

# **COMMUNICATING NURSING RESEARCH**

Volume 53

## **20/20 AND BEYOND: ENVISIONING THE FUTURE OF NURSING RESEARCH, PRACTICE, AND EDUCATION**

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## **WESTERN INSTITUTE OF NURSING**

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

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

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

# COMMUNICATING NURSING RESEARCH

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- Volume 1: The Research Critique
- Volume 2: Problem Identification and the Research Design
- Volume 3: Methodological Issues in Research
- Volume 4: Is the Gap Being Bridged?
- Volume 5: The Many Sources of Nursing Knowledge
- Volume 6: Collaboration and Competition in Nursing Research
- Volume 7: Critical Issues in Access to Data
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- Volume 43: Nursing Science: Informing Practice and Driving Policy
- Volume 44: Transitions: Unifying Practice, Education, and Research to Improve Health

- Volume 45: Advancing Scientific Innovations in Nursing
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- Volume 48: Equity and Access: Nursing Research, Practice, and Education
- Volume 49: Innovations in Engagement through Research, Practice, and Education
- Volume 50: 50 Years of Leadership: Continuing the Vision
- Volume 51: Transforming Health through Advances in Nursing Research, Practice, and Education
- Volume 52: Career, Connection, Community

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

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

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## **PREFACE**

The 53rd Annual Communicating Nursing Research Conference, “20/20 and Beyond: Envisioning the Future of Nursing Research, Practice, and Education,” was canceled in March 2020 as a result of the COVID-19 pandemic.

A number of podium and poster presentations scheduled for the conference were presented virtually in April 2020. The Carol A. Lindeman Award for a New Researcher was presented to Christine Platt, MSN, FNP, PhD Student, College of Nursing, The University of Arizona, Tucson, AZ

The Proceedings include the abstracts of symposium, podium, and poster presentations. Thirty-five papers were presented in podium sessions on a wide variety of topics, including completed research, projects, and theoretical/methodological papers. One hundred and forty-three posters were displayed over two poster sessions, representing research or projects, completed or in-progress.

Awards were presented to numerous WIN members in 2020. Please consult the Table of Contents for the location of the aforementioned papers, awardees honored by WIN, and appointed and elected WIN officials.

The conference was planned and organized by the WIN Program Committee. We extend our gratitude to the Program Committee members: Katreena Collette Merrill, Chair, UT; Mary Ellen Dellefield, CA; Linda Edelman, UT; Bronwyn Fields, CA; Cara Gallegos, ID; Lori Hendrickx, SD; Lorre Laws, AZ; Kathryn Lee, CA; Judy Liesveld, NM; Kristin Lutz, OR; Anthony McGuire, ME; Paula Meek, UT; Annette Nasr, CA; Joanne Noone, OR; Jennifer Peterson, CA; Kristine Qureshi, HI; Krista Scorsone, CO; and Hilaire Thompson, WA.

We are grateful to all nurses who submitted papers and participated in the 2020 conference.

Donna Velasquez, PhD, RN, FNP-BC, FAANP  
President, Western Institute of Nursing

Katreena Collette Merrill, PhD, RN  
Chair, Program Committee, Western Institute of Nursing

**The Carol A. Lindeman Award for a New Researcher Paper**

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**PLACEMENT DISRUPTION OF CHILDREN WITH DISABILITIES  
IN FOSTER CARE**

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# PLACEMENT DISRUPTION OF CHILDREN WITH DISABILITIES IN FOSTER CARE

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## **Introduction**

Within the United States, children with disabilities in foster care (CDFC) are an extremely vulnerable population with psychological and physical health problems requiring complex coordinated care (Deutsch & Fortin, 2015). While children's rights advocates and families press political leaders for increased assistance, insufficient evidence exists to provide a detailed analysis to address the problem. Research is needed to understand the extent of and factors contributing to poor outcomes. This study provides such evidence and establishes a foundation and direction for future research to improve the lives of CDFC.

Children who are in foster care, especially those with learning disabilities, have what researchers call "synergistic factors" that amplify risk for health disparities (Grabovschi, Loignon, & Fortin, 2013). While coming from a disadvantaged environment may play a role, youth who are in the foster care system have a higher rate of mental health problems than peers with similar socioeconomic environments and backgrounds (Schneiderman, Kools, Negriff, Smith, & Trickett, 2015). With the special challenges and complexity required to care for children at risk, finding an appropriate foster home and retaining good fosters parents is constantly a challenge.

When a foster family can no longer adequately care for a child, the child may be moved to a different home, which is referred to as a placement disruption. Placement disruptions create greater barriers and significant health care challenges for an already vulnerable population. For example, a child's support at school can be greatly affected when placement disruptions lead to poor communication of parents with teachers and a lack of historical knowledge by teachers when a child must transfer schools. This is especially notable when the child also has a disability (Mires, Lee, & McNaughton, 2018). A change in geographical location due to a placement disruption can create a need for new health care providers. Such transitions lead to the loss of valuable information and specific knowledge regarding the child's needs. The more disruption, the higher the cost to the child's well-being (educational, physical, and mental) and the higher the cost to the system (Vanderfaellie, Van Holen, Carlier, & Fransen, 2018).

## **Background**

Children in care number more than 43,000 on any given day (U.S. Department of Health and Human Services, 2018). They experience poverty, abuse, family dysfunction, neglect, developmental delays, and chronic health problems (Hansen, Mawjee, Barton, Metcalf, & Joye, 2004). Foster care is perceived as one of the most negative life events to occur, involves several profound adverse childhood events (ACE), and compounds vulnerability and poor health outcomes. However, it may also be the first step to improving the health and well-being for children in unsafe conditions.

When a child is deemed to be in an unsafe situation that requires immediate agency intervention, they may be removed from their current living situation and, by court order, placed in a licensed home. These homes are typically called foster care homes. Currently, a shortage exists of licensed foster care homes in the United States and finding a home prepared and willing to take in a child with special needs is difficult (Kelly et al., 2017). Ability (per licensing requirements of state and federal regulations), willing-



ness, and vacancy are all required of a foster parent before a child can be placed in the home. Geographical location also plays a role in the agency's ability to place a child in a foster home.

Children in the United States foster care system belong to several groups prone to health disparities such as youth with disabilities (Blakeslee et al., 2013). Children in foster care have poorer mental and physical health compared to children in the general population even when compared to family type (such as single parents) or those who are economically disadvantaged (Turney & Wildeman, 2016). They are also exposed to alcohol and drugs in utero more frequently, increasing risk for learning and developmental delays (Moe, 2002). Children who age out of foster care (i.e. reaches the age of majority) have less than a 3% chance of obtaining a college degree even though most (i.e. 7 out of 10) report they want to go to college (National Foster Youth Institute, 2017).

### **Purpose**

The purpose of the study was to investigate and describe available data on children with disabilities in the United States foster care system and to provide evidence for the need for future research. Disability was defined as being clinically diagnosed with a disability, mental retardation, visually or hearing impaired, physically disabled, emotionally disturbed, and/or another medical diagnosis requiring special care. The aims of the study were to: 1) determine how many children in foster care had at least one disability during 2017; 2) ascertain the number of disruptions in placements to foster homes for children with a disability; 3) compare the average duration a child is in foster care between children with a disability versus children in foster care without a disability.

### **Theoretical Foundation**

The conceptual basis of this inquiry was Schlossberg's Transition Theory, a mid-range theory that has been used in health disparities research among vulnerable populations (Schlossberg, 1981). While it is typically used as a framework for adult experiences and challenging life events, it can be applied to research involving children with disabilities in the foster care system. Children in foster care experience traumatic events and must transition through significant change. Transition theory has been successfully applied to research within the foster care population (Winter, 2014). Children in state custody go through many transitions as they enter state care, move from home to home, and possibly age out of the system. The caregivers or foster parents and families also experience transition as new children come into their home and as they move or leave. Transition theory can be used with both the children in the home and the caregivers to analyze and develop meaningful and lasting interventions.

A transition is any event or non-event that changes relationships, routines, assumptions, and roles. Patients in transition tend to be more vulnerable and have greater risks that affect their health (Meleis, Sawyer, Im, Hilfinger Messias, & Schumacher, 2000). Transitions can be anticipated or unanticipated. For example, an unanticipated event is removal and placement into the foster care system. An anticipated event would be when a foster child is nearing their 18th birthday and will need to transition out of state care. Nonevents are transitions that were expected but then do not occur, such as when a child is transitioning back to home, but the biological parent is unable to fulfill the safety plan and thus the child must stay in foster care.

An individual's ability to cope and move through the transition process of moving in, moving through, and then moving out depends upon assets and liabilities. These assets include situation, self, support, and strategies. Self-perception of particular importance in transition theory; an event is only significant if the individual experiencing it sees it as important. During the health-illness transition, nursing interventions in the community can promote a healthy transition by facilitating positive change or diminishing barriers (McEwen, Baird, Pasvogel, & Gallegos, 2007). By using transition theory as a framework, nursing interventions may have a higher chance of improving health and lasting outcomes for foster children and families not only for short term behaviors, but long-term health outcomes.

## Methods

### Design

The study protocol, which was a descriptive quantitative secondary data analysis, received IRB approval through the University of Arizona's Human Subject's Protection Program. Deidentified data was obtained through the National Data Archive on Child Abuse and Neglect, specifically, the Adoption and Foster Care Analysis and Reporting System (AFCARS) data set. The investigator retrieved the AFCARS data set, which is publicly available, and downloaded it into STATA to address variables in the aims. AFCARS was chosen because it includes all 50 states and contains the most accurate/large scale statistical data on foster care in the U.S., owing to the uniform reporting system which includes the different state-licensed child protection agencies.

Within the theoretical framework of transition theory, the data search focused on the following broad question: what is the state of children with disabilities in foster care in the United States? In order to specify variables, the search was broken down into three areas of interest. These included:

1. How many children in the United States foster care system had a medical diagnosis or disabilities during 2017?
2. Do children in foster care with a medical or disability diagnosis have a greater number of placement disruptions?
3. Does the average length of time that a child is in foster care differ between children with disabilities versus children with a diagnosis?

### Analysis

Searching the database began with an overview of the variables. Defining each variable accurately was the first step. For example, the number of placement disruptions was not labeled "placement disruptions." Instead, there was a variable labeled "Number of Placement Settings in Current FC Episode." Use of the codebook was needed to determine the specific definition of this variable. It was the number of places the child has lived, including the current setting, during the current removal episode. The code book was essential in determining what was thought was being measured was actually being measured. A placement disruption is when a child is removed from the care of one home and placed in another setting. However, during the course of a placement setting, a child may be hospitalized, go on home visits, or even stay at another foster home for respite care. The code book gave specific examples that excluded these temporary living conditions. This was particularly important, because children with disabilities may experience more temporary out-of-home care than the general foster care population and the study focus was on actual caregiver and long-term setting changes.

The data set included variables of children with vision disabilities, mental disabilities, medical diagnosis, and other diagnosed disabilities. There were also children listed as "in-the-process" of receiving a disability diagnosis. Children in-the-process of receiving a diagnosis were excluded from the analysis, but the separate medical, mental, and physical diagnosis variables were aggregated into a single dummy variable. Special care was taken to not count a child (observation) with multiple disabilities more than once. This was done using STATA software.

## Results

*Question 1: How many children in the United States foster care system had medical diagnosis or disabilities during 2017?*

There were 151,676 foster children with a medical diagnosis or disability in 2017. There were 539,512 children in the United States foster care system without a diagnosis. Therefore 21.94% of children in foster care have a diagnosis (medical or disability) that requires additional or specialized care.

*Question 2: Do children in foster care with a disability have a greater number of placement disruptions than those without a disability?*

Children with a disability have a mean of 4.00 placement disruptions, with a standard error of 0.0125. In contrast, children in foster care without a disability have a mean of 2.37 placement disruptions and a standard error of 0.0035. Children with a disability are more likely to be moved from home to home. A 2-sample t-test strongly rejects that the two groups have the same number of placement disruptions, at a p-value of 0.00001. Thus, there are significantly more disrupted placements for children with disabilities in the United States foster care system.

*Question 3: Does the average length of time that a child is in foster care differ between children with disabilities vs children without?*

Children in foster care with a disability spent an average of 915 days in foster care (with a standard error of 2.43 days) compared to children without a disability who spent an average of 513 days in foster care (with a standard error of 0.79 days). This difference was also statistically significant in a 2-sample t-test at a p-value of 0.0001.

### **Discussion**

Disability in children in foster care during 2017 was quite high, affecting 21% of those in care. Comparatively, disability in children and youth accounted for 0.4% (under 5 years old) and 7.3% (ages 5-17) of the population in the United States during the same time frame (Kraus, 2018). These findings show a clear disparity between the number of children in foster care who have disabilities versus those who do not and compared to the general population. Children who require such high levels of care may be more likely to enter the system, but it is also possible that conditions such as drug abuse and neglect impacted development and caused higher levels of disability. Further investigation is warranted to determine these links and associations.

Children with disabilities have higher vulnerabilities within foster care as demonstrated by their increased placement disruptions and length of stay in the system. Children with disabilities in foster care (CDFC) require a higher level of care with which few foster parents are trained or prepared (Vasileva & Petermann, 2018). Especially, among children who have development disabilities, moving from home to home and as a result, school to school, can cause fragmented educational instruction (Mires et al., 2018). Research has found a strong relationship between exposure to abuse and household dysfunction during childhood to many health risk factors and leading causes of death in adulthood (Felitti et al., 2019). A stable family environment may be key in promoting resiliency.

### **Limitations**

While this study provides valuable descriptive data on CDFC, it only provides a snapshot within the foster care system during 2017. Comparison across other years could provide supporting evidence. Spanning several years and following specific cases would provide a better understanding of the phenomena. This study does not establish causation, nor does it investigate interventions that could improve the state of CDFC.

### **Conclusion and Implications**

This study was instrumental in providing data which documents the high percentages of children in foster care with disabilities compared to the general pediatric population. It also shows that placement disruptions, a leading cause of further vulnerability and discontinuity of care, is significantly greater for CDFC. Children who are already vulnerable and require high levels of complex care coordination, are moving from home to home or placement setting to placement setting significantly more often than children without a disability. Lastly, it provides data showing CDFC experience significantly more time in the foster care system than their peers.

The next step is to undertake studies that dive deeper into the phenomena, addressing causes, and then creating interventions to decrease disruptions and length of stay in foster care. Surprisingly, little research exists that involves the perceptions, training, and experiences of foster parents caring for children with special needs (Kaasbøll, Lassemo, Paulsen, Melby, & Osborg, 2019). Therefore, the next study will examine foster parents' perceptions, skills, and gaps in support while caring for children with disabilities. It will also have an emphasis on placement disruptions and why they occur more often for children with disabilities. The potential impacts on patient outcomes from this research is multifaceted and profound.

Being a child in foster care correlates with poor determinants of health. The combination of high ACE scores, the loss of family and continuity of care, and the lack of a consistent community place these children at great risk during childhood and into adulthood. The financial and social impacts are far reaching and illustrate the need for further research to investigate underlying causes, develop interventions, and produce improved outcomes for such a vulnerable population. Future research should focus on why CDFC experience more placement disruptions and longer lengths of stay in foster care. Tailored interventions need to be created, tested, and implemented to strengthen placement stability and provide resiliency and improved outcomes. Both foster parents and children in foster care can benefit from interventions crafted through a transitional theory framework. This study lays the groundwork and provides data for additional studies to promote family hardiness and decrease placement disruptions. Healthy foster families can provide consistent, long-lasting support and health equity for such a vulnerable population. A mixed methods approach backed by sound philosophy and theory into events surrounding placement stability is the next step forward in decreasing health disparities in such a vulnerable and diverse population.

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## **ABSTRACTS OF PODIUM PRESENTATIONS**

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# ADDRESSING ADVERSITY IN PEDIATRICS

## Parental Agency/Infant Well-Being Conceptual Model

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**Purposes/Aims:** The purpose of this model is to describe the relationships between parental agency and infant well-being in the population of infants with complex congenital heart disease (CHD) residing in rural Alaska. Aims: 1) Define the concepts of parental agency and infant-wellbeing 2) Demonstrate how these two variables are associated.

**Definition of Concept:** Currently no model exists to describe the relationship between parents and infants with CHD or how this affects infant outcomes. In this context, the first concept, parental agency, is defined as parents' ability to act on behalf of what they value. Parents deliver care and perform tasks related to their infant's survival. Parental agency has the potential to affect both infant well-being and adherence to treatment. Parental agency interacts with several measurable social determinants of health, in addition to mental health, coping skills, and health-related quality of life (HRQoL). The second concept, infant well-being, is defined as the infant's overall health, security, and happiness. Well-being is expressed through patient acuity, modified HRQoL indicators for infants, and perceived social connection between infant and parent. The two concepts are associated.

**Internal Consistency of the Theory Developed:** An inter-modern approach to derive meanings from several overlapping middle range theories was used as a framework for concept development. An organismic context formed the theoretical background for this conceptual model, as humans are innately connected to their complex environment. Clinical practice experience formed the basis for identifying and defining the concepts of parental agency and well-being. The theory development process of Chinn and Kramer ensured internal consistency: 1) Defined meaning of concepts by research combined with the literature; 2) critically evaluated and adapted concepts; 3) Linked structures and relationships to form a whole, interconnecting the model and making it possible to follow the reasoning of each concept; 4) Identified assumptions to predict and understand the phenomena surrounding each concept based on Chinn and Kramer's belief: assumptions are underlying givens presumed to be true; 5) Created the statement that best demonstrated the symmetrical yet reciprocal relationship between the concepts parental agency and infant well-being: if parental agency is positively intact, infant well-being is positive and if parental agency is negatively intact, infant well-being is negative.

**Logic Linking the Concept to Nursing Practice:** This approach provides guidance for everyday practice and scholarly research rooted in the discipline of nursing. Additionally, the conceptual model originated from the following theories: The Theory of Transitions helps to describe and explain the behaviors of parents as their infants' transition through several states of being. The Theory of Cultural Marginality guides understanding of the unique and distinct cultures of the Alaska Native population.

**Conclusions:** Empiric knowledge development was used to structure a conceptual model for parental agency and infant well-being. The use of a conceptual model to support the relationship between parents and infants will help guide research and generate ideas towards future research. Use of this conceptual model within the nursing profession will aid to improve nursing practice based on further understanding of the relationship between parental agency and infant wellbeing.



# ADDRESSING ADVERSITY IN PEDIATRICS

## Placement Disruption of Children with Disabilities in Foster Care

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**Purposes/Aims:** The purpose of the project was to investigate and describe available data on children with disabilities in the United States foster care system. Disability was defined as being clinically diagnosed with a disability, mental retardation, visually or hearing impaired, physically disabled, emotionally disturbed, and/or another medical diagnosis requiring special care. Aims were to: 1) Determine how many children in foster care had at least one disability during 2017; 2) Ascertain the number of disruptions in placements to foster homes for children with a disability; 3) Compare the average duration that a child is in foster care between children with a disability versus children in foster care without a disability.

**Rationale/Conceptual Basis/Background:** The conceptual basis of this inquiry was transition theory. Children in foster care are an extremely vulnerable population going through significant challenges. They often have histories of abuse, neglect, unmet medical needs and difficulties with attachment. Children with disabilities have special needs and require higher levels of care and resources than a typically developing child. Finding licensed and suitable foster families, both short term and long term, is challenging. There are no national standards for what constitutes adequate training for foster families who care for children with disabilities. For foster families, the full extent of a child's history often is not known prior to placement. Without proper training in the unique medical and educational needs of a child with disabilities, a foster family may feel unprepared for and stressed by unexpected challenges, such as medication management, healthcare navigation, and participation in special education programs. These events could result in a placement disruption—moving the child to another foster home—further compounding the child's vulnerability.

**Methods:** This quantitative descriptive study was a secondary data analysis of the National Data Archive on Child Abuse and Neglect, specifically, the Adoption and Foster Care Analysis and Reporting System (AFCARS) data set. The investigator retrieved AFCARS and downloaded it into STATA to address variables in the aims. AFCARS was chosen because it includes all 50 states and contains the most accurate/large scale statistical data on foster care in the U.S., owing to the uniform reporting system which includes the different state-licensed child protection agencies.

**Results:** Nationally in 2017, there were 691,188 children involved in foster care cases; of these, 21.94% had a disability that required additional or specialized care. Children with a disability had a mean of 4.00 placement disruptions, whereas children in foster care without a disability had a mean of 2.37 placement disruptions ( $p < 0.001$ ). Children in foster care with a diagnosis spent an average of 915 days in foster care compared to 513 days for children without a diagnosis ( $p < 0.001$ ).

**Implications:** Further research is needed to investigate why children with disabilities remain in foster care longer than other children and why placement disruptions are more frequent. National standards and policy changes should focus on decreasing placement disruption. One method might be better preparing foster parents to care for children with disabilities.

# ADDRESSING ADVERSITY IN PEDIATRICS

## Childhood Adversity & Mental Health: How Attachment-Disrupting Events Increase Risk

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**Purposes/Aims:** The purpose of this study was to (1) describe patterns of overall, within-household, and community adverse childhood experiences (ACEs) among children in vulnerable neighborhoods and (2) explore which individual ACEs, over and above total ACE burden, predict need for behavioral health services.

**Rationale/Conceptual Basis/Background:** Traumatic events during childhood can have far-reaching, harmful effects on child development and health across the lifespan. Although there are many kinds of ACEs that can increase risk for poor outcomes, specific types of ACEs that appear to exert more harm than others. ACEs that disrupt child-caregiver attachment relationships, such as maltreatment, neglect, and separation, have stronger associations to poor outcomes than more indirect kinds of adversity. Using an attachment framework, we sought to understand which individual ACEs predicted need for mental health services over and above total ACE load and hypothesized that attachment-disrupting ACEs would be most strongly predictive.

**Methods:** This cross-sectional analysis used the baseline data from a study of co-located primary care in Chicago, Illinois. The sample included 261 parent-child dyads recruited from families seeking primary care services at 2 community clinics. The primary outcome variable was a clinical-range score ( $\geq 28$ ) on the Pediatric Symptom Checklist. The primary predictor variable was ACEs, identified with an adapted version of the Traumatic Events Screening Inventory. We assessed for 28 ACEs, including a wide variety of within-household and community events that children might experience. Logistic regression models were used to identify relationships between ACEs and a positive PSC score, adjusting for sociodemographic covariates. We first estimated a separate model for each ACE item; then, we adjusted the models for total ACE load to identify which ACEs were individually predictive of a positive PSC score.

**Results:** 6 ACE items were individually predictive of a clinical-range PSC score after adjusting for sociodemographic covariates. These items were emotional abuse or neglect (OR= 2.93, 95% CI= 1.32–6.52,  $P < 0.01$ ), natural disaster (OR= 3.89, 95% CI= 1.18–12.76  $P = 0.02$ ), forced separation from a parent or caregiver (OR= 2.95, 95% CI= 1.50–5.83,  $P < 0.01$ ), incarceration of a family member (OR= 2.43, 95% CI= 1.20–4.93,  $P = 0.01$ ), physical attack (OR= 2.84, 95% CI= 1.32–6.11,  $P < 0.01$ ), and community violence (OR= 2.35, 95% CI= 1.18–4.65,  $P = 0.01$ ). After adjusting for total ACE load, only one item remained statistically significant: forced separation from a parent or caregiver (OR= 2.44, 95% CI= 1.19–5.01,  $P = 0.02$ ).

**Implications:** Attachment-related ACEs are more predictive than other household and community ACEs of behavioral health problems among children. Clinicians who screen for ACEs should consider community-specific factors that might disrupt attachment security for children, including immigration raids or enforcement, adult opioid use disorders, mass incarceration, and natural disasters.

**Funding:** This research was supported by the Illinois Children's Healthcare Foundation. Dr. Choi received fellowship support from the UCLA National Clinician Scholars Program and Kaiser Permanente Southern California.

# ADDRESSING ADVERSITY IN PEDIATRICS

## Adolescents' Well-Being and Social Media: A Concept Analysis

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**Purpose:** This study aimed to conduct a concept analysis of adolescents' well-being and social media.

**Background:** With increasing usage of mobile devices, adolescents' social media use is pervasive these days. Research has been conducted to explore pros and cons of social media use among adolescents. Social media use leads adolescents to feel more connection, have high levels of life satisfaction, and/or increase their self-esteem. Besides the positive aspects of social media use described above, concerns regarding negative aspects have arisen. However, clear guidance is lacking for adolescents' social media use. Defining the concept of adolescents' well-being and social media use will help develop an evidence-based guidance to promote adolescents' well-being related to social media usage.

**Methods:** We used the eight steps of concept analysis method outlined by Walker and Avant (2011): select a concept, determine purpose of analysis, identify uses of concept, determine attributes, identify model case, identify additional cases, identify antecedents and consequences, and define empirical referents. For the uses of concept, we searched relevant articles, dictionaries, or government webpages. Three databases were used for literature search from 2013 including PubMed, CINAHL, and PsycInfo for determining attributes and identifying antecedents, consequences, and referents. Ten articles meeting the inclusion criteria were selected for the analysis.

**Results:** The concept of adolescent well-being and social media is not defined in scientific literature. Thus, we divided our search using "well-being" and "social media." We concluded the definition of well-being and social media as 'positive emotional state of using interactive internet-based electronic communication applications.'

The three attributes of adolescents' well-being and social media were: 1) interactive; 2) internet-based communication; and 3) positive emotion. Adolescents' well-being and social media usage occur when adolescents: 1) want to feel safe; 2) seek information; and 3) want to connect to others. As consequences of well-being and social media usage, adolescents: 1) have better relationships; and 2) positive affect.

We searched literature using the terms interactive internet-based communication and positive emotions for finding empirical referents, since searching for referents measuring all three attributes together yielded no results. Interactive internet-based communication examines social networking and internet use. Examples of positive emotions were amused, closer to friends, happy, and interested.

**Implications:** In this study, we defined the concept of adolescents' well-being and social media and identify its attributes, antecedents, consequences and empirical referents. The findings of this study help nurses understand the concept of adolescents' well-being and social media. It also provides a fundamental tool to develop nursing theories and future interventions to guide adolescents to healthier social media use.

# ADVANCING SUPPORTS FOR FAMILY CAREGIVERS

## Family Caregiving and Risk for Short Sleep: Results from a U.S. Population-Based Survey

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**Purpose/Aims:** This study examines the relationship between caregiving status, caregiving characteristics (caregiving duration and caregiving hours per week), care recipient diagnosis, and family caregivers' self-reported habitual sleep duration.

**Background:** The number of family caregivers in the US is steadily rising as the proportion of older adults increases. The current health system heavily relies on family caregivers to provide long-term care to older adults who have disabilities and other chronic medical conditions. Caregiving takes a toll on the mental, emotional, social, and physical health of family caregivers and may also negatively impact the ability to get adequate sleep. In adults, sleep duration of at least 7 hours/day is essential for maintaining optimal health. Habitual short sleep duration is associated with many health problems, including cognitive dysfunction, cardiometabolic diseases, and depression. To date, there are very few population-based studies in the US examining how family caregiving and family caregiving characteristics predict risk for habitual short sleep duration. This study was designed to address this gap.

**Methods:** This cross-sectional study used data of 84,240 US adults, aged  $\geq 18$  years, who participated in the 2016 Behavioral Risk Factor Surveillance System survey. Respondents who reported providing regular care to a family member or friend with a health problem or disability in the past 30 days ( $n=15,065$ ) were defined as family caregivers. Characteristics of respondents stratified by sleep duration ( $<7$  hours or  $\geq 7$  hours per night) were examined using Chi-square tests. Multivariable logistic regression was used to examine the association of caregiving status, caregiving characteristics, and care recipient diagnosis with habitual short sleep duration after controlling for multiple factors including age, sex, race/ethnicity, education level, employment status, marital status, smoking status, physical activity, and self-reported health status.

**Results:** In the fully adjusted logistic regression model, family caregivers had significantly higher odds of habitual short sleep duration (OR =1.31; 95% CI 1.26 – 1.36) compared to individuals who were not family caregivers. Those who had been family caregivers for  $>5$  years had significantly higher odds of short sleep duration (OR=1.11; 95% CI, 1.01 – 1.22) compared to those who had been caregivers for  $<6$  months as did those caregiving for  $\geq 40$  hours/week (OR, 1.29; 95% CI, 1.17 – 1.42) compared to those caregiving for  $\leq 8$  hours/week. There was no significant association between care recipient diagnosis and habitual sleep duration.

**Implications:** The family caregiving role increases the risk for habitual short sleep duration even after controlling for protective factors (health status and health behaviors), sociodemographic characteristics, and socioeconomic status. Both caregiving and short sleep duration are associated with well-documented sequelae for adverse health outcomes. Strategies to address this public health issue should target those family caregivers who have been in the caregiving role for a longer duration and those who provide caregiving for longer hours regularly. Since nurses regularly interact with family caregivers in many care settings, they are in a unique position to empower family caregivers to have an adequate sleep in addition to identifying and supporting those who are at risk of poor sleep health.

## BETTER TOGETHER: COMMUNITY PARTNERSHIPS

### Results of Randomized Trial to Modify Physical Activity and Sedentary Time in Filipinos

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Filipino American older adults are at high risk for chronic diseases such as hypertension, chronic kidney disease, and Type 2-Diabetes, especially as they age. They are one of the unhealthiest Asian-American subgroups in the U.S and in Hawaii. Only 13% of Filipinos 65-74 years of age meet national moderate-to-vigorous physical activity (MVPA) guidelines, which is lower than Japanese, Native Hawaiians, and Whites of the same age. Filipino seniors can also spend 8 hours/day in sedentary time (ST). The Kalusugan (Tagalog for Healthy Living) Project was a cluster randomized controlled trial designed to modify light-to-moderate physical activity and sedentary time (LMPA/ST) in Filipino seniors who are lay faith leaders within the Oahu Council of Filipino Catholic Clubs in Hawaii. Most (>65%) of Filipinos are Catholic. Ten clubs were randomly assigned to LMPA/ST condition or a Delayed Treatment (DT) condition. For 3-months the LMPA/ST condition received: group cohesion session to support club members' compiled step counts/miles walked, print materials with tips on increasing LMPA/ST, and 12 individually tailored telephone counseling calls to set realistic/achievable LMPA/ST goals, reduce barriers, and facilitate social support for LMPA/ST changes. The DT condition received 12 contact time-matched telephone calls to report symptom ratings for normal daily activities and were mailed general health information from the National Institute on Aging (NIA). After the first 3 months, the LMPA/ST condition received 3 months of general NIA health information while the DT condition received the LMPA/ST intervention followed by 3 months of no-contact maintenance. Study outcomes included self-reported total minutes/wk of physical activity (PA), LMPA min/wk, MVPA min/wk, hours/wk sitting time, and breaks per hour in sitting time at work and at home. 69 people were screened for eligibility. Eligibility = healthy (not in treatment for cancer/stroke/ or post-surgery), 55-75 y/o, BMI: 18-39.9 kg/m<sup>2</sup>, under-active (not doing regular MVPA for > 60 minutes wk), and can walk without assistance (cane/walker). Twelve leaders were enrolled in LMPA/ST condition and 23 in DT condition. Baseline sociodemographics included: 80% female, 64.4±6 years, 97% Filipino, 77% immigrants, 71% working, 76% overweight or obese, and 54% reported ≥ 2 chronic conditions. There were no significant differences between conditions in these baseline characteristics. After 3 months LMPA condition had significant increases in caloric expenditure per week of MVPA (p=0.024); however, both conditions had increases in LMPA (p=0.03 LMPA vs p= 0.02 DT). Total time sitting did not significantly change; however, number of breaks per hour in sitting time at home and at work significantly increased in the LMPA condition (p=0.001 and p=0.045). Our individually tailored LMPA intervention met the needs of inactive Filipino lay faith leaders, successfully increasing MVPA and LMPA activities, as well as the number of breaks per hour in sitting time at work and at home. We are exploring (via focus groups) a future research project to test the effectiveness of train-the-trainer dissemination model where tailored strategies to increase LMPA and decrease ST would be provided by lay leaders to the parishioners in the Catholic churches to which the Filipino Clubs are affiliated.

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# CARDIOVASCULAR ISSUES ACROSS THE LIFESPAN

## Association between Cardiovascular Disease Risk Factors and Dementia Severity

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**Purpose:** The purpose of this study was to examine the relationship between multiple cardiovascular disease (CVD) risk factors (heart failure, atrial fibrillation, cholesterol, blood pressure, and smoking) and the progression of dementia severity among older adults age > 65 using the longitudinal and prospectively collected data of the National Alzheimer's Coordinating Center.

**Background:** Many cardiovascular risk factors are associated with an increased risk of Alzheimer's disease and related dementia (ADRD). However, less is known about the role of CVD risk factors in the progression of dementia severity. Dementia severity does not progress in isolation, and effective treatment may need to target multiple risk factors. Although dementia is increasing with aging with the highest prevalence among the oldest-old, it might be useful to study community-based older adults age  $\geq$  65 because the effects of Alzheimer's disease start to become noticeable at age 65.

**Methods:** This study is based on the data collected from the NIA-funded Alzheimer's Disease Centers across the United States maintained by the National Alzheimer's Coordinating Center (NACC). The NACC was established in 1991 by the National Institute on Aging (NIA)/NIH (U01 AG016976) to facilitate collaborative research. It maintains a large relational database of standardized clinical and neuropathological data contributed by the 39 past and present Alzheimer's Disease Centers (ADCs) supported by the U.S. NIA, where all enrolled subjects undergo a standardized evaluation. This study is based on 2,297 participants with all three follow-ups because those three time periods had complete data for our study interests. Cardiovascular risk factors (heart failure, atrial fibrillation, cholesterol, blood pressure, and smoking) are obtained by a clinician or staff based on participant or co-participants interview. Dementia severity was measured with the Clinical Dementia Rating - Sum of Boxes (CDR-SOB). Negative Binomial Regressions with repeated measures were conducted to examine personal characteristics and CVD risk factor effects on the progression of dementia severity

**Results:** Hypertension was a dominant CVD risk factor (55.2%). Dementia severity was significantly worse from baseline to 3<sup>rd</sup> follow-up: about 37% (n=849) had mild to severe dementia at baseline, 45.8% (n=1,053) at 2<sup>nd</sup> follow-up, and 54.2% (n=1,244) at 3<sup>rd</sup> follow-up. In Negative Binomial regression with repeated measures model, each personal characteristic and CVD risk factor besides diabetes had significant influence on the progression of dementia severity. In multivariate Negative Binomial regression model, age, marital status, race (non-White), education (high school or GRE), living status (living alone), smoking (yes), heart failure (recent/active), and hypertension groups had significant influence on the progression of dementia severity.

**Implications:** This study emphasizes the importance of proper management of modifiable risk factors to reduce dementia incidence and its progression. Since CVD and dementia are both highly prevalent health risks among older adults and both are highly connected, targeting multiple CVD risk factors will be an efficient strategy to manage dementia in older adults. How non-modifiable risk factors (e.g., age, race, sex) influence dementia progression needs further investigation.

# CARDIOVASCULAR ISSUES ACROSS THE LIFESPAN

## Implementing an Extended Stroke Alert Process at a High-Volume Emergency Department

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**Background:** The American Heart/American Stroke Association guidelines extended the endovascular treatment (EST) window from 0 to 6 hours to 6 to 24 hours in a select group of patients with acute ischemic stroke in early 2018. This provides opportunity for wake-up strokes and other patients with delayed hospital arrivals to be considered for EST when presenting with a cerebral large vessel occlusion type ischemic stroke.

**Purpose:** To develop, pilot, and evaluate an extended window stroke alert process in a high-volume Emergency Department (ED) at a non-academic Comprehensive Stroke Center (CSC) for adoption in 21 Joint Commission designated stroke centers.

**Methods:** A multidisciplinary team was established and reviewed the current literature. An ED with high volumes was selected as the pilot site. Lean methodologies and best practices provided the foundation for the new workflow, including; eliminating waste, increasing speed, removing extra process steps, improving connections between steps, and focusing on the customer. An updated patient flow diagram was developed, and role cards were revised. Table-top simulations, department drills, and formal debriefs were conducted on all shifts for real-time feedback, which were instrumental in the education and roll-out.

Prior to contacting teleneurology, the ED team assembles to perform a preliminary evaluation of the patient, including a baseline modified Rankin Scale score, National Institute of Health Stroke Scale, and determines the patient's Last Known Well Time. If preliminary criteria is met, an *Extended ED Stroke Alert* is paged and teleneurology is contacted while transporting the patient to the CT scanner. This alert does not include pharmacy but notifies designated team members of the potential need for additional complex imaging compared to the previous stroke alert process, including Computed Tomography (CT) Perfusion or a Diffusion Weighted Magnetic Resonance Imaging scan in addition to a CT head and CT angiogram. If all criteria are met, the patient is then taken for EST.

**Outcomes:** Over 350 ED staff and physicians were trained on this new process. Between June 2018 and September 2019, the ED has successfully completed 335 Extended Stroke Alert screenings, with 3% of patients (9/335) that met criteria and received EST. Based on the success of the pilot, the protocol was adopted among the 20 remaining facilities.

**Conclusion:** With the new treatment guidelines, the team rapidly developed, piloted and successfully implemented the Extended Stroke Alert process allowing for immediate screening and treatment of potential EST candidates in a high-volume non-academic ED at a CSC. The successful implementation among the 21 facilities has led to successful extended window EST intervention since June 2018.

## COMMUNITY TOPICS 2020

### Vitamin E, Cognition, and White Matter Hyperintensities in Community Dwelling Latinos

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**Background:** Elderly Latinos residing in the United States are known to have low levels of serum vitamin E and high levels of vascular disease risk factors compared to the general population.

**Objective:** To investigate the relationship between vitamin E and cognition in a population of elderly community dwelling Latinos 60 years or older residing in the Sacramento Tri-County area, and secondarily to determine whether this relationship was moderated by the presence of white matter hyperintensities (WMH) and vascular disease risk factors.

**Methods:** Cross sectional study using a cognitively stratified sample of 122 subjects randomly selected from a larger Latino Study on Aging. Bilingual field workers assessed cognition using the Modified Mini-Mental Status examination (3MSE). Vascular disease prevalence and health behaviors (alcohol and tobacco use) were assessed by self-report. Blood pressure was measured at rest using manual methods. Lipoproteins and serum vitamin E were measured by high performance liquid chromatography. WMH were measured on MRI using a validated semi-quantitative WMH scale.

Correlation coefficients were calculated for continuous variables. One-way ANOVA was used to assess for differences between nominal levels of the independent variables. Chi-square was used for categorical variables. A series of regression models using a validity-oriented strategy were used to assess the relationship of vitamin E, cognition, vascular risk factors, WMH, and demographics.

**Results:** Increasing age, lower education, higher WMH, diabetes mellitus and lower serum vitamin E were highly significant for 3MSE errors. Vitamin E was negatively correlated WMH. After controlling for age, it accounted for 14% of total variation in WMH for the sample ( $p<001$ ) and for 12% in the non-demented subjects ( $p<001$ ). Claudication, stroke, blood pressure (BP), and atrial fibrillation were significantly associated with WMH remaining significant after controlling for age (except BP). Low and high density lipoprotein cholesterol, total cholesterol, diabetes mellitus and smoking history were associated with vitamin E. Regressing age, vitamin E, stroke, atrial fibrillation and claudication simultaneously on WMH accounted for 31% of the variation in the percent WMH ( $p<001$ ) for the entire sample and for 22.4% in the non-demented subjects ( $p<001$ ). When both WMH and vitamin E were modeled using Poisson regression along with significant demographic variables to model errors on the 3MSE, the model deviance improved ( $dev/df=91$ ) and vitamin E remained marginally significant ( $p=0.09$ ). The addition of diabetes mellitus added a slight improvement to the prediction of the model ( $dev/df=86$ ) but vitamin E ( $p=0.13$ ) was no longer significant. Although non-significant, vitamin E and long with WMH accounted for an additional 31 errors on the 3MSE (40 errors compared to 9 errors) in a similar model without vitamin E.

