. The expansion of health insurance in the PPACA will provide access to 33 million Americans currently without health care coverage. This idea is thought to be connected to the concept of socialism.

Process: A comparative analysis of the concepts individualism and collectivism will be used to obtain journal articles to assess the PPACA. Using the MeSH terms, "affordable care act" OR "health care reform," AND "freedom," AND "neoliberalism," AND "socialism" AND "ethics," articles from the last 5 years will be gathered from PubMed and CINAHL to analyze myths and facts on both sides. The articles will be examined for qualitative themes and compared using pro and con arguments.

Conclusion: We will provide an analysis of these ethical aspects of the debate to help educate health care providers advocate for patients and increase awareness of how the PPACA will improve access to care.

THEORY

Rethinking Failure to Rescue and Normal Birth: A Concept Analysis

Marie Hastings-Tolsma, PhD,
CNM, FACNM

Professor, College of Nursing
University of Colorado Denver
marie.hastings-tolsma@ucdenver.edu

Anna G. W. Nolte, PhD, RM
Professor, Department of Nursing Science
University of Johannesburg
agwnolte@uj.ac.za

Purpose: Failure to rescue is a concept that has received much attention in the patient safety literature. Viewed as an effort to save a patient's life after complication develops¹, failure to rescue has become an important quality indicator in the acute care setting where failure to intervene when complication exists can result in patient death. While an important concept in mapping complications experienced by ill hospitalized patients, failure to rescue has not been demonstrated to be of utility in the care of low-risk patients experiencing normal, physiologic processes such as birth. When examined within a midwifery model of care, the concept fails to fit. The purpose of this concept analysis was to clarify the concept of failure to rescue in midwifery practice.

Definition of Concept: Failure to rescue is generally defined as an outcome measure and is intended to screen for adverse events that patients experience as a *result of exposure to the healthcare system*.

Concept Analysis Approach: A critical review of the literature was undertaken to clarify and correct the concept for relevance within midwifery practice. The aim of this approach was to systematically and coherently detail how the concept of failure to rescue related to other concepts important in the promotion of normal birth processes – a process referred to as *logical principle* by Morse and colleagues.² Such approach is of particular utility in midwifery as existing concepts have contributed little in advancing inquiry about the protection and promotion of normal physiologic birthing processes. This analysis sought to develop a new way of thinking about failure to rescue – an important concept to consider within midwifery. A review of the literature was completed using 5 databases and based on select key words. Articles published from 1992 to 2013 were included and yielded 41 papers.

Practice Implications: This reconceptualization of failure to rescue defines the concept as failure to promote normal processes *prior* to complication. Failure to rescue for the parturient reflects failed midwifery surveillance and underscores the concept as both process and outcome. Appropriate midwifery response in providing care would mean not only a timely response but also correctly managing and treating the laboring woman. A proactive process, failure to rescue involves two processes: midwifery managed care setting and surveillance.

Conclusions: Failure to rescue when reconceptualized for midwifery practice, requires surveillance monitoring, a strategy whereby low-risk patients receive specific monitoring without exception because the *process and setting* is associated with unexpected events. When normal physiologic birth is not promoted, a “failure to rescue” has occurred. Failure to rescue is a crucial phenomenon in midwifery care and central to protection of normal birth.

References:

¹Schmid, A. et al. (2007). Failure to rescue. *JONA*, 37(4), 188-198.

²Morse et al. (1996). Concept analysis in nursing research: a critical appraisal. *Sch Inq Nurs Pract*, 10(3), 253-274.

THEORY

Situated Cognition in Undergraduate Nursing Education

*Janet M. Banks, RNC, BSN, MSN
Instructor, School of Nursing
University of Portland
Portland, OR*

Purposes/Aims: Education of nurses is a complex endeavor. The future nurse must have a firm grasp of complex subjects. Students must transfer knowledge to new settings. Situated cognition has been suggested as the method to practice transfer of knowledge in controlled and spontaneous settings.