**Implications:** These results imply that individuals with lower vitamin E levels have decreased cognitive functioning that remains after controlling for age gender, and education. This modest relationship is partially accounted for by the relationship between cognition and WMH. After accounting for association of WMH on cognition, vitamin E has a small but non-significant independent relationship. Vascular risk factors with the exception of diabetes mellitus, were not related to cognitive decline in this cohort.



## COMMUNITY-BASED PROGRAMS FOR THE ELDERLY

A Mobile Oral Health Team (MOHT) for Rural-Dwelling Older Adults in Lake County, Oregon

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**Aims:** The purpose of this study was to raise awareness about the relationship of oral health to overall health, provide oral health screening, and inform the scope of need for referral services for adults 70 years and older in remote Lake County, Oregon. Mobile Oral Health Teams (MOHT) of nursing and dental hygiene students learned together and provided the intervention in a “pop-up” clinic in Lake County and on home visits.

**Background:** Rural-dwelling older adults are subject to health care disparities when limited access to preventative oral health services are coupled with lack of awareness about the relationship of oral health to overall health. According to trends in oral health education, effective interprofessional education (IPE) that brings together students from health disciplines in shared learning activities and clinical practice supports the development of interprofessional competencies and improving oral health outcomes. Oregon Health & Science University baccalaureate nursing program on the Klamath Falls Regional Campus had recently been involved in multiple pilot studies and funded research exploring IPE and health of older adults living in rural Oregon. This study built on knowledge gained.

**Methods:** Lake County stakeholder interviews and older resident focus groups about oral health needs provided data to inform planning for the intervention. Students from baccalaureate nursing and dental hygiene programs learned together in seminar, simulation, and team practice in community clinics. Teams “mobilized” to Lake County, 96 miles away with two carloads of students, faculty, and equipment. A “pop-up” clinic and home visits for homebound older adults addressed oral health screening, systemic health screening, and health education. The investigators analyzed qualitative data from resident focus groups and student debriefing sessions. A pre-and post-survey rated student perception of interprofessional competency and another pre-and post-survey examined changes in oral health care behavior of participants.

**Results:** Between clinic and home visits, the team served 14 rural dwelling adults 70 years and older, average age of 83.9. Two themes resonated with the focus group attendees; educating older adults in oral health care as it relates to overall health is important and oral health needs of the homebound are overlooked. Student’s perception of IP competencies did not demonstrate statistically significant difference in mean scores between pre-and post-survey. During the final debriefing session, student comments suggested that collaborative teamwork had evolved to include a broader perception and appreciation for the different roles team members played. A participant post-survey mailed six weeks after the MOHT intervention yielded a 36% response rate.

**Implications:** Future research about interprofessional competency requires a rigorous measurement of interprofessional education effectiveness, as well as follow-up assessment of interprofessional competency in practice post-graduation. MOHT currently informs an academic-community partnership for expanding non-healthcare workforce capacity to educate populations at risk for health care disparities in oral health as it relates to overall health.

**Funding:** 2018 OHSU-SON Innovations Grant and Hartford Academic and Research (HARP) Grant

## COMMUNITY-BASED PROGRAMS FOR THE ELDERLY

### Remote Home Monitoring to Reduce Hospital Visits for Chronically Ill, Low Income Elders

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**Purpose:** To evaluate implementation of a remote monitoring program (Technology to Support Aging in Place; TSAP), emphasizing client education and cross-sector community partnerships. TSAP aimed to reduce hospital readmissions, enhance chronic illness self-management, and encourage aging in place for low-income, vulnerable older adults with heart failure.

**Background and Rationale:** Most older adults want to age-in-place, or remain at home as long as possible. Innovative, interdisciplinary, and technology-based solutions can play an important role in supporting chronically ill, older adults in staying independent and managing their health. TSAP was an innovative cross-sector, multidisciplinary collaboration comprised of a public and private partnership between a community-based aging services organization (Area Agency on Aging & Disabilities; AAAD), private technology company, local hospitals, care providers, and a research-intensive university.

**Methods:** We explored the feasibility of a community-based organization (AAAD) to monitor older adults with heart failure in their homes and examined the perspectives of staff and patients who participated in this unique pilot program. A mixed methods implementation research design was used with 43 community-dwelling, low-income elders (mean age = 74) diagnosed with heart failure and dual-eligible for both Medicare and Medicaid. Participants completed a personalized Heart Failure Care Plan with their cardiologists and AAAD care coordinators, received education on heart failure self-management, and utilized remote monitoring technology daily over a six-month trial period. The devices included a Bluetooth enabled smart scale, blood pressure cuff, electronic journal, and medication box. Device data were forwarded to an online portal where AAAD staff could help monitor participants' daily metrics. For quantitative analyses, participants' hospital visits were tracked for six months pre and post-implementation. Staff (n = 17) and a subset of participants (n = 15) were also interviewed to obtain qualitative data. Two staff focus groups were conducted in person by two members of the investigative team, while the participants were interviewed by phone 1:1 with a researcher. All interview questions were investigator developed and responses subjected to content analysis.

**Results:** Despite the small size/scale of this pilot program, there was a significant reduction in hospital admissions by 54% (from 1.12 admissions per patient-year to 0.51 admissions) as well as reduction in days spent in hospital by 57% (a reduction from 3 days per patient-year to 1.3 days) Qualitative results from both staff and participants reflected themes of satisfaction with the program and suggestions for improvements (e.g., additional staff training on heart failure, literacy issues among clients, time burden).

**Implications for Translation to Practice/Further Research:** Participation in TSAP reduced hospital readmissions, encouraged quality of life among an under-served and under-studied population, increased their ability to age in place, and has potential for decreasing health care costs while maintaining the dignity and independence of vulnerable older adults. Hospital nurses and nurse researchers were key program partners as they had the clinical and scientific backgrounds to translate the possibility of TSAP into practice with this feasibility study. Nurses are ideally suited to further translate into practice home monitoring to better coordinate prevention-based patient care for the chronically ill.

## COMMUNITY-BASED PROGRAMS FOR THE ELDERLY

### Communicating with Older Adults with Hearing Loss: An Interprofessional Activity

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**Purpose:** The purpose of this study was to determine how an interprofessional education (IPE) intervention with Communication Sciences and Disorders (CSAD) and Nursing students can affect their ability to communicate effectively with older adults who have hearing loss.

**Background:** The goal of IPE is to prepare students in CSAD and Nursing with the knowledge, skills, and attitudes needed for collaboration in interprofessional settings. This study may contribute to general knowledge about the benefits of IPE by evaluating students' attitudes and perceptions towards IPE through a case-based activity. In addition, as the number of older adults with hearing impairments grows, there is a need for healthcare professionals to provide competent care for this population. An interprofessional educational intervention used to increase knowledge regarding communication with older adults with hearing loss may help improving competency among future healthcare professionals.

**Methods:** A combined in-class activity was created and provided jointly by faculty from the CSAD and Nursing departments to CSAD graduate students and RN-BSN students. Faculty received IRB approval to conduct a mixed-methods descriptive study to examine the perspectives of students completing an IPE activity on communicating with older adults with memory and hearing loss. Students were divided into teams consisting of two CSAD students and four Nursing students. Students listened to a brief presentation on IPE before they were introduced to a complex case of an older adult with age-related hearing loss. Students then worked together to discuss the case and answer a short series of questions about the case's general health status, function, and communication abilities. We used two outcome measures that were administered before and after the IPE activity: The Interprofessional Attitudes Scale (IPAS (Norris et al., 2015) and a knowledge assessment questionnaire (KAQ) we created regarding communication with older adults. Additionally, we developed a one-page activity evaluation survey with a Likert-type scale and open-ended questions, and used qualitative content analysis to identify themes regarding students' perspectives about completing the IPE activity.

**Results:** A total of 49 students in the two programs (CSAD and Nursing) completed the outcome measures. For the pre-test, there was a significant difference between the CSAD and Nursing students ( $t=3.554$ ,  $p<0.001$ ) in the KAQ. Among both groups of students, KAQ scores significantly increased between the pre- ( $t=20.272$ ) and post- test ( $t=30.268$ ) administration. We evaluated items of the IPAS individually and noted a positive increase regarding the attitude toward interprofessional collaboration among several items. The qualitative findings supported the outcome measure results as students expressed they were able to learn other perspectives and found the experience valuable.

**Implications:** Based on the improvement in scores on the KAQ and overall impressions from the IPAS, this IPE activity helped to increase knowledge related to the roles of other professions and to communication with older adults with hearing loss. Student evaluation data also supported the value of this IPE activity.

## CONCEPTS IN CHRONIC DISEASE

### Symptom Management for Latina Cancer Survivors: Cost and Health Service Use

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**Purpose:** The purpose of this paper was to examine the costs of two telephone psychosocial interventions and health service use outcomes for 230 Latinas with breast cancer and their caregivers.

**Background:** Interventions can successfully reduce the number and severity of symptoms for Latina breast cancer survivors, yet the costs of the interventions are rarely examined nor are their costs compared against savings in health services. Such comparisons are essential to the dissemination of symptom management interventions.

**Methods:** This secondary analysis of a randomized control trial compared an 8-week telephone interpersonal counseling (TIPC) intervention to an 8-week supportive health education (SHE). Data were collected using telephone interviews at baseline and post-intervention. Presence of 12 symptoms and general global symptom distress were measured using the general symptom distress scale (GSDS). For this analysis, only the survivor data were used. Participant-reported data on hospitalizations and emergency room visits were analyzed using logistic regression models in relation to trial arm, global symptom distress. Fixed and variable costs of each intervention were evaluated and compared to cost savings from reduced health services use.

**Results:** Urgent care and emergency department visits were reduced in SHE versus TIPC, odds ratio (OR)=0.33, 95% confidence interval (CI) (0.12, 0.88),  $p=.03$ . The odds of hospitalizations were also lower in SHE than TIPC, OR=0.59, 95% CI (0.26, 1.37), but statistical significance was not reached ( $p=.07$ ). Greater global symptom distress was associated with greater odds of emergency department visits, OR per unit of increase in distress on a 0-10 scale=1.23, 95% CI (1.04, 1.45),  $p=.01$ , and hospitalizations OR=1.23, 95% CI (1.03, 1.49).

For TIPC, total costs of development, training, supplies and intervention delivery per survivor was \$155.08. For SHE, the total cost was \$174.69 per survivor. In 2018, the average cost of an emergency department visit was \$2,000, and for hospitalization, the cost ranged from \$1959 in for-profit hospitals to \$2,034 for state/local government hospitals.

**Implications/Conclusions:** Reductions in survivor's symptoms are associated with lower health services use. Greater cost of SHE versus TIPS was offset by reductions in the health services use for cancer survivors. Based on this, psycho-social interventions are a cost-effective solution that may benefit not only survivors, but the health care system. Latina breast cancer survivors have improved symptom management and quality of life for Latina breast cancer survivors and the health care system saves resources.

**Funding:** American Cancer Society, Grant/Award Number: RSG-12-120-01-CPPB to Terry Badger

## CONTEMPORARY ISSUES IN WOMEN'S HEALTH

### Influence of Country of Birth and Religion on Mammography Screening in Arab Americans

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**Purpose:** This study aimed to explore and compare mammography screening rates, and to investigate associations between sociodemographic characteristics, including age, country of birth, religion, marital status, and living status (whether or not the woman lived alone), and perceived benefits, interpersonal influences and barriers regarding mammography screening in these three subgroups.

**Background:** Mammography screening (MS) is considered a valuable tool to decrease morbidity and mortality from breast cancer. However, it is still significantly underutilized in Arab American women (AAW) despite the fact that incidence of breast cancer is on the rise in these ethnic women that get diagnosed with BC at younger ages and in more advanced stages compared to white women. Research showed this ethnic population is understudied; more research is required to understand these women's views, beliefs and attitudes regarding MS. Although general cultural themes can be established, the variations that exist between and within national groups of Arabs, such as country of origin and religion, are important aspects to be considered in the healthcare system to reduce racial disparities and ensure social justice.

**Method:** In this exploratory, comparative, cross sectional study, a convenience sample of 316 AAW from Jordan, Lebanon, and Egypt, completed a survey that combined the sociodemographic variables and the Arab Specific-Culture Barriers instrument. Pender's Health Promotion Model was employed to guide the exploration of different biopsychosocial variables in relation to mammography screening.

**Results:** Descriptive statistical analyses showed that the overall mammography screening rate was 63.9% which is lower than the national screening rate of 65.3% among all women aged 40 and older in the US. Lebanese women had the highest screening rate (77.2%), compared to Egyptian (63.2%) and Jordanian (54.2%) women.

A series of Fisher's exact and Analysis of variance (ANOVA) tests were used to explore associations between sociodemographic characteristics of these women and their perceived benefits, interpersonal influences and barriers regarding mammography screening. Religion was found to be significantly associated with perceived benefits ( $F(1,314) = 7.895, p = 0.005$ ), whereas country of birth had a significant association with perceived barriers ( $F(2,312) = 3.630, p < 0.05$ ). Perceived barriers were significantly higher among Jordanian American women. Additionally, perceived interpersonal influences were significantly associated with age and living status (table1). These associations address the importance of culture and religion in the lives of these three Arab subgroups.

**Implications:** Mammography screening rates in AAW are still lower than White and other ethnic women in the US; additional efforts are to be made to overcome barriers and motivate these women to make an informed decision of participating and adhering to BC screening. Considering perceived benefits, interpersonal influences and barriers within the religious and cultural context is imperative for bilingual outreach and education-tailored intervention programs to raise awareness about BC and its screening among AAW and their families. Families need to be involved in such programs so women may obtain the necessary social support to participate in MS. Another implication for this study supports the importance of training healthcare professionals and nurses to provide culturally-congruent care to these women.

## EDUCATION STRATEGIES AND SUCCESSES

### The Dual Doctoral Degree (PhD-DNP): 10-Year Report of Outcomes and Program Changes

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**Purpose:** To conduct outcome evaluation of a longstanding nursing dual doctoral degree program (“dual degree”; PhD-DNP) at a major university. Aims were to 1) describe student characteristics, 2) document student outcomes during matriculation, and 3) summarize workforce outcomes postgraduation.

**Background:** Dual degree programs train nurses to uniquely bridge research and practice: to generate and translate knowledge into practice, and refine and disseminate findings, ultimately to affect policy. Dual degree programs are offered only by four nursing doctoral programs (beginning in 2009). These programs are not well-described in the literature and have minimal dissemination of outcomes. In general, dual degree programs receive little attention at national nursing education meetings. Dissemination of information about these programs is important given that nursing schools are increasingly expressing interest in developing PhD-DNP dual degree programs. There also is increasing interest from potential applicants: during 2018-2019, we received requests from 24 persons interested in our dual degree program.

**Approach:** This project was a comprehensive 10-year evaluation of the dual degree program at the University of X using both a prospective and retrospective approach. Aim 1: Collect prospective data for sociodemographics (age, gender, race/ethnicity) from University databases. Aim 2: Collect prospective program-level data (current matriculating students, option track such as BSN-dual degree or MS or DNP-dual degree, foundational program, graduated students, time to degree). Aim 3: From exit and alumni surveys, personal contacts, and the Internet, collect postgraduation data on workforce information and funding. We searched PubMed for publications during matriculation and postgraduation.

**Outcomes:** Nineteen students have matriculated in the dual degree program via the BSN-dual degree (12; 63%) or MS-dual degree (7; 37%) track. A majority were not Hispanic/Latino and white. The mean age at enrollment was 35.2 years. Seventeen (89%) began the dual degree program as a DNP student. Eight students (42%) have graduated; median overall time to degree was 5.63 years. Nine students currently are matriculating and 2 (11%) have dropped from the University. During matriculation, 6 (32%) received external funding, 5 (29%) received internal funding, and 35% published in refereed journals. Among graduates, 1 (13%) completed a postdoctoral fellowship, 4 (50%) published in refereed journals, and 2 (25%) had investigator status on external funding. All graduates are employed: 7 (87%) in academia or as a researcher in an institutional healthcare setting. One (13%) has made an impact on policy at local, state and national levels.

**Conclusions:** Dual degree students are highly motivated and invested in achieving PhD-DNP degrees. Based on the project findings, we will discuss the following modifications to our college’s dual degree program: 1) targeted recruitment of younger and more ethnically/racially diverse students, 2) increased mentorship and resources for proposal writing and publication during matriculation, 3) additional policy and leadership courses to better prepare graduates for policy development and 4) enhanced student networks for peer and social support to sustain enrollment. To assess the larger impact of a dual degree, the four national programs can consider collaborating and pooling data to better determine outcomes during matriculation and postgraduation.

## EDUCATION STRATEGIES AND SUCCESSES

### Mentoring Experienced by Dual Doctoral Degree (PHD-DNP) Nursing Students

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**Purpose:** A purpose of this qualitative study was to describe the mentoring experienced by dual doctoral degree (“dual degree”; PhD-DNP) nursing students during coursework.

**Background:** Terminal degrees for nursing science and practice culminate in the PhD and DNP. The combination of these degrees, the dual degree, is new to nursing compared to other clinical disciplines. In dual degree programs, students simultaneously complete both degrees. Few nursing dual degree programs exist nationwide and information about them is not well-disseminated. Consequently, little is known about the mentoring required by dual degree students and our ability to support this emerging group of students is challenging.

**Methods:** Four dual degree nursing students (of 11 potentially eligible) were recruited from a dual degree program at the University of X. Eligible were matriculating dual degree nursing students who had completed their last required academic course and had access to videoconferencing. The investigators used a semi-structured guide to interview participants via videoconferencing about their mentoring experiences during coursework. Deidentified transcripts were analyzed using qualitative content analysis in an iterative fashion. Deductive codes were derived from the literature on mentorship of doctoral students. Inductive coding generated general descriptions of the emerging data. The investigators reached consensus for the codes, categories, and subcategories. The University Institutional Review Board approved the study.

**Results:** The mentorship category was defined *a priori* as any resource, experience, or person and their characteristics that enhanced participants’ understanding or performance during coursework. Two inductive subcategories emerged: 1) faculty mentor attributes, and 2) peer mentoring. Participants positively described faculty mentors as being approachable, communicative, and fostering accountability. Negative faculty mentor characteristics were being unsupportive, uncaring, and not having expertise to support dual degree students’ clinical and research interests. Participants emphasized the importance of peer mentoring for program success, for example, working through course content and assignments. Experiences from peers provided tangible exemplars of success and navigation through the program. Some participants described setting up formal meetings with peers, while others reached out via texting, email, telephone, or online videoconferencing. One participant did not perceive a need for peer support.

**Implications:** Dual degree students have a course load that almost doubles that taken by a PhD or DNP student and average about 5-6 years in a program. Thus, mentorship is key for keeping these students engaged and on track to graduate. This study begins to reveal mentoring needs of dual degree students. For example, although role modeling is identified as an important mentor attribute for online DNP nursing students, this attribute was not mentioned by participants in our study. This could be related to the dearth of PhD-DNP- prepared faculty available to appropriately mentor dual degree students. Programmatic tools to strengthen faculty understanding of dual degree students be helpful for mentorship. Dual degree students strongly endorsed peer mentoring, which may be overlooked in some pedagogical models for doctoral education. Peer support deserves further study for its potential importance in helping dual degree students form their unique cohorts and for successful completion of a rigorous program.

**Funding:** University of Arizona Graduate College

# ENVISIONING THE FUTURE OF NURSING 2020

## Envisioning the Future of Nursing Practice and Presenteeism Awareness

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**Aims:** The specific aims of this project were: 1) to characterize nurse awareness of presenteeism (symptoms, severity, frequency, and precipitating factors); 2) to describe nurse decision-making regarding presenteeism; and 3) to identify consequences of presenteeism described by nurses.

**Background:** Nurses are well-positioned to improve patient outcomes; however, nurses report high levels of presenteeism which can impact their patient care. Presenteeism is defined as when a person is physically at work, but not fully engaged or functioning. A state of presenteeism can be due to acute or chronic illness, work environment antecedents (e.g., stressful work environment), or personal antecedents outside of work (e.g., work-life imbalance). However, before interventions can be developed to address presenteeism, understanding of nurse awareness and decision-making of presenteeism is needed. This understanding will provide valuable insight into when and how to proactively intervene.

**Methods:** Semi-structured one-on-one interviews were conducted with medical-surgical nurses from two hospitals until saturation was reached (n=16). Questions explored nurse awareness of their own presenteeism and that of their coworkers, factors leading to their presenteeism, how they responded when they realized they were “present” but not fully engaged, and how they made decisions regarding taking time away from work when presentee or at risk for presenteeism. Conventional content analysis of transcripts was completed. Two coders coding each transcript and agreement was reached on all code applications.

**Results:** Factors leading to presenteeism included: fatigue and sleepiness, variation in work tasks across shift, personal life (e.g., death or sickness of a loved one), shift length and timing, and staffing. The majority of nurses in the study had experienced presenteeism in the last month. Symptoms of presenteeism identified included: lack of focus, forgetfulness, sleepiness, forgetfulness, and changes in mood. Decision-making in response to presenteeism or potential presenteeism included staffing on shift, workplace policies regarding calling-in and leaving shifts early, stigma attached to calling-in, and potential disciplinary action. Participants also described consequences for patient care and need for safeguards, decreased efficiency in completing tasks, and the negative impact for unit culture of nurse presenteeism. Participants also described the impact of presenteeism at work on their life outside of work and satisfaction.

**Implications:** Our findings indicate that presenteeism is present in nursing today and due to both personal and work environment factors. Nurses described not having options to avoid attending work when at risk of being presentee or leaving work when presenteeism was impacting their performance due to sick leave rules and policies, and stigma associated with calling-in sick. Healthcare systems should revisit these policies and rules and work environment factors (e.g., staffing and shift length). Tools to measure presenteeism beyond existing retrospective self-report surveys are needed to monitor for presenteeism and address it before the related consequences ensue.



# EXPLORATION OF THE STUDENT EXPERIENCE

## Creating a BSN Population Health Internship: Translating Evidence into Innovation

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**Rationale/Background:** In the last decade, several key nursing education policy papers and evidence-based practice statements have emphasized the need for all nurses to be prepared to address population health in all settings of practice, regardless of their role. Adopting a population health lens in nursing education implies learning about care coordination, chronic disease management, determinants of health, policy development and health advocacy, and health inequities. These population level nursing practices are necessary to respond effectively to health care, demographic, and political changes in the U.S. and worldwide. Such concepts, and opportunities to practice them in real-world settings beyond acute care environments, require innovative rethinking of nursing education. Specifically, Washington State nursing deans have taken a leadership role by committing to the integration of population health competencies throughout baccalaureate nursing curricula and to the promotion of the academic-community partnerships required to accomplish this integration.

**Purpose:** The purpose of this paper is to present the processes by which a BSN program translated evidence of best practices in population health teaching to a curricular innovation: a year-long Population Health Internship (PHI).

**Best Practice/Approach:** Seattle University's College of Nursing developed a model for integrating population health this academic year: a required 90-hour internship with local population health agencies in which each academic quarter follows a progressive learning arc that mirrors the work of a population health nurse in practice, from community engagement and assessment to sustainability. Operationalizing new evidence and changing healthcare needs into educational programming is complex; we executed a five-part approach. First, we undertook collaborative curricular evaluation, developed a new, academically-sound teaching-learning method, and navigated faculty governance and university-level approval processes. Second, we incorporated community partner input through collection of survey data and worked to gain student buy-in for the program change. Third, we applied various approaches to partner with over 50 health and social service agencies to create or transform relationships to fit our mutual goals. Fourth, we surveyed students for preferences to facilitate creation of an internship placement that benefitted the agency partner and met the student's needs. Finally, we designed handbooks for students and community mentors and a kick-off event in which local partners were recognized and students and agency representatives met.

**Initial Outcomes:** Beyond the program design and launch outcomes, ultimately 83 students were placed in 20 community agencies with 53 preceptors or mentors in the program's inaugural year, for an estimated 7,380 hours of service by year's end.

**Conclusions:** This presentation will explain the detailed processes schools of nursing can use to translate an evidence-based need for educational innovation from an idea into a functioning program. In addition to explication of the steps above, I will share overall lessons learned, best practices for managing diverse stakeholders, and challenges to anticipate. This presentation will provide a roadmap for other nursing educators and administrators to make similar curricular changes to better prepare BSN nurses for serving populations.

# GAMING AND TECHNOLOGY IN HEALTHCARE

## Virtual Reality for Deliberate Practice and Mastery Learning in Sterile Technique

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**Purpose:** The purpose of this study was to measure the effectiveness of using virtual reality (VR) to assist student practice, and more importantly mastery, of maintaining sterile technique during urinary catheter insertion. If VR was indeed effective in promoting mastery learning, then a secondary purpose was to determine the feasibility of implementing VR within an undergraduate nursing program.

**Background:** Current practice, in many nursing programs, consists of skill demonstration and limited practice using supplies and faculty oversight within the simulation center before performing the procedure on patients. High-quality simulation-based education has proven to be an important and effective tool in nursing education. However, it remains costly to implement using specially trained simulation faculty, simulation space, and supplies for repetitive practice. Additionally, mastering procedural skills has become increasingly challenging for students due to decreasing exposure in clinical settings and increasing hospital regulations dictating student experiences. With the development of VR technology as another form of simulation, the ability to put students in the patient's room to practice procedural skills, with consistent and immediate feedback, provides an alternative to the rising costs associated with traditional clinical education

**Methods:** A quantitative design was used to compare traditional deliberate practice education with virtual reality (VR) deliberate practice using a 13-item Urinary Catheter Assessment Tool. The tool was reviewed by nursing experts for content relevant for sterile catheter insertion. A convenience sample of first-year baccalaureate nursing students (n=36) was consented and randomized to control (n=18) vs. VR (n=18) groups. Students in both traditional (control) and VR groups were tested using blinded raters prior to a 3-week repetitive practice. The final assessment was done after repetitive practice and before course assessment/grades using urinary training models and blinded raters.

**Results:** Pre- and post-data were analyzed using a Wilcoxon Signed-Ranks test for paired ordinal variables, then groups compared. Total sample after dropping missing data were n=28 (n=14 control, n=14 VR). Alpha of <0.05 was used to minimize Type II errors for an initial study. A significant difference (p<.05) was found in the following VR group's comparisons and were not significant in the control group: "opens sterile kit" (Z=-3.762, p=.002), and "donning gloves" (Z=-2.449, p=.003). No other differences between groups were found, additional items were either significant or not significant for both groups.

**Implications:** No difference overall was found in outcomes for the control (traditional practice) vs. the intervention (VR) groups. Although significance was found for the VR group in opening sterile kits and donning sterile gloves, pass/fail outcomes would remain the same for both groups. VR may be as effective in repetitive practice for mastery learning as traditional education training methods. This may also decrease sterile supply costs and the high cost of faculty time during repeated practice.

# HEALTH ISSUES FACING HOMELESS POPULATIONS

## Nurses' and Case Managers' Views on Health Care for Adults Who Were Formerly Homeless

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**Aims:** To explore the perceptions of nurses and case managers regarding 1) barriers to access and use of health care services; and 2) suggested strategies on how to improve access and use of health care services for adults who were formerly homeless and currently living in permanent supportive housing.

**Background:** The number of individuals experiencing homelessness has increased in the United States and California is ranked top among states with individuals experiencing homelessness. Individuals experiencing homelessness bear the risk of high disease burden and premature mortality. Although many formerly homeless adults are placed in permanent supportive housing (residents hereafter), their chronic physical and mental health needs remain. Lack of health service engagement among residents with liminal housing also challenges case managers and nurses to understand residents' values, preferences, and unique health needs.

**Methods:** A descriptive qualitative study methodology was utilized. Six nurses providing care for residents and eight housing agency case managers were interviewed by phone using a semi-structured interview guide. The nurses provided care either within or for adult residents of these housing sites. The case managers worked in three permanent supportive housing sites in downtown Los Angeles, CA. A priori concepts in the interview guide asked specific questions: 1) what do you see as challenges for residents to access and use health services; 2) how do you meet the challenges to provide access and health services to the residents. Interviews lasted approximately 45 minutes and were transcribed verbatim. Data collection and analysis were iterative and ongoing processes. Data analysis was guided by an iterative, constant comparison method beginning with open coding, then selective coding, and eventual thematic integration.

**Results:** The two primary themes described specific challenges and recommendations to address them. Sub-themes regarding challenges indicated residents experienced past issues with survival; difficulty in communicating health problems; and disappointment with previous disorganized health care. Recommendations for providers showed they could give better care by taking time to develop trust; and by recognizing the individual needs of residents. Both nurses and case managers noted a distrust of health care providers as a result of previous lack of continuity of health care. Case managers voiced frustration that access to health care for residents was limited by distance and residents' inability to get to the right provider or accept the structure of health care appointments. The case managers noted that residents were used to waiting until their health problems were severe to seek care. Nurses identified that it takes times to build trust, but it is a balancing act between making sure that immediate health needs were met and waiting for the resident to accept help. Nurses also noted that residents were resistant to be told what to do as they were used to living by their own rules.

**Implications:** The common theme of mistrust among residents of permanent supportive housing is important for health care providers to recognize when delivering care. More research on evidence-based engagement strategies suitable for this patient population and effective in improving health care engagement is needed.

**Funding:** University of Southern California Suzanne Dworak-Peck School of Social Work., Social Work-Nursing Collaborative Grants

# HEALTH ISSUES FACING HOMELESS POPULATIONS

## The Impact of a Foot Soak Experience on Nursing Students' Attitudes towards the Homeless

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**Purpose/Aims:** Nursing students and faculty at an undergraduate school of nursing launched a pilot foot-soak service-learning project for the homeless. The purpose of this study was to assess changes in attitudes towards the homeless among nursing students participating in this experience, and to identify student perceptions about the population served and the overall service-learning experience.

**Rationale/Background:** Homeless individuals face many barriers to health and health care access. Among them is lack of trust, often reinforced through biases held by members of the health care profession, including nurses. Opportunities for nursing students to engage with people who are homeless in meaningful ways can reduce barriers to health related to negative attitudes.

**Methods:** This was a prospective, pre- and post-test interventional study. The intervention consisted of preparatory readings and a guided reflection and then an immersive 4-hour experience in a community setting serving the homeless. Students also completed a guided reflection after the experience. Students completed a brief foot assessment, provided a non-medical 20-minute foot soak and gave clean socks to approximately 8-14 homeless people. Student attitudes were measured quantitatively and qualitatively through: 1) Pre- and post-intervention assessment of attitudes towards the homeless through the Attitudes Toward Homelessness Inventory (ATHI) and 2) Thematic analysis of a guided reflection on the experience to identify perceptions about the homeless and the learning experience.

**Results:** Fifty-three of 64 students consented to participate and shared baseline pre-test data in the study for a consent rate of 82.8%. One student was unable to participate in the foot clinic so reflections were received from 52 participants. Post-test results were received from 47 participants for a response rate of 90.4%. Mean post-test Total Scores (mean 50.06; standard deviation = 7.004) were significantly ( $p=.001$ ) higher from mean pre-test scores (mean 47.06; standard deviation = 5.455) indicating more positive attitudes towards the homeless. There was a Cohen's  $d$  medium effect size of .48. Two of the four subscales had significant findings indicating more positive attitudes towards the homeless after the experience. Mean scores for beliefs that homelessness was personally caused dropped from a mean of 9.55 (standard deviation = 2.465) before the experience to 8.38 after (standard deviation = 2.567), which was significant at  $p = .002$ . Mean scores for willingness to affiliate with the homeless improved from a mean of 8.43 (standard deviation = 2.447) before the experience to 9.91 (standard deviation = 2.205) after the experience, which was significant at  $p < .0005$ . There were three categories of themes that emerged from the data: 1) *Benefits of the experiences*, 2) *context*, and, 3) *potential consequences*. Students reported multiple benefits to the learner and community member, which were linked to the opportunity to make a human connection, change perceptions and desire to continue to serve the homeless.

**Implications:** A foot-soak clinic is a service-learning activity that can increase understanding of people living with homelessness through genuine human interaction and can be mutually beneficial to community members and learners.

## INNOVATIVE TOPICS 2020

### Improving the Diffusion of Innovative Evidence about the Importance of Family Stories

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**Aim:** To evaluate the impact of an interactive, hands-on workshop in improving the ‘reach’ (understanding/conceptual use) and ‘uptake’ (intent/instrumental use) of a currently underused body of evidence about the health-related benefits, across the lifespan, of knowing and sharing intergenerational narratives or family stories.

**Rationale/Background:** Knowing and sharing family stories has health benefits, including increased self-esteem, internal locus of control, and resilience, beginning in childhood and extending through to older adults. While supportive evidence and evidence-based family story tools and toolkits have been broadly disseminated over the past 40+ years, the evidence and accompanying tools have not been integrated into practice, even in the post-genome era. This lack of diffusion means patients/families are not seeing the benefits. Implementation science and knowledge transfer models should be used to understand best approaches and facilitate continued diffusion of this significant/timely evidence.

**Method:** Statewide, hands-on workshops (rural/urban sites) were conducted to: 1) disseminate underused evidence about the individual health-promoting effects of knowing/sharing one’s family stories, and 2) to introduce participants to a “Family Stories Toolkit”, made up of six evidence-based tools (Do You Know [DYK] Scale; 3-Generation Pedigree; Genogram; EcoMap; Colored Eco-Genetic Relationship Map [CE-GRM]; Draw-and-Tell Conversation [DTC]). The AWARE-ADOPT-ADAPT Knowledge Transfer Model served as the organizing framework for implementing and evaluating the workshops. Pre/post evaluations were completed using online surveys, managed through REDCap.

**Results:** 35 participants (23 urban/12 rural) of which 35 (100%) completed the pre-workshop survey and 29 (83%) completed the short-term, post-workshop survey. Using our knowledge transfer model, evaluations focused on: 1) improving exposure and understanding related to the evidence/tools [reach], and 2) moving providers toward intention to use/actual use of the evidence and tools in practice [uptake]. Post-workshop surveys revealed significant advances in both understanding and intent to use, with 90% reporting an increase in understanding; 96.7 % sharing their understanding will affect ‘how’ they practice in the future; and, 96.7% sharing their intent to act on/use one or more of the tools. Pre-/post-workshop responses re: individual tools within the toolkit are shown below (See Table). Of note was the initial lack of awareness surrounding the 3-generation pedigree, as this tool is required health data in the current post-genome era; also notable during the workshop was initial confusion regarding the distinctive differences between the 3-generation pedigree and genogram.

**Implications:** Improving the diffusion of innovative evidence assists in moving evidence to the point-of-care to assure its benefits reach the patient/family and positively impact health. The Aware, Adopt, Adapt - Knowledge Transfer Model helped focus/evaluate the impact of our implementation science workshop and champion a currently underused body of evidence. Using an interactive, hands-on format provides immediate access to evidence/tools, which may facilitate knowledge transfer from conceptual to instrumental use. This combined approach can be adapted for use with other underused evidence/tools.

**Funding:** OHSU Hartford Award for Research and Practice (HARP)

## INNOVATIVE TOPICS 2020

### Teaching Infant Massage to Fathers Following Hospital Births

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*Dana Rutledge, PhD, RN, Clinical Education, St. Joseph Hospital, Irvine, CA; Carol Suchy, MSN, IBCLC, Women's Health Services, St. Joseph Hospital, Orange, CA*

**Purposes/Aims:** This study aimed to evaluate the impact of infant massage instruction on paternal bonding in the early post-partum period.

**Rationale/Conceptual Basis/Background:** In a review of 28 studies, Scism and Cobb found that fathers sometimes do not feel appreciated immediately post-delivery, that their confidence can be affected by experiences during this time, and that fathers gain positive feelings with providing physical care to neonates. This evidence provides support for promoting paternal engagement with infants soon after birth. To date, a single study of infant massage by fathers supports less paternal stress in fathers of infants who were taught massage through formal community classes. This presentation addresses the research question: do fathers taught infant massage instruction have different interactions with their infants than those who have not been taught?

**Methods:** This randomized crossover trial had a convenience sample of 98 fathers of healthy infants > 38 weeks gestation. Fathers were recruited on the post-partum unit at a southern California hospital and were randomized to receive massage instruction BEFORE or AFTER a father-infant observation. Measures reported here: participant demographics, Father-Infant Observation (FIO) Scale based upon Toney (1982). Trained study nurses observed fathers and infants for 5 minutes, counting numbers of bonding behaviors in 5 categories (verbal interaction, smiling, eye contact, fingertip touching, whole-hand touching). Nurse data collector ratings achieved > 80% agreement with those from a nurse educator on a video scenario. Scores for each behavior were numbers of tally marks; total observation score = total all behaviors. Made using You Tube and using a certified massage therapist an instructor, a video instructing fathers in newborn massage was accessed by fathers via iPad. All participants viewed the video. A bilingual hospital translator called fathers at home ~ 1-week post discharge for an evaluation of the experience. Descriptive statistics were used to describe the sample and responses to the FIO Scale. Repeated measures ANOVA was used to determine group differences: G1 - observed AFTER watching the video; G2 - observed BEFORE.

**Results:** Between 18 and 44 years, 98 fathers of healthy term infants participated. Fathers differed in their observed interactions with their infants depending upon group status (timing of watching the massage instruction). Total interactions were significantly greater in G1 (observed immediately AFTER massage instruction). Specific items on the FIO that differed significantly between groups were (a) significantly fewer verbal interactions in G1 and (b) more fingertip touchings in G1. Most fathers reported positive experiences with infant massage and 54% would recommend this for other fathers.

**Implications:** Study findings support further use and evaluation of interventions such as instruction in father-infant massage that are aimed at increasing father-infant bonding during the immediate post-partum period. Those developing video instruction might offer three components to the instruction: instruction with rationale, trial with a father, and debriefing. Future studies might add variables such as infant temperament or reactivity and paternal sensitivity.

**Funding:** Nursing Excellence Fund, St. Joseph Hospital Foundation

# KEEPING AN EYE ON PUBLIC HEALTH

## Micronesian Parents' Realities: Maternal and Children's Health and the School System

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**Connie Kim Yen Nguyen-Truong, PhD, RN, (Alumnus PCCN), College of Nursing, Washington State University, Vancouver, WA; Jacqueline Leung, JD, MS, CHW, Micronesian Islander Community, Salem; Kapiolani Micky, BA, CHW, Micronesian Islander Community, Salem**

**Purposes/Aims:** The purpose of the community-based participatory qualitative descriptive pilot study was to explore Micronesian Islander parent leaders' (MIPL) perceptions and experiences with maternal and children's health and the school system as they relate to the influence of culture.

**Rationale/Conceptual Basis/Background:** The MI community experienced miscarriages, stillbirths, and mental intellectual and developmental disabilities. In Hawaii, MI women from the Federated States of Micronesia and Republic of the Marshall Islands often experience late entry into prenatal care and do not engage in sexually transmitted disease screening leading to high infant mortality. Only 20% of MI women received prenatal care in the first trimester. This is similar to an urban area in the United States' (U.S.) Pacific Northwest where Pacific Islander women including MI are less likely to access prenatal care in the first trimester than non-Latinx White women (62.7% versus 24.3%). In regard to the school system, Pacific Islander children have high absentee or drop-out rates so they can meet family obligations. Pacific Islander children are more likely to experience poverty than non-Latinx White children (28.6% versus 13.2%). Organizational MI leaders expressed a need to explore the voices of MI parent leaders.

**Methods:** A community-based participatory research approach guided the formation of a community-academic partnership. A certified community health worker from the community-based organization recruited eight MIPL from an urban area. A group level assessment guided data collection and analysis with real-time MIPL involvement including illustrative storytelling. Open-ended and semi-structured questions prompted the 90-minute discussions. MIPL told stories by writing and drawing pictures onto flip charts. They transcribed the main points and analyzed the data with researchers using content analysis. Researchers recorded field notes of the interactions. Researchers debriefed with MIPL to assure trustworthiness and credibility of the findings.