Definition of Concept: Situated cognition in undergraduate nursing education is the full experience of knowing a subject in a place or location while enrolled in the college-level courses an individual must complete in order to obtain a Bachelor of Science degree in nursing. These defining attributes detail characteristics of the method, level of knowing, and the location where one becomes knowledgeable:

- 1) Knowledge use. Including transfer of previously learned knowledge.
- 2) Community of practice. A community of practice is where a novice participates in a social setting where those more knowledgeable introduce the novice gradually into the language and skills of the setting. More knowledgeable others can include student peers, nursing faculty and members of the health care team in a clinical setting.
- 3) Legitimate peripheral participation. Legitimate peripheral participation, where the novice is introduced gradually into work of the community, allows for both formal and informal instruction methods, where students observe the community from the periphery, while receiving specific instruction about an activity or skill. In undergraduate nursing education, the student and members of the community are aware and welcoming of the peripheral participation, each challenging the other to advance.
- 4) Provision of coaching and scaffolding at key times. Students practicing knowledge use and peripheral participation in a community of practice will encounter moments when they don't possess knowledge to practice, or are unable to connect possessed knowledge to the situation at hand. These times call for an instructor or nurse in the community of practice to offer coaching, moving students toward expertise.
- 5) Reflection. Prior to, in the midst of, or upon completion of an activity, the community of practice aspect allows for guided reflection, including questions from nurse faculty or members of the health care team. Reflection can be a meditative experience, though verbal or written reflections offer the opportunity for accountability and allow for further discussion with the more knowledgeable members of the community of practice, fostering critical thinking.

Concept Analysis Approach: The modified Wilson method was used for this concept analysis. The integrative literature review described by Broome was used to gather historical and contemporary data.

Logic Linking Concept to Nursing Practice: The review of literature revealed much theoretical information about implementation of situated cognition as a framework for instruction. The five defining attributes mirror the traditional hands-on approach to nursing clinical education. Situated cognition has been implemented as an instructional method in other disciplines, such as elementary reading, math and science education. Evidence of implementation in nursing is scant.

Conclusion: Situated cognition in undergraduate nursing education is a feasible instructional method to implement. Evaluation of its effectiveness in terms of developing a baccalaureate prepared nurse that is better prepared than its predecessors warrants further study, both quantitatively and qualitatively.

THEORY

Situated in the Context of Nursing Practice: A Concept Analysis

*Laura Mood, RN, MSN, PhD Student
Oregon Health & Science University
Portland, OR*

Purpose: To report a principle-based concept analysis of the term *situated* in the context of the perioperative nurse in practice.

Description of Concept: Perioperative nursing is an action and results-oriented practice inclusive of complex socio-cultural dynamics, ritualistic practices, and entrenched power relationships. Within the context of the operating room, the nurse embedded in the environment, *lives* perpetual experience inclusive of intentional and non-intentional stimuli or sensations (presented internally from the body or externally from the environment), that results in effective or ineffective nursing action. When effective, nurses sense, perceive, know, interact, and respond safely in practice regardless of level of experience. Key characteristics of such a nurse include:

- The nurse demonstrates the ability to sense, perceive, grasp the meaning of a situation, and respond effectively to it both at the point of care and through the process of reflection.
- The nurse in action identifies, effectively processes, and responds appropriately to salient and particular sensory activity occurring internally from the self and externally cued from the environment.
- The nurse's bodily movements, language, speech, and gestures are consistently observed as entrained (or in synchrony) with those of the community of practice in which she functions.
- The nurse demonstrates appropriate social engagement with the perioperative team and is recognized as an accepted member of the social community within this culture of practice.

Internal Consistency of Concept: *Situated* is a term presently used in multiple disciplines including nursing, psychology, sociology, linguistics, education, philosophy, and computer science. While the concept has a presence in various theories within science, it is also used as a colloquial term within science and beyond. In nursing it is primarily used to describe other terms like learning, response, knowledge, activity, and decision-making. Since the concept has both colloquial and scientific meaning, there are implications of its use in characterizing nursing practice.

Logic Linking the Concept to Practice: Potential usefulness of the concept *situated* became apparent during doctoral student discussions concerning research and theoretical models currently under development relevant to effective perioperative nursing practice. A principle-based concept analysis was conducted to explore the state of science according to four major perspectives of the philosophy of science. The data set used included eight English language articles published from 1989 - 2013. Four books also served as primary sources of information.

Conclusions: Use of the term *situated* in the context of nursing practice is not frequently used; however, when it presents in the nursing literature, there is heavy reliance on the colloquial meaning or a more complex implied meaning based on a certain philosophical or theoretical perspective. Although some philosophical alignments among disciplines were discovered through this analysis, the use of *situated* to describe the nurse in practice is not logically sound at this point. Based on the findings of this analysis, a working theoretical definition was developed to facilitate further concept-driven research to advance the concept for greater usefulness in nursing science, and specifically within the practice of perioperative nursing.