**Results:** MIPL age ranged from 26 to 42 years, have lived in the U.S. an average of 12.63 years, and most reported having less than \$15,000 total household income before taxes. Themes were: MI cultural identity, English language and MI culture disharmony, zero to delayed prenatal care, and uncertainty for the future of MI children who have disabilities or developmentally delayed as they progress through the school system. MIPL discussed being a shy culture who are not accustomed to speaking about issues and not thinking about one's self but rather looking out for others. MIPL described how their language barrier made them appear as though they did not care or follow directions by healthcare providers and children's teachers. Cultural beliefs in home remedies and religious faith appeared to be passed down through generations from their island homeland influencing whether or not to engage in prenatal care. MIPL expressed uncertainty regarding what preparedness entails by teachers and parents for promotion from early learning to subsequent grade levels.

**Implications:** Healthcare providers including nurses and school officials need to have a culturally specific understanding of the MI community and must consider their needs, culture, and language barriers. This effort will facilitate proper prenatal care and establish mechanisms to involve school nurses from the school system.

**Funding:** Health and Education Fund Impact Partners #18-02376: Northwest Health Foundation, Meyer Memorial Trust, Kaiser Permanente Northwest, Care Oregon, and Oregon Community Foundation.

# KEEPING AN EYE ON PUBLIC HEALTH

## Physical Activity in People with HIV: Patterns & Predictors Based on Sensors and Surveys

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**Paul F. Cook, PhD**, College of Nursing, University of Colorado, Aurora, CO; **Catherine Jankowski, PhD, FACSM**, College of Nursing, University of Colorado, Aurora, CO; **Blaine Reeder, PhD**, Sinclair School of Nursing, University of Missouri, Columbia, MO, CO; **Whitney Starr, NP**, Infectious Disease, University of Colorado, School of Medicine, Aurora, CO; **Kristine Erlandson, MD**, University of Colorado, School of Medicine, Aurora; **MaryBeth Makic, RN, PhD**, College of Nursing, University of Colorado, Aurora, CO

**Purpose:** In this study, we examined predictors of physical activity among people living with HIV (PLWH) based on Two Minds Theory, an innovative approach to understanding health behaviors based on everyday experiences and biobehavioral states.

**Background:** PLWH are at increased risk for age-related disorders like cardiovascular disease and metabolic syndrome, experiencing these comorbidities more often and at younger ages than their peers without HIV. Physical activity (PA) can help to reduce the risk of cardiovascular complications in PLWH, but there is some evidence that this is true only when PLWH are active at moderate to high levels. Inactivity also may be related to fatigue, which is the most common symptom experience reported by PLWH. Two Minds Theory suggests that physical activity results from nonconscious processes collectively called the Intuitive System. According to the theory it may therefore be affected by everyday situational factors such as mood, stress, sleep, stigma, and fatigue.

**Methods:** 55 PLWH (85% men, 42% non-White, ages 20-69 years) wore a Fitbit Alta HRTM sensor device for 30 days to measure their PA, sleep metrics, and stress based on heart rate variability (HRV). PA was measured based on total steps per day, while higher-intensity physical activity was measured based on “active minutes” when the participant had an elevated heart rate. They also completed daily validated surveys on mood, fatigue, self-efficacy, and other psychological variables, by responding to a text message with a link to a REDCap form on their smartphones. The survey also asked about situational variables that might interfere with self-care, such as travel, substance use, or medication side effects. Associations between PA and daily behaviors, psychological states, or situational variables were tested using within-person multilevel models. A time lag was used to predict each day’s PA behaviors from PLWH’s everyday experiences on the previous day.

**Results:** PA varied dramatically between and within persons. PLWH had more steps per day when they had less fatigue,  $r = .48$ , higher sleep efficiency ( $r = .10$ ), and uninterrupted sleep ( $r = .24$ ). Steps were related to less stress based on higher HRV ( $r = .29$ ), higher self-efficacy to manage everyday tasks ( $r = .75$ ), fewer barriers to self-care ( $r = .57$ ), more social support ( $r = .17$ ), and active coping ( $r = .10$ ). Active minutes were related to only some of these, and was uniquely related to better mood ( $r = .17$ ) and less stigma ( $r = .34$ ).

**Implications:** PLWH’s daily PA was predicted by previous-day situational factors, experiences, and behaviors. This included some variables measured using sensors that were outside of PLWH’s conscious awareness, such as HRV. PA was more strongly related to subjective fatigue than to sensor-based measures of sleep quality. Daily mood and stigma experiences predicted higher-intensity PA only. Nurses can potentially support PLWH’s activity by addressing daily stress and coping, social support, stigma, or mood. Findings show the importance of everyday experiences and behaviors in understanding PLWH’s daily level of activity or inactivity, as suggested by Two Minds Theory.

**Funding:** Supported by intramural funding from the CU College of Nursing Biobehavioral Area of Excellence, with additional infrastructure support from the Colorado Clinical and Translational Science Institute, NIH grant #M01RR00051



# KIDS' LIVES MATTER: PEDIATRIC CHRONIC CONDITIONS

## Spirituality Moderating Role on Quality of Life among Adolescents with Spina Bifida

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*Asma Taha, PhD, RN, CPNP, CNS, CCRN, School of Nursing, Oregon Health & Science University, Portland, OR; Aaron Eisen, BS, SON, OHSU, Portland, OR; Hana Abdul-Rahman, IB, SON, OHSU, Portland, OR; Sharon L. Norman, DNP, RN, CNS, CCRN, School of Nursing, Oregon Health & Science University, Portland, OR*

**Aim:** To investigate the impact of spirituality on symptom distress/severity, depression and quality of life for adolescents diagnosed with spina bifida.

**Background:** Spirituality may play a significant role in reducing depression and improving the quality of life of adolescents living with spina bifida. However, there is no research on how spirituality affects the quality of life of these patients while considering physical and psychological constructs.

**Design:** Exploratory, cross-sectional design

**Methods:** Fifty-eight adolescents with spina bifida in southern California were recruited during routine visits to a clinic at a healthcare university from January 2016- 2017. Each teen completed a series of self-report items, including the System of Belief Inventory, Somatic Symptom Scale, Patient Health Questionnaire, and Pediatric Quality of Life Inventory. Path analysis was performed to examine regression coefficients for each direct and indirect effect.

**Results:** Teens with spina bifida who had greater levels of symptom distress experienced significantly higher levels of depression ( $B = 0.486, p < .0001$ ); teens with higher levels of depression experienced significantly lower quality of life ( $B = -2.081, p < .0001$ ). Higher levels of spirituality moderated the relationship between depression and quality of life ( $B = 0.052, p = .018$ ). Spirituality was higher for those who had greater symptom severity; including shunt status Welch's  $F(1, 53.689) = 4.174, p = .046$ , level of lesion  $F(2,51) = 3.613, p < .034$ , and ambulation status  $F(3, 57) = 2.920, p = .042$ .

**Conclusion:** Depression fully mediates the relationship between symptom distress and quality of life for teens with spina bifida. Contrary to our expectations, the interaction between spirituality and depression showed that teens with greater levels of spirituality had a lower quality of life.

**Impact:** This study examined the impact of spirituality on quality of life in teens with spina bifida, who were experiencing different levels of depression and symptom distress/severity. Spirituality had some moderating effects; however, depression appears to overshadow any positive effect once the depression reaches higher levels. Accordingly, healthcare professionals need to be actively screening for depression when assessing these teens and their physical symptoms/distress levels.

**Funding:** Naomi Ballard Nursing Research Award Beta Psi Chapter: Oregon Health & Science University Iota Sigma Chapter: Azusa Pacific University Sigma Theta tau International

## MATERNAL HEALTH A TO Z

### Do Leucine Infusions Effect Insulin Secretion in Intrauterine Growth Restriction?

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*Kyleigh Rees, AD, University of Colorado College of Nursing, Aurora, CO*

**Background:** Amino acids are essential for normal fetal growth and development. Intrauterine growth restriction (IUGR)—a multifactorial pregnancy complication—results in impaired placental nutrient delivery (e.g., branch chain amino acids [BCAA]) to the fetus. IUGR fetuses will quickly adapt to nutrient scarcity and maximize uptake and utilization of available nutrients, but while this adaptation may permit the fetus to reach full gestation, it can impair organ function (e.g., pancreatic function) later in life, giving rise to complications such as insulin resistance and type 2 diabetes. The nutrient most responsible for impaired pancreatic development in IUGR is unknown, but Leucine, an essential BCAA, plays a critical role in insulin secretion; therefore, increasing availability of Leucine in the IUGR fetal environment may mitigate postpartum impairment of pancreatic function. In a previous study, Leucine infusions in normal fetuses had caused an increase in insulin mRNA. In our study, we explored whether the same results would be obtained for IUGR. We used sheep to model human placental insufficiency and IUGR because of similarities to human pregnancies with respect to placental function, fetal nutrient metabolism, and pancreatic development.

**Purpose:** To assess, via randomized controlled trial, whether a chronic fetal Leucine infusion during a pregnancy complicated by placental insufficiency would stimulate greater fetal pancreatic insulin concentrations in IUGR sheep.

**Methods:** The study was conducted in pregnant Columbian Rambouillet ewes carrying singleton or twin fetuses, in compliance with the Institutional Animal Care and Use Committee and the National Institutes of Health. Seventeen ewes were randomly assigned to receive saline (control) or Leucine infusion. The infusions began at day 125 of gestation and ran for 7-10 days to achieve an increase of 50-100% in fetal plasma Leucine concentrations. After the experimental infusions, pancreatic tissue samples were collected, RNA extracted from the hepatic portion of the pancreas, and via reverse transcription, complementary DNA (cDNA) produced. The cDNA was subject to real-time polymerase chain reaction (PCR) to measure insulin mRNA concentrations. Results for insulin mRNA were normalized to the geometric mean of several reference genes that had no cross-group differences. Enzyme-linked immunosorbent assay (ELISA) was conducted to measure plasma insulin concentrations.

**Results:** At the completion of the infusions, experimental group Leucine concentrations were almost double those of the control group ( $p < 0.05$ ). However, fetal glucose, insulin, and glucose-stimulated insulin secretion was the same in both groups. Similarly, pancreatic insulin mRNA was similar between groups.

**Implications:** Leucine infusions in IUGR sheep did not increase pancreatic insulin production. Our research indicates that, among pregnancies complicated by placental insufficiency with respect to insulin secretion/production, either Leucine is not the key deficient nutrient or other factors may be inhibiting Leucine's predicted effects. Further research will test Leucine infusions earlier in gestation and alternative nutrients such as Isoleucine or Arginine for their impact on pancreatic insulin secretion. While the data did not support our hypothesis, the findings remain important in understanding pancreatic development during growth restriction *in vivo*.

## NOVELTIES IN NURSING EDUCATION

### OHSU Educational Use Photo Diversity Repository: Increasing Diverse Representation

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*Linda Felver, PhD, RN, Oregon Health & Science University, Portland, OR; Pamela Pierce, MLS, MS, OHSU Library, Oregon Health & Science University, Portland, OR*

**Purpose:** A university Educational Use Photo Diversity Repository was created to meet the need for teachers of nursing and other health professions students to help their students visualize pathophysiological conditions in diverse people, including those with skin of various colors.

**Background:** Photographs used in teaching convey unspoken messages about values. Professional photograph banks often lack diversity of skin color, age, ethnicity, socioeconomic status, gender identity and expression, and visible disability. These available photographs, commonly used in teaching, do not represent the diversity of nursing students or the diversity of patients and clients they see as nurses. Faculty at the university identified two major barriers to using diverse photographs in teaching: 1) lack of access to diverse photographs and 2) lack of time for extensive searching for them.

**Process:** Collaboration between the authors created the Educational Use Photo Diversity Repository, a digital repository available to all faculty at the university for use in teaching. The project built on the university library's Digital Asset Management System, a central and secure repository for photographs taken by the university community. The Photo Diversity Repository was conceived as a separate collection, within that system, to contain diverse digital images for educational use. Phase One laid the foundation for the Repository by developing standards and procedures to manage legal, ethical, technical, and logistical aspects of the Photo Diversity Repository.

**Outcomes Achieved:** Phase One of the university Educational Use Photo Diversity Repository project is complete. Phase One included these aspects: **Legal:** Development of waiver form with approval by Legal Counsel. **Ethical:** Determination as "not human research" by the Institutional Review Board; approval of processes for security of protected health information. **Technical and Logistical:** Choice of a controlled vocabulary to describe photographs; recruitment of an Image Advisory Group from university faculty; developing and piloting technical procedures for members of the university community to take and submit photographs efficiently and securely; establishing support from student and faculty groups across campus; and launching an informational section on the university library website. Completion of Phase One laid the foundation for Phase Two, which involves active acquisition and processing of appropriate photographs into the university Educational Use Photo Diversity Repository.

**Conclusions:** Phase One of the university Educational Use Photo Diversity Repository project provides a framework that others can use at their institutions to create access to diverse photographs that faculty can use in teaching. The authors recommend that others implement procedures to make diverse photographs available for use in teaching, in order to represent more equitably our diverse nursing students and their patients and clients.

**Funding:** Developed resources reported in this abstract are supported by the National Library of Medicine (NLM), National Institutes of Health (NIH) under cooperative agreement number UG4LM012343 with University of Washington. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

# NOVELTIES IN NURSING EDUCATION

## Concept-Based Learning in Undergraduate Capstone Experiences: Two Clinical Settings

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**Purpose:** This presentation will describe how Concept-Based Learning Activities (CBLAs), a clinical teaching-learning strategy, are used to support in-depth, intentional student learning in the capstone clinical experience in acute care settings in a pre-licensure program and in the community in an on-line RN to BS program.

**Background:** Nursing practice is increasingly expanding to community settings, with focus on population health (Gorsky, Polanski, & Swider, 2019), while promoting safe practice within acute care settings remains an imperative (Kavanagh & Szweda, 2017). In senior level capstone clinical experiences, students develop increased competence and independence in nursing practice, as they focus on aspects of care that are fundamental to nursing practice in a given setting (Nielsen, Noone, Voss, & Mathews, 2013). While student learning needs vary by the clinical setting, safe, effective practice is required in all environments.

Concept-based learning activities (CBLAs) integrate theory with practice and promote development of clinical judgment (Nielsen et al., 2013). CBLAs direct students to notice salient aspects of a situation in order to build pattern recognition related the concept and an experience base for practice (Nielsen, 2016). This presentation will describe how CBLAs are used in two distinct programs of study.

**Approach:** With the goal of orienting students to key aspects of nursing care for pediatric and neonatal specialty patient populations in acute placements, CBLAs are embedded in capstone experiences to teach key physiologic concepts- *Fluid & Electrolyte Balance, Oxygen/Carbon Dioxide Exchange, Nutrition, Pain Management and Growth and Development*. Study guides, framed by the Tanner (2006) Clinical Judgment Model, prompt learners to consider background factors, noticing, interpreting, responding, and reflecting in caring for a specific patient. Structured group debriefing focuses on salient aspects of patient situations and comparing and contrasting findings among students' experiences. Students apply learning from CBLAs to subsequent patient care experiences.

With the goal of addressing programmatic and curricular challenges related to clinical education in an RN to BS program, CBLAs are used in the community as the framework for comprehensive clinical learning. Key concepts are *Health Inequities, Care Coordination and Transition Management, Trauma Informed Nursing Practice and Organizational Development, Emergency Preparedness and Disaster Management*. Because the four CBLAs frame the majority of clinical learning, multiple assignments are included depending on the concept.

**Outcomes:** In acute settings, students report significant learning through focus on one concept in-depth; learning is enhanced in debriefing discussion. Drawbacks include the time required for completion and less time to focus on general discussion of patient care in post-conferences. Faculty observe increased conceptual knowledge that supports clinical judgment development.

In community settings, students appreciate the flexibility of schedule, variety of topics, ability to customize learning, opportunities to practice leadership while improving their confidence and expanding their clinical practice. Drawbacks include time management issues and accessing required experiences. Faculty observe student engagement, high quality work, and strong independent learning.

**Implications:** Concept-based learning effectively supports specialty practice in acute care and community settings. CBLAs can be used innovatively to meet specific curricular and programmatic needs to optimally prepare students for nursing practice.

# OPIOIDS AND BEYOND: ALTERNATIVE PAIN METHODS

## Guidelines for Treating Muscle Spasms with Medicinal Cannabis: A Modified Delphi Study

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*Therry Rose Eparwa, DNP, MSN, BSN, RN, FNP-BC, College of Nursing, Seattle University, Seattle, WA*

**Purpose:** To generate guidelines for the use of medicinal cannabis in treating muscle spasticity.

**Background:** Muscle spasms are found in conditions such as multiple sclerosis, cerebral palsy, amyotrophic lateral sclerosis, various brain and spinal injuries, and other spasticity disorders. Medicinal cannabis is available as a treatment for most adults with muscle spasticity that is unrelieved by standard therapies and medications. However, there are no current standards or guidelines for the use of medicinal cannabis in treating muscle spasticity. Little is known about its clinical efficacy, untoward effects, and best doses and routes of administration. Medicinal cannabis legal in 33 states. Healthcare professionals need more knowledge related to the efficacy of medicinal cannabis in treating muscle spasticity. This knowledge enhances patient safety, comfort, and their ability to perform activities of daily living. Better education augments opportunities for patients and healthcare providers to engage in conversations about cannabis as a complementary, integrative or alternative treatment option.

**Methods:** A modified Delphi technique surveyed 12 experts in the field of medicinal cannabis in two rounds.

**Results:** Panelists were in agreement that there is sufficient evidence to warrant the use of cannabis to treat muscle spasticity. There was consensus that medicinal cannabis is an important complementary, integrative, or alternative therapy. Based on available evidence and its empirical use, panelists noted there is high efficacy of muscle spasm relief in 11 medical conditions. There is a strong preference to utilize cannabis medicinal extracts instead of synthetic cannabinoids for treatment, which should include the cannabinoids  $\Delta^9$ -tetrahydrocannabinol (THC) and cannabidiol (CBD). The preferred methods of administration that panelists recommend to patients are: (1) sublingual; (2) inhaled (vaporizing instead of smoking); and (3) ingested. Panelists recommended a starting ingested dose of 5-10 mg of THC with the same or lower amount of CBD with a dosing frequency of 2-3 times a day. A noted caveat is that medicinal cannabis dosing will be dependent on the patient's experience with cannabis, medical condition, and the severity of muscle spasms. With the titration of medicinal cannabis, the majority of panelists recommend that it is healthcare provider-directed rather than patient-directed. There was a repeated theme to "start low and go slow" with the treatment dose and titration, regardless of method of administration. Based on clinical observations or patient reports, the most frequent types of untoward effects were: (1) increased appetite and/or eating; (2) dry mouth; (3) sedation; (4) impaired memory; (5) anxiety; and (6) paranoia. The panelists rated the severity of the untoward effects. Based on a 1-10 scale (1 = mild, 10 = severe), severity ratings of 4-6/10 are considered moderate while 7-10/10 are considered severe. The top untoward effects with at least an average severity rating of moderate are: (1) cannabinoid hyperemesis syndrome; (2) dry mouth; and (3) paranoia. Cannabinoid hyperemesis syndrome and paranoia received at least one ranking from a panelist that the symptoms were severe and rated 8/10.

**Implications:** These study findings will offer not only a clinical-decision support resource but also a patient education resource.

# OPIOIDS AND BEYOND: ALTERNATIVE PAIN METHODS

Exploring Associations between Abuse History, Opioid Use Disorder, and Chronic Pain

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*Linda Driscoll Powers, BSN Honors Program Student, College of Nursing, University of Colorado Anschutz Medical Campus, Aurora, CO*

**Purpose:** The purpose of this study is to investigate history of lifetime sexual, physical, and/or emotional abuse among participants in a medication assisted treatment (MAT) program for opioid use disorder (OUD), and to investigate associations between abuse history and chronic pain among participants with OUD.

**Background:** Opioid use disorder (OUD) is a public health crisis that affects a wide range of demographics and is challenging to treat. OUD is highly stigmatized, both socially and among healthcare providers. Negative stereotypes are counter-therapeutic in healthcare settings, resulting in missed opportunities for non-pharmacological interventions. Informed by previous research showing correlations between OUD, lifetime history of abuse/trauma and chronic pain, we predicted that many participants in a MAT program for OUD would report a lifetime history of abuse.

**Methods:** This is a secondary analysis of intake data from SB-74, the Pilot Medication Assisted Treatment (MAT) Program, which was a 2-year, non-experimental cohort study. The Pilot MAT program was designed to increase access to MAT services in rural areas and expand the MAT workforce to treat OUD in Colorado. De-identified data was provided by 476 adult MAT patients between September 2018 and August 2019. Data were collected during the participants' intake process using the Adult Addiction Severity Index (ASI-6) screening tool, administered by trained clinicians. The ASI-6 rates addiction severity in seven areas: medical status, employment/support status, drug/alcohol use, legal status, family history, family/social relationships, and psychiatric status. Data for this research was taken from the family history scale, which includes three yes/no questions about history of abuse, specific to emotional (harsh words), physical (physical harm), and sexual (forced sexual advances or sexual acts). Secondary data analysis included descriptive statistics, chi squares, and t-tests.

**Results:** Among participants, 23% reported lifetime sexual abuse, 43% reported lifetime physical abuse, and 58% reported lifetime emotional abuse. Results of chi-square showed that a history of physical abuse was significantly associated with having a chronic pain diagnosis,  $\chi^2 = 4.49$ ,  $p = .03$ . Pain scores were higher for participants with a history of abuse than those without that history  $t(460) = 2.71$ ,  $p = .007$ .

**Implications:** History of physical abuse is associated with OUD and chronic pain, yet standard pain assessments do not assess for these factors. Bedside nurses rarely assess for history of abuse/trauma in populations presenting with OUD (with or without co-morbid conditions). In healthcare settings, the implementation of standardized trauma-informed screening tools, prompt recognition of abuse/trauma-associated OUD, and provider-facilitated access to adjunct psychological interventions (education, psychotherapy, EMDR, etc.) may reduce stigma, reduce opioid use escalation, and/or help patients overcome OUD. In the second phase of the parent study, program intake data has been expanded to include a 20-item trauma- and resilience-informed screening tool designed to assess adverse childhood experiences (ACEs) along with resiliency factors among participants. Data will be used to improve treatment for abuse/trauma, OUD, and chronic pain, with special consideration of gender differences and resiliency factors that may contribute to strength-based treatment interventions.

**Funding:** This is a secondary analysis of data from SB-74, funded by the Colorado State Legislature, with additional infrastructure support from the Colorado Clinical and Translational Science Institute, NIH grant #M01RR00051.

## SELECTED TOPICS: 2020

### Qualitative Rigor in Applied Research for Technology Development

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*Shandeigh N. Berry, PhD(c), RN, CNOR, College of Nursing, Washington State University, Spokane, WA; Jennifer Thomas, MSN, RN, Nursing, Washington State University, Spokane; Roschelle Fritz, PhD, RN, Nursing, Washington State University, Vancouver, WA*

**Purpose/Aim:** To evaluate rigor in an interdisciplinary applied research space between nursing and computer science where health-assistive artificial intelligence (AI) algorithms are developed.

**Background:** There are a growing number of older adults and innovative solutions, including health assistive smart technologies, are being developed by interdisciplinary applied scientists to support aging in place. Nurses provide unique insight into health and situational real-world context of sensor-based big data that represent individuals' responses to chronic illnesses using large amounts of data that are derived from sensors (motion, door use, light, temperature and more) placed on the walls and ceilings of an existing home. Little is known about how to maintain rigorous analytic methods in the space between computer-driven data science methods and nursing interpretations of that data, which are needed to train AI algorithms to recognize health events (e.g., a fall).

**Methods:** A qualitative analytic team of three nurses individually analyzed 15 cases where older adult smart home residents experienced a health event (a clinically relevant change in health state caused by an exacerbation of a chronic condition) while living in a smart home. Cases were chosen using theoretical sampling. An emphasis was placed on including varied human subjects (demographics), varied diagnoses and events, as well as simple and complex cases containing broad algorithm development implications. Transcripts included large amounts of text-based sensor data (e.g., 2019-05-27 00:31:25.47 Bedroom-ABed ON) derived from motion, door use, light, temperature, and humidity sensors. Other data informing analysis were semi-structured written-text from nursing telehealth interviews capturing participant descriptions of the health event. Cases were individually analyzed in sets of five and then a qualitative circle was convened where individual findings were discussed and compared. Three qualitative analytic circles were convened in total. Consensus was determined to have been reached when all analytic team members identified similar beginning and ending event time-stamps in the sensor-data transcript.

**Results:** Consensus was achieved for 14/15 events. Discrepant findings were discovered for one event (a complex case of loneliness) and only partial consensus was achieved. Overall, the process used to assign clinical meaning (context) to sensor-based data was determined to be rigorous because in 14/15 cases all three nurses chose the same data segments to represent the health event.

**Implications:** Smart technologies will increasingly be used by nurses in patient care. Clinically functional AI is needed to enhance care without introducing harm. Nurse researchers bring critical knowledge to the AI development process. Knowledge development of rigorous analytic processes exemplify how qualitative traditions of rigor can inform future inter-disciplinary, inter-methodological research.

**Funding:** R01NR016732; Touchmark Foundation; Washington State University Linblad Family Scholarship

## SELECTED TOPICS: 2020

### Simulating International Service-Learning Prior to Travel: A Pilot Study

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*Stephanie J. Matthew, MSN, FNP-C, RN, CNE, Nursing, George Fox University, Newberg, OR;*  
*Elizabeth A. Yarbrough, MSN, RN, George Fox University, Newberg, OR*

**Purposes/Aims:** To share about a pilot study of using simulation in preparing for a healthcare-focused international service-learning experience.

**Rationale/Background:** Nursing professors who lead annual service-learning trips internationally wanted to better prepare students for these experiences and to develop a useful team-building activity prior to travel. They piloted a simulation experience in fall 2018 for a team traveling to Kenya in June 2019. The simulation objectives were:

- To reduce student anxiety about what they may be doing on healthcare service trips.
- To learn to set up a clinic in any setting (and to build teamwork skills in the process).
- To begin understanding the complicated situation of triaging the order to see patients.
- To experience performing a focused assessment on patients without the aid of technology.
- To practice interviewing and giving patient education through an interpreter.

**Undertaking/Best Practice/Approach/Methods/Process:** A simulation experience was developed with multiple patient actors (several had traveled on similar trips to Kenya in prior years) each having a different diagnosis script to follow and often speaking a language other than English. The participants were students planning to attend an upcoming international service-learning trip, and they functioned as nurses assisting the physician actor to triage and assess the patients. Participants were also expected to provide patient education through using interpreters, as they often will do in an international setting. In the framework of constructivist learning, the participants were encouraged to organize their simulated clinic without much input from the professors who were observing. Participants filled out a survey before and after the experience, including rating their anxiety level about the trip, and participated in a debrief session immediately after the experience.

**Outcomes Achieved/Documented:** The participants shared their thoughts of feeling overwhelmed during the simulation, but that they were grateful for the experience of navigating some of those emotional responses before the real trip. The team got to know each other and natural team leaders emerged during the interactions. The patients in the scenario gave encouragements and tips to the future trip members. In the pre- and post-simulation survey, the average anxiety score actually increased in the post-survey, possibly showing that the participants now had a more accurate expectation related to the intensity of this experience and were no longer dangerously overconfident.

**Conclusions:** Simulation can be a helpful preparation for service-learning. In future iterations, the researchers would like to discuss the simulation with the students during and after the international trip and to continue refining what would be helpful simulation scenarios. The nursing professors collaborated with an education professor in this endeavor and would highly encourage more of this type of collaboration in the future of nursing education. Upon request, the presenters will share their preparation outlines with attendees to create their own simulation in the future.



# WORK-LIFE BALANCE

## Exploring a Role Overload Instrument for Nurse Leaders

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*Jennifer Mensik Kennedy, PhD, RN, NEA-BC, FAAN, Oregon Health & Science University, Eugene, OR*

The purpose of this study was to complete an exploratory factor analysis of the Role Overload instrument in nurse leaders and managers.

With a global nursing leader shortage projected by the end of this decade (Sherman, et al 2013), there is a need for the next generation of qualified, committed, and motivated nurses to assume leadership roles. Udod and Cummings have noted that of replacing a nurse manager (NM) is estimated to be 4-5 times higher than what hospitals normally calculate due to aging demographics and younger nurses who view the NM role as a demanding and unattractive option professionally (2017). Research suggests that work life balance is what generation Y value most in a work environment (Jamieson, et al, 2013). Concerns for workers include the notion of the “spillover effect” of work which occurs when one domain such as work, has an impact on another, such as family life (Jamieson, et al, 2013).

The Role Overload instrument (Duxbury, Stevenson, & Higgins, 2018) was developed and tested in Canada on government employees. This instrument has 3 subscales: work role overload, family role overload, and perceived stress in a multirole environment. Results showed adequate discriminate and convergent validity, and individual item reliability Cronbach’s alphas between .88-.93, internal consistency between .91-.93, and AVE between .62 and .65 for all 3 subscales (Duxbury, Stevenson, and Higgins).

All nurse leaders, managers, assistant nurse managers, directors at one 560 bed academic medical center were asked to complete the Role Overload instrument as part of a larger study. Nurse leaders had 2 weeks to complete survey. Exploratory factor analysis was completed with SPSS 25.0. IRB approval was obtained from the institution.

Seventy-one nurse leaders completed survey. The average age was 43.96 (SD 9.81) with a 18.74 years (SD 10.25) experience as an RN. The RN leaders averaged 7.57 (SD 8.31) years of nursing leadership experience with an average of 48 (SD 86.09) direct reports. Education level was high, with no ADN/Diploma, 26.8% BSN, 66.2% Masters, and 7% doctorate prepared. Roles included specialty practice roles (21.2%), assistant nurse managers (29.6%), Nurse manager (31%), director (11.3%), ACNO or higher 5.6%.

An exploratory factor analysis was completed since the population was different from original survey. Principal components extraction with direct Oblimin rotation was used, with three fixed factors. Results demonstrated that each of the questions loaded to the same factor as found in the original study. Factor loadings varied: Work role overload (.58-.92), family role overload (.77-.90), and perceived stress (.62-.95). Cronbach’s alpha ranged from good to excellent for each of the sub-scales (.89, .93, and .89 respectively).

Nurse leaders and manager play a pivotal role in our health care system and require interventions that will assist in decreasing turnover and burnout. This study provides initial data for a valid and reliable instrument to measure role overload. Further research is needed in a large, diverse sample to further determine generalizability as well as future interventions needed to decrease perceived role overload.

# WORK-LIFE BALANCE

## Compassion Fatigue, Presenteeism, and Resilience among Graduate Nursing Students

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*Jessica G. Rainbow, PhD, RN, College of Nursing, University of Arizona, Tucson, AZ;*

*Lindsay Bouchard, DNP, PMHNP-BC, RN, Nursing, University of Arizona, Tucson, AZ;*

*Claire Bethel, MSN, RN-BC, College of Nursing, University of Arizona, Tucson, AZ;*

*Wanda Larson, PhD, M.Ed, RN, CPEN, CEN, Nursing, University of Arizona, Tucson, AZ*

**Aims:** The specific aims of this project were to explore levels of resilience, compassion fatigue, and presenteeism among Doctor of Nursing Practice (DNP) and Masters' Entry to the Profession of Nursing students (MEPN).

**Background:** Nurses have been found to have high rates of presenteeism, presence at work when not fully engaged, and compassion fatigue due to job demands. Compassion fatigue is commonly conceptualized as the combined negative effects of professional burnout and secondary traumatic stress. Both compassion fatigue and presenteeism have been linked to negative outcomes for patient care. Research identifies that resiliency skills support problem-focused coping in times of stress and may decrease presenteeism and compassion fatigue. Practicing nurses have also been found to have poor coping strategies and low resilience, which have been linked to poor health. Advanced and accelerated degree nursing students have prior educational and work experiences that have the potential to impact their levels of presenteeism, compassion fatigue and resilience. These phenomena could inhibit or augment their academic performance in these challenging programs. We currently do not know the levels of presenteeism, compassion fatigue and resilience among advanced and accelerated degree nursing students.

**Methods:** Three groups of students completed a survey of demographic items and reliable and valid measures of presenteeism, compassion fatigue and resilience. Presenteeism was measured using the Job-stress-related Presenteeism Scale (possible score range 6-36) and WHO Health and Work Performance Questionnaire (possible score range 0-100). Compassion fatigue was measured using the Professional Quality of Life Measure that includes subscales on burnout, secondary trauma, and compassion satisfaction (possible score range 10-50 for each subscale). Resilience was measured using the Response to Stressful Events Scale (possible score range 0-88). Students groups surveyed from one university included incoming DNP students (n=80), incoming MEPN students (n=100) and current DNP students prior to starting clinical coursework (n=14). Descriptive analysis of survey data was completed.

**Results:** Incoming DNP students reported mean resilience levels of 18.7 (sd=18.5), burnout levels of 21.0 (sd=5.8), secondary trauma of 21.8 (sd=5.9), job-stress-related presenteeism of 12.1 (sd = 4.5) and absolute presenteeism of 81.1 (sd=10.9). Incoming MEPN students reported mean resilience levels of 64.6 (sd=13.2), burnout levels of 21.6 (sd=4.8), secondary trauma of 21.6 (sd=5.5), job-stress-related presenteeism of 22.1 (sd = 4.0) and absolute presenteeism of 89.8 (sd=13.6). DNP students about to start clinical courses reported mean resilience levels of 63.8 (sd=18.9), burnout levels of 25.0 (sd=4.3), secondary trauma of 26.4 (sd=7.1), job-stress-related presenteeism of 19.6 (sd = 4.8) and absolute presenteeism of 71.4 (sd=14.1).

**Implications:** The low levels of resilience among incoming DNP students in particular should be concerning, as doctoral programs are stressful. Students across programs were close to the thresholds for burnout, secondary trauma, and presenteeism. Programs to intentionally build student resilience are needed for students to be successful in graduate nursing programs and as they transition into a new professional role. These programs may also positively impact the quality of their patient care and professional quality of life during their nursing careers.

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## **ABSTRACTS OF POSTER PRESENTATIONS**

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## THURSDAY PEER-REVIEWED POSTER SESSION

### OPACT: Curriculum Design and Concept Selection for Primary Care

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*Ann Nielsen, PhD, RN, School of Nursing, Oregon Health & Science University, Portland, OR;*  
*Belinda Brooks, MN, RN, CCCTM, La Grande Campus, OHSU School of Nursing, La Grande, OR*

**Purpose:** The Oregon Primary Care Transformation (OPACT) project will expand the primary care nursing workforce in Oregon. One aim of the project is to develop an undergraduate curriculum model that integrates and supports understanding of the nursing role in community-based primary care. This presentation will describe identification and development of key concepts in the curriculum and first year evaluation data.

**Background:** As costs and demands on the system increase, the focus of healthcare is shifting to proactive prevention approaches, resulting in expanded opportunities for nursing outside acute care (Smolowitz et al, 2015). Development of the nursing role in community settings with focus on upstream preventative measures, health promotion, chronic disease management, and population health is recommended (Fraher, Spetz, & Naylor, 2015; Storfjell, Winslow, & Saunders, 2018). The Oregon Primary Care Transformation (OPACT) project places students in rural and urban primary care clinics in order for them to gain experience with the nursing role and learn key concepts involved in full scope nursing practice in these settings. Concept-based learning in clinical settings is known to facilitate integration of theory with practice and development of clinical judgment for key aspects of nursing through deliberate study of a specific concept (Nielsen, 2016).

**Methods:** A concept-based approach was used to frame the curriculum and to design learning activities for key aspects of full scope nursing practice in primary care clinics. Concepts were selected through a process of literature review. Resources from the American Academy of Ambulatory Care Nurses (AAACN) informed concept selection. Primary care concepts were cross-walked with the Oregon Consortium for Nursing Education competencies and curriculum to integrate student learning in OPACT with previous and concurrent course learning. Concept-based Learning Activities (CBLAs) were then designed to prepare and guide students through examination of how identified concepts appear in ambulatory care settings (Nielsen, 2016). In clinical study using CBLAs, students do background preparation, then complete a study guide that focuses on salient aspects of each concept as it presents in the assigned clinic setting. Topical seminars facilitated by a faculty expert allow for in-depth discussion of the concept, including identification of key features, best practices, comparing and contrasting of student experiences, and critique of nursing practice.

**Results:** Concepts chosen include team-based care, chronic condition management support, care coordination, health equity, population-based care, safety, and quality. In the first year of the project, students in Population Health, Leadership, and the Senior Practicum (capstone) courses were placed in clinics. Concepts were matched with courses based on course content and outcomes. Seminars were designed to discuss specific concepts, as well as the experience of primary care nursing. In early data, 73%-90% of students reported an increase in understanding population health and health equity concepts respectively. Qualitative data suggested that student learned to define, differentiate, and operationalize the concepts studied.

**Implications:** Concept-based learning effectively supports specialty learning in primary care settings. Outcomes data will inform curriculum modifications going forward with the goal of better preparing students to practice in primary care.

**Funding:** This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under UK1HP31735, Nursing Education, Practice, Quality, and Retention – Registered Nurses in Primary Care Program.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Academic Practice Partnerships: Guiding Innovation in Interprofessional Education

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*Janet M. Banks, RN, DNP, School of Nursing, University of Portland, Portland, OR*

**Purpose:** Nearly two decades of research on reducing medical errors reveals communication failures continue to drive high error rates. This project aimed to establish an interprofessional dedicated education unit (IPDEU) with a Health System partner to provide collaborative learning opportunities.

**Background:** Despite 17 years of revising and addressing emerging patient safety concerns, “improve staff communication” remains a priority every year in the revised National Patient Safety Goals. Currently, communication issues still represent up to 80% of errors and sentinel events in hospitals accredited by the Joint Commission. Interprofessional educational (IPE) opportunities must be developed to create communication-focused learning between health care providers during their training programs.

IPE is an effective approach to overcoming communication barriers between provider specialties. The World Health Organization (WHO) defines IPE as “students from two or more professions learning with, from, and about each other to enable effective collaboration and improve health outcomes” (WHO, 2010; p13). IPE is considered essential when preparing future healthcare teams to improve patient and population health outcomes.

**Description:** Interprofessional Education and the Practice Partner: Our Origin Story

The IPDEU notion originated with two nurse leaders who wanted interprofessional learning but lacked an Academic Medical Center. The practice partner understood the benefit of IPE in mitigating communication errors. The academic partner had expertise with Dedicated Education Units (DEU). The IPDEU included a high-performing unit at a health system hospital and students from nursing, social work, therapies, pharmacy and medicine.

A Pilot Implementation of an Interprofessional Dedicated Education Unit

The high-performing unit in the health system selected nurse experts, worked with the DEU expert’s School of Nursing, trained nurses as Clinical Instructors, and launched the DEU in spring 2017. New cohorts of nursing and social work students arrive fall 2017. The unit piloted the educational intervention with two health profession’s students. The experience of all involved was positive and served to inform future iterations of the IPE, and ultimately the IPDEU.

Interprofessional Education Insights through Academic Practice Partnerships

Expansion of the IPDEU to all interdisciplinary profession’s students required team collaboration with nursing, social work, pharmacy, medicine, and therapies. Focus groups with each discipline individually were held. Thematic analysis was used to identify themes within interprofessional learning, communication competence, and moral distress. Qualitative findings from these focus groups informed the refinement of the IPDEU educational intervention.

**Assessment of Findings:** Results from the IPDEU pilot demonstrated enhanced cohesiveness, communication, and collaboration among disciplines. Students report valuing face to face time with other disciplines as they learn their role within the team. Clinicians engaged in focus groups expressed a need for students to engage in and debrief interprofessional and communication best practices. Participants outlined strategies to achieve this important goal, identifying interdisciplinary teamwork as an important method to mitigate moral distress experienced by all health profession’s students.

**Conclusions:** The IPDEU is a feasible, desired means of creating space for IPE. Achievement requires concerted, interprofessional efforts. Learning strategies must consider the unique workflows of disciplines to create opportunities to gather health profession students for educational interventions.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Innovation in Interprofessional Education: Creating the Interprofessional DEU

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**Casey R. Shillam**, PhD, RN, School of Nursing, University of Portland, Portland, OR; **Kelly Espinoza**, PhD, RN, Legacy Salmon Creek Medical Center, Legacy Health, Vancouver, WA

**Background:** After nearly two decades of research, communication failures continue to drive high rates of medical errors. Interprofessional education (IPE) is verified as an effective approach to overcoming communication barriers between provider specialties. Despite multiple documented benefits to IPE, barriers include complexity in scheduling learning opportunities, limited financial resources in academic institutions, rigid and structured curricula, different assessment requirements, high workload, and lack of perceived value. With this myriad of barriers, there is a prime opportunity for healthcare organizations to take the lead in providing IPE opportunities within care settings outside of academic health institutions.

**Purpose:** Based on long-standing success of the Dedicated Education Unit (DEU) model of nursing clinical education, the purpose of this project was to expand this model to develop an Interprofessional Dedicated Education Unit (IPDEU). The goal was to enhance communication among health professions students and ultimately improve patient outcomes. The specific aim was to develop an interprofessional education intervention driven by the health system through collaboration with multiple academic partners in nursing, social work, therapy, pharmacy and medicine to improve interprofessional partnership as students transition into practice.

**Concept Innovation:** This innovative project will transform healthcare delivery by fostering a fundamental change in care practices. Innovation is defined as providing new or altered products that create or enhance new value. The IPDEU is a reimagining of the DEU with an IPE focus specifically on enhancing the most challenging aspect of interprofessional practice: *communication*.

**Description of Methodology:** This project aimed to create an interprofessional cadre of health professions students in the first-ever IPDEU outside of an academic health institution. Project team members identified a high-functioning medical-surgical unit and developed a standardized education intervention for students from a variety of health profession disciplines and from any school with students engaging in clinical learning in the hospital. Partnership between a unique health care organization whose culture is founded on interprofessional engagement, innovation, quality improvement and patient safety and a nursing school with national recognition as a leader in DEU clinical nursing education adapted the DEU model to engage all students from a wide variety of programs in all disciplines.

**Logic Linking the Concept to Nursing Practice Problem:** The IPDEU model challenges conventional clinical education by creating a collaborative, interdisciplinary care environment at the earliest stages of professional training. By training students in the art and science of interdisciplinary collaboration, the IPDEU model focus is to understand a clinical problem from multiple disciplines' perspectives and to incorporate these assessments into a cohesive plan of care. Stressing the importance of working across disciplines in search of clinical clarity, the IPDEU will reinforce with students the centrality of patients and their care goals.

**Conclusion:** By engaging interprofessional educators from nursing, social work, therapy, pharmacy and medicine, this project resulted in an effective learning environment to create interprofessional partnership. The long-term goal of this project is to replicate the model for health systems partnering with multiple academic partners to provide high-quality, evidence-based interprofessional education within the patient-care setting.

## THURSDAY PEER-REVIEWED POSTER SESSION

### A Pilot Implementation of an Interprofessional Dedicated Education Unit

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*Stephanie Meyer, MSN, RN, School of Nursing, University of Portland, Portland, OR; Colette Reilly, MSN, RN, Legacy Salmon Creek Medical Center, Vancouver, WA*

**Rationale/Background:** The University of Portland School of Nursing (UPSON) partnered with Legacy Salmon Creek Medical Center (LSCMC) to institute a Dedicated Education Unit (DEU) in the organization's medical specialties unit. The DEU exemplifies best practice in clinical education through intentional learning opportunities that supports deep learning for undergraduate nursing students, while the medical specialties unit exemplifies best practice in interprofessional care through high engagement and a passion for life long learning. In recognizing the synergy between these best practice approaches, and the existence of interdisciplinary students on the unit, the team decided to pilot an Interdisciplinary Dedicated Education Unit (IPDEU) with the nursing and social work students on the unit. Evidence shows that giving students opportunity to engage in interdisciplinary experiences in the field/in practice can build the habit for strong interdisciplinary work when they get into their own practice, ultimately leading to better patient outcomes.

**Purpose/Aims:** Through piloting this IPDEU, the team aimed to provide students with interprofessional opportunities in a clinical environment that role modeled best practices in both clinical education and interprofessional practice. In this IPDEU, we targeted learning activities that engaged students with other disciplines, allowed them to practice communication and teamwork, and exposed them to a wide range of interdisciplinary experiences. Students were provided with a foundation for working as an interdisciplinary team that included discussions on communication, leadership, and collaboration of disciplines in several forms.

**Undertaking/Best Practice/Approach/Methods/Process:** Over the course of the clinical rotation, nursing and social work students were brought together for orientation, weekly debriefing sessions and educational interventions. Initially students are brought in for orientation where they are oriented to several disciplines, hospital and department quality metrics, cultural expectations, and philosophy and expectations around precepting. Debriefing sessions allowed students to bring forward specific cases and discuss the care of the client from an interdisciplinary lens. Educational sessions included the following topics; IPDEU introduction and teamwork, communication and leadership, palliative care, spiritual care, de-escalation, health literacy, and crucial conversations. Education sessions were led by various disciplines throughout the organization, not only orienting students to these disciplines in a standardized format, but also promoting the development of vital interprofessional relationships.

**Assessment of Findings/Outcomes Achieved:** While data collection is ongoing, preliminary results demonstrate cohesiveness, improved communication, and increased collaboration. At the completion of the rotation, Students have shared an increase in feelings of collaboration with other disciplines as well as a better understanding of roles within the organization. Students have also reported the importance of the face to face time with other disciplines.

**Conclusions:** Due to the success of this pilot, the team has expanded engagement to include pharmacy, medicine, respiratory therapy, and rehabilitation services with a goal of evolving these collaborative sessions. Data collection is ongoing and will continue to inform necessary improvements and growth. The impact of these interventions can and have had significant positive organization change, contributing to the communication competence within interdisciplinary teams as well as a shared mental model of collaboration and teamwork in improving patient outcomes.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Interprofessional Education Insights through Academic Practice Partnerships

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*Lindsay Benes, PhD, RN, CNS, Nursing, University of Portland, Portland, OR; Janet M. Banks, RN, DNP, School of Nursing, University of Portland, Portland, OR*

**Background:** The American Association of Colleges of Nursing's (AACN) position statement on inter-disciplinary education emphasizes that nursing students should engage in clinical education in an environment of interdisciplinary collaboration where a variety of disciplines engage in joint planning, decision making, and goal setting. Following the success of our Interprofessional Dedicated Education Unit (IPDEU) pilot with nursing and social work, we engaged the multitude of other health profession faculty and students engaged in clinical learning at a hospital in the Pacific Northwest. Bringing together these disciplines offered an opportunity to further inform the interprofessional clinical learning activities of the IPDEU by gaining insights from each discipline. Having each discipline contribute their unique insights into the development of this interprofessional learning, allowed us to actualize the AACN's goals of interdisciplinary collaboration.

**Aims:** By engaging each health profession discipline separately and then as an interdisciplinary whole, we aimed to 1) elicit each discipline's perspective on key facilitators and barriers to interprofessional learning, 2) compile essential clinical learning activities that promote communication competence among disciplines, and 3) identify interdisciplinary educational activities that support students' navigation of moral distress. Achieving these aims through interdisciplinary collaboration then informed enhancement of the interprofessional education intervention implemented on the IPDEU.

**Methods:** Following IRB approval from the academic and practice settings, the academic (clinical faculty) and practice (clinical preceptors) partners for each participating discipline (nursing, social work, pharmacy, respiratory therapy, rehabilitation services, and medicine) were invited to participate in 1) a discipline-specific focus group and 2) an all-discipline focus group. The discipline-specific focus group engaged each academic practice partnership in discussion based on three overarching topics: interprofessional learning, communication competence, and moral distress. Focus group discussions were transcribed and analyzed using thematic analysis. Member checking occurred through sharing identified themes with the all-discipline focus group to check for accuracy and resonance with the academic-practice partners.

**Outcomes:** Academic-practice partners reiterated the importance and power of experiencing interdisciplinary teamwork in the clinical environment, not just in the classroom. Multidisciplinary rounding was found to be an effective strategy in helping students learn from other disciplines, understanding the 'why' behind each discipline's actions, and building a common language. The interdisciplinary partners spoke to the importance of embedding students in a culture where interdisciplinary teamwork was the expectation, a culture that encourages questions and conversations among the disciplines. Participants noted the importance of debriefing interdisciplinary communication and teamwork, to make the team's implicit practices explicit. Importantly, the academic practice partners reiterated that interdisciplinary teamwork can mitigate moral distress by encouraging a multitude of perspectives. Practices such as Balint groups or Schwartz rounds were found to exemplify interdisciplinary practices for processing and reflection.

**Conclusions:** Clinical education best practice clearly necessitates a strong interprofessional component to students' learning. Our interdisciplinary focus groups revealed a multitude of effective practices to promote interprofessional learning within the clinical environment. Implementing these learning activities in the clinical setting will set a foundation for interdisciplinary practice that students will carry into their own careers.



## THURSDAY PEER-REVIEWED POSTER SESSION

### Implementation of the 2017 AAP Blood Pressure Guidelines within a Nephrology Clinic

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*Sharon L. Norman, DNP, RN, CNS, CCRN, School of Nursing, Oregon Health & Science University, Portland, OR; Hannah F. Billett, MSN, RN, CPNP-PC, School of Nursing, Oregon Health and Science University, Portland, OR; Asma A. Taha, PhD, RN, CPNP, CNS, CCRN, School of Nursing, Oregon Health & Science University, Portland, OR; Mary Wright, MSN, FNP, Pediatric Nephrology, Oregon Health and Science University, Portland, OR; Amira Al-Uzri, MD, Pediatric Nephrology, Oregon Health and Science University, Portland, OR*

**Aim:** The aim of this practice evaluation is to assess the implementation of the 2017 AAP Clinical Practice Guideline for the Screening and Management of High Blood Pressure in Children and Adolescents within a pediatric nephrology clinic, specifically examining the effectiveness of the quality improvement change and current adherence to national guidelines in the new patient diagnostic protocol.

**Background:** Hypertension is becoming more prevalent in the pediatric population and yet is often under-diagnosed. According to the Centers for Disease Control and Prevention, approximately 15% of children and adolescents in the United States have elevated blood pressure or hypertension. A child with unrecognized and untreated hypertension is at risk for cardiac, metabolic, and renal dysfunction that can extend into adulthood. To facilitate diagnosis, the American Academy of Pediatrics in 2017 published an evidence-based Clinical Practice Guideline for the Screening and Management of High Blood Pressure in Children and Adolescents. The new guidelines include an emphasis on increased recognition of pediatric hypertension, updated blood pressure parameters, decreased utilization of diagnostic procedures, and increased utilization of ambulatory blood pressure monitoring.

**Methods:** In the year after the practice update, a pediatric nephrology clinic at a Pacific Northwest university revised its diagnostic protocol for new adolescent patients referred for hypertension. The purpose of initiating this quality improvement project was to align the clinic's hypertension protocol with the updated national standards. Evaluation of the practice innovation began the following year. Medical charts of adolescent patients ages 13-18 years who were referred to the nephrology clinic for hypertension between 2016 and 2019 were pooled from the electronic health record in order to compare pre-intervention and post-intervention data. Through retrospective chart review, data on individual patient demographics was extracted as well as patient's stage and type of hypertension, and whether or not patient underwent ambulatory blood pressure monitoring, an echocardiogram, a renal ultrasound, and serum renin and aldosterone level measurement in the hypertension work-up process.

**Outcomes:** Preliminary data from the practice evaluation suggests that practice changes based on AAP guideline recommendations resulted in changes in the management of adolescents presenting with hypertension. Results of the practice innovation included decreased utilization of diagnostic procedures such as echocardiograms and increased utilization of ambulatory blood pressure monitoring during the hypertension diagnostic process. Preliminary data also suggests that less laboratory testing is now ordered for identifying primary or secondary causes of hypertension.

**Conclusion:** Implementation of the AAP clinical practice guidelines on blood pressure in the pediatric population results in more efficient, cost-effective, and accurate diagnosis and management of adolescents with hypertension. This evaluation of a pediatric nephrology clinic's hypertension protocol demonstrates decreased unnecessary testing and utilization of more effective diagnostic measures such as ambulatory blood pressure monitoring. Hypertension, an increasing problem in the pediatric population, demands more evidence-based protocols for patient care.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Accuracy of Diagnostic Testing for Asymptomatic Malaria: Are We Missing the Mark?

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*Adebola M. Olawejaju, MS, RNC-NIC, CPNP, Betty Irene Moore School of Nursing at UC Davis, Roseville, CA*

**Background/Purposes/Aims:** Malaria is a life-threatening disease caused by the bite of an infected mosquito carrying a Plasmodium parasite. In 2010, an estimated 3.3 billion people were at risk of malaria worldwide. Approximately, 80% of the malaria adjusted deaths occur in sub-Saharan Africa among the most vulnerable populations, children under-five and pregnant women. Malaria is the fourth leading cause of childhood mortality. Early and accurate diagnosis contributes to malaria morbidity and mortality reduction. However, accurate diagnosis is challenged by varying concentrations of Plasmodium parasite in a blood sample (parasitemia) which affects the accuracy of each test. In some low-resource countries, malaria is diagnosed based on clinical signs and symptoms without the use of diagnostic testing. Individuals who have chronic low-density parasitemia (i.e. asymptomatic) may not be able to mount an immune response consistent with standard clinical symptoms. Asymptomatic individuals are reservoirs for Plasmodium parasites. There is inconsistency in clinical practice in choice of diagnostic test. The purpose of this scoping review is to describe the efficacy of rapid diagnostic testing, microscopy, and polymerase chain reaction for detecting malaria among asymptomatic individuals in sub-Saharan Africa.

**Description of Methodology:** Scoping reviews are used to identify knowledge gaps, clarify concepts, or synthesize evidence to support healthcare decision-making. Objectives for the review were defined. This scoping review is a broad overview of the accuracy of diagnostic testing for malaria in asymptomatic individuals in sub-Saharan Africa. This review provides implications for clinical decision-making.

**Internal Consistency of Methodology:** Due to the nature of the topic, PubMed, Scopus, and CINAHL databases were searched using keywords: “malaria”, “asymptomatic”, “microscopic”, “sub-microscopic”, “Plasmodium falciparum”, “rapid diagnostic test”, “RDT”, “microscopy”, “polymerase chain reaction”, and “PCR”. All keywords chosen are based on terms used in published malaria diagnostic testing literature. Review inclusion criteria: 1) study participants reside in sub-Saharan Africa; 2) study compared at least two types of diagnostic testing; and 3) study was published within the last 10 years due to advances in biomedical technology. Studies were excluded if test-specific malaria prevalence was not provided in the results. Relevant studies were identified and selected (N=12). Evidence was selected, extracted, charted, and summarized.

**Linking Methodology to Research Problem:** Malaria parasite densities vary based on immunity, reinfection rate, and the number of multiple distinct parasite clones. Asymptomatic individuals present a challenge for malaria elimination because they often go untreated and contribute to the ongoing transmission cycle. Missed opportunities in diagnostic testing delay treatment and clearance of parasites. Efforts to understand the accuracy of diagnostic tests for this population is needed to guide clinical decision-making.

**Conclusions:** Definitive diagnostic testing is necessary to capture asymptomatic individuals to support malaria elimination efforts. Asymptomatic infection is undetectable using rapid diagnostic tests. The superiority of polymerase chain reaction for testing asymptomatic individuals is limited by cost, and lack of trained laboratory staff and equipment making it unfeasible. A practical option is microscopy which has lower costs but requires trained staff. Results of this scoping review may influence clinical decision-making and healthcare policies for diagnostic testing of asymptomatic individuals.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Community-Driven Health Education: A Global Health Approach

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**Purpose/Aim:** The aim of this project was to provide health education to a marginalized, urban community. A community participatory approach, identifying individual health priorities and knowledge gaps guided implementation of a built environment intervention.

**Background:** Uniquely situated on the outskirts of Iquitos along the Itaya River in the Peruvian Amazon, Claverito is an informal, floating community of approximately 250 individuals living in extreme poverty. A covered community center completed in July 2019 provided a safe and reliable meeting space for project activities. Between July to August 2019, graduate nursing students from the University of Washington led a reoccurring collaborative health education program alongside a transdisciplinary team, carrying out a built environment intervention.

**Methods:** The Theory of Planned Behavior (TPB) model informed the structure of the intervention, which addressed and reinforced behavioral, normative, and (perceived) control beliefs driving intention, subsequent action to promote agency, and positive health seeking behaviors in a group of women (ages 18+) and adolescent girl (ages 12-17) residents of Claverito. Active participation in project activities was encouraged through participant observation and an initial needs assessment conducted as a community meeting. In addition to topic identification, participants selected their preference for group versus individualized interventions. Tools and materials to promote health education were developed and refined for acceptability and feasibility over the course of two months and were held independently with various groups. Acceptability of the resource manual was piloted at a community meeting in order to assess usability by the women of the community.

**Outcomes Achieved:** The interventions targeted improving long-term health and wellness while fostering social cohesion among residents. A community resource manual was compiled for adult participants outlining health, nutrition, economic, and safety resources in Iquitos. The acceptability and feasibility of the resource manual was perceived to be very high. Participants rated many of the community resources as very important and several of the services were identified as new. The adolescent girls' group activities built upon a previously implemented nurse-led summer program titled "Charlas Con Chicas." Topics focused on self-esteem and mutual respect, communication with others, and a four-part reproductive health series titled "Mi Cuerpo." Two-thirds of all adolescent girls in Claverito attended one or more group sessions. Lastly, a two-day community health fair was held offering multiple health promotion activities, such as stations and workshops. All community residents were encouraged to participate. Undergraduate nursing students from the Universidad de la Amazonía Peruana (UNAP) played a significant role in session development and facilitation. Overall, a total of more than 70 Claverito residents, not including children, participated in at least one health intervention. Many residents, including those not targeted through health interventions this summer, also expressed interest in participating in future project activities.

**Conclusion:** This project represents how health education can be received and accepted when community participation is prioritized throughout all project phases. It highlights the importance of building strong, working partnerships among community stakeholders and beneficiaries as well as establishing critical community linkages to promote long-term health and wellness, especially within marginalized communities.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Community Outreach Projects for Delivering Healthcare to Diverse Rural Populations

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**Purpose:** This project explored the role of community outreach events for providing health services to improve the health of diverse populations in a rural community with high rates of obesity and its comorbidities.

**Background:** Historically, rural communities experience health disparities related to various environmental factors, distance, travel, poverty, lack of providers, lack of access and time constraints.

**Methods:** According to our previous research, the greatest disparities/lack of access to health care in this rural community occur for children, minorities and men, therefore, these populations were targeted for this project. We conducted health fair events specifically designed to reach each of these populations and utilized nurse practitioners, nurse practitioner students, BSN/RNs and BSN students to assist with these outreach efforts. The first event delivered free school/sports physicals for youth during after school and evening hours. It provided physicals for students throughout the county, particularly those for whom affordability and/or making an appointment during the parent /guardian's work day were issues.

A "Latina Red Dress" event, targeting this community's largest minority population will take place in early 2020. It focuses on heart disease and its comorbidities and will include lab screenings (at greatly reduced prices), additional free health screenings (10 health care vendors), cardiac health education provided by heart healthy/motivational speakers, and a heart healthy meal. Culturally important activities (traditional dancers, runway show featuring Latina women who have made healthy lifestyle choices to combat heart disease and diabetes) to engage members of the Latina community will be included. It is planned on the weekend during the day so that working women can participate.

A third event, also scheduled for early 2020 will target rural men, particularly farmers. A health fair will be conducted in conjunction with the Nebraska Bean Growers Association Annual meeting and will include glucose, blood pressure, lab, and body composition screenings. These initial assessments will identify conditions of concern, with referrals for urgent cases.

**Outcomes:** The initial event (youth school/sports physicals) was well attended and received. Parents thanked us for the event, many stating that their child would not have been able to participate in sports without this event. The "Latina Red Dress" and men's health events will be completed in early 2020. The impact of all three events will be reported.

**Conclusions:** Community health events provide an economical means for members of diverse rural populations that experience health care disparities to assess their health status (often at a fraction of the cost of hospital/practitioner visits) and should be supported. Repeated attendance enables participants to monitor their progress and discuss any health concerns and allows providers to assess the efficacy of interventions. We are developing sustainability models for each of these events, so that they can be held annually and possibly expanded.

**Funding:** University of Nebraska Medical Center Diversity Grant

## THURSDAY PEER-REVIEWED POSTER SESSION

### Part I: Public Health Nurses Addressing Health Care Needs of Children in Foster Care

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*Rebecca M. Carabez, PhD, RN, Nursing, San Francisco State University, San Francisco, CA; Jung Eun E Kim, PhD, RN, Nursing, San Francisco State University, San Francisco, CA*

**Aims and Objectives:** The purpose of this study was to describe the role of Public Health Nurses (PHN) addressing the needs of children and adolescents in foster care.

**Conceptual Basis:** This study applies the PHN Intervention Wheel conceptual framework that describes population-based practice and illustrates PHN's responsibilities and activities that address the health care needs of children in foster care and involves three levels of practice (individual/family, community and systems).

**Background:** There are nearly half a million children in the United States (US) foster care system. California has the largest foster-care population with an estimated 62,000 children. Approximately 1 in 7 children in foster care lives in California. Children are removed from their home when there is imminent threat to child safety because of abuse and/or neglect and the situation is so dangerous that removal is the only option to keep them safe. Common reasons children are removed are general neglect (61%) and/or a parent's abuse of alcohol or drugs (34%). Children in foster care have more physical, mental, dental, developmental health problems than the general pediatric population. While in foster care, barriers to timely and appropriate care include the number and complexity of cases, limited and diminishing resources, ever-increasing social worker workloads as well as inadequate staffing to meet children's complex physical, mental, social and developmental needs.

**Design:** A 42-item online questionnaire was developed by the author to define and describe activities and responsibilities of the foster care public health nurses in the San Francisco California Bay Area counties. The Public Health Intervention Wheel with 17 interventions was used to describe nursing responsibilities, day-to day activities, PHN funding, case load and case management responsibilities.

**Method:** The survey was sent electronically to fifty-four foster care nurses from a regional contact list. Thirty-nine PHNs completed the survey (72% response rate).

**Results:** Nurses described the most important needs as being mental and emotional health services, self-esteem/self-worth and dental care. Care coordination, case management and monitoring/oversight of psychotropic medications were the top responsibilities.

**Conclusion:** Public Health Nursing is grounded in social justice serving and advocating for vulnerable populations who are marginalized and disenfranchised. The PHN, located at the child welfare agency, provides expertise in meeting timely and appropriate referrals, coordinating health care services and establishing medical and dental homes.

**Implications:** Public Health Nurses (PHN) are part of the foster care team specialize in advocacy, outreach, referral and follow-up, case management, care coordination, multidisciplinary collaboration, health teaching, monitoring health conditions and finding resources for vulnerable populations. PHNs provide education and consultation for medical reports and training for foster team members. The study demonstrated that public health nursing expertise is an essential part of the child welfare team in addressing medical, dental, mental and developmental needs of children in foster care. There is an expanding role of Public Health Nurses in non-health care settings to intervene at the system level of the Intervention Wheel that includes policy development and enforcement, community organizing, and coalition building.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Senales De Peligro: Teaching Guatemalan Lay Midwives about Obstetrical Emergencies

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**Purpose:** The purpose of this observational study was to evaluate methods for teaching Guatemalan Lay Midwives (LMs) about obstetrical emergencies. The study had two objectives. First, was to examine the effect of a culturally sensitive teaching, presented orally in the native language, on LMs' knowledge of obstetrical emergencies. Second, was to evaluate LMs' interpretation of drawings of obstetrical emergencies used in the teaching.

**Background:** Guatemalan LMs attend the majority of births in their country at home despite lacking knowledge of obstetrical emergencies. The government has had training programs for LMs since 1955 but the trainings have failed to change LMs' knowledge because the trainings are held in Spanish with written material even though most LMs are illiterate and speak Mayan dialects

**Methods:** Two methods were used in this study. One was a pretest-posttest design to examine LMs' knowledge of obstetrical emergencies before and after the teaching. The second method was evaluation of LMs' understanding of drawings by assigning each drawing a percentage score based on the number of TBAs who identified the intended meaning of the drawing.

**Results:** The culturally sensitive teaching changed LM knowledge about obstetrical emergencies and TBAs understood simple color drawings better than complex, black and white drawings.

**Implications:** Future LM trainings should be oral in the native language of LMs and use simple color drawings to reinforce the training.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Language Assistance Services in Non-Federally Funded Safety-Net Clinics in the U.S

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**Purpose/Aims:** The purpose of this study is to examine the types of language assistance services used by non-federally funded free and faith-based charitable medical clinics in the United States. The intent is to summarize the types of language assistance services currently offered, whether clinics provide medical interpreter training, and how the training is designed and delivered.

**Rationale/Background:** According to the U.S. Census Bureau (2015) approximately 37.5 million individuals age 5 and older speak Spanish and of those individuals, 43.6% reported speaking English less than “very well” which is classified as having limited English proficiency (LEP). Several modalities exist to communicate with LEP patients, such as: a) the use of trained medical interpreters, b) direct communication with bilingual healthcare providers and/or staff, c) use of proxy interpreters, d) use of printed materials in the patient’s language, and e) no interpreter. Non-federally funded free and faith-based charitable clinics serving the uninsured LEP population rely mainly on volunteer interpreters to bridge the gap in communication between provider and patient. Previous studies have focused on various aspects of linguistically appropriate care in hospitals, ED settings, and federally funded clinics, but scant studies have specifically examined non-federally funded free clinics. To our knowledge, no studies have explored faith-based charitable clinics where provision of services is often more difficult due to limited time, financial resources, and access to trained medical interpreters.

**Methods:** A national census survey of free and faith-based charitable medical clinics is being conducted. The sample was derived from all clinic members listed in the publicly available directories of The National Association of Free & Charitable Clinics and the Christian Community Health Fellowship. Title X family planning clinics and Federally Qualified Health Centers (FQHCs) were excluded since they receive federal funding, which mandates provision of interpreter services to patients at no cost. A research assistant reviewed all clinic websites to obtain the names of clinic medical directors or nurse managers and email addresses prior to distribution of the survey in order to determine the best recipient for the survey. Potential participants are being contacted by mail and email to complete surveys on paper or online (mixed mode). The survey consists of 11 questions, including multiple choice, check boxes, fill in the blank, and area for comments. Questions are related to clinic characteristics (e.g., percent LEP, patient languages, staff language abilities), interpreter services modalities, and training of interpreters. The survey was pilot tested with a local clinic prior to distribution.

**Results:** In progress. The data from the surveys will be entered in SPSS for data analysis. Clinic characteristics will be described using frequencies and percentages. We will summarize the availability of interpreters and approaches to interpreter training overall and across clinic characteristics.

**Implications:** Results of this study will inform strategies to increase and improve access to language assistance services in non-federally funded free and charitable clinics. The results may also inform other free and charitable clinics in the U.S. about potential strategies for accessing and improving language assistance services for their clientele.

**Funding:** Research Seed Grant from Washington State University, Vancouver Campus

## THURSDAY PEER-REVIEWED POSTER SESSION

### Implementing and Evaluating an Evidence-Based Nurse-Led Home Phototherapy Program

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*Sarah W. Matthews, DNP, APRN, FNP-BC, University of Washington, Seattle, WA*

**Purpose/Aims:** Purpose of this study is to evaluate a current nurse-led home phototherapy program. The aims are to: 1) examine the effects of the Home Phototherapy Program (e.g., level of disease clearance achieved, side effects, number of treatments needed to clear, quality of life, burden of treatment), and 2) describe the clinical resources needed for a successful Home Phototherapy Program (e.g. type and frequency of nursing and medical care provided).

**Rational/Background:** Chronic skin conditions pose complex treatment challenges and treatment adherence issues are common. Home phototherapy is a well-documented, effective treatment for chronic skin conditions such as psoriasis and atopic dermatitis. Nonetheless, its effectiveness is dependent on patient self-management at home and lack of adherence to prescribed treatment protocols occurs frequently. Therapeutic inertia can also present a problem in the management of skin diseases with home phototherapy if clinical teams do not address issues and concerns in a timely way when the treatments are not optimized.

**Methods:** Observational cohort design. Participants are identified prospectively at the time they enroll in the Home Phototherapy Program and followed for 9 months using data from their electronic health records, home phototherapy treatment logs (required as part of the treatment process), and telephone-administered questionnaires. Inclusion criteria for the research evaluation include: 1) >18 years; 2) diagnosis of psoriasis or dermatitis (i.e., atopic and other chronic dermatitis); and 3) referral for home phototherapy. The target sample size is 30 patients.

**Results/Outcomes Achieved/Documented:** Five patients have been enrolled to date, 2 females and 3 males, ages 22-75 years. Three have had phototherapy in the clinic previously. Three have psoriasis, 2 have dermatitis. Continued enrollment is anticipated over the next 6 months. Analyses will begin with descriptive statistics to assess response distributions and missing data patterns as well as reliability assessment of the measurements with the project sample. Univariate data and graphical analysis will be used to provide a description of the sample. Differences in proportions of patients meeting clearance criteria for successful treatment will be examined at 3, 6, 9 months. Repeated measures will be used to assess quality of life and burden of treatment over time, using the baseline score as a covariate.

**Conclusions/Implications:** This paper describes an ongoing evaluation of a nurse-led home phototherapy program in an integrated health care system. To our knowledge, this is the first such evaluation effort that has been implemented in the U.S. In Europe, adherence to home phototherapy is supported by nurses via home visits. The home phototherapy model in the U.S is very different. Patients purchase the phototherapy units and the expectation is that they will independently self-manage at home with varying levels of support from their dermatologist and the rest of the clinical team. Minimal evidence exists that describes optimal support for patients in the U.S. model. The current study will help examine the concerns related to nursing resources as well as provide new information about important clinical outcomes relevant to decisions impacting the expansion of nurse-led home phototherapy.

**Funding:** This study is supported by the University of Washington, School of Nursing, Research and Intramural Funding Program and the Kaiser Permanente Washington, Department of Nursing. The evaluation is a collaborative effort between the University of Washington and the Kaiser Permanente Washington Health Research Institute.



## THURSDAY PEER-REVIEWED POSTER SESSION

### Text Messages Effect on College Students' Nutritional Choices and Eating Behaviors

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**Background:** Over the last thirty years, obesity in the United States has reached an epidemic level. The tripling of/in obesity rates have led experts to predict a shorter life expectancy, as well as an increase in chronic diseases. Overweight college students are more likely to become overweight adults. The psychology of eating behaviors, including the cognitive, behavioral, and emotional aspects, call for more attention. Additionally, health literacy regarding new nutritional policies and guidelines is poor among low-income populations.

**Purpose:** To examine the effect of receiving motivational text messages on the body mass index, nutritional choices, and eating behaviors among college students.

**Methods:** Two hundred college students participated in an eight-week experimental/control group study. Half of the participants were randomly assigned to either the control or intervention group. All participants received a brochure that included nutrition information based on the 2010-2020 Dietary Guidelines for Americans. The experimental group participants received a daily motivational text message through their MMS supported cellular devices. All participants completed a self-administered survey at the beginning and at the end of the eight week study period. The survey consisted of three parts: Demographic information, Health and Diet, and Eating Behaviors. The 2015 Food & Health Survey: Consumer Attitudes toward Food Safety, Nutrition & Health to measure Americans' attitudes and behaviors around food, health, and nutrition. The Body Mass Index (BMI) was calculated using  $(\text{kg}/\text{m}^2)$  formula where kg is a person's weight in kilograms and  $\text{m}^2$  is their height in meters squared. The Three-Factor Eating Questionnaire-R18V2-U.S. version was used to assess the participants' eating behaviors. R18V2 is a valid and reliable tool, and it consists of 18 items and three subscales, (1) Cognitive Restraints, (2) Uncontrolled Eating, (3) Emotional Eating. The analysis used traditional repeated measures ANOVA with one between subjects factor of group with two levels of experimental and control, and one within-subjects factor of time with two levels of baseline and follow-up.

**Results:** The majority (90%) of study participants fall in the 18-22 years old age group with no report of any chronic health conditions, 70% are female, 98% are single, and 75% are Asian and Hispanic. In the post-survey, experimental group participants showed an increase in daily fruits and vegetables consumption. Additionally, there was an increase in the awareness of the nutritional value of the food the participants consume. The participants in both groups did not demonstrate a significant decrease in the body mass index levels. The experimental group participants showed trends in improved eating behaviors.

**Implications:** The study results might help to establish successful healthy eating programs such as obesity prevention among college students. Educational programs should be tailored carefully to account for potential differences in knowledge and attitudes towards health. Motivational text messages approach is a practical approach to enhance nutritional choices and promote healthy eating behaviors among millenium students.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Assessment of Diabetes Type II Knowledge among Laypeople

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**Purpose:** This study examines knowledge of risk factors for type II diabetes across different educational levels in the adult population and determines knowledge deficits that contribute to the higher prevalence of type II diabetes.

**Background:** Type II diabetes is an ongoing health concern, and the worldwide prevalence is estimated to reach 439 million by 2030 (Yang, Hall, Piccolo, Maserejian, & McKinlay, 2015). There is a higher risk for the development of diabetes II in lower educated populations due to the lack of knowledge of diabetes risk factors (Dagenais et al., 2016). According to Siegel et al. (2018) lower education levels correlate with a decreased incidence of meeting diabetes risk reduction goals. Akohoue, Patel, Adkerson, and Rothman (2015) found 65% of low-income participants reported receiving no diabetes education. The assessment of knowledge of type II diabetes risk factors in individuals with different levels of education could allow for the development of group specific interventions in an effort to decrease the prevalence and development of diabetes.

**Methods:** This study was performed using descriptive, exploratory, quantitative survey method utilizing SurveyMonkey. The survey was given via email, text, and social media with a link to SurveyMonkey. The data was analyzed through SurveyMonkey.

**Results:** Seventy-four adults responded to the survey. Most responses were from females, at 60.81%. Most participants, 36%, were between the ages of 26-35. The sample included 33.78% Asian, 28.38% Hispanic, 17.57% Caucasian, 13.51% Black, and 6.76% other.

The highest response was from people with bachelor's degrees, at 40.54%. Of the sample population, 91.89% did not have diabetes, but 22.97% had been diagnosed with prediabetes. Also, 72% had a parent, sibling, or grandparent with diabetes, including 50% whose father and 35.19% whose mother had diabetes. Most participants knew inactive lifestyle, being overweight, and having family history are risk factors, but only 45.83% knew that hypertension is also a risk factor. The majority of participants learned about diabetes from friends and family, 49.3%. Additionally, 64.79% choose to eat vegetables and fruits over packaged foods, and 61.97% get moderate exercise at least three times per week. Only 44.59% have received prior diabetes education, and 32.43% do not take preventative measures to reduce risk of developing diabetes. The average sample weight and height was 174.5 pounds and 65.9 inches with average body mass index (BMI) of 28.3.

**Implications:** Our findings suggest over half of laymen do not receive any education on diabetes, and higher percentage of people have familial history of diabetes. Although laypersons with higher levels of education may be knowledgeable about risk factors for diabetes, education can help the population link the modifiable risk factors with their personal risk factors and prevention of diabetes. This is evidenced by the average BMI of 28.3, overweight, across the sample population. Preventative programs, nutrition classes, and diabetic educators can increase knowledge of diabetes in the general population as a preventative measure to the people with family history of diabetes. This study can serve as a basis for future studies on diabetes education and prevention on larger population.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Substance Abuse and Self-Harm among University Students

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**Background:** Suicide risk on college campuses has reached an epidemic level. There has been an increase in the number of students with diagnosed behavioral health disorders and up to 73% of these students may experience a mental health crisis on campuses. There has been study on the various risk factors that influence the development of suicidal ideation in college students. However, there has not, been research done as to how certain risk factors affect students who *already* have suicidal ideation.

**Purpose:** The purpose of this research is to explore the effect that substance use has on the frequency and/or intensity of suicidal ideation and/or thoughts of self-harm. College students are known to be an at-risk group for suicidal ideation and thoughts of self-harm as well as have increased rates of substance use. We hoped to discover whether there is a connection between, and contribute research literature on substance abuse and suicidal ideation.

**Method:** This research was performed using a descriptive, exploratory, quantitative methodology by means of SurveyMonkey® to CSUB students. The researchers developed a questionnaire to use on college graduates as a pilot for reliability and validity. The survey was provided to CSUB students via email with a link to SurveyMonkey® at the beginning of the semester. The starting screen provided the information on this study, an opportunity to give consent, followed by a short demographic survey and survey questionnaire. The participants were able to complete the survey upon their convenience within a 3 week timeframe. This study was anonymous, voluntary and no identification can be linked to the survey.

**Results:** There were 166 total responses to the survey. Of the participants, 69.28% were between the ages of 18-24, 21.08% were between the ages of 25-34, 7.23% were between the ages of 35-44 and 2.41% were 45 and above. 75.51% of the participants were female, 22.29% were male and 1.20% responded with “other.” 44.58% identified as Hispanic/Latino, 32.53% as White/Caucasian, 15.06% as Asian/Pacific Islander, 2.41% as Black/African American and 5.42% as other. 85.54% identified themselves as Heterosexual. 8.43 % as LBGQTQ, 3.01% as other and 3.01% declined to state. 89.70% were undergraduate students while 10.30% were graduate. Approximately half of the respondents had thoughts of self-harm (47.59%) and suicide (42.77%) and more than half feel that substance abuse both increases the frequency (58.79%) and intensity (61.21%) of self-harm and suicidal thoughts. About half of the respondents (43.96%) admit to substance use.

**Implications:** Awareness of substance abuse as a possible risk factor for suicidality can help providers identify individuals at risk and promote therapeutic interventions. The study was unable to find that substance use influenced self-harm and/or suicide due to the disparity in positive responses to each of the survey questions. The study was designed to collect data from individuals who reported substance use and thoughts of self-harm/suicide, but the data collected were unable to filter out the desired subset of participants and subsequently specify a relationship between the variables.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Second Victims: A Literature Review

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*Dave F. Tan, RN, MSN, CPHQ, School of Nursing, University of California, Los Angeles, CA*

**Purpose:** Second victim is a phenomenon in which a patient suffers preventable harm caused unintentionally by a healthcare provider responsible for delivering care. In this situation, patient suffering unintended consequence is the first victim and the healthcare provider is considered the second victim. Healthcare professionals that experience emotional distress as second victims are direct care providers such as physicians, nurses and therapists. The purpose of this literature review is to help identify how the second victim phenomenon manifests particularly among nursing staff.

**Methods:** A literature was performed to synthesize experiences of nurses who are second victims traumatized by preventable patient harm. The following databases were used for literature search: CINAHL, PsychINFO and PubMed from January 2005 to March 2019.

**Results:** Data extraction was performed from 15 studies selected. Second victims suffer long lasting emotional distress following an adverse event. Furthermore, second victims are less likely to speak about their experiences and this ultimately affects their ability to maintain therapeutic relationship with the first victim and family rendering both parties to suffer alone

**Conclusion:** Second Victims phenomenon is an under-researched topic. Further studies is recommended to identify potential factors impacting second victims' emotional experience and coping mechanisms towards recovery.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Survivorship of Loss by Suicide

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*Becky McDaniel, MSN, RN-BC, School of Nursing, North Dakota State University, Fargo, ND*

**Purposes/Aims:** Each year, 47,000 people die by suicide, and for every suicide death, an underestimated amount of grieving suicide loss survivors (e.g. friends, family members, work associates), are left behind. Estimates of suicide and its impacts are understated; therefore, it is difficult to gain a clear picture of the experiences and needs of the family members left behind. Suicide loss survivors are more likely to experience significant health problems, be exposed to stigma, and experience barriers to accessing support and mental health care. The purpose of this study is to describe suicide loss survivors' experiences and barriers to accessing support and/or mental health care. The aims of this study are to 1) explore suicide loss survivors' physical and mental health experiences related to suicide, 2) identify potential barriers to accessing support or mental health care.