THEORY

Using Theory to Drive Influenza Related Text Messaging Interventions

*Patricia Wiseman, MSN, RN
4th Year PhD Student*

*Arizona State University
College of Nursing and Health Innovation
Phoenix, AZ*

*Kathie Records, PhD, RN, FAAN
Hubert C. Moog Endowed Professor*

*University of Missouri - St. Louis
College of Nursing
St. Louis, MO*

Purpose/Aims: The purpose of this pilot study was to design and evaluate theory-based text messages targeted for parents of 5-8 year olds needing Influenza vaccinations in primary care practices. The Health Belief Model was used as a guide. This presentation details the processes used during development and testing of the messages and evaluation of outcomes for clarity, internal consistency, and content validity.

Rationale/Conceptual Basis/Background: The Advisory Committee on Immunization Practice (ACIP) recommends that all children from 6 months to 18 years of age be vaccinated annually against Influenza. In spite of these national recommendations, the Influenza immunization rates for healthy school-age children are less than 15%. During the Influenza season, health care providers see a 20% increase in office visits and are focusing their attention on prevention for healthy children who experience the majority of the 30-60 million infections every year. Parents' misperceptions of Influenza disease and vaccinations are often cited as the reasons for the low vaccination rates.

Primary care influenza vaccination interventions may potentially increase vaccination rates among hard-to-reach populations, such as children with low-income or inner-city parents. Given the increased use of technology as a strategy to increase immunization coverage, text messaging may result in greater increases in vaccination rates than traditional vaccine reminders. The development of the text messages was guided by constructs from the Health Belief Model and this model has been used extensively to study vaccination beliefs and behaviors and to identify patient perceptions of disease.

Design and Methods: A descriptive design guided this pilot study. Three investigator-developed questionnaires with fixed response options and open-ended questions were presented to community vaccine experts ($n = 4$), health care providers ($n = 8$), and parents of 5 to 8-year-old children ($n = 12$). Participants evaluated the text message content for clarity, internal consistency, and content validity.

Results: The theory-based Influenza related text messages were evaluated by participants as clear, with valid content and good internal consistency. Interrater agreement was evaluated using Cohen's *kappa* which exceeded the criterion level of 0.70 for clarity, internal consistency, and content validity. Analysis of the open-ended comments indicated that participants found the text messages to be a low-cost and acceptable intervention that would meet the needs of the target population.

Implications: Findings contribute to the knowledge base for theory-based Influenza vaccination interventions using text messaging. The processes used in this investigation are foundational to garnering community investment. Further, these processes help to create interventions that are culturally relevant and that meet the health literacy needs of the target populations. These processes can be easily implemented at low-cost by researchers and practitioners in a variety of settings. These processes and the findings of this study may contribute to our knowledge base for the development of theory-based Influenza interventions.

THEORY

Why Isn't Every Nurse an Expert? Exploration of Knowledge Development

*DeeAnn Mulcahy, MSN, RN-BC
PhD Student, College of Nursing
University of New Mexico
Albuquerque, NM
demulcahy@salud.unm.edu*

The Institute of Medicine in its report on the future of nursing has called for the creation of a culture of life-long learning in nursing to meet the needs of an increasingly complex patient population and the demands of an increasingly sophisticated practice milieu. To meet this challenge, nurse leaders must have a clear understanding of how nurses develop the practice knowledge necessary for expert nursing. This poster will examine the individual and collective factors that research indicates facilitate and constrain development of practice knowledge to shed light on the question, "Why aren't all nurses experts?"

Nursing practice encompasses all the accumulated practice knowledge in the nurse's repertoire. Practice knowledge incorporates empirical knowledge, clinical skills and empathetic understanding. Factors that influence practice knowledge development have implications for patient safety, satisfaction, and outcomes. Both individual nurse attributes and characteristics of the practice environment influence the progression of practice knowledge.

Individual nurse attributes include personality, cultural and family background, personal experiences and history, educational background, and personal values and worldview. Collective factors manifest at both macro and micro levels. At the macro level are the current social and political forces shaping healthcare delivery in the U.S. The macro level also contains both implicit and explicit aspects of organizational culture. The micro level comprises local practice environments such as nursing units and clinics. Discussion of collective factors focuses on the local practice environment and how macro level influences work through it to affect expert practice knowledge development.