**Rationale/Conceptual Basis/Background:** Suicide is a complex public health problem in the United States. Those bereaved by the loss of someone to suicide often experience significant mental, and physical problems along with increased incidence of complicated grief, exposure to stigma, and barriers to receiving support and mental health care services. The unexpected death by suicide and society's general poor appraisal of the self-inflicted death can complicate the suicide loss survivor's road to recovery and increase the risks for negative physical and mental health experiences. The perception of suicide will directly influence the grief experience and may impact the life of suicide loss survivors. Suicide loss survivors are at increased risk for suicide and often report the desire to take their own life. The few studies that examine suicide loss survivorship recommended further research to better understand the survivors' experience. Our study aims to address this gap.

**Methods:** In order to understand the experiences of suicide loss survivors, a qualitative descriptive methodology will be used. Recruitment will continue until themes are repeated/saturation is achieved. Participants will be recruited through the American Foundation for Suicide Prevention and suicide loss survivor support groups to participate in individual or group interviews. One-to-one in person, by phone or group interviews will be offered in addition to opportunities for a focus group. Participants will be asked to provide comments on their perceptions, beliefs, and feelings of receiving support and accessing mental health care services. The anticipated length of interviews will be about 45 minutes. Interviews will be audio-recorded, transcribed verbatim, and coded for themes. Member checking, triangulation, and reflexivity are strategies to be used to assure trustworthiness.

**Results:** Data will be analyzed using qualitative content analysis in 2020.

**Implications for Translation to Practice/Further Research:** Increasing the understanding of suicide loss survivor experiences will address the gap in the literature and better identify at-risk suicide loss survivors. This understanding enables health care providers to meet the needs of this vulnerable population. Further, by understanding the experience of the suicide loss survivor population, mental health providers will be able to develop effective interventions and resources to decrease associated health care risks and costs and better support this often-overlooked vulnerable population.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Concept Analysis: Neonatal Toxic Stress

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**Purpose/Aims:** The aims of this concept analysis are to develop an operational definition for the term *neonatal toxic stress* and discuss the effectiveness of *neonatal toxic stress* in nursing practice and development of future research.

**Description/Definition of Concept:** The derived operational definition for *neonatal toxic stress* is the prolonged activation of the brain's response to trauma in the absence of a protective, nurturing adult relationship buffer that results in an alteration in brain development and long-term health outcomes.

**Internal Consistency/Concept Analysis Approach:** The concept of *neonatal toxic stress* was analyzed using the eight-step concept analysis method of Walker and Avant. Two defining attributes were identified: threat and deprivation. Antecedents include presence of a traumatic event, sensitive time period during neurodevelopment, and stress exposure. The consequences of *neonatal toxic stress* are abnormal neurodevelopmental outcomes, poor academic success, chronic disease, and mental health/behavioral issues.

**Logic Linking Concept to Practice/Research:** Scientific advances in research continue to demonstrate the complex biologic connection between the social environment, neurologic development and long-term health. This has recently been explored within the context of infants admitted to the neonatal intensive care unit (NICU). Decrease in the age of viability threshold allows more extremely premature infants (22 weeks gestational age (GA)) to benefit from the lifesaving therapies in the NICU. The rate of premature infants continues to rise. In 2017, nearly one in ten infants was born prematurely before 37 weeks GA. Infants born prematurely may spend up 6 months or longer in the NICU separated from their parent(s)/support person.

Despite advances in care for premature and hospitalized neonates, there remain remarkably high incidences of long-term neurodevelopmental disparities compared to equivalent healthy, term infants. In addition to common neonatal morbidities, researchers delineate a high prevalence of low severity morbidities comprising of mental illness, behavioral issues, depression, anxiety, and alterations in the hypothalamic-pituitary-adrenal axis. A review of the literature ascertains that this phenomenon may be explained by neonatal exposure to toxic stress.

The NICU environment is one that is stressful and traumatic (threat) with noise, lights, procedures and separation from parents (deprivation). Yet, it is an environment that premature infants must grow and thrive. Most research focuses on the experience of stress from the parent perspective rather than from the perspective of the infant's experience. Further investigation is needed to explore the impact of the NICU on the neonatal experience.

**Conclusion:** Toxic Stress is well defined in the literature. However, toxic stress within the context of premature infants has not been fully explored. It is understood that toxic stress alters the developing brain and impairs functions required for sustained attention, emotional regulation, problem solving, and learning. However, the extent to which stressful events may have detrimental effects on the infant need more exploration. Additional research is needed to develop a deeper understanding of the mechanisms of early life experience and *neonatal toxic stress* impact on neurodevelopmental outcomes. This will allow clinicians to target specific, individualized, preventative, and neuroprotective strategies to improve neonatal neurodevelopmental outcomes for a lifetime.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Functional Responses of Human Placenta Tissue to Opioids: TLR4 Signaling

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**Purpose/Aims:** The aim of this study was to examine the effect of prenatal opioid exposure on the expression of human placental immune and serotonin signaling factors that are part of the toll-like receptor 4 (TLR4) signaling pathway. The *central hypothesis* was that increased opioid-induced activation of the TLR4 pathway in the placenta results in dysregulated immune cytokine expression and serotonin function.

**Rationale/Background:** Exposure to opioids during gestation may alter placental and fetal development resulting in dysregulated neurobehaviors at birth and in later life. While opioids are known to cross the placental-fetal blood barrier, their placental and fetal effects are not well characterized. TLR4 is widely-reported to mediate immune cell activation upon pathogen detection or tissue damage. A more recent discovery that TLR4 binds and becomes activated by opioids offers a framework to examine the consequences of opioid-mediated adverse immune signaling. Furthermore, TLR4 activation has recently extended to include perturbing the action of neurotransmitters such as serotonin, which has been implicated in neonatal opioid withdrawal syndrome (NOWS). The placenta is the dominant source of serotonin during early brain development linking placenta function to fetal neural development. Yet, the possible effects of placental TLR4 on disrupting serotonin function remain entirely unknown.

**Methods:** This study leverages resources and the study population of the well-characterized University of New Mexico (UNM) cohort, the Ethanol, Neurodevelopment, Infant, and Child Health (ENRICH) study. Participants were recruited into 4 study groups: 1) prenatal alcohol use (PAE); 2) patients with medications for opioid use disorder [(MOUD) buprenorphine or methadone], 3) women with both PAE and MOUD; and 4) unexposed healthy controls (HC). For the purposes of this study only samples from the MOUD and HC group were included. Placenta samples underwent tissue processing to identify protein and mRNA for the proinflammatory cytokines (IL-1 $\beta$ , TNF- $\alpha$ ) and serotonin transporter gene activation. Relative protein and mRNA expression are reported as mean  $\pm$  standard error of the mean.

**Results:** The differences between MOUD (n=7) and HC (n=6), analyzed to date, demonstrated a trend of higher IL-1 $\beta$  protein expression in placenta tissue of the MOUD group compared to the HC group. Data from this cohort also demonstrated that placental tissue from the MOUD group express higher levels of serotonin transporter mRNA. These results suggest that MOUD may be associated with increased expression of immune signaling factors in human placenta. In turn, activation of the TLR4 signaling pathway and the subsequent production of inflammatory products may lead to increased serotonin transporter mRNA expression.

**Implications for Translation:** While our results suggest dysregulated placental immune and serotonin function related to prenatal opioid exposure, further investigation is required. Our long-term goal is to correlate these factors with infant outcomes such as NOWS and to develop an evidence-based framework to inform future clinical treatment guidelines for pregnant women receiving MOUD (for example, adjunctive therapies such as selective serotonin receptor or TLR4 antagonists) to mitigate the deleterious effects of opioid exposure on the developing fetus.

**Funding:** National Institutes of Health (R01 AA0218771; PI Bakhireva, and R01 AA025967; PI, Milligan)

## THURSDAY PEER-REVIEWED POSTER SESSION

### Pediatric Unintended Extubations: Standardizing Endotracheal Tube Management

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**Purpose/Aims:** To reduce unintended extubations in critically ill children.

**Rationale/Background:** Unintended extubation is the most serious risk associated with endotracheal intubation. In the pediatric population, unintended extubation can lead to significant patient harm. The target rate of unintended extubations cited in the literature is <1 per 100 ventilator days. On average, each unintended extubation increases length of stay by six days and costs an additional \$36,000.

**Description:** Rodgers Diffusion of Innovation Theory was used to guide the development and implementation of an evidence-based policy standardizing the management of endotracheal tubes. The aim of this policy is to prevent unintended extubation in a 20 bed, mixed medical/surgical, cardiovascular pediatric ICU. The Unintended Extubation bundle from Solutions for Patient Safety was the foundation of the policy. The focus of the policy is endotracheal tube securement and management related to bedside cares and 'high risk' maneuvers.

**Assessment:** Unintended extubation policy adherence is evaluated through daily audits, with a minimum of 20 audits completed per month to maintain reliability over six months. Audit results and unintended extubations are reviewed monthly. Each audit measures documentation of endotracheal tube securement and an observed encounter of endotracheal tube management. Reliability of 95% policy adherence should demonstrate decreased incidence of unintended extubations. The incidence of unintended extubation is tracked using a run chart to detect non-random variation pre and post policy introduction.

**Conclusion:** Data tracking and monitoring is in process. Results will inform the clinical practice initiative and help design next steps regarding adoption, adaptation, or abandonment of the policy.



## THURSDAY PEER-REVIEWED POSTER SESSION

### Predictors of PROMIS Peer Relationship Scores in Children with Orthopedic Conditions

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**Purpose:** The purpose of this study is to describe self-reported peer relationships of children and adolescents with orthopedic conditions, and to identify predictors of self-reported challenges with peer relationships.

**Background:** Peer relationships are important indicators of a child's developing social health and are strongly associated with psychosocial well-being. Social health is described as involvement in and satisfaction with an individual's usual roles in life's situations and activities. Children with atypical body or facial attributes are at high risk for encountering discrimination, which can significantly impact their social health and negatively affect their psychosocial development and well-being.

**Methods:** Children, 8 to 17 years of age with an orthopedic condition that were treated at the outpatient clinic at Shriners Hospital for Children Northern California, between April 2017 and April 2019 completed the Patient Reported Outcomes Measurement Information System (PROMIS) short form questionnaires by tablet. PROMIS Short Form v2.0 - Peer Relationships 8a is a measure of four social domains including: (a) school, (b) friends/peers, (c) family, and (d) activities; and three areas of sociability: (a) being a good friend and colleague, (b) getting along with parents, and (c) relationships with teachers. For patients seen between April 2017 and April 2019, PROMIS Peer Relationship scores and potential predictors of these scores, including demographic information and diagnosis (ICD-10 codes), were collected from the electronic health record and deidentified. Descriptive statistics were used to determine correlations between age, gender, diagnosis, and race/ethnicity, and PROMIS Peer Relationship scores. Chi-squared tests evaluated the interdependence between variables. Analyses were performed using STATA 2019. Institutional Review Board permission was obtained for this retrospective study.

**Results:** The study included 3,283 patients (52.3% female), who completed the PROMIS Peer Relationship Short Form. Mean age for patients was 12.8 years of age, standard deviation of 2.75 years. 62.8% of patients were White, 16% other, 7.6% Asian, 6.9% Black or African American, 3.4% multiple, 1.6% American or Alaskan Indian and 1.1% Native Hawaiian/ Pacific Islander. Normal peer relationships ( $50 \pm 10$ , population norm) were reported in the majority of patients (78%) of patients; 17% of patients reported mild to moderately ( $35 \pm 5$ ) affected peer relationships, and 5% of patients reported moderate to severely ( $<30$ ) affected peer relationships. Significant relationships between peer relationship scores and gender ( $P=0.018$ ), males more often reported decreased scores. Primary diagnoses and peer relationship scores ( $P=0.001$ ) were also significantly associated. Decreased peer relationship scores were most commonly reported by children with cerebral palsy (20.1%) and children with scoliosis (13.7%).

**Implications for Translation to Practice and Future Research:** Children with orthopedic conditions are at increased risk for impaired peer relationships. Of those surveyed, children with cerebral palsy and scoliosis were at increased risk of poor peer relationships. Peer relationships are a strong indicator of a child's psychosocial health suggesting providers should routinely assess children's mental health and facilitate referrals to appropriate mental health and social supports services. Further analyses focused on the social and mental well-being of children with orthopedic conditions are needed.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Effects of a Pathway Program on American Indian/Alaska Native Youth

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**Purposes:** This study aimed to assess the effectiveness of the WSU Health Sciences Spokane Na-ha-shnee Health Sciences Institute, a two-week pathway program for American Indian/Alaska Native (AI/AN) high school students and provide recommendations to increase diversity within the nursing and health sciences workforce.

**Background:** AI/AN people continue to be severely underrepresented in healthcare fields in the United States. Underrepresentation can affect current health disparities, as well as the desire for AI/AN patients to seek treatment for health conditions. Pipeline programs are one method to recruit underrepresented groups interested in healthcare careers. The Na-Ha-Shnee Health Sciences Institute is a two-week residency program. Participants gain information on healthcare careers and college via guest speakers, workshops, and hands-on experiences. Evaluating programs can lead toward much needed effective and efficient recruitment efforts among AI/AN communities.

**Methods:** A 43-question previously validated pre/post test survey was given to 13 Institute participants who had given assent and had parental permission to participate in the study. The survey contained dichotomous and Likert-style questions regarding participant's perceptions and knowledge on attending college and different healthcare careers. There was one open-ended response question.

**Results:** Likert-style questions were analyzed using paired t-tests; dichotomous questions were analyzed using McNemar tests. A participant's response was omitted for analysis if they forgot to answer a question or answered in a way that could not be quantified such as maybe instead of yes or no. Data was considered significant if it had a P-value of 0.01 or less. There was a post experience increase in statements regarding interest in college and healthcare, and in knowledge of academic preparation needed for college. On the open-ended survey question, one participant asked "Does nursing require anatomy or dissection?". There were significant increases in agreement in the statements "I am certain I will go to college", "Healthcare professionals can work with a variety of patients", "Healthcare professionals can achieve goals like buying a house or a car", and "I would have less responsibility than a doctor".

**Implications:** This study had three major implications: increasing pathway programs, increasing college visits, and creating opportunities to learn about healthcare roles. Data indicated that pathway programs such as Na-ha-shnee were effective in exposing students to healthcare careers and college. Students indicated that they needed to be better prepared before entering college than they previously thought they would. Students also became more aware of the challenges of going to college after attending Na-ha-shnee. There was an increase in agreement with an increased level of emotional and motivational support after Na-ha-shnee, which may be due to being exposed to the college environment and being away from family and friends. It is important to provide opportunities to increase students' understanding of healthcare roles and the implications of attending college. Overall, this study confirms that pathway programs are effective in exposing AI/AN high school students to the college experience and increasing their interest in a variety of healthcare professions.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Patient Activation among Filipinos with Diabetes Mellitus

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**Purpose:** The purpose of this study was to examine the relationship among patient activation (PA), selected demographic variables (age, gender, level of education, language used), low-density lipoprotein (LDL) level, and self-management of hemoglobin A<sub>1c</sub> (HbA<sub>1c</sub>) among Filipinos with diabetes mellitus (type 1 and type 11).

**Background/Rationale:** Management of patients with diabetes mellitus (DM) is the foundation in avoiding complications; consequently, improving health care, clinical outcomes, and reduced health care cost. Increasing patient engagement is designed for higher patient (and family) satisfaction, greater empowerment, better health outcomes, and lower healthcare expenditures. PA connotes an individual's understanding of one's role in managing health care needs and requires a multidisciplinary approach to empower patients to embrace self-management. Previous studies acknowledge racial/ethnic disparities in PA. The Filipino-American population is the third largest foreign-born population from Asia, nonetheless there is a dearth of knowledge about their activation practices.

**Methods:** Prospective, cross-sectional, correlational design. A convenience sample (N= 191) was recruited and enrolled from a southern California primary care clinic, December 2017 through March 30, 2018. **Measurement:** Patient activation was measured by Patient Activation Scale (PAM-13). Diabetic self-management assessed by biological marker, HbA<sub>1c</sub>. Additional data included biological marker LDL, age, gender, level of education, spoken and written language. **Analyses.** Descriptive statistics were generated for all variables. A chi-square test of independence was conducted with the categorical variables, one-way ANOVA was conducted on ratio level data to examine differences for patients by HbA<sub>1c</sub> group. Logistic regression analysis was conducted to identify factors that increased the odds for HbA<sub>1c</sub> level (controlled, uncontrolled) in a sample of Filipinos with diabetes mellitus (type 1 and type 11).

**Results:** PA was significantly associated with HbA<sub>1c</sub> group. For the PAM-13 natural log score, participants with HgbA<sub>1c</sub> ≤ 7.0% reported statistically higher PA mean score (M= 60.32±13.50) compared to those with an HgbA<sub>1c</sub> ≥ 7.01% (M = 52.58±10.19),  $F = 11.05(df = 1)$ ,  $p < .001$ . Multivariate logistic regression using the total natural log-adjusted score contained three independent variables (age, LDL, and PAM-13 natural log). The model containing all variables was statistically reliable distinguishing between HbA<sub>1c</sub> < 7.0 and A<sub>1c</sub> > 7.0 [-2 LogLikelihood = 1183.225,  $X^2(3) = 15.44$ ,  $p < .001$ ]. The model correctly classified 78.5% of the cases.

**Implications:** The research examined the relationship among PA, selected demographic variables, LDL, and self-management of HbA<sub>1c</sub> among Filipinos with DM. The relationship between PA in this Filipino American population was associated with self-management of HbA<sub>1c</sub>. Notably, PA was predictive of better HbA<sub>1c</sub> level independent of other covariates, supporting the work of previous investigators who found PA was predictive of better HbA<sub>1c</sub> values. PA and self-management of HbA<sub>1c</sub> are important factors in supporting glycemic control in this population. Patients who reported confidence in self-management had higher PAM scores. Further research on PA and self-management of HbA<sub>1c</sub> among Filipino Americans will facilitate the development of intervention programs targeting PA to improve existing programs.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Screening for Social Determinants of Health within Medical Legal Partnerships

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**Aims:** 1) To develop, validate, and implement a SDH Screening tool to be completed by 100% of mothers/guardians whose infants are admitted to the neonatal intensive care unit (NICU) at Doernbecher Children's Hospital, and 2) To increase provider confidence surrounding screening for SDH as measured by qualitative surveys pre-and post- SDH education in the NICU. Ultimate goals are to have 100% of mother/guardians of NICU infants screened for SDH and to increase provider reported confidence in screening patients for SDH by at least 70%.

**Rationale/Background:** Social Determinants of Health (SDH) are the aspects of the environment where people live, work, play and learn that affect or contribute to health risks and outcomes. Research has long supported the implication that the environment in which people live can have a dramatic impact on the outcomes of their health. Much of the literature ties causation of adverse outcomes to the SDH. Examples of health outcomes linked to social determinants include increased hospitalizations, low birth weight, impacts on development, and overall worse health including decreased life expectancy and higher prevalence of chronic disease. Medical Legal Partnerships (MLPs) are an intervention to improve patient outcomes by decreasing the harm of SDH. MLPs work by identifying SDH in a population that are health harming legal needs and provide free legal services to address them. As many providers report low confidence surrounding initiating conversations with patients on SDH, all MLPs include a standardized screening tool and provider education.

**Methods/Process:** Before the implementation of this project in the NICU, there were no standardized screenings for social determinants of health (SDH) upon neonatal admissions nor trainings for NICU staff on SDH and the health harming social and legal needs for families. The intervention is the implementation of an educational module for providers and staff and a screening tool for the SDH alongside the launching of a pilot Medical Legal Partnership in the NICU. The educational module was adapted from previously developed materials (by a local pediatrician and a module created by a children's hospital). The module focused on educating healthcare members how to screen for and identify SDH, what MLPs are and how they function, and the scope of impact of MLPs. The module will include case vignettes and didactics.

**Outcome:** The outcome measures are frequency of screening as noted in patients' electronic health records and provider reported confidence in screening for social determinants of health. Providers' confidence will be measured using pre & post intervention surveys. No outcomes have been achieved yet as the project is in the process of implementation.

**Conclusions:** The expected outcomes and conclusions of this project include increased provider confidence in initiating discussions with patients regarding SDH, providing opportunities to address health harming legal needs of families and therefore improving patient health outcomes.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Assessing Risk Factors for Heart Failure in African Americans: A Scoping Review

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**Purpose/Aims:** The purpose of this scoping review is to identify how diet and physical activity affect heart failure (HF) risk in African Americans (AAs).

**Background:** African Americans are 20 times more likely to develop HF than White Americans. Several risk factors for HF can be controlled with physical activity and diet (hypertension, body mass index, high cholesterol, and fasting blood glucose), while others are not so easily modifiable (history of coronary artery disease, diabetes, metabolic syndrome, heart attack, and male sex). Patients younger than 50 years with a HF diagnosis are more likely to be AA than White. African Americans are also more likely to be readmitted to and spend more time in the hospital, but less likely to be treated by cardiologists. The rate of AAs disproportionately developing HF is alarming. There is a need to identify ways to prevent or reduce the likelihood of an AA with any number of previously listed risk factors from developing HF. How physical activity and diet are involved in HF risk in AAs must also be reviewed.

**Methods:** A rigorous scoping review using peer-reviewed literature was conducted and included the following search terms: “heart failure,” “African Americans,” “prevention,” “risk factors,” “physical activity,” and “diet”. A comprehensive search of Pubmed, CINAHL and Scopus yielded 206 articles, published between 2002 and 2019, with 34 articles containing at least five of the search terms. These remaining studies were used to extract data and uncover key issues, themes, and gaps as it relates to risk factors for HF in AAs.

**Results:** Several key themes emerged from this scoping review. Eleven articles discussed diet and physical activity and their relationship to HF risk. Eight of these studies mentioned African American risk for HF. Three articles suggest comorbidities, such as diabetes, obesity and hypertension as they relate to HF in AAs needing more attention in research. Two articles suggest cultural implications (educational materials targeted towards AAs and their food preferences) may be additional reasons AAs have a difficult time adhering to diet, medication and follow up visit recommendations. In addition, 4% of physicians are reported to be AAs (as of 2014), and 6% of registered nurses are AAs (as of 2013), while the AA population represents about thirteen percent of the population in the U.S.

**Implications:** Heart failure is a public epidemic, but it is ripping through the AA community. Several of the risk factors related to HF are modifiable. More critically, current education in the AA community regarding proper diet and exercise as a way to reduce HF risk is underdeveloped. Moreover, the likelihood this community receives healthcare from an AA provider may suggest a cultural barrier. Findings of this review provide an overview of literature on the topic of AAs at risk for developing HF and exposes a dire need for more research to inform practice and policy.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Factors Influencing Physical Activity in Older Mexican American Males

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***Evangeline M. Ortiz-Dowling, PhD, RN, Biobehavioral Health Science Division, College of Nursing, The University of Arizona, Tucson, AZ***

The purpose of this study was to explore the cultural, social, environmental, and gender factors that influence physical activity (PA) in older Mexican American (MA) men. In 2017, Hispanics of Mexican origin accounted for 62% of the United States (US) Hispanic population. Arizona has the sixth largest Hispanic population in the US with the Mexican origin population accounting for 90% of Arizona's Hispanics. In addition, the US is experiencing a growth in the older adult population projected at 83.7 million by 2050. This figure has doubled since 2012 at 43.1 million older adult US residents. It is also estimated that by 2030, 20% of the US population will be aged 65 and older, with 2.5% of the older population being 85 years and over. Specific to the Hispanic older adult population, projections indicate a rapid increase from 7.3% of the overall older adult population in 2012 to 18.4% over the next four decades.

Despite the fast-growing Hispanic older adult population, there is limited information on MAs and PA. There are even fewer reports on PA among older ( $\geq 65$  years old) MA men. Fourteen individual interviews were conducted with older MA men living in Tucson, Arizona. Data was collected, organized, and analyzed according to the methodologies of Clark Moustakas and the Social Ecology Model for Health Promotion framework. Four themes emerged which reflected the factors influencing PA in older MA males: 1) PA behaviors change with age, 2) engaging in regular PA constitutes a healthy person, 3) PA is a personal choice and lifestyle, and 4) I learn and adjust my PA as needed. Themes were used to create textual and structural descriptions of their experiences. Descriptions were formed into the essence of the phenomenon. The results of this study increases our understanding of PA behaviors in older MA men. This research will inform the development of an evidence-based PA intervention that is gender and culturally tailored as a secondary prevention strategy for chronic illnesses, such as Type II diabetes and hypertension, in older MA men.

Keywords: men's health, social ecological model, health promotion, phenomenology, gerontology, health disparities, physical activity, healthy aging, culture

## THURSDAY PEER-REVIEWED POSTER SESSION

### Description of the Impact of Ethnicity on Advanced Care Planning: Distrust Is Expanding

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*Ezra C. Holston, PhD, RN, Orvis School of Nursing, University of Nevada, Reno, NV; Wei-Chen Tung, PhD, RN, FAAN, Orvis School of Nursing, University of Nevada, Reno, NV; Kristen Lott, MSN, RN, Duke Transplant Center, Durham, NC*

**Background:** Distrust has been a significant contributor in ethnic minorities' refusal to engage in research and hesitation to access health care. This distrust has expanded into the use of advanced care planning. Ethnic minorities are not proactively engaging in advanced care planning although they are encouraged by nurses and other healthcare professionals. Even with this effort, it remains unclear with whom ethnic minorities are talking about advanced care planning, and to what extent are they using advanced directives for their end of life care.

**Purpose:** The purpose of this survey study with a descriptive, cross-sectional design was to characterize and determine the impact of ethnicity on the discussion and use of advanced care planning and advanced directives by community-residing older ethnic minorities in good health.

**Methods:** A convenience sample (n = 177) was recruited from multiple communities in Northern Nevada via snowball sampling, fliers, personal contacts, referrals, and in-person contact. Data were collected with a self-report survey adapted from the American Association of Retired Persons North Carolina end of Life Care Survey. Participants completed the survey at their convenience and returned it via regular mail, email, or in-person. A sub-sample (n = 28) was created with only ethnic minorities. Data were analyzed with descriptive statistics and Kruskal Wallis test.

**Implications:** Participants only talked to their family about end of life care, and some used advanced care planning and directives that aligned with cultural beliefs. Clearly, ethnicity impacted the choices and decision to use. With increased availability of advanced care planning, current and future nurses need to acknowledge the barrier, distrust, that prevents ethnic minorities from discussing this proactive care planning with knowledgeable professionals. Future nurses also need to heighten their sensitivity so that they can educate ethnic minorities about advanced directives so that 100% of ethnic minorities will engage in advanced care planning and select appropriate advanced directives.

**Funding:** Funded by Sigma Theta Tau, Nu Iota Chapter Research Award.

## THURSDAY PEER-REVIEWED POSTER SESSION

### A Resilient Nature Born from Adversities Experienced by Centenarians in Appalachia

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**Background:** Often collapsed into the oldest-old category (age 85 and older), centenarians are invisible and can go undetected by nurse professionals. Nevertheless, this population of older adults is rapidly growing worldwide, demonstrating the capacity to thrive and enjoy life beyond just surviving. This desire to thrive beyond personal and societal challenges is a hallmark sign of resilience. However, little is known, from the perception of centenarians, about their lived experiences that reflect the development and strengthening of their resilient nature.

**Purpose:** This secondary analysis was designed to explore the perspectives of Appalachian centenarians in order to (1) describe how they living through challenges and adversities during childhood and early adulthood, in a location known for poverty and isolation, and (2) characterize the resilient nature that emerged from the experiences.

**Methods:** With a qualitative descriptive design, this study used extracted data for 21 community-dwelling Appalachian centenarians who had participated in face-to-face interviews. They resided in their homes or assisted-living facilities. Descriptive statistics were used to characterize the demographics. Qualitative data were analyzed using the Neuendorf's content analysis method. The NVivo 11.0 was used to verify the emerging themes and subthemes.

**Results:** Participants were predominantly female (95%, n = 20), white (90%, n = 19), and 100 years of age ( $M_{AGE} = 101.4 \pm 1.5$ ) with 81% (n = 17) high school graduates and 43% college graduates. Three themes emerged with 11 subthemes identified. The Challenges of Growing Up in Appalachia theme consisted of *working hard for the family, loss of a loved one, gender and race discrimination, and impact of isolation on health*. They reflected the initialization of a resilient nature, triggered by the need to access one's inner strength and resources in order to begin to survive. The theme Resources Used to Overcome Challenges entailed *living a simple life, using family/community support, and consuming and appreciating food from their farms*. They showed the continued development of the resilient nature due to the acceptance of behaviors and actions needed to sustain survival. The Living a Good Life theme contained *spirituality, generosity of spirit, living a clean life, and happy, good, and loving life*. These subthemes reflected the intensification of the developed resilient nature as manifested in the desire to identify, operationalize, and promote a good life.

**Implications:** Findings from this study demonstrate that a resilient nature emerged as centenarians survived and thrived beyond the challenges and adversities during their childhood and early adulthood. Acknowledging this resilient nature can increase the potential for current and future nurses to care for, understand, and advocate for centenarians and older adults. Nurses can encourage older adults' involvement in their care for increased positive outcomes. Nurses can enhance their therapeutic relationship with older adults, which will promote their independence and self-efficacy. Clearly, understanding this resilient nature will be pivotal information for future nurses so that they can address the needs of all older adults in a global community.



## THURSDAY PEER-REVIEWED POSTER SESSION

### Differences in Help-Seeking and Service Utilization among Dementia Caregivers

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**Background and Purpose:** Alzheimer's disease (AD) affects ten percent of Americans older than 65 years and is expected to triple in number by 2050. AD is the sixth leading cause of death for all Americans. Korean Americans (KA) are ranked fourth in size among all Asian Americans with a rapid increase in those older than 65 years. With this change, AD and other dementias are a significant health concern among KA elderly and their families, especially in states with large KA communities. However, an overall pattern of underutilization of health services among KAs has been reported due to factors such as health insurance, finance, English proficiency, stigma, and cultural values. Therefore, the purpose of this study is to describe the caregiving experience of KA families of persons with dementia (PWD) by exploring the similarities and differences in their caregiving experience specifically in relation to health insurance.

**Methods:** One-on-one, semi-structured interviews on the caregiving experience were conducted with KA family caregivers of PWD living in Southern California. Interviews were audio-taped, transcribed in verbatim, and translated into English. Thematic analysis was performed using an on-line qualitative data analysis software.

**Results:** The sample consisted of 18 KA family caregivers of 15 PWD. All PWD were insured with six out of 15 PWD receiving their dementia care through Medicaid. The findings indicated that the caregiving experience among KA caregivers were comparable in terms of (a) efforts in seeking help and resources, (b) struggles with emotional and mental health issues including thoughts on suicide and death, and (c) adjustment to a new reality of dementia and caregiving. However, KA caregivers reported differences in the pattern of help-seeking, resource utilization, and coping with caregiving based on the types of insurance. KA caregivers of PWD without Medicaid described (a) polarized financial status, (b) more active search for information and available services, and (c) active participation in caregiver support groups. Although KA caregivers of PWD with Medicaid appreciated having the financial means to obtain respite care including adult daycare and in-home services, they also reported encountering another hurdle to find the right services for their PWD considering factors such as Medicaid coverage limits, language, and severity of symptoms.

**Conclusion/Implications:** The findings showed that KA family caregivers shared commonalities in their caregiving experiences, but they also reported unique challenges based on health insurance. Korean people see an illness as an object, particularly as a hurdle, which makes a person stumble and get stuck, and efforts are made to clear the hurdle. However, dementia is not the hurdle that can be cleared, and it is important for KA family caregivers to accept the illness and learn to live with it. Therefore, future outreach and engagement efforts need to reflect the unique challenges of KA caregivers providing individualized support and resources to strengthen knowledge, resilience, problem-solving skills, capacity for conflict resolution, and effective communication skills.

**Funding:** The project was supported by (1) Arthur N. Rupe Foundation and (2) the National Center for Research Resources and the National Center for Advancing Translational Sciences, National Institutes of Health (NIH), through Grant UL1 TR0001414.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Influence of the “Robust Aging Program” on Nursing Students’ Professional Development

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**Purpose:** The purpose of this research project is to explore students’ perceptions of their clinical experiences at the “Robust Aging Program” (RAP) clinic where students worked with older adults during a term. The study examines the potential impact of this learning experience on their career choices, particularly whether students consider a career path related to gerontology.

**Background:** Infants born in the United States today can be expected to live to about 80 years (Central Intelligence Agency, 2013). It is expected that the population 65 and older will increase from 12.8% in 2013 to 20% in 2030. The fast-growing segment of the population is those 85+ which is expected to increase from 3.5% to 10% in 2050. If students realize the magnitude of keeping our older adults independent, out of Skilled Nursing Facilities (SNFs), then maybe they are more likely enthused to become geriatricians/gerontologists. For these reasons, we hope to assess whether participating in the RAP clinic for one semester or more influence students’ intent to take care of older adults or go forward to enroll in nursing programs or other allied-health related areas focused on Gerontology/Geriatrics.

#### **Methods:**

*Participants/Setting-* Recruited a total of 20 nursing students, who either graduated (alumni) or candidates to graduate this 2019 with the Bachelor of Science in Nursing degree.

*Design-* Students will participate in a semi-structured interview to examine their experiences at the RAP clinic, their views on the aging population, and their thoughts for whether or not they consider pursuing a nursing career in gerontology/geriatrics related areas. The interview will include demographic questions and questions related to the overall RAP program.

*Procedure-* After consent signed, participants will receive an invitation letter via email describing the purpose of the study. Research assistants will schedule the interview -in person - or via Zoom. The interview will be transcribed verbatim, and participants will be invited to review the transcription if they are interested. Psychology undergraduate and graduate students trained research assistants with significant experience on conducting and transcribing interviews will conduct the interviews under the supervision of the Faculty.

*Data Analysis-* Analysis will utilize qualitative hermeneutics phenomenology method. Interview data will be focused on content analysis to identify central themes in students’ experiences at the RAP clinic.

**Implications:** With baby boomers costing the most in the health-care expenditure of the US economy, healthcare professionals particularly nurses are much needed to meet the demands of this vulnerable population. Moreover, the recent California Chancellor Executive Order No. 1084 leads to the undergraduate nursing curriculum changes that could limit students’ clinical experiences to the care of older adults. Therefore, all health-care stakeholders: educators, clinicians and policy makers alike need to develop programs that promote gerontology.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Differences in Fall Risks between Homebound and Non-Homebound Older Adults

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**Purpose/Background:** Falls in community-dwelling older adults are a severe public health concern. Falls negatively impact older adults, their families, and public health. With fall-related injuries, older adults may experience functional decline, hospitalization, nursing home placement and decreased quality of life. Homebound and non-homebound older adults have different characteristics, which may affect their fall risks differently. The objectives of this study were to a) examine the characteristics of homebound and non-homebound community-dwelling older adults, and b) compare the differences in fall risks between homebound and non-homebound community-dwelling older adults.

**Conceptual Framework:** We used the National Health and Aging Trend Study (NHATS) disability conceptual framework for this study. We selected factors associated with falls including sociodemographic characteristics, health conditions, physical functioning, and environmental factors via literature review.

**Methods:** Using the NHATS round 6 data, this was a cross-sectional, correlational study with a sample of 5,930 community-dwelling older adults (65 and above), including 1,356 homebound and 4,574 non-homebound older adults. We conducted bivariate chi-square tests to compare the sample characteristics with fall status stratified by homebound status. We used multiple logistic regression analyses to identify fall risk factors specific to homebound and non-homebound older adults.

**Results:** The fall incidence for homebound and non-homebound older adults was 288 (21.1%) and 395 (7.98%), respectively. Homebound and non-homebound older adults shared two common risk factors for falls: difficulty getting out of bed (OR = 1.729,  $p = 0.003$ ; OR = 1.882,  $p = 0.002$ , respectively for the homebound and non-homebound), and balance problems limiting activities (OR = 1.531,  $p = 0.026$ ; OR = 3.004,  $p < 0.001$ , respectively for the homebound and non-homebound). More significant risk factors for falls were identified in the homebound than the non-homebound. Specifically, male homebound older adults were 59% more likely to experience a fall than their female counterparts (OR = 1.59,  $p = 0.005$ ). Homebound older adults with hypertension, depression/anxiety or hearing impairment had increased risk for falls (OR = 1.647,  $p = 0.031$ ; OR = 1.269,  $p = 0.049$ ; OR = 1.624,  $p = 0.022$ ). Among non-homebound older adults, home tripping hazards was identified as a significant risk factor (OR = 1.77,  $p = 0.031$ ). Having strength problems limiting activities (OR = 1.425,  $p = 0.028$ ) or vision impairment (OR = 3.004,  $p < 0.001$ ) placed non-homebound older adults at increased risk for falls compared to those without these functional limitations.

**Implications:** Using a national representative sample, we examined the differences in risk factors for falls between homebound and non-homebound community-dwelling older adults. Findings from the study suggest that community fall prevention programs need to be tailored based on the different risk factors in homebound and non-homebound older adults. Community health nurses need to address the common risk factors, while also considering risk factors specific to homebound or non-homebound older adults living in the community. Additional research is needed to develop tailored fall interventions for homebound versus non-homebound older adults.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Pathways to Posttraumatic Growth: Facilitating the Positive Legacy of Vision Loss

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**Purpose/Aims:** The purpose of this mixed method study was to describe posttraumatic growth (PTG) accruing from the struggle with vision loss caused by severe age related macular degeneration (AMD) This study also sought to identify the relationships between depression, social support, cognitive processing and PTG.

**Rationale/Conceptual Basis/Background:** AMD is the leading cause of irreversible vision loss worldwide. In the U.S., the number of individuals living with AMD is projected to reach 17.8 million by 2050. AMD is associated with a significant risk of co-morbid depression and anxiety, and an increased risk of social isolation. Scientific inquiry into the psychological and social issues surrounding AMD has focused on ways in which the condition is a catalyst for negative outcomes. However, enduring and learning from negative life events can offer benefits. PTG is one such possibility and has been identified in multiple populations including among cancer survivors, and victims of natural disasters. PTG has never been studied among the blind or visually impaired. By identifying positive outcomes accruing from the struggle with blindness, researchers may begin to understand ways to foster these positive outcomes.

**Methods:** Study participants were identified from an IRB-approved medical record query of a large, multi-site ophthalmology practice and recruited via mailed letter and follow-up phone call. The interviewer-administered composite questionnaire sought to identify elements of Tedeschi and Calhoun's theoretical model of PTG and included the Geriatric Depression Scale, the Event Related Rumination Inventory, Lubben's Social Network Scale and the Post-Traumatic Growth Inventory. Relationships between variables were examined using path analysis. Findings were contextualized with data from 15 qualitative interviews with 15 individuals who exhibited high PTG and were analyzed thematically directly from audio recordings.

**Results:** 89 participants completed the questionnaire (mean age = 85.3 years, age range = 74–98 years). The path coefficient from depression to social support ( $\beta = -.363$  ( $p < .001$ ), indicated that as social support increases, depression decreases. Additionally, increased social support seemed to encourage positive deliberate rumination ( $\beta = .233$ ;  $p \leq .01$ ). The path from intrusive rumination to deliberate rumination ( $\beta = .514$ ,  $p < .01$ ) was consistent with the PTG theoretical model where, although intrusive rumination is often associated with negative outcomes, it also stimulates attempts to engage in more deliberate attempts to process one's experience. Overall, deliberate rumination had a significant and direct path to PTG ( $\beta = .38$ ,  $p = .001$ ).

Qualitative responses cited themes of PTG including “greater empathy for others”, “increased spirituality” and “increased sense of personal strength”, and highlight the importance of “relationships with others” in the path to PTG.

**Implications:** PTG resulting from the struggle with the challenges of AMD was a meaningful reality for some. These findings underscore the important role of social support in reducing distress and fostering deliberate cognitive processing which facilitates PTG. Nursing interventions to promote the positive outcome of PTG, should focus on mitigating depression by increasing and enhancing social networks, and fostering positive, deliberate cognitive processing.

**Funding:** National Institute of Nursing Research Grant # T32NR013456.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Pilot RCT of a Theory-Based Intervention to Enhance Wellness Motivation in Older Adults

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*Jennifer Barrows, PhD, Arizona State University, Phoenix, AZ*

**Background:** Cardiovascular disease is the leading cause of mortality in the U.S. While physical activity can reduce cardiovascular risk, most adults do not engage in adequate physical activity to maintain or improve health. Older adults are less likely to participate in physical activity and experience a greater burden of cardiovascular disease compared to younger adults. Despite knowledge of motivators and barriers to physical activity, the challenge to reduce cardiovascular risk in the older adult population remains unmet. Older adults face unique and complex barriers to physical activity, including limited social contextual resources and behavioral change processes. Interventions to enhance wellness motivation have demonstrated potential in promoting health behavior change among older adults.

**Purpose/Aims:** The purpose of this study was to examine the feasibility of the Yoga for HEART (Health Empowerment and Realizing Transformation) Intervention to increase motivation for physical activity and improve cardiovascular health in older adults. Specific Aims were to: (a) examine intervention acceptability, demand, and fidelity; and (b) evaluate intervention efficacy in promoting physical activity and improving cardiovascular health through increased social contextual resources and behavioral change processes.

**Methods:** A pilot randomized controlled trial design was used. The Intervention group received Yoga for HEART, a 12-week yoga program to foster motivation for health behavior change. The Control group received a 12-week group yoga program that did not contain theory-based components. The intervention was based on Wellness Motivation Theory, conceptualizing health behavior change as dynamic process of intention formation and goal-directed behavior leading to the development of new and positive health patterns. Critical inputs (i.e., empowering education, motivational support, and social network support) were designed to promote social contextual resources and behavioral change processes to increase motivation for physical activity and improve cardiovascular health. Cardiovascular health outcomes included blood pressure, body mass index, waist-hip ratio, and physical activity behavior measured by accelerometer. Health-related physical fitness outcomes included endurance, strength, flexibility, and balance measured by the Senior Fitness Test.

**Results:** The Yoga for HEART intervention demonstrated feasibility in terms of acceptability, demand, fidelity, and efficacy. Participants in the Intervention group realized significant improvement in cardiovascular health (i.e., body mass index) from baseline to 12 weeks when compared to participants in the Control group. Intervention group participants demonstrated improvement in theoretical mechanisms (i.e., self-knowledge, motivation appraisal, self-regulation, and environmental resources) and cardiovascular health outcomes (i.e., body composition) when compared to Control group participants. Participants in both Intervention and Control groups realized significant improvements in physical fitness outcomes, including strength, flexibility, and balance.

**Implications:** Findings from this study support the feasibility of the Yoga for HEART Intervention in older adults. While yoga-based physical activity interventions have demonstrated potential in reducing cardiovascular risk and improving physical fitness in older adults, interventions guided by Wellness Motivation Theory may be more effective in fostering social contextual resources and behavioral change processes that support the initiation and maintenance of health behavior change.

## THURSDAY PEER-REVIEWED POSTER SESSION

### A Concept Analysis: Empowerment for People Living with Dementia

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*Shih-Yin Yu, MSN, RN, School of Nursing, University of Washington, Seattle, WA*

**Purpose:** This paper applies PANEL, (Participation, Accountability, Non-discrimination, Empowerment, and Legality), as new elements to the concept of empowerment. The PANEL has developed a framework that embraces important human rights, concepts, and principles.

**Aim:** This paper aims to reframe the concept of empowerment for people living with dementia; the concept can be applied in the development of policies and research locally and nationally.

**Background:** It becomes all the more important to enhance our human rights approaches for individuals with dementia. The importance of human rights approaches has been recognized as fundamental to support their needs. As a connotative definition of the concept, empowerment underscores the central importance of the human's voice being heard. The human's voice is valued to be respected; this also emphasizes in the development guidelines by the World Health Organization.

**Methods:** This paper uses Walker and Avant's methodological approach in analyzing the concept of empowerment in the nursing discipline. The definitions of empowerment and contextual applications are examined by using dictionaries and literature review. Defined attributes, antecedents and consequences of empowerment are identified in the paper.

**Conclusion:** It is recommended that not only should awareness-raising include education on a rights-based approach to the treatment of people with dementia, but also the voices of people with dementia should be heard and valued. We need to increase education about dementia so to change attitudes of society and reduce stigma. Empowerment for people with dementia can become a bridge to help them feel normalized in their communities.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Robotic Companion Animal Therapy (RCAT) for Veterans with Dementia

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**Background:** Veterans with dementia, Alzheimer's, and other cognitive dysfunction who require long-term care often suffer from isolation, boredom, and a lack of social interaction. This was noted by family members. Current approaches to this problem have included music therapy, recreational hours, and even aromatherapy; however, this was not enough.

**Aims:** A novel, low-cost, complementary approach to providing companionship – Robotic Companion Animal Therapy (RCAT) – was introduced at the Puget Sound VA. Robotic animals that can move, purr, and bark were used in this quality improvement (QI) project. In a three-phase approach, RCAT was introduced on the locked dementia care unit at the American Lake Community Living Center (CLC) for Phase I. Phase II is in development for introduction to the hospice patients at the VA hospital. Phase III will include eligible Veterans system-wide.

**Methods:** A mixed-method approach was used to gather and analyze collected data over six weeks. A comparison of baseline performance data and changes over time with RCAT was performed. The QI team participated in a workshop on RCAT and completed pre- and post-test surveys. Staff care notes at pre- and post- intervention for resident levels of anxiety and agitation, social engagement, resistance to care, pain, and sleep quality were analyzed. Interviews with staff about their perceptions of RCAT and its usefulness for the Veterans were also obtained.

**Outcomes Documented:** Mixed negative and positive results were noted in weekly comparisons for all five residents with varying levels of cognitive function. Three residents experienced reduction in anxiety and agitation, with one as much as 53.8%, though that resident also experienced twice as much resistance to care. Another had reduced social engagement (28.5%), reduced resistance to care (100%) and maintained bright affect. Two residents had reduced combativeness (33%, 60%). Interestingly, 100% of CLC staff noticed as much as 80% increased stimulation, reduction in boredom, and improvement in social environment after two weeks exposure to RCAT in other non-documented events. Staff responded positively to RCAT, finding them helpful to assist with care. No changes in polypharmacy rates were observed in this short time frame.

**Conclusions:** Multiple confounding factors were unavoidable in this two-week period, such as new seizure management or sustained fall. Still, given the positive outcomes noted from clinical staff from Phase I, Phase II was implemented in October 2019 with Veterans on the hospice units at the VA. RCAT may not be appropriate for all patients with cognitive impairments, however this project demonstrated that RCAT can comfort and engage users of this population. RCAT may serve as a powerful adjunct for alternative and complementary therapies in future nursing care.

## THURSDAY PEER-REVIEWED POSTER SESSION

### The Impact of Technology in Educational Interventions to Improve Self-Care Behaviors

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**Purposes/Aims:** The purpose of this systematic review was to identify the impact of technology versus non-technology based interventions on self-care behaviors (medication usage, exercise, symptom monitoring and reporting, low sodium diet, and smoking cessation) and blood pressure measurements (systolic and diastolic) of individuals with hypertension (HTN) and heart failure (HF).

**Rationale/Conceptual Basis/Background:** Optimizing educational interventions may impact poor self-care behaviors in more than 1 billion individuals with cardiovascular disease. For those with HTN and HF, self-care needs are extensive and difficult to integrate into daily life. Medication usage, exercise, symptom monitoring and reporting, low sodium diet, and smoking cessation are all predictors of blood pressure in these populations. This study used Dorothea Orem's Self-Care Theory to guide healthcare providers in identifying the impact of technology in educational interventions to improve patient autonomy in self-care behaviors and the secondary effect of lowering blood pressure.

**Methods:** This systematic review followed PRISMA guidelines. Articles were retrieved using comprehensive search terms from three databases with additional relevant articles pulled from reference lists. Inclusion criteria for articles were adult (18+), HTN or HF populations, educational interventions, and self-care behaviors as an outcome. The Cochrane Risk of Bias Tool was used to evaluate study quality. Significance was set at  $p \leq 0.05$ . Data was extracted and evaluated by two independent researchers with a third consulted for discrepancies.

**Results:** After data extraction and evaluation, 17 of 626 articles were selected for this review. Fourteen of 17 included articles were evaluated as low risk of bias in random sequence generation. Allocation concealment was generally high risk with only 7 studies blinding appropriation to study groups. Examining the impact of technology in educational interventions in HTN populations, 7 of 9 articles with a technology based intervention and 2 of 8 articles with a non-technology based intervention demonstrated significant improvements in self-care behaviors. In HF populations, 7 of 10 articles with a technology based intervention and 9 of 14 articles with a non-technology based intervention demonstrated significant improvements in self-care behaviors. The impact of technology on the secondary outcome of blood pressure was further evaluated in the 11 of 17 articles which measured this variable. In HTN populations, 1 of 4 articles with technology based interventions and 3 of 4 articles with non-technology based interventions demonstrated significant improvements in blood pressure. In HF populations, the single article with technology based interventions and 1 of 2 articles with non-technology based interventions demonstrated significant improvements in blood pressure. Varied reporting of analyses prevented pooling of data and limited generalizability.

**Implications for Translation to Practice/Further Research/Policy:** Overall, our findings demonstrate that the inclusion of technology in educational interventions may not be a primary factor determining significance in either self-care behaviors or in lowering blood pressure. For clinicians, the focus of delivery to improve self-care behaviors and reduce blood pressure should be secondary to the educational content. Researchers need to firmly address the effectiveness of technology versus non-technology based educational delivery.



## THURSDAY PEER-REVIEWED POSTER SESSION

### Addressing the Needs of Male Victims of Intimate Partner Violence in Rural Communities

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**Max Veltman, PhD, RN, CPNP-PC, School of Nursing, Boise State University, Boise, ID; Karen Godard, DNP, APRN, CPNP, School of Nursing, Boise State University, Boise, ID; Katie Fletcher, SN, School of Nursing, Boise State University, Boise, ID**

**Purpose:** The purpose of this project is the creation of an evidenced based toolkit designed to be utilized by front line caseworkers who occasionally work with male victims of intimate partner violence (IPV) in a rural community center. Despite an increase in the amount of reported cases of male victims of IPV, there is a gap in the understanding of the experience of these victims leading to a lack of understanding among nurses and caseworkers of the needs of this population. After meeting with key stakeholders involved in the process of delivering services at a rural center focused on helping victims of IPV, the toolkit is now being piloted for regular use.

**Background:** The exact number of victims of IPV are difficult to ascertain. It is clear that the number of males who report being victims of IPV is much lower than females. Many factors contribute to the lack of reporting, including stigma, social isolation, and lack of understanding about what ‘domestic abuse’ is by men who may be victims. Recent increases in the number of males seeking help from various systems have revealed that these men may be experiencing unmet needs after entering a primarily female-focused system. These factors may significantly affect the motivation of men to report IPV preventing access to health and social services.

**Description:** Based upon a request and needs assessment, a multi-media toolkit focused on providing research-based care for male victims was created for use by front-line caseworkers and staff members who engage with victims of violence at a justice center located in a rural area of southwestern Idaho. This toolkit incorporates the most recent National Institute for Health Care Excellence (NICE) guidelines for addressing all cases of domestic violence as well as a body of current literature that will assist workers (mostly nurses and social workers) in staying up-to-date with the latest published evidence and best practice guidelines for caring for male victims. These topics include addressing stigma, specific services that may be needed, comparisons of male and female perpetrators, and how to encourage males disclosing. This toolkit is readily available to all staff, volunteers, and interns of this specific community based resource center. Additionally, a process is being developed to ensure that the toolkit is continuously updated as new research is published to provide staff with the most current research and practice guidelines.

**Outcome:** An easily accessible, evidence based toolkit has been developed and provided to the victim advocates and health care team of this community center.

**Conclusion:** With this toolkit now available, there is now a higher level of care administered to victims of IPV seeking help at this community center, especially male victims. Caseworkers, advocates and the health care staff now have a resource available to aid them in using current evidence to best support their practice. Additional research will confirm that the use of this toolkit is improving the quality of care for the male victims of IPV seeking help.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Application of Practice Standards to ECG Monitoring of Surgical Patients

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*Cheryl Diane Lehuquet, MSN, RN, NE-BC, Operations, UCLA Health, Los Angeles, CA*

**Purposes/Aims:** The purpose of this proposed evidence-based quality improvement project is to apply existing national practice standards in a nurse-led, interdisciplinary strategy to reduce inappropriate electrocardiographic (ECG) monitoring in surgical patients in an academic medical center. Effective utilization of resources and attention to a healthy work environments are at the forefront of nursing leadership agendas. Reducing inappropriate ECG monitoring promotes a healing environment for patients and reduces alarm burden on staff. Multiple studies address inappropriate ECG monitoring in medical units regarding alarms, but no existing, prospective studies address the impact of telemetry utilization on alarms in surgical units. This project applies the best available evidence to reduce inappropriate ECG monitoring to support a safe healing patient care environment.

**Rationale/Background:** Widely accepted practice standards recommend indications for and duration of ECG monitoring in inpatient settings, yet 35 percent of patients with ECG monitoring orders do not meet nationally defined criteria. The burden of inappropriate ECG monitoring, including alarm fatigue and interruptions to workflow, falls predominantly on nursing, resulting in patient safety concerns and patient and staff dissatisfaction with noise levels. Patient safety concerns often go unrecognized and therefore not addressed by providers who order ECG monitoring. Existing national practice standards have been adopted successfully in medical units across the country, but there is a paucity of research available on the application of the standards to surgical units.

**Methods/Process:** The project uses a repeated measures design in a 26-bed surgical unit that provides post-operative care for 13 specialty surgery services. Many patients are referred from across the nation or from abroad for quaternary level care.

The three-week intervention includes group education presentation to nurses and surgical teams regarding key elements of the national practice standards for ECG monitoring. The standards were adapted to key elements applicable to surgical patients. Standards will be printed, laminated and posted on mobile computer stations and in rounding rooms to serve as a template and reminder for daily nurse-led interdisciplinary rounds about need for ECG monitoring.

**Expected Outcomes:** Electronic health record (EHR) reports including daily percentage of unit patients on telemetry monitoring and the percentage of patients discharged home directly from monitored inpatient status will be collected 30 days prior to the intervention (pre-Intervention) and again for 30 days following the intervention (post-Intervention) will demonstrate a reduction in ECG monitoring. Daily total alarm counts data from physiologic monitors will be collected for the total study duration and will demonstrate and reduction in alarm counts. To monitor for adverse patient events, code blue and rapid response data will be trended and demonstrate no increase in adverse patient events during the project.

Staff perception of alarm fatigue will be captured in a voluntary anonymous email survey linked to survey software platform pre- and post- intervention.

**Conclusions/Implications:** This study will add to the literature by describing the impact of reducing inappropriate ECG monitoring in surgical patients on patients and staff. The results of this project may inform development of standardized processes adult nursing units at the project institution.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Transforming Transition to Practice: A Nurse Residency Program Pilot

**Samantha L. Barrett, MSN, RN-BC, Professional Development, Memorial Care - Saddleback Medical Center, Laguna Niguel, CA**

**Purpose:** Evaluate a nurse residency pilot based on current evidence and the American Nursing Credentialing Center (ANCC)'s accreditation criteria for the Practice Transition Accreditation Program (PTAP)<sup>TM,3</sup>

**Background:** New graduate nurses transitioning into professional practice often lack experience and confidence with high levels of professional isolation.<sup>1</sup> Approximately 30% leave the profession in their first year.<sup>2</sup>

**Methods:** Three cohorts per year will participate in the ANCC PTAP<sup>TM</sup> criteria-based mandatory 12-month residency program. The Casey-Fink Graduate Nurse Experience Survey (CFS) will be administered at initial hire and 12 months with the following subscales analyzed: support, patient safety, stress, and communication. The residency pilot includes the usual hospital orientation and clinical competency assessment week one with the ANCC PTAP<sup>TM</sup> classes week two, and preceptorship for weeks three to nine or 15 weeks depending on unit worked. An optional, voluntary mentorship will be offered to participants with paired, mentorship-educated mentors. Quarterly, four-hour sessions will include reflection about preceptorship-experienced issues, an educational topic, a professional portfolio building activity, and development of an evidence-based practice project proposal.

**Outcome Achieved:** Results to be presented at the conclusion data collection and analysis. Expected improvement in perceived support, patient safety, stress, and communication and retention at 12 months versus previous cohorts is anticipated.

**Conclusions:** The data will determine the effectiveness of the pilot 12-month nurse residency program to yield more confident, competent and retained professional nurses.

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2. Wierzbinski-Cross, H., Baumann, P. and Ward, K. (2015). Nurses' perceptions of nurse *Journal for Nurses in Professional Development*, 31(1), 15-20.
3. American Nurses Credentialing Center. (2018). Accredited practice transition programs. Retrieved from <https://www.nursingworld.org/org>

TABLE 1

Quarter	Educational topic	Professional portfolio activity	Evidence-based practice project
1	<ul style="list-style-type: none"><li>• Stress reduction</li><li>• Communication</li></ul>	Portfolio building	<ul style="list-style-type: none"><li>• Topic Identification</li><li>• PICO statements</li></ul>
2	<ul style="list-style-type: none"><li>• Critical thinking</li></ul>	Shared governance	<ul style="list-style-type: none"><li>• Critical evidence appraisal</li></ul>
3	<ul style="list-style-type: none"><li>• Time management</li><li>• Delegation</li></ul>	Certification benefits	<ul style="list-style-type: none"><li>• Design small test of change</li></ul>
4	<ul style="list-style-type: none"><li>• Leadership</li></ul>	Professional development	<ul style="list-style-type: none"><li>• Implementation, analysis and evaluation planning</li></ul>

## THURSDAY PEER-REVIEWED POSTER SESSION

### Interprofessional Student Changes in Knowledge and Beliefs about Poverty

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*Janet Willhaus, PhD, RN, CHSE, CHSOS, School of Nursing, Boise State University, Boise, ID*

**Rationale/Background:** Poverty contributes to delay or lack of access to health care and is associated with a variety of health concerns. Health professions students may not fully understand how poverty affects future patients.

**Undertaking:** Because health professions students at Boise State University must complete an interprofessional capstone course, faculty prepared and taught an interactive course more about poverty's health effects. To avoid discipline specific scheduling conflicts, the course was taught over a single weekend. Students from nursing, respiratory care, radiological science, public health, and pre-professional majors collaborated on written reports about poverty and regional health issues. All participated in a group simulation about poverty at the course's conclusion.

The Community Action Poverty Simulation© (CAPS) is large-scale simulation activity that is designed to sensitize participants to the life of an impoverished person or family. Each student functioned as a family member in a household with limited resources or as a worker at a community resource. The simulation allows students to experience what it might be like to live a month with economic limitations imposed. Simulated families must pay their bills, purchase food, attend work or school and access other community agencies such as the bank, social services office, and health office. Transportation limitations pose barriers as the simulated families progress through the scenario. Up to 26 simulated families with differing resource limitations participate in the activity simultaneously. At the end of a simulated month, the families debrief in small groups and then all students participate together in a large class debriefing led by a trained facilitator.

In order to measure change in attitude or belief the faculty administered the CAPS Pre/Post Assessment© before and after participation in the course. The instrument contains 16 survey questions and two free writing questions. Students received credit for completing both the pre and post assessment, however, answers to questions were collected anonymously through a Qualtrics© survey.

**Outcomes Documented:** Students pursuing majors in the health sciences from two consecutive semesters participated in the evaluation (Fall N = 96; Spring N = 94). A total of 110 students utilized self-generated codes that allowed for pairing pre and post results for a dependent sample t-test. Significant differences were detected in 8 of the 16 pre to post survey question scores ( $p < .05$ ). Free writing responses also supported the change in knowledge or belief reflected in the quantitative data. This educational evaluation project received an exemption by the Office of research compliance.

**Conclusions:** Poverty remains an important determinant of health. Health professions students appear eager to learn more about poverty and some express willingness to take positive action to mitigate its effects after graduation. Planning an interactive course for students of different health disciplines takes forethought; however, it is gratifying to see quantitative and qualitative results that demonstrate change in knowledge and attitude in this important area.

## THURSDAY PEER-REVIEWED POSTER SESSION

### The 9th Essential: Supporting DNP Students Who Anticipate Future Teaching Roles

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*Annette Carley, DNP, RN, NNP-BC, PPCNP-BC, Family Health Care Nursing, UCSF School of Nursing, San Francisco, CA; Marianne Hultgren, DNP, RN, CNE, Family Health Care Nursing, UCSF School of Nursing, San Francisco, CA*

**Purpose:** To design a teaching course series for DNP students interested in teaching roles.

**Background:** The DNP Essentials do not specifically address teaching as a DNP competency, though components of individual Essentials clearly articulate with teaching skill at multiple levels. For example, Essential V states that the DNP is prepared to educate others about nursing, policy and patient outcomes; and Essential VIII indicates that the DNP is prepared to educate and guide both individuals and groups in navigating a complex health care system. We posit that achieving these education-focused outcomes demands that the DNP possess foundational preparation in teaching in several capacities. DNPs should be skilled in patient education, and creation and delivery of clinical educational programs for nursing staff and interprofessional colleagues. DNP-prepared nurses must also be prepared to contribute in the academic arena to influence future practice experts.

Significant nurse faculty shortages have impacted the education and training of nurses at all educational levels for over a decade. According to AACN, faculty shortages have directly limited the ability of academic programs to increase enrollments across BSN, MS and Doctoral programs. AACN has suggested that DNPs are both eligible and qualified to teach at the collegiate level with a terminal practice degree in nursing, yet states that DNP faculty development areas should include innovative teaching strategies, methodologies and design. We argue that despite clear nursing practice expertise, there is often a gap in adequate preparation for assuming faculty roles, including foundational content in teaching/learning theory, evidence-based teaching practices and teaching scholarship.

Many applicants to our DNP degree program, as well as enrolled students stated an interest in future roles in academic and clinical teaching, and have sought preparation for these important roles. They acknowledge the critical impact of their background as clinical practice experts positioned to use this background to best develop future nurse leaders.

**Approach:** We saw this as an opportunity, and designed a series of optional elective courses to support preparation of our DNP students for these future roles. The series design included course content and practicum experiences that address NLN requirements for Nurse Educator certification. Because a course series of this type did not currently exist at our school, it also satisfied a gap for other programs. By retaining these courses as optional electives we remained congruent with AACN's DNP Essentials.

The most prudent approach was to create optional online courses for interested DNP learners. We designed a course series that began with *Foundations in Academic and Clinical Teaching in Nursing*, and explored conceptual approaches to curricular design, implementation and evaluation for academic and clinical teaching. A second course, *Teaching in the Online Environment* explored topical areas specific to online teaching. A third course, *Special Topics in Nursing Education* will roll out next year, as will opportunities for a practicum.

**Outcomes:** Twelve students completed the initial course, and four completed the second; course evaluations were positive.

**Conclusion:** An optional elective course series was a successful option for DNP students seeking preparation for roles in teaching.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Webinars as a Training Tool for the Next Generation of Cognitive Health Researchers

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**Boeun Kim**, MSN, RN, School of Nursing, University of Washington, Seattle, WA; **Basia Belza**, PhD, RN, FAAN, Biobehavioral Nursing and Health Informatics, University of Washington, Seattle, WA; **Guilherme Moraes Balbim**, MS, University of Illinois at Chicago, Chicago, IL; **Gwen Moni**, BA, University of Washington, Seattle, WA; **Daniela B. Friedman**, MSc, PhD, Department of Health Promotion, Education, and Behavior, University of South Carolina, Columbia, SC; **Raina Croff**, PhD, Layton Aging and Alzheimer's Disease Center, Oregon Health & Science University, Portland, OR; **Valerie J. Edwards**, PhD, Centers for Disease Control and Prevention, Atlanta, GA

**Purpose:** The purpose of this presentation is to describe the scholar-driven development and offering of a series of webinars as well as describe the reach and lessons learned.

**Background:** To advance gerontological research and practice, we need to train the next generation of researchers. The Centers for Disease Control and Prevention's (CDC) Healthy Brain Research Network (HBRN), a collaboration of six academic centers, developed and offered an innovative scholars program that engaged undergraduate and graduate students in cognitive health research. A webinar is a delivery form of training to enable easy access in terms of place, time and cost. A webinar series was determined to be an appropriate tool to train primary HBRN scholars but also be open to HBRN investigators and others.

**Methods:** From 2016 to 2019, we developed six webinars on topics including: perspectives from journal editors, cognition, cognitive measurements, and professional development. The scholars identified the webinar topics and assisted with the selection of speakers. The majority of the webinars featured scholars as moderators and/or panelists. Evaluations were sent to participants after each webinar. Recordings were available for viewing at HBRN's website and YouTube. We measured reach as the number of registrants and YouTube views.

**Outcomes:** Attendees were scholars, investigators, and experts from 12 institutions. We reached over 128 registrants and 284 YouTube views. Evaluations had an average response rate of 30% and showed satisfaction with the webinars' format (90% to 100%). Participants strongly agreed or agreed (85% to 100%) that they gained useful information from the webinars.

**Conclusions:** The webinar series which was developed based on scholar needs offered opportunities for scholar development and may be a model for other scholar training programs. Lessons learned include the importance of selecting relevant topics based on the audience, as well as the need for attention to using appropriate evaluation tools to measure the effectiveness of the webinars. A designated and skilled program manager was critical to assisting with presenter rehearsals and handling the webinar technology. And lastly, a robust distribution channel is important for sending out invitations to attend the webinar.

**Funding:** This project was supported in part by the Healthy Brain Research Network (HBRN) funded by the Centers for Disease Control and Prevention (CDC) Alzheimer's Disease and Healthy Aging Program. The HBRN was a thematic network of CDC's Prevention Research Centers Program, supported in part via cooperative agreements: U48 DP 005006, 005002, 005010, 005053, 005000, and 005013. The views and findings reported in this presentation are those of the author(s) and do not necessarily represent the official views of the Centers for Disease Control and Prevention.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Nurses' Knowledge of Medication Administration Guidelines

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**Kathleen Gilchrist**, PhD, RN, Nursing, California State University Bakersfield, CA; **Jeff Advincula**, BSN, RN, Nursing, California State University, Bakersfield, CA; **Linh Dang**, BSN, RN, Nursing, California State University Bakersfield, CA; **Julia Granese**, BSN, RN, Nursing, California State University Bakersfield, CA; **Karin Urso**, MSN, PHN, RN, Nursing, California State University, Bakersfield, CA; **Annie Huynh**, DNP, FNP-BC, PHN, RN, Nursing, California State University, Bakersfield, CA

**Purpose:** Investigate RN-BSNs knowledge of medication administration guidelines.

**Background:** In 1999, the Institute of Medicine released the landmark report, *To Err is Human: Building a Safer Health System*. This report brought medical errors including medication errors to the public's attention. The basic five rights of medication administration are right patient, drug, time, dose and route. The number of medication rights have increased, but the inconsistency in medication guidelines is possibly a factor contributing to medication administration errors. However, there is no consensus from healthcare agencies concerning the correct number of medication rights. In addition, information technology bar-code assisted medication administration has failed to reduce medication errors. None the less, recent statistical data has demonstrated medication errors have harmed at least 1.5 million people yearly and more than one potential medication error occurring each day (2017) indicating a need for more research.

**Methodology:** Quantitative, exploratory design, utilizing a 26-question, four-point Likert scale, researcher-developed online survey which included demographic questions and nurses' use and adherence to medication guidelines. RN-BSN students were invited to participate through a Survey Monkey® e-mail. An invitation with a link was emailed to 48 RN-BSN nursing students in the San Joaquin Valley. After two weeks, a reminder email was sent allowing one more week for students to respond. Data were downloaded and analyzed utilizing frequency statistics.

**Results:** The convenience sample had 48 students with 30 surveys completed for a response rate of 62.5%. Over one half of the RN-BSNs were under 40 (86%). The majority of RN-BSNs were working full time (86.6%), worked 1-5 years (53.3%), and worked days (53.3%). Eighty-seven percent always identified their patient, but only 70% routinely verified allergies. Thirteen percent responded that they sometimes to rarely checked two patient identifiers. Only 40% checked expiration dates of oral medications and 47% for IV fluids. When asked if they provided patient education, only 43% always provided it. In addition, 27% reported they only sometimes checked pertinent lab results prior to medication administration. Only 23% assessed pain medication effectiveness. The six rights were the most recognized as the correct number of rights (67%).

**Nursing Implications:** Most RN-BSNs selected six rights as the number of patient rights to follow but did not always provide patient education. All nurses should always check expiration dates on oral and IV medications prior to administration. Pertinent labs are extremely important to assess; a medication may need to be held, stopped, or reduced or increased. Government and healthcare agencies need to develop a standardized number of medication rights and consistently teach and follow them. Future research should include direct observation of nurses administering medications to see if medication guidelines are being followed.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Creative Support for a Nursing Cohort of Incumbent Workers

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*Lena Hristova, DNP, ARNP, AGCNS, CNE, OCN, CMSRN, School of Health Sciences, Seattle Pacific University, Seattle, WA*

**Purpose:** In support of the Health Career for All (HCA) program, funded under the U. S. Health and Human Services Health Professional Opportunity Grant (HPOG) initiative, a local community college provided a cohort based-training in nursing for HCA enrolled participants.

**Background:** To ensure that higher education offerings fit the needs of the labor market, and especially employers, new models of collaboration between colleges and industry are being developed and widely implemented (Holzer, 2015). The HCA program was designed to improve access to and completion of healthcare training and careers for the region's low-income residents. The project described here was focused on the support of a cohort of entry level incumbent workers who had widely ranging academic backgrounds, the goal of becoming a nurse, and for most the need to work while at school.

**Methods:** The Nursing Career Program (NCP) was a two phase program: the first phase consisted of six quarter packaged nursing pre-requisites, and the second phase consisted of seven quarters nursing program course of study preparing the students to sit for National Council Licensure Examination for Registered Nurses (NCLEX-RN). The two phases were offered in a hybrid format (integrated on- campus and on-line learning design). A total of 46 individuals enrolled in the NCP throughout 13 quarters. Students who exited the program were allowed to return on space available basis. The faculty team consisted to pre-requisites instructors, nursing faculty and tutors. The support team consisted of a program manager, two navigators (academic and social), and a faculty liaison. Participants received: 1) block registration for classes; 2) paid tuition, books, fees; 3) direct admission to the nursing program conditional on meeting nursing program requirements; 4) academic and emotional support and encouragement; 5) tutoring support; 6) academic counseling and navigation; 7) practical support beyond academics (gas cards, auto repairs, small monthly stipends by a private donation).

**Results:**

- 87% of NCP participants have graduated and obtained a LPN license.
- 57% of entry-level healthcare workers graduated with an ADN degree on time.
- 23% have returned to the LPN- to- RN ladder.
- 78% of the women of color left the cohort on their first try (most of these participants reentered the program and succeeded).

**Evaluation:** The data sources used in the evaluation included semi-structured individual and group interview, focus groups with stakeholders, the college best practice summary report, and a survey of entry level healthcare workers interested in NCP. A turnover of leaders significantly affected follow through on the original version of the NCP. A delay in Nursing Faculty involvement in program design and preparation to teach a new population of students contributed to faculty burnout and group dynamic challenges.

**Implications to Practice:** Vision for the nursing program: holistic admission; part-time program; student support (academic and non-academic); faculty support for professional development on hybrid modality and non-traditional students; stakeholders' inclusion in project development. Clarify organization of NCP: establish clear articulated roles, responsibilities and reporting structure. Communication/Relationships: design strong communication channels between faculty and the support team; magnify the role of employers for support and clinical practicum; contextualize nursing prerequisites.



## THURSDAY PEER-REVIEWED POSTER SESSION

### Why Are Male Nurses Leaving the Bedside Earlier and at Twice the Rate of Females?

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*Linda C. Hofmann, PhD, RN, NEA-BC, NE-BC, College of Nursing, University of Utah, Salt Lake City, UT; John A. Nerges, MS, RN, CCNS, SANE-A, College of Nursing, University of Utah, Salt Lake City, UT*

#### **Aims:**

1. Understand rationales for male nurses' intention to leave bedside patient care.
2. Describe the career paths of male nurses.
3. Describe associated decisions for changing jobs or advancing academic education level.
4. Inform the profession of nursing and healthcare institutions with regard to male nurse intention to leave bedside patient care.

**Background:** While demographic data indicates more men are entering the profession of nursing than ever before, according to state and national data male nurses are leaving bedside patient care at approximately twice the rate of female nurses, and earlier in their careers than their female counterparts. While intention to leave and high rates of voluntary turnover are concerning with regard to the total nursing workforce, understanding the unique needs of men in nursing and their intended career paths is important to supporting a gender diverse nursing workforce. Review of the literature reveals lack of information on the careers of men in nursing with regard intention to leave, professional goals and career paths of men in nursing. Articles historically and currently, focus on gender discrimination, stereotyping, and men as minorities in the female dominated profession. A gender diverse workforce allows for customized, sensitive care. In some patient situations male nurses can better assess, accommodate and meet needs of male patients, as well as other patient populations.

**Method:** A demographic survey, recruitment letter and consent letter will be utilized to invite participants. A purposive sampling technique, using the state licensee list will be used to recruit male nurses, licensed between 3 and 12 years, who have worked at the bedside in direct patient care for at least 3 years. A qualitative method using unstructured and semi-structured interview questions will be used to explore and research the phenomenon of male nurses' rationales for intention to leave and decisions actually to leave bedside patient care. The theoretical framework for this study is inductive in order to research phenomena and discover variables.

**Results:** Participant interviews will be audio recorded and transcribed. All audio files and transcription will be encrypted and securely stored. Transcript files will be uploaded to QDA Miner<sup>®</sup> with Wordstat<sup>®</sup> software for content analysis, including sorting, coding, identification of themes and categorization of participant interview topics.

**Implications:** The problem of male nurses leaving bedside patient care has implications for quality patient care that meets the needs of the different and varied patient populations. Further, understanding why men in nursing are leaving earlier and at an increased rate, compared to their female colleagues, could allow for implementation of structures that support and provide sensitive care for the various patient populations. Specifically, supporting these populations to feel comfortable, confident and able to relate to a nurse who is like them. This could also increase trust of the patient. Additionally, focused supports to retain men in direct patient care could advance the profession of nursing through reducing long-standing problems in nursing such as; oppressed group behavior, and improvement and or equalization of inequitable wage levels.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Inspection Results after Adding MA's to the Staffing Model in One Nursing Home

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**Background:** In response to an ongoing shortage of licensed nurses in nursing homes, some facilities are choosing to add medication assistants (MAs) to their staffing models. Although not ideal, without adequate numbers of licensed nurses it is difficult to ensure timely administration of medications. In Washington State, MAs are nursing assistants with at least 1000 hours of work experience that have completed an approved medication assistant training program and passed the written State required competency exam. MAs have been shown to be a safe and effective alternative to routine medication administration in nursing homes

In a recent quality improvement initiative, an eastern Washington nursing home successfully added medication assistants to its new staffing model for routine medication administration. Quality outcome measures such as medication error rates and the number of resident falls per month improved post implementation without costing the nursing home significantly more money in staff salaries. In fact, the newly implemented staffing model included the addition of one person to the staffing model during the day and evening shifts. At this nursing home, no nurses (Registered Nurses [RNs] or Licensed Practical Nurses [LPNs]) lost their jobs with the addition of medication assistants to the staffing model. These findings were encouraging but one must wonder if long-term outcomes would be different if the medication assistants replaced licensed nurses, specifically LPNs?

**Purpose:** The purpose of this case study is to describe inspection outcomes 1-2 years after the addition of medication assistants and the reduction of LPNs to the staffing model in one rural eastern Washington nursing home. In June 2017, Nursing Home A (NHA) added MAs to its staffing model while severely reducing the number of LPNs citing its inability to recruit LPNs due to its rural location.

**Approach/Process:** Donabedian's linear framework of structure, process, outcomes was used for this study. We propose that the addition of MA's to the staffing model combined with the reduction of LPN numbers will lead to more inspection deficiencies (citations) and monetary penalties. Nursing home data was obtained from the following national databases: Data.Medicare.gov/Nursing home compare, Payroll Based Journal (PBJ), and data.cms.gov. Data was entered into an Excel spreadsheet and imported into SPSS for analysis.

**Outcomes Achieved:** NHA added medication assistants to their staffing model in June of 2017. Concurrently, the number of LPNs scheduled to administer medications slowly declined. Unfortunately, the number of inspection deficiencies (citations) for NHA more than doubled from 2017 to 2019 (7 in 2017, 19 in 2018, and 16 in 2019). In addition, two of the 2018 deficiencies resulted in monetary fines.

**Conclusions:** Even though these case study results are not generalizable to other nursing homes, findings will be used to refine the staffing model in NHA and may lead to a major paradigm shift in how nursing homes are staffed in the United States.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Inter-Organizational Learning in Patient Transitions of Care: A Case Study

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**Purpose:** To explore inter-organizational learning in the context of patient transitions of care.

**Background:** A patient experiences a transition of care when they begin receiving health care services in a new setting. Safe transitions require effective coordination within and between the settings involved. Such transitions reduce preventable patient harm and improve health care quality. While inter-organizational learning in healthcare may serve as a helpful framework for understanding and improving patient transitions of care, it remains largely unexamined. The Organizational Learning in Hospitals Model may be instructive for understanding inter-organizational learning. This model depicts six contextual factors conducive to organizational learning in hospitals (shared purpose, motivation, psychologically safe relationships, adequate infrastructure, skills in quality improvement, and experience as a team), as well as five mechanisms by which organizational learning occurs (interaction, collective reflection, deliberate learning, retention, and leadership). In this study, inter-organizational learning will be explored in the context of patient transitions of care, using the Organizational Learning in Hospitals Model as a theoretical framework.

**Methods:** Yin's guidelines will be used to conduct an embedded case study in a rural multi-organization system within which health care recipients regularly experience transitions of care. Embedded in this system are three organizations - an acute care hospital, a skilled nursing facility, and an emergency medical services agency. Semi-structured interviews will occur with individuals directly involved in transitions of care (e.g. direct care nurses, emergency medical technicians, paramedics), individuals in supervisory roles (e.g. nurse managers, assistant directors of nursing, fire captain), and individuals who may coordinate across the organizations to improve transitions of care (e.g. director of nursing, chief nurse, fire chief). The interviews will be guided by the Organizational Learning in Hospitals Model and the Better Outcomes by Optimizing Safe Transitions guidelines. At each site, data will be gathered through multiple sources, including conducting interviews, analyzing documents, reviewing institutional data, and observing relevant processes. Data will be analyzed using pattern matching. Pattern matching involves: 1) creating theory-based explanations (patterns) of how a phenomenon is anticipated to occur within a case, 2) creating plausible rival explanations of how a phenomenon may occur 3) analyzing the entire body of evidence by comparing the patterns observed versus those that were anticipated, 4) seeking instances where the data refutes the proposed pattern or supports a rival explanation, 5) seeking instances where the data supports the proposed pattern, and 6) creating chains of evidence for all of the findings.

**Results:** Results are pending.

**Implications for Translation to Practice/Further Research:** Theory-based studies of inter-organizational learning will provide insights into how inter-organizational learning occurs in multi-organization health systems and how to foster it. This study in particular will also help evaluate the Organizational Learning in Hospital Model's applicability to inter-organizational learning.

**Funding:** Brigham Young University College of Nursing

## THURSDAY PEER-REVIEWED POSTER SESSION

### Relationship between RN Activity and Workload Appropriateness: A Mixed Methods Study

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**Dana Womack**, PhD, RN, Department of Medical Informatics & Clinical Epidemiology, Oregon Health & Science University, Portland, OR; **Linus Silvey**, BSN, RN, CCRN, Medical Intensive Care Unit, Oregon Health & Science University, Portland, OR; **Anna Balcom**, BS, RN, Medical Intensive Care Unit, Oregon Health & Science University, Portland, OR; **Nicholas Fox**, MSN, RN, CCRN, Medical Intensive Care Unit, Oregon Health & Science University, Portland, OR

**Purposes/Aims:** The purpose of this study is to evaluate associations between Registered Nurse (RN) activity and RN perceptions of workload appropriateness in a medical intensive care unit setting.