New nurses are affected by the local practice environment in subtle and complex ways. Later, as they grow in competence, they become shapers of the local practice environment. This cyclical process may produce a participatory, collaborative practice environment or a fragmented, competitive one. Although some research has examined individual nurse attributes and local practice environment characteristics that affect practice knowledge development, more research is needed to provide a comprehensive understanding of the influence of these two factors singly and in combination. Insight into the effects of societal, organizational and individual nurse attributes on practice knowledge development will enable nurse and other healthcare leaders to design practice environments and professional development approaches that facilitate development of the type of practice knowledge essential for expert nursing.

Proposed research outlined in this poster will use a naturalistic inquiry methodology with the following specific aims: define nursing practice knowledge, describe the process of practice knowledge development in nursing, and identify major influences on practice knowledge development trajectory. Mezirow's transformational learning theory and Wenger's communities of practice theory provide the theoretical framework for the study, which is also informed by Benner's novice-to-expert nursing model. The significance of this research lies in understanding the process of practice knowledge development, which in turn can lead to development of strategies to promote life-long learning and improve patient safety, satisfaction, and outcomes.

RESEARCH & INFORMATION EXCHANGE

The Research & Information Exchange includes posters of research conducted by faculty, 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

ASSESSMENT OF DIETARY INTAKE AND FOOD PREPARATION AMONG TODDLERS

Mihyun Jeong

YOGA TO OPTIMIZE HEALTH AND WELLNESS IN OLDER ADULTS

Jennifer Barrows

PARENTAL ROLE MODELING OF PHYSICAL ACTIVITY

Amy Hutchens

WELLNESS MOTIVATION INTERVENTION FOR PHYSICAL ACTIVITY MAINTENANCE IN OLDER ADULTS

Tanie Sherman

TAILORED WEB-BASED DIABETES SELF-MANAGEMENT EDUCATION USING THE PRINCIPLES OF MOTIVATIONAL INTERVIEWING FOR ADOLESCENTS WITH POORLY CONTROLLED TYPE 1 DIABETES

Linda Paul

THE EFFECTS OF MATERNAL MOOD DISORDER ON CAREGIVING AN AUTISTIC CHILD

Kristen Decker

LONELINESS AND THE OLDER ADULT

Rachel Hungerford

AZUSA PACIFIC UNIVERSITY SCHOOL OF NURSING

Azusa, CA

HIV/AIDS RISK TAKING BEHAVIORS AMONG ASIAN PACIFIC ISLANDER WOMEN

Ivy Tuason

MEDICAL DEVICE RELATED HOSPITAL ACQUIRED
PRESSURE ULCERS IN ICU PATIENTS

June Rondinelli

ASSESSMENT OF PREVALENCE AND RISK FACTORS
FOR PRE-HYPERTENSION AMONG ADULTS

Talato Kabore

COMMUNITY CLINIC PROVIDERS' APPROACH
TO DIAGNOSING VAGINITIS IN PREGNANT WOMEN

Stefanie Varela

DECLINING PRESENCE OF SUPERMARKETS
WITHIN AFRICAN AMERICAN URBAN POPULATIONS

Kathleen Hawkins

EPIGENETICS FOR BREAST CANCER PREVENTION:
A FAMILY CASE STUDY

Mildred Gonzales

FAITH-BASED CONCEPT ANALYSIS COMPARISONS
FOR NURSING EDUCATION

Carolyn Hanohano

SELF CARE ABILITY IN RURAL HISPANIC WOMEN
EXPERIENCING DEPRESSIVE SYMPTOMS

Younglee Kim

HEALTH OUTCOMES OF CHILDREN WITH ESRD
ON PERITONEAL DIALYSIS VS HEMODIALYSIS

Gladys Ngujuna

BANNER HEALTH

Phoenix, AZ

NEEDS OF OLDER ADULTS WITH ADRD
IN A REHABILITATION SETTING

Angela Marie Allen, David Coon, Marianne McCarthy, Johanna Uriri-Glover

COMPARISON OF PAIN RESPONSE TO VENIPUNCTURE
VS. HEEL LANCE IN TERM NEWBORNS

Brooke Swails, Sherry Stotts, Karen Johnson

**VALIDATION OF A DYSPHAGIA SCREENING TOOL
AFTER PROLONGED INTUBATION**

*Robecharad Halaghay, Lauri Speirs, Karen Johnson, Brenda Manos,
Heather Przybyl, Erica Grant*