**Rationale/Conceptual Basis/Background:** High patient acuity scores tend to be associated with low perceptions of workload appropriateness and vice versa. However, RNs report varying levels of workload appropriateness across similar patient acuity score ranges suggesting that additional workplace factors influence RN work experiences. This retrospective study addresses a current gap in published literature by assessing relationships between granular patterns of RN activity and perceived workload appropriateness.

**Method:** This mixed methods study encompasses qualitative and quantitative review of RN activity on 64 past medical intensive care work shifts, of which 50% were rated as having inappropriate workload. RN perceptions of workload appropriateness had previously been collected from 32 distinct RNs using a 6-point Likert scale. A narrative summary of RN activity was reconstructed from electronic health record handoff notes and flowsheet data for each work shift. Quantified activity metrics were calculated from data produced by a nurse call system, electronic communications system, and electronic medication dispensing cabinets. Patterns of RN activity were compared across work shifts rated as having inappropriate and appropriate workload.

**Results:** Common characteristics of shifts with inappropriate workload include tasks of long duration such as accompanying patients to procedures off the unit and participation in family care conferences, bedside procedures, rapid ramp in care intensity such as high flow oxygen to bi-level positive airway pressure to intubation across a short period of time, and the need for frequent room entry related to patient agitation, pulling at lines, attempts to get out of bed, and frequent incontinence. In contrast, common characteristics of shifts with appropriate workload include patients who were “dialed in” with lines and airways already in place, patients who were able to get up to a chair or ambulate, and absence of the need to accompany patients off the unit. Digitally observable RN adaptive work strategies include increased occurrence of delayed documentation, medication administration by an RN other than the patient’s assigned nurse, and increased minutes spent in use of an electronic communication device on shifts rated as having inappropriate workload.

**Implications:** Evidence of RN use of adaptive work strategies is present in electronic data produced as a byproduct of care. Digitally observable RN adaptive work strategies have potential to facilitate automated monitoring, as a complement to human charge nurse monitoring of the workplace for signs of strain. Future early warning of work system decompensation may facilitate proactive intervention to reduce care delays, missed care, and clinician overload at the hospital bedside.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Compassion Fatigue, Is There a Solution?

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*Rosalina Mendoza, BSN, RN, BSC, Medical Surgical, Kaiser Permanente, Pomona, CA;*  
*Lina Najib Kawar, PhD, RN, CNS, Patient Care Services, Kaiser Permanente, Pasadena, CA*

**Purpose/Aims:** This study aim was to describe the prevalence of and relationship between compassion fatigue (CF), burnout (BO), and compassion satisfaction (CS) among Baldwin Park medical center (BPMC) clinical nurses (CNs).

**Rationale/Background:** CF a state of emotional exhaustion due to severe continuous contact with clients, use of self, and exposure to stress is growing fast among CNs of any specialty. CF is different than BO in etiology, chronology, and consequences. Due to today's healthcare environment CNs might be faced with CF and decrease CS that might compromise quality of compassionate care.

**Methods:** This cross-sectional study was part of multi-site/multi-system larger study. Data were collected from 93 inpatient CNs, voluntarily completed the survey. The Professional Quality of Life (ProQOL) 30-item scale was used to measure nurses' CF, BO, and CS. Descriptive and ANOVAs were conducted to compare the differences.

**Results:** Nurses scored low on CF (M=24.12), BO (M=23.10), and moderate on CS (39.88). About 33% are at risk for the CF and 30% for BO, and 31.2% are at the 75 percentile and above for CS. Differences between and among the groups yielded significant results only between relief charge nurses and CNs on BO (F= 5.77, p= .018). CNs exhibited higher BO as compared to the relief charge nurse.

**Implications/Future Research:** Findings are not generalizable beyond the sample, however, could be informative to implement suitable changes to mitigate CF. Managers and charge nurses should be encouraged to continue supporting CNs and building supportive environment that may help in identifying CF and BO early. Managers can implement evidence-based strategies from the literature suitable for BPMC culture to mitigate CF and BO occurrence and promote CS.

Further studies to investigate what strategies charge nurses can utilize to rejuvenate CNs and increase their happiness and CS. Further research to examine tactics that decrease CF and BO could also be applied. Continued research to explore the factors contributing to charge nurses CS is highly recommended.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Effectiveness of a Nurse Interruption Prevention Bundle in Reducing Late Med Errors

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*Jene Marie Mendoza, CMSRN, SCRN, St. Jude Medical Center, Fullerton, CA*

**Purpose:** The purpose of this study is to evaluate the difference of time-delayed medication errors among patients in the Medical-Surgical Neuro Unit who received the Nurse Interruption Prevention Bundle when compared to the time-delayed medication errors among patients who did not receive the intervention.

**Background:** Work interruptions potentially create dangerous situations for nurses and patients at the bedside, particularly during medication administration. Interruptions to nurses during complex or high-risk activities, such as administering medication, may lead to time-related medication errors. The significant impact of medication administration errors can affect patients in terms of morbidity, mortality, adverse drug events, and increased length of hospital stay. This study focused on medications given past their ordered timeframe before and after implementing nurse interruption prevention bundle.

**Methods:** The research is a quasi-experimental quantitative approach with retrospective chart reviews for gathering data on time-delay medication errors. Forty patient charts were reviewed prior to the intervention from a patient population with medication ordered from 0800-0930. The principal investigator provided staff education and implemented the evidence-based Nurse Interruption Prevention Bundle. Then, forty patient charts with medication ordered from 0800-0930 were reviewed after the intervention was implemented.

**Results:** Data was analyzed using IBM's Statistical Package for the Social Sciences (SPSS). An independent *t*-test was used to compare the control and experimental group differences in incidence of time-delayed medication errors before and after the Nurse Interruption Prevention bundle was utilized. Level of significance for this study was set at less than or equal to .05 ( $p \leq .05$ ). Analysis of the data concluded that there was a statistically significant less number of time-delay medication errors ( $t = 2.048, p = .044$ ) in the group who received the Nurse Interruption Prevention Bundle. In the end, a total of 50 time-delay medication errors occurred in the non-intervention group when compared to 14 time-delay medication errors in the intervention group.

**Conclusion:** Although interruptions to nurses are ubiquitous in the complex healthcare workplace, evidence-based interventions may be implemented to help limit the distraction during activities that require focus and attention, such as medication administration.

**Implications:** This study showed promise in guiding nurses' practice changes to improve patient safety outcomes and reduce medication errors. With reduced distractions, nurses could focus more closely on administering medications. Creating situation awareness among nurses, other healthcare professionals, patients, and families with the use of anti-interruption interventions is vital for quality improvement and patient safety.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Integrating Photo-Elicitation in Research with Medically Complex Populations

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**Purpose/Aims:** This presentation will explore the challenges and opportunities of incorporating photo-elicitation methods in a critical narrative inquiry. The study aims to better understand ‘living well’ for young people living with home mechanical ventilation (HMV) through exploring their experiences and the influential social structures, social conditions, assumptions and discourses in their lives.

**Rationale/Background:** What it means to live well for young people living with HMV has received little attention despite the centrality of the concept of quality of life in HMV research and practice. In existing studies with young people living with HMV, analyses of the complex interplay of experiences and social contexts are also limited. Some of these young people also experience communication impairments; however, most studies with young people living with HMV have not included those who communicate differently. Furthermore, methods such as interviewing and observation that are typically employed in narrative inquiry studies are often temporally and spatially limited, which can limit the generation of meaningful findings. Visual methods, such as photo-elicitation, can provide opportunities to engage young people with a variety of ways of communicating. Such methods also have the potential to reveal aspects of young people’s lives that are beyond their own perceptions or articulations in interviews and observations, which increase the overall value of the study results. Yet, few studies have integrated photo-elicitation methods with medically complex young people with varied physical and communication abilities.

**Methods:** A critical narrative inquiry methodology guides the study, which consists of two phases: coming alongside participants in their daily lives and then engaging in photo-elicitation methods. This presentation will focus on the photo-elicitation phase. Methods of generating photographs are being co-constructed with each participant individually – these young people may have varying physical and communication capacities and imposing a particular way of taking photographs may limit the findings obtained. Participants will be given a choice to take photographs with or without assistive technology, direct others to take them, and/or draw on personal or family albums, and have 2-3 weeks to take photographs. Photographs will be reviewed prior to a meeting with the participant to caption and share stories about their photographs. While participants can drive conversations in terms of which photographs to focus on and stories they share, a guide for conversation will also be used and will include questions such as those related to their intentions in taking the photograph, what is going on in their life in the photograph and what is not depicted in the photographs.

**Results:** This presentation will share evolving insights concerning the utility, challenges and opportunities of integrating photo-elicitation methods in critical narrative inquiry with young people living with HMV.

**Implications:** It is anticipated that this study will contribute lessons learned to inform future research with medically complex young people, such as those living with HMV, and those with communication impairments. The implications for photo-elicitation in exploring the influence of social structures and conditions in critical qualitative inquiry will also be considered.

## THURSDAY PEER-REVIEWED POSTER SESSION

### A Concept Synthesis of Fatigue in Labor

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**Katherine Kissler**, CNM, MS, School of Nursing, University of Colorado, Anschutz, Aurora, CO; **Teri L. Hernandez**, PhD, RN, Endocrinology, Metabolism & Diabetes, University of Colorado School of Medicine and College of Nursing, Aurora, CO; **Nancy Lowe**, PhD, CNM, FACNM, FAAN, Anschutz Medical Campus, University of Colorado, Aurora, CO

**Aims:** This presentation will identify components of fatigue in labor to describe the ways that symptoms and biological markers of pathophysiology cluster. Additionally, outcomes of fatigue in labor will be identified and care techniques to prevent and manage labor fatigue will be described.

**Description of the Concept:** Fatigue is a nursing diagnosis defined by NANDA as “an overwhelming sustained sense of exhaustion and decreased capacity for physical and mental work at usual level.” Fatigue in labor consists of physiologic, psychological, and situational factors. Fatigue can interrupt the psychological/emotional/social experience of labor and can also interrupt the physiologic process of uterine contraction and cervical dilation.

Fatigue describes a cluster of symptoms including mental exhaustion, emotional distress and despair, poor coping with pain, and reduced capacity to bear down in second stage. Physiologically, fatigue includes decreased contraction frequency or strength, slow rate of cervical dilation, and prolonged length of both latent and active labor.

**Internal Consistency of Concept/Conceptual Approach:** Walker and Avant’s method of concept synthesis through literary synthesis was used to develop the concept of fatigue in labor. Databases were searched for literature relating to labor fatigue, prolonged labor, and prolonged latent labor. Literature was sought from varied perspectives including symptom science, exercise physiology, biomarker identification, and outcomes-based research. Concepts from these parent-fields were redefined, categorized, and patterns were identified to synthesize the new concept of fatigue in labor.

**Logic Linking Concept to Practice and Research Problem:** Fatigue in labor is an often overlooked, yet essential, component to both the experience of symptoms and the physiology of labor. The rate of cesarean birth in the United States remains high without a resulting improvement in maternal and infant outcomes. Two novel biomarkers of fatigue have been found to be strong predictors of prolonged labor and cesarean birth driving innovative research into the role of metabolic fatigue in labor dystocia. In addition, research is underway to better describe the symptom experience of complicated labor. Conceptualizing fatigue as a novel concept combines these two areas of research to provide a full appreciation of the patterns and complexity of prolonged labor in the context of fatigue. Theoretical work on childbirth-related fatigue has been conducted by Pugh in the 1990’s, but her framework has not been consistently applied or updated. Due to dramatic changes in care strategies during labor, especially the introduction of new technology, continued synthesis is necessary to contextualize the conceptualization of fatigue in current care settings and to stimulate growth in understanding of prolonged labor.

**Conclusions:** Conceptualizing fatigue in labor provides a novel framework to drive research in precision care during labor aligned with the 2019 NIH Strategic Plan for Advancing Science for the Health of Women. Understanding labor fatigue is especially relevant to managing prolonged latent labor, augmentation of labor, and induction of labor. In addition to having implications for nursing practice, conceptualizing labor fatigue will help drive nursing research in symptoms, symptom clusters, and biomarkers in prolonged labor.

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## THURSDAY PEER-REVIEWED POSTER SESSION

### Cognitive Impairment in Heart Transplantation: A Concept Analysis

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*Stacy Al-Saleh, CCTC, College of Nursing, University of Arizona, Tucson, AZ; Kathleen Insel, PhD, RN, College of Nursing, University of Arizona, Tucson, AZ*

**Purpose/Aims:** Prior to heart transplantation, the clinical course for patients with end-stage heart failure is often complicated by prolonged cerebral hypoperfusion related to cardiogenic shock, stroke, and complications from mechanical circulatory support devices. These mechanisms of cerebral hypoxic injury have important clinical implications for the cognitive function of heart transplant recipients. Understanding the concept of cognitive impairment in heart transplant recipients may lend insight into the development of nursing interventions that support self-management in this population.

**Description/Definition:** Cognitive impairment is identifiable when an individual has difficulty remembering, learning, concentrating, or making everyday decisions (Centers for Disease Control and Prevention, 2011). Cognitive impairment may limit the individual's ability to effectively manage a complex medication regimen, such as that which is required following heart transplantation. This may occur directly through the failure to recall the intention to take the medication as intended, or indirectly through illness representations that can be shaped by cognitive function.

**Concept Analysis Approach:** The concept of cognitive impairment in heart transplantation was analyzed in accordance with the 8-step Walker and Avant (2011) process and was characterized by the defining attribute of some degree of deterioration of one of the cognitive domains. Antecedents of cognitive impairment are not clearly defined given the diversity of contributing mechanisms, however pathophysiologic processes like cerebral hypoxic injury are relevant to consider in the heart transplant recipient that progresses from end-stage heart failure to a transplanted state. Consequences of cognitive impairment in the heart transplant recipient can vary based on the degree of impairment. Alterations in executive functioning and memory are possible and potential cognitive processes vulnerable to cerebral hypoperfusion.

**Logical Congruency:** Cognitive impairment has been studied in diverse populations, particularly as it relates to aging and dementia, however people of all ages can experience cognitive impairment. Heart transplant recipients have undergone complex physiologic processes, which can include prolonged cerebral hypoperfusion related to cardiac arrest, stroke, or cardiogenic shock, complications from mechanical circulatory support devices and cardiopulmonary bypass, and inflammatory processes. These mechanisms place the individual at increased risk of cerebral injury and associated alterations in cognitive function that can lead to cognitive impairment. Applying the concept of cognitive impairment to this population may assist with the development of nursing care that promotes self-management, particularly as recipient age increases and other comorbidities persist.

**Conclusions:** By clearly defining the concept of cognitive impairment in heart transplantation, appropriate measures can be employed to evaluate the incidence among heart transplant recipients. Cognitive impairment must be understood in order to develop an understanding of the self-management processes of heart transplant recipients, and to articulate interventions that will be effective in promoting optimal health and decreasing adverse outcomes in this population.

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## THURSDAY PEER-REVIEWED POSTER SESSION

### Reflections on Chain Referral Sampling for Research with Vulnerable Women

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*Lauren Acosta, MS, RN, SANE-A, School of Nursing, Northern Arizona University, Tucson, AZ;*  
*Marylyn McEwen, PhD, PHCNS-BC, FAAN, University of Arizona, Tucson, AZ*

**Purpose/Aims:** To examine the utility of chain referrals as a strategy to discretely identify and sample undocumented women of Mexican-origin for participation in a critical ethnography exploring their post-rape decision-making and behaviors.

**Description/Definition of Methodology/Theory/Concept:** Undocumented individuals are forced to live in the shadows of society, hiding their documentation status to preserve their livelihoods in the U.S. Their undocumented status creates challenges for researchers to identify and recruit this marginalized population into highly sensitive studies such as exploration of post-rape decision-making and behaviors. This researcher used chain referrals, a nonprobability sampling strategy, to mitigate these sampling barriers, due to demonstrated success in helping researchers identify and sample individuals from hard to reach groups.

**Internal Consistency of the Methodology/Theory/Concept:** Consistent with ethnographic research, chain referral sampling was initiated through the identification of cultural insiders with established connections to the community of interest. Cultural insiders included individuals with past or current experiences working or interacting with undocumented immigrants and/or rape survivors. Eighteen cultural insiders were identified and provided with information about the study, including a recruitment flyer, and were asked to provide referrals to potential participants. Six cultural insiders participated in chain referral sampling, forming six distinct chains that linked the researcher to potential study participants.

**Logic Linking Methodology/Theory/Concept to Practice/Research Problem:** Five of the six women who participated in this study were identified and sampled using the chain referral method. Chain referral sampling was pivotal in allowing the researcher access to this highly vulnerable and hard to reach group of women. Women that were identified via chain referral sampling trusted the cultural insiders that linked them to the researcher and all chose to participate when invited.

**Conclusions, including Utility of Methodology:** The researcher would have been unable to recruit these women in the absence of chain referral sampling, suggesting that other qualitative researchers conducting sensitive research with vulnerable groups may benefit from employing this sampling strategy. Additionally, the flexibility to initiate and suspend chain referrals at different time points allowed the researcher to identify and sample women from different locations, leading to a more diverse sample. Chain referral sampling requires access to cultural insiders; therefore, it is recommended that researchers begin forming these pivotal connections early in the research process.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Complexity in Big Data: Unifying Nursing Theory with Twenty-First Century Methodology

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*Katherine A. Wuestney, BSN, College of Nursing, Washington State University, Spokane, WA; Roschelle Fritz, PhD, RN, Nursing, Washington State University, Vancouver, WA*

**Purpose/Aim:** To explore the application of Rogers' Science of Unitary Human Beings (SUHB) and complexity science to study real-world, time-series 'big data' derived from wearable or portable sensors (smart watches and phones) and environmental sensors (smart homes) for the purpose of developing nurse-driven methods for analyzing big data.

**Background:** Sensors are now ubiquitous in society. They produce time-series 'big data' - continuous sequences of data where each data point reflects the state of the system at a specific time point. With the explosion of distributed 'cloud' computing, the ability to analyze gigabits of time-series data produced by sensors is now more accessible than ever. Utilization of real-time sensor data to measure aspects of patient health in nursing practice is inevitable. Concepts promoted by SUHB and by complexity science (an interdisciplinary field which includes chaos theory, nonlinear dynamics, and Complex Adaptive Systems theory) can serve as a guiding framework for analyzing and interpreting sensor-based data. For example, Rogers' proposed humans are in constant simultaneous coevolution with their environments and that this is a complex adaptive system. Additionally, complexity science and SUHB both require understanding the human and environment as a holistic unit having emergent patterns over time. Thus, human health is defined as a pattern of the interreaction between humans and their environment. With the advent of real-time streaming of big data from wearable and environmental sensors and computational analysis of human-environment patterns using computer algorithms, nurses are faced with an unprecedented opportunity to learn new clinically relevant human activity and behavior patterns.

**Methods:** A scoping review of the literature was conducted regarding the relationship between complex patterns in sensor data and health status. A list of the methods used for quantifying and operationalizing complexity in time-series patterns was maintained. The application of these methods to the study of human health was recorded. The use of various complexity measures was then explored within the context of sensor-based data. Benefits and limitations of using complexity methods to interpret and derive meaning from sensor-based data were mapped and discussed.

**Results:** Researchers in other disciplines have demonstrated a relationship between reduced health and decreasing complexity of sensor data across a diverse range of body systems. Complexity measures include multi-scale entropy, fractal dimension, and phase-space analysis among other methods. A primary difficulty with quantifying complexity in real-time sensor-based data is overcoming the limitations of an uneven sampling rate.

**Implications:** Nurses who are at the forefront of integrating big data and health practice should advocate for methods of measuring complex patterns to be included in data analysis. By quantifying the complexity of sensor-based data nurses may gain important insight regarding the emergence of new patterns related to health or illness within the human-environment system.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Patient Satisfaction Measures: Perceptions of Nurses and the Hospital Environment

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**Marla Jean Seacrist**, RN, PhD, School of Nursing, California State University, Stanislaus, Turlock, CA; **Nikiesha Thomas**, RN, BSN, PHN, California State University, Stanislaus, Turlock, CA; **Karen Lee**, RN, BSN, PHN, California State University, Stanislaus, Turlock, CA; **Jaime Morga**, RN, BSN, California State University, Stanislaus, Turlock, CA; **Avinesh Prakash**, RN, BSN, California State University, Stanislaus, Turlock, CA; **Mechelle Perea-Ryan**, RN, PhD, FNP-BC, School of Nursing, California State University, Stanislaus, Turlock, CA

**Purpose:** The purpose of this research was to explore the public perceptions of the importance of nurse clinical knowledge, nurse interpersonal skills, and the hospital room environment, from a patient satisfaction perspective.

**Background:** Hospital organizations and reimbursement agencies are pressuring hospitals to improve and maintain high patient satisfaction scores. Nurses are concerned that the quality of patient care suffers from a greater emphasis on “customer service” rather than evidence based standards of care. Nurses perceive a disconnect between quality care, delivered by highly skilled nursing staff, and current measures of patient satisfaction.

**Methods:** Institutional Review Board approval was obtained from the University and informed consent of participants occurred with each questionnaire. Surveys were administered through the SurveyMonkey platform. A ten question survey using a four point Likert scale of *very important*, *important*, *somewhat important*, and *not at all important* was adapted from previous research. Questions were divided into three categories, including nurse clinical skills, nurse interpersonal skills, and the hospital environment. Findings are reported with descriptive statistics. The sample was a convenience sample recruited through social media platforms. Inclusion criteria included a minimum age of 18 and the ability to read English. A total of 256 participants responded.

**Results:** From a nurse clinical skill perspective, nearly all participants (92%) stated that it was *very important* to them that their nurse be knowledgeable and able to answer questions. The remainder of the respondents (8%) felt it was *important*. In the category of nurse interpersonal skills, listening attentively was *very important* (79%) to most participants, *important* to 19%, and *somewhat important* to 2%. The hospital environment ranked least in the concerns of participants, with having their room be clean and tidy ranked as *very important* by 75% of participants, *important* to 22%, *somewhat important* to 2 %, and 1% felt it was *not at all important*. In a ranking from most to least important, “Your nurse is knowledgeable, is aware of your condition, and is able to answer your questions” ranked highest and “The food is pleasant and you can choose food selections from a menu” ranked least.

**Implications:** Nurses should become involved with the development of nurse sensitive patient satisfaction measures. The public clearly cares about the knowledge of nurses, their ability to answer questions, their professional behavior, and their role of advocate. Tools designed specifically by nurses to examine more quality and safety elements, rather than customer service alone should be created and validated.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Mining Information in EHR Logs: An Alternative Data Source for EHR Workflow Analysis

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*Dante Anthony Tolentino, MA, RN-BC, University of Arizona, Tucson, AZ*

**Aims:** The ability to quantify nurses' navigational patterns within the Electronic Health Record (EHR) is vital in expanding our knowledge in EHR workflow analysis. The specific aims of the study are: 1) Characterize nurses' EHR navigational behaviors by identifying sequential patterns within the EHR; 2) Predict nurses' EHR overall navigational pathway as defined by the nature of their transition probability in their navigational patterns.

**Background:** We can use audit logs ("logs") generated by the EHRs as an ethnographic data source for workflow analysis and research with the potential to improve clinicians' user experience (UX). Traditional workflow analysis methods are time-consuming, expensive and produce opposing results due to the failure to reveal hidden sequential patterns within a clinicians' workflow. While usages of these logs are limited, and most are geared toward physicians, there is value in leveraging logs as an alternative source to mine information and examine nurses' workflow within the EHR.

**Method:** The approach for this study is the application of computational ethnography using data mining techniques, namely Sequential Pattern Mining (SPM) and Markov Chain Analysis (MCA). We can employ results from computational ethnography through log analysis as a blueprint in EHR optimization decisions by providing specific, tangible design outlines.

**Results:** Results from this study will be determined using SPM and MCA. SPM calculates frequent patterns in a given dataset. The purpose is to find repeating patterns to evaluate EHR workflow patterns. Results from this analysis will reveal the most sequentially accessed features within the EHR. For instance, the study may show a navigation sequence of "Summary List" → "Reports" → "Logout." Results will illustrate the different cognitive tasks carried by the nurse sequentially within the EHR (see Table 1 for hypothetical example).

MCA is a stochastic process that aims to calculate the probability of moving from one state to the next. In this study, the Markov states are the different EHR screens accessed by the nurse. The transition from one state to the following occurs when a nurse navigates from one screen to another. A transition matrix probability using R will be generated after log analysis. Results from MCA will help uncover nurses' global navigational patterns, the overall sequential track of nurses' navigation when using the EHR. For instance, after a nurse opens a chart, the probability of going to the "Medication list" is 33%, while the likelihood of navigating to the "Summary list" is 67% (see Figure 1).

**Implications:** Results from the study will expose nurses' navigational behaviors within the EHR – predicted or unintended, which may indicate notable gaps in EHR design. SPM sequences will represent the navigational behavior that can be used to support the screen design optimization of the EHR to improve nurses' UX. Results from MCA can lead to the discovery of nurses' cognitive navigation patterns and inform better EHR design. The use of logs can positively impact clinical practice and can answer various clinical informatics and research questions that would have been costly with traditional methods.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Wearable USB Device for Clinical Trial Participant Safety: A Feasibility Study

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*Elizabeth Anne Johnson, MS-CRM, BSN, RN, College of Nursing, The University of Arizona, Tucson, AZ*

**Purpose:** The voluntary commitment of clinical trial participants to advance scientific knowledge enables citizens to access the fruits of the tens of thousands of clinical trials conducted in the United States. Not only do clinical trials mark another steppingstone on the path to drug and device approvals, they also provide opportunity to access novel therapies having the potential to extend or enhance quality of life. The safety of clinical trial participation has become a pivotal discussion among researchers and sponsors alike given increased complexity of trial design. Ease in the identification of concerning trends and adverse event reporting deficiencies bolster optimal trial conduct and safety monitoring of participants.

**Rationale:** The wearable USB bracelet supports interoperability deficiencies, as most Electronic Health Record platforms do not have the capacity to communicate between non-affiliated facilities, especially in a research environment. The USB modality of communication is purposefully selected given its commonality among computers, intuitive design, and integrative ease.

**Methods:** Qualitative descriptive methodology was employed to understanding the meaning and perception with daily wear of the USB device. A total of 8 participants were consented and enrolled. Participants who spoke English, were a current student or faculty member at the University of Arizona were included in the study. Participants were excluded if there was a history of skin-related diseases or allergies to silicone blends due to composition of the USB bracelet along with any current open skin or infections surround the wrist selected for wear. Upon consent, participants were fitted with a wearable USB device to be worn for 72 hours. A semi-structured, audio-recorded interview lasting approximately 30 minutes was then conducted within two weeks of the first day of wear to reflect upon the experience. Field notes were taken along with reflexivity journaling post-interviews to enhance the rigor of the study.

**Results:** Four themes evolved from participant interviews: Wearability of the USB- participant accommodation of the wearable USB during daily use, including fit and functionality; healthcare operations and provider workflow- cautionary statements regarding integration of the wearable USB in the current healthcare system and internal structure; Application to clinical trial participants- aspects of wearable USB use within clinical trial participant safety management; Societal perception of wearing the USB- meaning of wearing the USB and the impact of external influences to the pilot study participant experience.

**Implications for Translation to Further Research:** The thematic findings echo similar thematic elements from other studies regarding the importance of fit, function, and participant confidence in the device. Future research will expand to prototype development based upon this study. A workflow study will be conducted to evaluate the ability of external healthcare providers to identify the wearable USB device upon triage or initial assessment of a clinical trial participant and the success of an intuitive workflow pathway integrated within the prototype design. Implementation within clinical trials will involve a randomized, controlled trial for evaluation of effectiveness of USB utilization within this population as a safety management tool.

## THURSDAY PEER-REVIEWED POSTER SESSION

### How Wearable Sensors Can Improve Self-Care in Chronic Illness

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**Hanne Rind Dolan**, MS, RN, College of Nursing, University of Arizona, Tucson, AZ; **Tracy E. Crane**, PhD, MS, RDN, College of Nursing, University of Arizona, Tucson, AZ; **Ruth E. Taylor-Piliae**, PhD, RN, FAHA, College of Nursing, University of Arizona, Tucson, AZ

**Purpose:** To describe how the use of wearable sensors can promote self-care with chronic illness. Evidence from three studies that conducted lifestyle behavior interventions among individuals with chronic illnesses will be presented: Objective Fall Risk Detection in Stroke Survivors Using Wearable Sensor Technology (ORIENT) study, Lifestyle Intervention for Ovarian Cancer Enhanced Survival (LIVES) study, and Nuestra Salud (NS) study.

**Background:** Management of chronic illnesses has proven to be one the greatest healthcare challenges due to lack of patient engagement, limited time and resources. Interventions using wearable sensors, offer the ability for healthcare providers and patients to collaborate in chronic illness management. Wearable monitors allow chronically ill individuals to monitor symptoms and disease processes, promoting lifestyle changes such as increased physical activity, medication adherence, and improved management of symptoms.

**Methods:** The Theory of Self-Care in Chronic Illness posits that self-care is essential in long term management of chronic illness. Self-care includes three core elements: 1.) *Self-care maintenance*: behaviors that preserves health, physical and emotional stability, 2.) *Self-care monitoring*: behaviors that recognize when a physical or emotional change has occurred, and 3.) *Self-care management*: the evaluation of the change and decision of action. In the ORIENT study, the Physical Activity Monitoring System (PAM-Sys™, BioSensics, LLC) recorded participants daily activity, including number of falls, postural transition duration, gait speed and number of steps during a 48 hour period. In the LIVES study, an ongoing lifestyle behavior intervention focused on improving physical activity and diet, the ActiGraph GTX9 Link records daily activity and sleep for 7-days at baseline, 6, 12 and 24 months in ovarian cancer survivors. Finally, the NS study is utilizing the Fitbit Flex2 in a 12-week symptom management and lifestyle intervention for 36 Latina cancer survivors and their informal caregivers.

**Results:** In the ORIENT study, all (100%, n=10) stroke survivors (mean age 70 ±8 years), reported that the device was comfortable to wear, didn't interfere with everyday activities. When compared to age-matched controls, stroke survivors had significantly worse fall risk indicators and walked less (all p-values<0.05). In the LIVES study (n=600, mean age 59±8 years), ovarian cancer survivors wear time adherence of the ActiGraph GTX9 Link is ≥90% at all 4 time points. In the NS study with Latina cancer survivors (mean age 63.7 ±9.4 years) and their informal caregivers (mean age 55.8±16.9 years), data from the Fitbit Flex2 indicates that only 12.5% of survivors and 55% of caregivers are meeting the recommended physical activity levels of 150 minutes at moderate-intensity. The wearable monitors allow patients and caregivers to self-monitor own health behaviors and detect change in disease process. The wearable monitors promote self-care management through collaboration with healthcare providers.

**Implications:** These studies provide examples of how wearable sensors can promote self-care management in individuals with chronic illness. Future lifestyle behavior interventions would benefit from the incorporation of wearable sensors to improve self-care management in chronically ill patients and improve patient outcomes.

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## THURSDAY PEER-REVIEWED POSTER SESSION

### Innovative Strategies for Recruiting Nurses for Research Using Social Media

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**Jessica G. Rainbow**, PhD, RN, College of Nursing, University of Arizona, Tucson, AZ; **Claire Bethel**, MSN, RN-BC, College of Nursing, The University of Arizona, Tucson, AZ; **Katherine Dudding**, PhD, RN, RNC-NICL, School of Nursing, The University of Alabama at Birmingham, Birmingham, AL

**Aims:** The aim of this secondary analysis was to describe and examine the usefulness of strategies to recruit nurses to participate in three separate research studies, including through social media.

**Background:** Despite being the single largest group of healthcare providers, nurses have been identified as a difficult population to recruit for research. Barriers to recruitment of nurses include survey fatigue, hospital IRB as gatekeepers to accessing nurse participants through hospitals, and limited generalizability of participants recruited through one healthcare system. Social media presents a quick, effective, cost-free, and innovative method to recruit nurses for participation in research from a variety of work settings and around the globe. However, strategies specific to recruit nurses on social media have not been discussed.

**Methods:** This secondary analysis explored the recruitment strategies of three studies that recruited nurse participants for survey studies via social media in addition to other approaches. The three studies included in this analysis were: 1) Travel Nurse Onboarding study, which recruited 306 participants from a single closed group on Facebook over 22 days; 2) Presenteeism and Nursing Study that recruited 447 participants over 6 months using nursing association listservs, healthcare organizations, and social media ads and postings on Facebook and Twitter; and 3) The Pain and Nursing study that recruited 3,226 nurse participants over a period of 4 months from social media (Facebook and Twitter), through association listservs, and in-person at a local and national nursing conferences. The strategies used by each study was analyzed for similarities and differences. The limitations and return on investment of each strategy was considered.

**Results:** Of the strategies analyzed, recruitment posts in Facebook groups of nurses had the best return on investment. Useful strategies for social media posts include where, when, and how often to post as well as how to craft effective posts on social media. Listservs and organizations present recruitment barriers of which the researcher has no control over. Ads on social media can be costly and offer limited returns. In-person recruitment at conferences present difficulties in obtaining permission to recruit and ultimately can result in low participant recruitment.

**Implications:** This project contributes new knowledge on the recruitment of nurses for participation in research using social media. As we seek to increase the speed of translation of research into practice, conducting research with a representative sample of nurses can help researchers with the generalizability of their findings between groups.

**Funding:** The Presenteeism and Nursing Study was supported by the National Institute for Occupational Safety and Health Grant #T42/OH008672. Its contents are solely the responsibility of the author and do not necessarily represent the official views of NIOSH. Jonas Philanthropies also supported this work.



## THURSDAY PEER-REVIEWED POSTER SESSION

### Existential Phenomenology to Explore the Meaning of Healing Environments

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*Dawn Taylor, PhD Candidate, MSN Ed, RN, Caritas Coach, University of Colorado Denver, Aurora, CO*

**Purposes/Aims:** The purpose is to demonstrate how an existential-phenomenological framework is appropriate for inclusive caring. It is congruent with data collection, where a methodology attunes to the use of art and invites an appreciation of how artistic techniques may serve as a way to create space for healing. Methodology needs to establish a colloquial language, trust, safety, and comfort to study a healing environment for sex/gender diverse females after experiencing intimate partner violence (IPV).

**Description/Definition of Methodology:** Human Action Science explicates the essence of phenomena to describe experiential meanings as we live them. The method of attentive practice of thoughtfulness searches for what it means to be human, culminating in poetizing activity to analyze interviews using photo-elicitation and storyboards. Photo-elicitation promotes self-understanding, expression, communication, and focus. Documenting the experience through images, it provides explicit and hidden messages that shape participants view of themselves and how they relate to the world; therefore, enhancing rapport building and encouraging reflection before the research interviews begin. Storyboards offer a timeline of visual cues of IPV and healing. A picture speaks a thousand words. This innovative way is less threatening to present emotions previously ineffable. Storyboards encourage explication of temporality: Where was I? Where am I now? Where do I want to be?

**Internal Consistency of the Methodology:** Bridling is used to offer pre-understanding. It involves respect, humility toward the phenomenon, sensitivity, and flexibility while actively waiting for meanings to emerge. It encourages the search for what it means to be human, allowing a descriptive, interpretive, and self-reflective analysis used to question how the world is known and experienced. Fragmentation is avoided when the focus is on the entire experience, not just the parts; moreover, it makes visible the power of thinking, insight, and dialogue that makes experiences intelligible. Sex/gender diverse females may be unable to know true integrity that comes from being-becoming whole. A divided consciousness occurs with the victimization of IPV, which results in guilt, confusion, and a lack of commitment to healing action. The past heavily influences decisions, but choices do exist. The space for healing starts with struggles but, to achieve an integrated personality, self-awareness of self-deception, and divisive lives is required. Healing for the engendered Other needs explication, bringing this experience into symbolic form and conversational relation.

**Logic Linking Methodology to Research Problem:** Products of art are lived experiences, giving a sensitive portrayal of emotional and quality elements of relationships. Techniques can be used in combination to elicit more profound reflections from participants. Art requires participation, so research is conducted *with*, not *to*, participants.

**Conclusions, including Utility of Methodology:** Language, arts, and humanities, can capture the lived experience of sex/gender diverse females experience of healing after IPV. Human science methodology is congruent with inclusive caring. It guides to elicit deep & rich meaningful texts of both a descriptive and interpretive approach. Thoughtfulness & tact proposes sensitive human action. Interview, photo-elicitation & storyboarding, with poetizing language, may give power to the voice of healing space.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Barriers & Facilitators to Opioid Use Treatment and Recovery Services during Pregnancy

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**Rationale/Background:** Over 130 Americans die daily after overdosing on opioids (Centers for Disease Control and Prevention (CDC) 2018a). The economic burden of prescription opioid misuse in the United States is estimated at \$78.5 billion a year. Women have not been immune from opioid use disorders (OUDs), with a 4-fold increase from 1999-2010 (CDC, 2018b). The prevalence of opioid use among pregnant women increased from 1.5 to 6.5 per 1,000 hospital deliveries (CDC, 2018b). Opioid use can result in placental abruption, still-birth, or neonatal abstinence syndrome. Essential to slowing this epidemic is improved access to treatment and recovery services. Although the annual National Surveys on Drug Use and Health (NSDUH) has provided information on risk factors for OUD including socioeconomic and demographic factors, only one study has focused on factors related to use of opioid use treatment and recovery services. Furthermore, research on the facilitators and barriers for opioid use treatment among pregnant women with OUDs is missing from the literature.

**Purpose/Aims:** To identify facilitators and barriers related to opioid use treatment and recovery services among pregnant women.

Specific aims: (1) describe demographic characteristics (age, race/ethnicity, education, marital status, health insurance, employment, income, geographic location, and treatment setting), clinical characteristics (health status, mental health status, and substance use), and opioid use treatment and recovery services among pregnant women with OUDs, (2) describe the relationships among demographic and clinical characteristics, perceived need for treatment, facilitators and barriers to opioid use treatment and recovery services among pregnant women with OUDs (3) identify factors associated with increased odds of opioid use treatment and recovery services use among pregnant women with OUDs.

#### **Methods:**

##### **Setting and Sample**

US pregnant women aged 12 and over with OUDs within the NSDUH database. This includes participants living in shelters, rooming houses, dormitories, migratory workers' camps, halfway houses, and civilians living on military bases.

##### **Data Source**

The NSDUH is an annual survey sponsored by the Substance Abuse and Mental Health Services Administration, an agency of the US Department of Health and Human Services. Since 1971, data were collected on substance use patterns and behaviors among non-institutionalized US civilians in order to inform public policy and monitor substance use trends (NSDUH, 2018). RTI International, which is a contracted organization with offices based in the US and internationally conducts the annual data collection (RTI International, 2015).

##### **Design**

A cross-sectional correlational study using 2016 and 2017 NSDUH data.

**Results:** Descriptive statistics will be conducted to describe the study variables. Bivariate analysis utilizing Chi-Square will identify the variables to be utilized for a multivariate logistic regression.

**Implications:** The findings of this study will inform care providers and policy makers about the characteristics of pregnant women with OUDs that increase the likelihood of them seeking treatment thus preventing death due opioid overdose and harm to unborn children. Many actions taken to mitigate the opioids crisis do not specially address the needs of pregnant women with OUDs, but rather address the general public. Research is needed to clarify reasons pregnant women seek treatment.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Research Priority Setting around Opioid Use Disorder during Pregnancy and Birth

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**Purpose/Aims:** The aims of this project were to engage community members who are pregnant or parenting and affected by OUD to develop research questions about experiences and care provision around OUD and support the ranking of questions in priority setting for research and policy for OUD.