NURSE AND UNIT PREDICTORS OF COMPASSION FATIGUE

Lesly Kelly, Jody Runge, Christina Fosnot, Adriana Cavina

**“CODE COMPASSION”: REDUCING COMPASSION FATIGUE
IN ACUTE CARE NURSES**

Christina Fosnot, Lesly Kelly, Jody Runge, Adriana Cavina

BOISE STATE UNIVERSITY SCHOOL OF NURSING

Boise, ID

**CONCURRENCE OF ANXIETY AND NAUSEA
IN CANCER PATIENTS UNDERGOING PORT ACCESS**

Alia Crandall, Margaret Downey

**FINNEGAN’S SCORING TOOL EFFECTIVELY HELPS CARE
FOR CHALLENGING NICU INFANTS**

Amanda Erickson, Pam Strofus

**POST CARDIAC REHAB: REVIEWING FACILITATORS
OF SUSTAINED HEALTH BEHAVIORS**

Andrea Lambe, Jane Grassley

**IS CURRENT ONLINE BREASTFEEDING INFORMATION
ADOLESCENT FRIENDLY?**

Jarrod Crump, Jane Grassley

**ST. LUKE’S MEDICAL CENTER AND BOISE STATE
UNIVERSITY PATIENT SHADOWING PROJECT**

Jessica Kelle-Bickford, Hillary Hoppe, Cathy Deckys

CONSTRUCTING A GLOBAL CITIZENSHIP EVALUATION TOOL

Taylor Jones, Karen Breikreuz

**NEONATAL OUTCOMES OF VAGINAL
AND PLANNED CESAREAN BIRTH: EVIDENCE REVIEW**

Megan Hull, Katie Kruschek, Christina Marie, Cara Gallegos

CHILDREN'S HOSPITAL COLORADO

Aurora, CO

**BEST EVIDENCE TO BEST PRACTICE:
FEEDING GUIDELINES FOR HOSPITALIZED INFANTS**

Sharon Sables-Baus, Cheryl Moody, Kathleen Martinez

**NURSES AS SECOND VICTIMS:
THE IMPACT OF MEDICATION ERROR EXPERIENCES**

Kristin Belderson

IDAHO STATE UNIVERSITY SCHOOL OF NURSING

Pocatello, ID

**WHAT ARE THE FACTORS THAT INFLUENCE NURSING
STUDENT TRANSITION TO PROFESSIONAL PRACTICE?**

Tamara Rose

LOMA LINDA UNIVERSITY SCHOOL OF NURSING

Loma Linda, CA

**ATTITUDES AND KNOWLEDGE REGARDING
SAUDI ARABIAN NURSING SCHOOL ACCREDITATION**

Amal Alaskar, Patricia Pothier

HIV AWARENESS AND PREVENTION IN KUMI – ETHIOPIA

Morry Anotta, Iris Mamier

**USING PROBLEM BASED LEARNING TO IMPROVE
KNOWLEDGE TRANSLATION IN PRACTICE**

Raquel Branom, Shirley Bristol, Susan Stone

**EARLY FLUID RESUSCITATION EFFECT ON MORTALITY
OF ADULTS WITH SEVERE SEPSIS**

Viri Fuentes, Sean Gil, Janet Graham, Kari Firestone

**CLARIFICATION OF THE CONCEPTS OF SOCIAL EMPATHY,
ADVOCACY AND SOCIAL JUSTICE**

Gudrun Klim, Patricia Jones

**FACULTY INVOLVEMENT TO INCREASE RETENTION
IN NON-TRADITIONAL NURSING STUDENTS**

India Medley, Iris Mamier

TRANSITION POWER: A CONCEPT EXPLORATION

Cherie Pefanco, Patricia Jones

**LISTENING AND LEARNING FROM OUR OLDEST-OLD:
A CONTINUED NEED**

Julie Puzstai, Betty Winslow

**PROSTATE CANCER SCREENING EDUCATIONAL
INTERVENTION WITH AFRICAN AMERICAN MEN**

Lynette Sandiford, Ellen D'Errico, Anita Adorador

**TEAMWORK AND COMMUNICATION:
PROMOTING PATIENT SAFETY**

Helen Staples-Evans, Deborah Bobst, Shirley Bristol

LUCILE PACKARD CHILDREN'S HOSPITAL AT STANFORD

Palo Alto, CA

**DECREASE ADVERSE EVENTS WITH EVIDENCE-BASED
NASAL GASTRIC TUBE INSERTION**

Maggie Church

**WORKING TOWARD DECREASED READMISSIONS
IN THE PEDIATRIC GI POPULATION**

Holly Bernal

MONTANA STATE UNIVERSITY COLLEGE OF NURSING

Bozeman, MT

**ILLNESS BELIEFS OF INDIVIDUALS WITH HEART FAILURE
IN MONTANA AND WYOMING**

Jan Ostermiller, Dale Mayer

**RURAL CLINIC CLIENT'S PERCEPTIONS OF DIGITAL
SIGNAGE IN THE WAITING ROOM**

Terrena Blackman, Shannon Parsons, Laura Larsson

**EXPLORING BARRIERS TO POST-PARTUM ANEMIA
TREATMENT IN RURAL WIC CLIENTS**

Stephanie Johnson, Laura Larsson

NEW MEXICO STATE UNIVERSITY SCHOOL OF NURSING
Las Cruces, NM

SENSE OF BELONGINGNESS IN NEW GRADUATE NURSES
Sandra Welling

VOLUNTEER HEALTH CARE PROVIDERS
RECOMMENDATIONS AND PRACTICES
Vicki Denson

**OREGON HEALTH & SCIENCE UNIVERSITY
HEALTHCARE**
Portland, OR

IMPROVED GLYCEMIC CONTROL
USING A COMPUTERIZED PROTOCOL
Sara Hohn, Lillian Morehart

EVOLUTION OF A PEDIATRIC RAPID RESPONSE PROGRAM:
BEYOND REACTIVITY
Pam Brown, Patricia Shoun

**OREGON HEALTH & SCIENCE UNIVERSITY
SCHOOL OF NURSING**
Portland, OR

SHARED MEDICAL APPOINTMENTS:
THE FUTURE OF PRIMARY CARE
Jackie F. Webb, Kim D. Jones

EVALUATING A DIABETIC REGISTRY
TO DEVELOP A PRACTICE IMPROVEMENT PLAN
Lisa Riesterer, Gary Laustsen

USING THE STOP-BANG QUESTIONNAIRE
TO SCREEN FOR OSA IN COMMERCIAL DRIVERS
Brian Kittelson, Gary Laustsen

STRESS AND STRESS RELIEVING ACTIVITIES
IN ANESTHESIA PROVIDERS AND TRAINEES
Kaori Donohue, Scott D. Mist, Mary Karlet, Kim D. Jones

INTIMATE PARTNER VIOLENCE SCREENING
IN PRIMARY CARE
Laurel Hallock Koppelman

PACIFIC LUTHERAN UNIVERSITY SCHOOL OF NURSING
Tacoma, WA

END OF CARE LIFE IN ICU
Jessica Pottle

ED NURSING CARE FOR PATIENTS WITH SUICIDAL IDEATION
Karen Korvell, Shanti Herzog

THE CRITICAL CARE NURSE'S ROLE IN PREVENTING
POST-INTENSIVE CARE SYNDROME
Alisha McKnight

EMERGENCY CARE FOR THE INDIVIDUAL
WITH SCHIZOPHRENIA
Rose Mellgren

LOWERING ANXIETY IN SURGICAL PATIENTS
USING NON-PHARMACOLOGICAL METHODS
Annika Gustafson

NURSING MANAGEMENT OF HOSPITALIZED TEENS
WITH SICKLE CELL DISEASE
Lisa Ludeman

NURSING CONSIDERATIONS FOR FAMILY PRESENCE
DURING CPR
Reese Smiley, Shawna Timmons

PREVENTING AND MANAGING FIRES
IN THE OPERATING ROOM
Shannon Lynn

NURSING CARE FOR THE CHILD
WITH AUTISM SPECTRUM DISORDER

Alexis Russell

A PERSON-CENTERED CARE OBJECTIVE MEASURE (PCOM):
EXPERT REVIEW RESULTS

Kathleen Moisio

PHYSICAL ACTIVITY AND ADOLESCENTS
WITH CEREBRAL PALSY

Jeannine Roth

PROVIDENCE HEALTH & SERVICES

Renton, WA

TEAMSTEPS CHAMPIONS OF CHANGE: AN EPIC JOURNEY

Davina Craig

ENHANCING TEAM COMMUNICATION
IN THE PERIOPERATIVE SETTING

Jo Quetsch

DELIRIUM: TRIAL OF STAGED PROTOCOL IMPLEMENTATION

Sandra Powrie, Marlo Andreoli

COMPARING FALL RATES AND PREVENTION STRATEGIES
ACROSS 19 HOSPITALS

Erin Ward-Barney, Leah Snyder

BAR CODE MEDICATION ADMINISTRATION
AND “WORKAROUNDS”

Katie Rogotzke

IMPLEMENTING AND SUSTAINING AN INTERPROFESSIONAL
SIMULATION PROGRAM

Heidi Traxler, Melissa Punnoose

PREVENTING SACRAL PRESSURE ULCERS IN THE ICU

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Jason Welch, Carrie Holtrop

WIN HONORS

The Western Institute of Nursing proudly recognized outstanding Western members and friends with the following awards and honors in 2014.

DISTINGUISHED RESEARCH LECTURESHIP AWARD

The Distinguished Research Lectureship recognizes a senior researcher whose research efforts have made significant and sustained contributions to nursing. The 2014 award recipient was:

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

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. The 2014 award recipient was:

Carolyn Montoya, PhD, CPNP, Assistant Professor, Robert Wood Johnson Foundation Nursing and Health Policy Collaborative Fellow, College of Nursing, University of New Mexico, Albuquerque, NM.

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. The 2014 award recipient was:

Young-Shin Lee, PhD, RN, Associate Professor, School of Nursing, San Diego State University, San Diego, CA.

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 2014 award recipient was:

Terry Badger, PhD, RN, FAAN, Professor and Director, Community and Systems Health Science Division, College of Nursing, The University of Arizona, Tucson, AZ.

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 2014 award recipient was:

Michelle Kahn-John, MSN, PhD Candidate, College of Nursing, University of Colorado; and Psychiatric Nurse Practitioner, Aurora Mental Health, Aurora, CO.

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 2014 were:

Gail M. Houck, PhD, RN, PMHNP, Professor and Chair, Department of Family and Child Nursing, School of Nursing, University of Washington, Seattle, WA.

Marylyn Morris McEwen, PhD, PHCNS-BC, FAAN, Associate Professor and Gladys E. Sorenson Endowed Professor, College of Nursing, The University of Arizona, Tucson, AZ.

Ellen Olshansky, PhD, RN, WHNP-BC, FAAN, Professor and Founding Director, Program in Nursing Science, University of California, Irvine, Irvine, CA.

Alyce A. Schultz, RN, PhD, FAAN, Consultant, EBP Concepts, Fulbright Senior Scholar, Bozeman, MT.

Kate Sheppard, PhD, RN, FNP, PMHNP-BC, FAANP, Clinical Associate Professor and PMHNP Specialty Coordinator, College of Nursing, The University of Arizona, Tucson, AZ.

Donna Velasquez, PhD, RN, FNP-BC, FAANP, Clinical Associate Professor, Coordinator Family Nurse Practitioner Program, College of Nursing and Healthcare Innovation, Arizona State University, Phoenix, AZ.

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 2014 award recipient was:

Marybeth Tyler, MS, NNP-BC, IBCLC, Neonatal Nurse Practitioner, Legacy Emanuel Medical Center, Portland, OR; and WIN Conference Volunteer for 15 years.

**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 2014 award recipient was:

Laura Wagner, PhD, RN, GNP, Assistant Professor, School of Nursing, University of California, San Francisco, San Francisco, CA.

**SIGMA THETA TAU INTERNATIONAL/WESTERN INSTITUTE OF
NURSING RESEARCH GRANT**

Sigma Theta Tau International (STTI) and the Western Institute of Nursing (WIN) jointly sponsor a research grant to encourage qualified nurses to contribute to the advancement of nursing through research. The 2014 grant recipient was:

Laura Mood, RN, MSN, PhD Student, Clinical Instructor, School of Nursing, Oregon Health & Science University, Portland, OR.

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University of California, San Francisco
San Francisco, CA

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School of Nursing
University of Washington

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Medical Training & Health Information Science
Research Program
U.S. Army Medical Research & Materiel Command
Fort Detrick, MD

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College of Nursing
University of New Mexico
Albuquerque, NM

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Brigham Young University
Provo, UT

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University of California, San Francisco
School of Nursing
San Francisco, CA

JANICE SHOULTZ, DRPH, MSN, MPH, RN
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Bakersfield, CA

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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

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