**Background:** The alarming rise in opioid overdose deaths in Washington State (WA) and across the US highlights the need to find better ways to approach and support those experiencing substance use disorder. Out of concern for the wellbeing of the infant or child, there is an increased motivation for behavior change during pregnancy and early parenting. This critical period encompasses unique opportunities for both families and communities to address opioid use disorder. It is imperative to understand the distinct needs and concerns of pregnant and parenting individuals affected by OUD to provide appropriate and relevant support. There is limited literature on how health care providers and systems can best support substance-using or -recovering persons during and after pregnancy. We sought to engage community members, as experts in their experience, to provide a level of knowledge that is often overlooked yet extremely valuable in guiding research and policy.

**Methods:** This project utilizes the Research Prioritization for Affected Communities (RPAC) methodology to identify and prioritize research and policy needs around OUD treatment and support for pregnant and parenting people. RPAC is a validated focus group protocol leading those affected in a process of priority setting to determine the critical questions and concerns of the community. A total of 5 sites providing services to pregnant or parenting women experiencing OUD were identified and participants volunteered to attend the focus group discussions, with meals and \$150 gift card provided as remuneration.

Two focus groups were held per community group: 1) generating the leading questions and concerns of the community; 2) prioritizing which questions are most important for future research and policy. Through this process, priorities were identified, validated, and ranked by those experiencing OUD. Questions and themes were derived from the focus group discussion, prioritized, analyzed and disseminated to the participating communities.

**Results:** Focus group discussion yielded a substantial number of insightful questions aimed to inform future research and policy. The questions and themes produced varied between geographic settings including both inpatient and outpatient services. Themes captured questions around the stigma of OUD, fear of child protective services involvement, health provider training, housing and support services, and health care coverage for evidence-based treatment options.

**Implications:** Those experiencing or in recovery for OUD are experts in the lived experience of addiction and recovery, and a community-engaged participatory process of research priority setting is essential for crafting solutions that address service gaps and barriers to recovery. Future research should be centered around these priorities as a way to further improve health care service provision for this vulnerable population.

**Funding:** Washington State Health Care Authority # K3786 (PI Ira Kantrowitz-Gordon)

## THURSDAY PEER-REVIEWED POSTER SESSION

### Cytokine Levels and Symptoms among Women with IBS: The Role of Hormonal Contraceptives

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**Aims:** To compare cytokine levels between women (ages 18-45) with and without irritable bowel syndrome (IBS) and with and without hormonal contraceptive use and to examine the relationship of cytokine levels to IBS gastrointestinal (GI) and non-GI symptoms within those using and not using hormonal contraceptives.

**Background:** IBS is a functional GI disease that is characterized by abdominal pain and alterations in bowel habits. Young to middle-aged women are more likely than men to be diagnosed with IBS. Immune dysregulation has been suggested as one etiologic factor, at least for a subgroup of patients with IBS. Sex hormones, including estrogen, have a potential effect on modulating inflammation and symptomatology in IBS as well as other chronic pain conditions; however, few studies have examined whether hormonal contraceptive use is linked to inflammatory markers.

**Methods:** This comparative study involved women with IBS and without IBS (i.e., healthy controls [HCs]). Patients with IBS were matched to HCs on age, race, BMI, and diet (vegan/vegetarian or omnivore). Participants were recruited from healthcare providers or self-referral from community advertisements. All women were between 18 to 45 years old, read and wrote in English, and had natural menstrual cycles or used hormonal contraceptives. For the IBS group, patients had a diagnosis of IBS for at least 6 months that was made by a healthcare provider and met the Rome III research criteria for IBS. For healthy controls, participants were included if they did not report any current moderate to severe disease, disorder, or syndrome.

Seventy-three women with IBS and 47 healthy control women completed questionnaires (demographics, hormonal contraceptive use) and kept a 28-day symptom diary. Women who were menstruating (naturally or as a withdrawal from hormones) were instructed to start their daily symptom diary on the first day of menstrual bleeding. Women using intrauterine hormone devices were instructed to start within the next 2 weeks. All women were asked to continue the diary for 28 days. Days 5-10 after starting the daily symptom diary (which corresponds with the follicular phase of the menstrual cycle), participants had a morning fasting blood draw for cytokines. Fasting follicular phase plasma and lipopolysaccharide (LPS)-stimulated pro-inflammatory (IL-1 $\beta$ , IL-6, IL-12p40, IL-12p70, IL-8, and TNF- $\alpha$ ) and anti-inflammatory (IL-10) cytokines were assayed.

**Results:** No differences were found in plasma or stimulated cytokine levels between IBS and control women. Among women with IBS, hormonal contraceptive use was associated with lower cytokine levels (IL-10, IL-12p70, IL-1 $\beta$ , and TNF- $\alpha$ ) compared to women not using hormonal contraceptives (all  $p < .05$ ). In IBS women not taking hormonal contraceptives, positive associations were observed between several pro-inflammatory cytokines and non-GI symptoms (i.e.,  $r = 0.38$  between IL-8 and somatization). No differences were found in healthy control women.

**Implications:** Hormonal contraceptive use influences cytokine levels in women with IBS. The extent to which immune dysregulation constitutes systemic disease, and the impact of hormonal contraceptive use on innate immune activation in this disease require further research.

**Funding:** R01NR014479 National Institutes of Nursing Research

## THURSDAY PEER-REVIEWED POSTER SESSION

### SBIRT Implementation in Wyoming Title X Reproductive Health Clinics

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**Purpose/Aims:** The purpose of this practice improvement pilot project is to implement Screening, Brief Intervention and Referral to Treatment (SBIRT) into the clinical practice of one reproductive health clinic. This practice change will improve substance use screening, interventions and potential referrals. The long term goal is to implement SBIRT in all Wyoming's Title X Reproductive Health clinics.

**Rationale/Background:** SBIRT is an evidence-based, comprehensive, population-focused approach to the delivery of screening, early intervention and referral to treatment for persons with substance use disorders. This model has been used in primary care, hospital emergency centers, and other community settings. State wide population health data reveals high levels of substance use in Wyoming in comparison to other states. Opioid use is increasing in prevalence with opioids prescribed per person in Wyoming being higher than the national average. Wyoming's youth and adult populations experience high levels of alcohol use and other recreational drugs. Drug overdose deaths have climbed steadily from 71 in 2004, to 202 in 2014. Title X clinics already deliver patient-centered reproductive health care to adolescents and young adults. These clients are underserved, uninsured, and vulnerable, and the addition of SBIRT will enhance care. The nine independent clinics in Wyoming have limited resources, and would benefit from evaluation data from this pilot project. New federal regulations for Title X providers in all clinics require that substance use is addressed in care. This pilot project would implement the use of the SBIRT model in care, and results of the project and program evaluation will be used to help implement changes to other Title X clinics in the state.

**A Brief Description of the Undertaking:** This practice improvement project will initiate the implementation of the SBIRT model during history taking in routine visits. In spring 2020, this practice change implementation will consist of clinic readiness assessment, substance abuse assessment tool selection, referral list development, training of clinic staff, and integration of the tool into clinic flow and the E.H.R. Using program evaluation methodology, this practice improvement change will be evaluated one year later. Evaluation data will consist of patient demographics, provider satisfaction, and patient outcomes.

**Outcomes Achieved/Documented:** Project implementation has not yet begun. Based on the literature, it is anticipated that the pilot project would improve care to clients with substance use disorder. Program evaluation data will be used to implement SBIRT initiatives in other Wyoming reproductive health clinics. This evaluation data will be disseminated at the clinic directors' quarterly meetings, and via web-based meetings to Title X clinic staff.

**Conclusion:** This project has the potential to improve clinical practice and patient outcomes by increasing early detection and treatment of substance use disorders in a uniquely vulnerable population. The project evaluation data could be used in the pilot project site and lead to the SBIRT implementation statewide and potentially reproductive health clinics nationwide. SBIRT implementation identifies adolescents and adults who are have substance use disorders, and facilitates entry into treatment for those at risk.

## THURSDAY PEER-REVIEWED POSTER SESSION

### A Prenatal Simulation-Based Educational Experience for DNP-FNP Students

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**Aim/Purpose:** To assess the perceptions, satisfaction and self-confidence in Doctor of Nursing Practice-Family Nurse Practitioner (DNP-FNP) students following a prenatal simulation-based educational experience.

**Background:** Simulation is the educational method allowing students to experience an event or clinical situation in a realistic manner to enhance their learning. It can assist students in developing new skills, knowledge and confidence prior to starting clinical. Simulation training has been widely used in midwifery and obstetrics as a teaching strategy in managing the pregnant patient. Simulation learning strategies have had limited implementation in graduate nursing education compared to undergraduate programs.

**Methods:** To ensure that our students had the opportunity to care for healthy prenatal patients, we designed and implemented a prenatal simulation-based educational experience to provide students with supervised experiences to augment their clinical skills. Every spring semester since 2014, healthy volunteers in various stages of pregnancy were recruited for the prenatal simulation-based educational experience. The DNP-FNP faculty and an experienced certified nurse midwife instructed and observed the students interviewing patients for their prenatal history. The faculty demonstrated, guided and provided feedback to students to assess fetal position and heart tones by Doppler, measured the fundus and developed an appropriate gestational age plan of care. Evaluation data was collected from 2014-2019 from all student participants (n=49) who had experienced the prenatal simulation in their women's/gender health course regarding their satisfaction, perceptions, and self-confidence of the prenatal simulation-based educational experience via an online Qualtrics survey. No student demographics or information regarding previous experience with simulation was collected.

**Results:** There were ten students who initiated consent and six (6) students that completed the survey. While surveying alumni is difficult to procure high response rates, it is notable that those who responded had unanimous positive perceptions with all six responding (agree-3, strongly agree-3) that the simulation increased their confidence in practicing skills in a safe environment; allowed opportunity to practice and obtain feedback; and, enhanced knowledge of the skill. Lack of time was expressed as a weakness of the experience while a common strength was obtaining 'hands-on' experience with real patients. The majority agreed that the simulation experience was motivating and a suitable way to learn. Most students felt confident in their mastery of the simulation experience, and they gained critical essential content and knowledge from the simulation to enhance their performance in the clinical setting.

**Implications:** Previous studies have demonstrated that simulation is an effective teaching strategy in obstetrics. Simulation in a gender's health course for nurse practitioners offers an innovative approach to meet prenatal visit competencies. Students become active learners who develop confidence in their patient approach and can build upon the experience in the clinical setting. The experience allows students the opportunity to practice in a safe environment receiving feedback to improve their skills.

**Recommendations:** Incorporation of a prenatal simulation-based educational experience as a teaching strategy into Family Nurse Practitioner programs can provide a realistic and comprehensive prenatal visit for students which can be reinforced in the clinical setting.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Pressure Injury Prevention during Aeromedical Evacuation or Prolonged Field Care: RCT

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**Purpose/Aims:** Using a skin microclimate multivariate pressure injury (PI) risk framework, examine ability of two interventions (foam sacral dressing or liquid-filled membrane) to mitigate risk factors associated with skin pressure injuries under conditions simulating long-distance military aeromedical evacuation (AE) or prolonged field care (PFC).

**Rationale/Conceptual Basis/Background:** Between 2001-2014, 137,433 military patients were moved on 210,863 flights in the USAF AE system, 19% were immobilized, placing them at high risk for skin pressure injuries. Casualties requiring spinal immobilization using the vacuum spine board (VSB) are at extreme risk. Pressure injury prevention is a unique challenge during these 8 to 16-hour transports. Nearly 5% of critically injured patients transported from the combat zone (2009-2012) developed a pressure injury, with 10% incidence when transported on the VSB. Casualties under conditions of PFC are also high-risk as they are often on an unpadding litter or the ground for an extended time, with minimal PI prevention capabilities.

Past pressure injury prevention models focused solely on mitigating pressure. The complexity of pressure injuries requires new models that address multiple risk factors. The multivariate model for this study includes skin pressure, perfusion, microclimate (temperature and moisture) and their interactive effects on biomarkers indicative of tissue injury. A foam sacral dressing (Mepilex) may be a feasible intervention for use during AE and a possible strategy to mitigate pressure/friction/shear under PFC is the addition of a liquid filled membrane (LiquiCell) on the stretcher.

**Methods:** 72 subjects are being recruited with stratified randomization (based on body fat %) into six groups: Groups 1&2: AE mattress on stretcher with 30° backrest with/without Mepilex; Groups 3&4: VSB (30° reverse Trendelenburg) with/without Mepilex; Group 5&6: PFC Talon litter with/without LiquiCell. Dependent variables: Sacral skin injury (cutaneous IL1- $\alpha$ ), skin perfusion (transcutaneous PO<sub>2</sub>), skin microclimate (temperature, epidermal/subepidermal moisture) and sacral interface pressure. Skin damage scores are estimated using Kokate's equation, which integrates pressure, temperature and time.

**Results:** Preliminary results (N = 18). Demographics: 7 male/11 female: Height: 66  $\pm$  6 inches; Weight 148  $\pm$  25 lbs. BF% 22.2  $\pm$  8.6. BF% Category (Under 4; Within 10; Above 4). Averages for sacrum: Peak skin interface pressure 78  $\pm$  46 mm Hg; Peak Pressure Index (9 cm surrounding peak cell): 44  $\pm$  17 mm Hg, Skin temperature 35.6  $\pm$  1.1°C (Time 0: 33.5  $\pm$  1.2°C/Time 120: 36.1  $\pm$  0.9°C), average skin temperature increase (baseline – 120 minutes): 2.6  $\pm$  1.1°C. Loaded sacral TcPO<sub>2</sub> 47  $\pm$  33 mm Hg (unloaded 77  $\pm$  17 mm Hg), with lowest values on Talon. Nine subjects had low TcPO<sub>2</sub> (6 on Talon). Damage scores suggest greatest injury risk at the subcutaneous level.

**Implications:** Preliminary data demonstrate baseline pressure injury risk for three surfaces used under military conditions. This is the first study to describe these conditions and risk beyond skin interface pressure. The temperature increase is an independent risk factor, with every 1°C increase contributing 14 times greater risk of injury than a 1 mm Hg increase. Increased risk for subcutaneous injury will be assessed using subepidermal moisture and IL1 $\alpha$ .

**Funding:** TriService Nursing Research Program (N18-B02)

## THURSDAY PEER-REVIEWED POSTER SESSION

### Early Transition From a Traditional Cardiovascular Surgical Pathway

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**Purposes/Aims:** Decrease the ICU length of stay and hospital length of stay following cardiovascular surgery using an “early transition” protocol.

**Rationale/Background:** Cardiovascular (CV) surgery patients require Intensive Care Unit (ICU) nursing for the first few hours postoperatively. Highly trained nurses provide care that includes timing of discontinuation of mechanical ventilation, titration from vasoactive drips and complex pain control. Some stable CV surgical patients do not require ICU level of care beyond 13 hours. However, for convenience, standard approaches to traditional provider order sets and nurse staffing recommend ICU level-of-care be continued until interdisciplinary team rounds the morning of post-operative day one. Patients who meet a defined set of criteria, can transition to a lower level of care earlier with ICU level vasoactive drips and hemodynamic monitoring devices removed. This early transition may accelerate the recovery process resulting in fewer ventilator hours, shorter ICU and hospital length of stays (LOS), and potentially reduce mortality and morbidity.

**Methods:** Nurses on a 30 bed cardiovascular surgical unit applied Lean continuous quality improvement approaches to solve the problem of stable CV patients staying longer than necessary within the ICU level category. Nurses introduced early transition to all stakeholders who subsequently endorsed the project in January 2019. Education took place in March 2019 and in April 2019 the program was launched. Nurses obtained early transition orders from CV surgery the evening of the patient’s surgery. If a patient met a defined set of criteria by 0400 hours, they transitioned to a lower level of care and all ICU related devices/lines were removed. If patients didn’t meet the criteria at 0400 hours, they remained ICU for all or part of the following day shift. Nurses tracked two groups of patients who had surgery and compared ventilator time, ICU LOS, and hospital LOS. In an effort to match like groups, Group A included patients with ventilator time less than 13 hours and Group B included all early transitioned CV patients.

**Outcomes:** Baseline data from the first calendar quarter of 2019 shows Group A (N=81) with length of hospital stay of 5.23 days, Ventilator time of 5.12 hours and ICU time of 22.7 hours. After implementation of the early transition program for the second calendar quarter of 2019, Group A (N=72) had the following: length of stay of 4.93 days, Ventilator time of 5.11 hours and ICU time of 22.44 hours, whereas Group B (N=16) had: length of stay of 4.38 days, Ventilator time of 3.33 hours and ICU time of 16.67 hours. The second quarter shows Group B with a decrease in length of stay of 0.55 days, ventilator time 1.78 hours, and ICU time of 5.77 hours. When compared to Group A, the statistics for Group B are markedly improved in terms of lengths of stay, ventilator and ICU time.

**Conclusion:** Early transition resulted in reduced ICU stay, reduced LOS and decreased ventilator time when decisions are based upon patient condition and well defined protocols rather than standard pathways.



## THURSDAY PEER-REVIEWED POSTER SESSION

### Post Surgical Outcomes after Family Involvement in Nursing Care

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*Michelle Gurney Van De Graaff, RN, Acute Cardiovascular Unit, Intermountain, Salt Lake City, UT*

**Purposes/Aims:** A nursing improvement project was developed in response to a challenge to improve cardiothoracic surgical patient care. A nurse recognized that the most motivated part of the care team was typically the visiting family members. In an attempt to improve patient care, the program was created to engage them in cares which could be practiced in the hospital and continued at home. The program was modeled on a family-based care she had observed while providing international service.

**Rationale/Conceptual Basis/Background:** Avoiding unnecessary hospital readmissions has become a pertinent national quality focus. As a strategy to provide not only enhanced inpatient but also outpatient care, this program was implemented on a single unit. After nine years, the program was evaluated and further expanded.

**Methods:** The primary outcome was 30-day all cause readmissions. Family participants' open-ended survey comments about the program were analyzed for content. 200 participants were matched to controls admitted to the same nursing unit and were exactly matched by surgical procedure, age (+/-5 years), attending surgeon, and year of procedure. In cases with multiple potential controls, we selected the control with the closest procedure date. Matching was performed blinded to outcomes.

Age, race, ethnicity, sex, All Patient Refined-Diagnosis Related Group (APR-DRG) severity of illness score, and Elixhauser score were gathered from the electronic medical record. Emergency room visits occurred within the same health system. Readmission and mortality were defined according to standard Centers for Medicare and Medicaid Services (CMS), including number of ED visits within 30-days of discharge, 30-day all-cause readmission, and 30-day all-cause mortality. Family members of program participants were invited to complete a 2-item, Likert-style survey before hospital discharge. Unstructured comments were qualitatively analyzed by a team, using an approach adapted from grounded theory methods. Coders independently reviewed the data and assigned preliminary codes which were closely tied to the actual words the participants used. Data was then discussed as a group and codes were assigned to each comment by consensus, using NVivo 11 (QSR International Pty Ltd).

**Results:** A 65% lower 30-day readmission rate among participants was found compared to matched controls. 101 surveys were obtained from family participants and 94% would "highly recommend the program to other patients/families." 92% felt the program "greatly enhanced their transition to home." Family participants were favorable to the program and felt more engaged in the care.

**Implications:** Given good face validity, lack of evidence for harm, these data justified further application of this program which expanded system wide, to nursing units in all 23 hospitals. Further research will address which components are most important and which patient and family populations fare best with engagement programs of this type.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Improving Emergency Room Nurses Adherence to Implementation of CMS-Sep 1 Bundle

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*Alicia Kim, Emergency Department, Orange Coast Medical Center, Fountain Valley, CA;*  
*Marisol Fernandez-Lagunas, Emergency Department, Orange Coast Medical Center, Fountain Valley, CA;*  
*Delfa Seto, Professional Education, Orange Coast Medical Center, Fountain Valley, CA*

**Purpose:** The purpose of this quality improvement projects was to increase adherence to CMS-Sep-1 bundle by implementing standard work and improving communication among emergency department (ED) staff at Magnet designated community hospital.

**Rationale/Background:** Severe sepsis and septic shock result in approximately 250,000 deaths/year nationwide. Implementing Centers of Medicare and Medicaid Services Severe Sepsis/Septic Shock Early Management Bundle (CMS-Sep-1) improves outcomes in these patients. Only 69% of patients presenting to our emergency department (ED) received all the elements of the CMS-Sep-1 bundle; this was below our goal of 75%. Our data revealed that staff adherence to implementing the bundle was sub-optimal.

**Methods/Processes:** Using the Plan-Do-Study-Act (PDSA) model, we developed standard work related to adherence to CMS-Sep-1. Standard work included educating ED doctors, physician assistants and nurses, monthly reviews of fall-outs, and monthly discussions of barriers and opportunities for improvement. Fall-outs were assessed monthly by our Quality department; an ED physician champion assisted with the provider fall-out review and the ED nurse educator assisted with RN fall-outs. Fall-outs were discussed at the ED Medicine Committee to identify areas of opportunity and clarification regarding documentation requirements for the CMS-Sep-1.

Additionally, we created a shared electronic checklist containing the elements of CMS-Sep-1 bundle to facilitate better communication among ED nurses. We added this checklist to the electronic medical record of eligible patients. Making the checklist accessible to all nurses involved in the care of the patient allowed nurses to track completed elements and coordinate the remaining care.

**Outcomes Achieved:** Adherence to the CMS-Sep-1 bundle increased from 69% prior to implementation in September 2018, to an average of 87% in October and November of 2018.

**Conclusions:** Implementation of standard work, ability of nurses to track all care using a shared electronic checklist and educating ED nurses and doctors about CMS-Sep-1 measures improves adherence. Utilizing a shared electronic checklist to coordinate the elements of the CMS-Sep-1-bundle enables better communication among nursing staff. We recommend extending the use of such a checklist to in-patient units to promote ongoing and seamless care. We also recommend trending and analyzing patient outcomes to determine efficacy of implementing standard work and use of a shared checklist.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Inflammatory Gene Expression and Predictive Stroke Outcomes in Acute Ischemic Stroke

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**Purpose:** The purpose of this study was to identify inflammatory genes and patient demographics that are predictive of stroke outcomes (infarct and/or edema volume) in acute ischemic stroke patients.

**Background:** Ischemic stroke is the leading cause of adult disability in the United States. The ability to predict ischemic stroke outcomes in the first day of admission could be vital for patient counseling, rehabilitation, and care planning. We developed a protocol to collect blood samples distal and proximal to the intracranial thrombus during mechanical thrombectomy. These samples are an innovative resource in evaluating acute gene expression at the time of ischemic stroke.

**Methods:** The study is a non-probability, convenience sampling of subjects (>18 year olds) treated with mechanical thrombectomy for emergent large vessel occlusion. We evaluated relative concentrations of mRNA for gene expression in 84 inflammatory molecules in static blood distal and proximal to the intracranial thrombus from adults who underwent thrombectomy. We employed a machine learning method, Random Forest, utilizing the first set of enrolled subjects, to predict which inflammatory genes and patient demographics were important features for infarct and edema volumes.

**Results:** We analyzed the first 28 subjects (age =  $66 \pm 15.48$ , 11 males) in the our registry. Results from machine learning analyses demonstrate that the genes CCR4, IFNA2, IL-9, CXCL3, Age, T2DM, IL-7, CCL4, BMI, IL-5, CCR3, TNFa, and IL-27 predict infarct volume. The genes IFNA2, IL-5, CCL11, IL-17C, CCR4, I-L9, IL-7, CCR3, IL-27, T2DM, and CSF2 predict edema volume. There is an intersection of genes CCR4, IFNA2, IL-9, IL-7, IL-5, CCR3 to both infarct and edema volumes. Overall, these genes depicts a microenvironment in the distal blood (at the injury site) for chemoattraction and proliferation of autoimmune cells, particularly Th2 cells and neutrophils.

**Implications:** Machine learning algorithms can be employed to develop predictive biomarker signatures for stroke outcomes in ischemic stroke patients. With a larger sample size, predictors could be found for long-term functional status outcomes in ischemic stroke patients.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Facilitators and Barriers to Exergaming: Perspectives of Patients with Heart Failure

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**Purpose:** To explore facilitators and barriers to exergaming in a cohort of patients with heart failure.

**Background:** Exergaming is a new form of physical activity that has gained popularity among generally healthy older adults and older adults with chronic illness. While most studies focused on improving physical activity and psychosocial well-being, few have explored barriers and facilitators of exergaming among patients with heart failure which are important factors that determine participants' adherence to this exercise program.

**Methods:** Semi-structured face-to-face interviews were conducted in 13 participants diagnosed with heart failure (5 women, age range 34-69 years old) who participated in a pilot study on exergaming. Participants were asked about their experience with exergaming. Transcribed interviews were analyzed with conventional content analysis.

**Results:** The following four facilitators were identified: (1) enjoyment and competition motivated gaming; (2) accessibility at home gave freedom and lowered threshold to exercise; (3) physical benefits when decreasing the sedentary lifestyle; and (4) psychosocial benefits on stress, mood and family interactions. Barriers included: 1) engagement diminished overtime due to boredom; and 2) frustrations due to lack of mastery and improvement.

**Conclusion:** Patients described how exergaming gave enjoyment alone or with family, motivation to be physically active, as well as relieving stress and distress. However, patients claimed that their engagement diminished over time due to exergaming getting monotonous and boring and if they did not improve their gaming as anticipated it led to frustration. Additional strategies to sustain interest in exergaming are warranted to potentially achieve the intended aim of improving physical activity and ultimately improving the overall well-being and health care delivery in this patient population.

**Implications:** As interactive technologies are introduced and used as health interventions to promote physical activity such as the Nintendo™ Wii games, clinicians must take into consideration facilitators and barriers and include them in a framework for improving knowledge about establishing exergaming programs at home. Our findings support the idea that the Nintendo™ Wii exergame play, much like the real sports, can promote fun, social interaction and competition while increasing physical activity. However, participants' past experiences, preferences, capacities, game variety, and social support must be taken into consideration especially when a solitary play is expected to avoid boredom and frustrations.

## THURSDAY PEER-REVIEWED POSTER SESSION

### The Impact of Personal Pet Visitation on Patients on an Adult Progressive Care Unit

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*Heather Abraham, MSN, MPA, RN, CCRN, Nursing, University of California San Diego Health, San Diego, CA*

**Aim:** The purpose of this phenomenological study is to describe the impact of a personal pet visit on a hospitalized patient.

**Background:** Pets are an important part of many people's lives. They bring joy and companionship to their owners and are often regarded as family members. With a focus on patient- and family-centered care and an appreciation for the impact of a personal pet on an individual's health and well-being, some hospitals allow personal pets to visit inpatients. To my knowledge, there is no current research examining the impact of a personal pet visit on hospitalized patients.

**Methods:** The academic medical center where the study is being conducted has a policy in place which allows the personal pet of a hospitalized patient to visit. The pet visit is coordinated with the patient's primary nurse and the charge nurse. The investigator is notified when a personal pet visit happened or is planned. Either during or after the pet visit, the investigator engages the patient in a semi-structured interview about the pet visit. The interviews are examined to identify themes which describe the meaning of the visit to the patient.

**Results:** Research is currently in progress. Thematic analysis of the interviews that have been completed to date has identified several themes including positive anticipation of the pet visit and the presence of the pet decreasing anxiety and stress.

**Implications for Translation to Practice:** Patient- and family-centered care revolves around the four principles of respect and dignity, participation, sharing information, and collaboration. Both the tenets of patient- and family-centered care and the Joint Commission patient-centered communication standards compel health care providers to respect that family can be whoever or whatever a patient chooses. As collaborators in care, we respect our patient's definition of family and understand the role a pet can play in an individual's health and well-being. Therefore, if patients identify that personal pet visitation decreases stress and anxiety and improves mood, our paradigm of patient- and family-centered care needs to evolve to incorporate more opportunities for personal pet visitation during a patient's hospitalization.

## THURSDAY PEER-REVIEWED POSTER SESSION

### Pain and Symptoms Following mTBI: Should Technology Play a Role in Self-Management?

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The purpose of this study was to explore self-management strategies in order to inform design of an informatics tool to support self-management of pain and symptoms following mTBI. Those with mild traumatic brain injury (mTBI) often experience pain and symptoms long after their initial injury. A gap in current knowledge is how persons would prefer to monitor and manage these symptoms following mTBI. A qualitative descriptive approach using semi-structured phone interviews of participants with recent mTBI was used to meet study aims. A descriptive approach was utilized to determine what the tool should address, and which features should be included in a future tool. Themes were identified using a Qualitative Description analysis approach, which is based in naturalistic inquiry. Seven female participants completed interviews. Participants described difficulty coping with symptoms, limited access to or knowledge of treatments and trial and error with compensatory strategies. These challenges often led to difficulty keeping up with work, school and other commitments. All participants indicated that they were interested in a tool that addresses pain, memory and concentration. The main features that participants wanted were pain and symptom tracking as well as suggestions based on tracking information. Sharing their recovery with others, including customizing what was to be shared, was wanted as a feature in a future tool. An app on the phone was the most popular platform, but voice recognition was also recommended to reduce screen time. Participants reported a significant pain and symptom burden during their recovery from mTBI often with multiple symptoms lasting weeks to months after injury. Lack of knowledge around managing pain and symptoms as well as competing demands with work, school and other responsibilities hindered their recovery. Participants thought that a technology tool would help them with self-management of pain and other symptoms following mTBI. Patients are interested in using technology to help with self-management of their pain and symptoms following mTBI. Enhanced communication with providers and ability to gain enough rest earlier in their recovery may provide better pain and symptom outcomes for patients. In the future, tools that help patients with self-management should integrate into health systems and provide ways to effectively interact with providers during the most vulnerable phases of recovery. End-user testing of a future technology tool for self-management would be important in this population due to the multiple challenges they face in their recovery from injury.

**Funding:** I acknowledge my funding sources, the National Institute of Nursing Research (5T32NR014833 04) and the Hester McLaws Nursing Scholarship.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Innovations in Clinical Learning Experiences in an Online RN-BS Completion Program

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**Purposes/Aims:** Student satisfaction, statewide accessibility, efficient clinical placements, and providing dynamic learning environments were the main motivators for an RN-BS program to implement a variety of innovative clinical learning strategies. Likewise, this program strived to meet an Oregon Consortium for Nursing Education (OCNE) goal to deliver an online bachelor program for registered nurses living in both rural to urban settings, thereby meeting student's desires to stay in their community.

**Rationale/Background:** As guided by initiatives to increase the number of bachelor-prepared nurses, applicants to RN-BS programs has grown significantly. Most students are working full time in their community, driving the need to decrease on-site clinical hours. To remain competitive and to meet student expectations, it is necessary for post-licensure baccalaureate nursing programs to implement several innovative strategies and learning activities to deliver clinical experiences. Likewise, the complex, time-consuming student clinical placement process needed to be revised with the goal of positively impacting student satisfaction with both the clinical site and the placement process.

**Undertaking/Best Practice/Approach/Methods/Process:** A process improvement initiative resulted in developing an automated database to manage student clinical placement assignments significantly increased student satisfaction with both the clinical site experience and the placement process. Several innovative, virtual clinical learning activities were developed, resolving student concerns related to childcare, travel costs, and work demands. An in-person, on-site presentation assignment was converted to a virtual assignment. A student-led book club was launched, focusing on population health topics and vulnerable populations while proving to be a flexible, online learning activity. The implementation of 30-hour concept-based clinical learning activities (CBLAs) to address multiple clinical experience issues demonstrated success in application to practice, advancement of student knowledge, expanding their view of nursing practice, and adding new skills.

**Outcomes Achieved/Documented:** The process improvement initiative resulted in developing an automated database that manages up to 70% of student placement assignments. Online learning activities are more accessible, as well as logistically and financially equitable. Results of evaluations from seven terms revealed that students and faculty responded positively to book clubs as effective strategies to support social presence providing flexible learning activities. Faculty identified student collaboration and open communication as value-added results. Three terms of positive student and faculty feedback demonstrate that overall, guided clinical learning inspires student interest, creativity, and inquiry.

**Conclusions:** Using a process improvement initiative is an effective strategy to resolve complex, challenging issues. Implementing weekly team huddles is an effective strategy to monitor process improvement. Transitioning from person-to-person learning activities to virtual is beneficial to student accessibility and equitability. Clinical innovations continue to be used in the courses with refinement based on student and faculty feedback. Continued research is beneficial when determining best approaches between online and in-person versions of learning activities.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Transitioning from in-Person to Project Presentations Online

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**Purpose/Aims:** This presentation is to advocate for transitioning from person-to-person learning activities, to virtual ones when beneficial to student accessibility and equitability. In addition, the potential cost savings to an academic program will be discussed. To illustrate, the re-design of an in person presentation to a virtual one will be used.

**Rationale/Background:** The course and presentations are modeled using evidence-based, online education, design standards. Students and faculty in the Population Health Practice course are located throughout the state and required to attend presentations in a central location once a term. This capstone final project necessitated student travel to participate in the required presentations leading to student, faculty and program burdens. There were also additional costs to the academic program with respect to faculty time, travel expenses, and site expenses.

**Approach:** The in-person, on-site presentation assignment was converted to a virtual assignment. Electronic video-conferencing was used to help maintain ability to have synchronicity between students and faculty during the presentations. This change necessitated providing students and faculty training to utilize the communication e-tools. Student presentation format was modified from a slide-show to a single slide formatted as a poster. This allowed students to practice the important technique of presenting with a poster, as well as providing the added benefit of reducing risk of technological complications.

**Outcomes Achieved:** Following this transition, students noted a preference for the virtual presentations and no longer cited issues with child care, financial costs or work stipulations. Technological problems were reduced going from multi-slide presentation to a single slide poster. With regard to program costs, there was also a financial cost reduction with virtual versus in-person, on-site presentation.

**Conclusion:** When designing learning activities in a course, it is important to consider student equitability, accessibility, and institutional costs. These considerations should include identifying covert expenses that may not be immediately obvious to faculty. At the same time, maintaining high-quality learning activities requires that additional research is needed into best practice when selecting between online and in person versions of learning activities. Finally, considerations regarding accessibility and equitability must continue to be researched with regard to other areas of course-design. For example, a virtual assignment may pose increased strain for students who do not have stable wi-fi. Our online learning-activity is more accessible, as well as logistically and financially equitable, than the person-to-person interaction it replaced. There will never be one model for all, however, when possible eliminating person-to-person interaction from online or blended programs will help address accessibility and equitability considerations.



## FRIDAY PEER-REVIEWED POSTER SESSION

### Virtual Book Club Enhancing Social Presence and Global Perspective

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**Purposes/Aims:** Enhance social presence within on-line baccalaureate completion program (RN-BS), specific to population health, using book club clinical activity. Develop student managed virtual book club activity, exploring population health current events, viewed through a global health lens. In addition, increase flexibility and opportunity to fulfill clinical hour requirements.

**Rationale/Background:** Student and faculty evaluations of on-line population health course revealed desire for increase in social presence. The Community of Inquiry (COI) framework views social presence within the on-line, virtual learning environment as paramount to achieving higher educational experience for students. Lack of face- to-face instruction presented challenges for collaborative sharing of knowledge and opinion, open communication and subsequent group cohesion. Evaluations also revealed a desire for an increase in global perspective of topics, as well as, flexibility for obtaining clinical hours.

**Undertaking/Best Practice/Approach/Methods/Process:** Historically, an individual book activity was included in the course. Faculty and student evaluations suggested changes to this activity leading to 1) transition from individual book review to virtual, student-run book club, 2) focus on vulnerable population through global lens via book choice and 3) book club hours eligible for clinical credits. The book, authored by a registered nurse, was chosen due to its' focus on the Mexico-Arizona border immigration crisis. Using the learning management system and web conferencing tool, students self-registered for book club meetings offered on varying dates and times. Meeting roles are self-assigned and rotate between students. Attendance of four, on-line, synchronous meetings was required over the course of an eleven-week term. Prior to meetings, one member creates and posts 4-5 questions based on activity learning objectives. Questions are discussed, explored and debated during meetings. A scribe posts meeting minutes for faculty review. Upon book completion, each club creates two overarching questions to for discussion during the final meeting. During Week 10, the class, including faculty and topic expert, joins for a fourth and final synchronous virtual meeting. The topic expert addresses the class by speaking to their first- hand experience, reviewing team's final questions, followed by a question and answer session.

**Outcomes Achieved/Documented:** Through meeting minutes and evaluation from seven terms, students and faculty responded positively to course changes. Students appreciated the ability to interact with peers synchronously, discuss current population health concerns and the ease of attaining clinical hours. Faculty noted enhanced engagement with book activity, value added in discussion with book author or topic expert, beneficial professional debate and opinion sharing, decreased workload, and presence of global perspective within curriculum.

**Conclusions:** Book clubs are effective strategies to support social presence within the Community of Inquiry framework through debate, collaboration, open communication and subsequent group cohesion. Book clubs also allow faculty to highlight specific population health topics and vulnerable populations while providing flexible learning activities. On-going monitoring of evaluations and course objectives are necessary to assure relevance of selected topic to best meet course outcomes.

## FRIDAY PEER-REVIEWED POSTER SESSION

### 30-Hour Concept-Based Clinical Learning Activities in a Capstone Course

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**Purposes/Aims:** Examine the use of 30-hour concept-based clinical learning activities (CBLAs) to address multiple clinical experience issues in an online baccalaureate completion program (RN-BS). Summarize the student and faculty experience of 30-hour clinical learning activities.

**Rationale/Background:** An increasing number of students in the online RN-BS program work full time resulting in hardships balancing the required capstone course clinical hours with their work schedules and family responsibilities. Practice sites were becoming more restrictive in the numbers of students accommodated and on-boarding requirements. Additionally, the program was losing students to other online programs that did not require on-site clinical hours. Transition to concept-based learning activities was identified an effective teaching strategy to address these issues.

**Undertaking/Best Practice/Approach/Methods/Process:** Creating clinical learning experiences that did not require scheduled time at a specific service provider while also expanding learning opportunities became a priority. Program faculty unanimously supported moving to CBLAs in the capstone course. Specific concepts for learning activities were identified based on course outcomes, contemporary practice issues, and identified vulnerable populations in the region. Four, 30-hour CBLAs were pilot tested using a variety of assignments to demonstrate student learning. An anonymous evaluation survey was developed and embedded in the course, providing an opportunity for feedback on each CBLA. Additionally, the final online forum post addressed the student's perception of CBLAs as their sole clinical experience.

**Outcomes Achieved/Documented:** 75 student responses to an end-of-term online forum post and a combined 162 responses to the anonymous CBLA survey provide insight into the student experience. Survey results of the five CBLAs metrics is 3.87 out of 5 over three terms of data. Student forum posts highlighted the flexibility offered, variety of topics, able to customize learning, and opportunities to expand their clinical practice. Faculty observed students' active engagement by their selection of specific populations or focus for assignments. Students demonstrated strong independent learning and application of concepts to their nursing practice. An unanticipated outcome was reports of employed students being asked to share their newly acquired expertise in their workplace. Opportunities for improvement noted by students included clearer instructions, desire for examples of the assignments, strategies for managing time with required interviews or detailed organizational assessments. Several noted preferences for in-person, on-site clinical experiences. Faculty noted that use of CBLAs in the course fostered independence, deepened understanding of nursing's contribution to health outside of acute care, and broadened perspective of the scope of nursing.

**Conclusions:** Contributing elements to successful implementation include program faculty engagement, piloting with students, and incorporating feedback for the launch of 30-hour CBLAs. Anonymous survey data demonstrated success in application to practice, advancement of their knowledge, expanding their view of nursing practice, adding new skills and being value-added. The diversity of student self-directedness and focus for individual assignment engages faculty in multiple ways, making guiding clinical learning interesting and inspiring. Next steps in this project are to create additional CBLAs to broaden student choice in learning activities, develop a qualitative study and track student preferences for selecting this RN-BS program.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Participatory Design of a Tailored Self-Management Program for Caregivers of Children

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**Aims:** We used participatory design (PD) to inform the development of a tailored self-management intervention for caregivers of children with asthma. This abstract describes the PD methods and findings from the PD sessions.

**Background:** In the United States, 10 million family caregivers care for children with chronic health conditions such as asthma (National Alliance for Caregiving, 2015). The stress of caregiving, particularly among caregivers in underserved communities who often work multiple jobs and have limited access to healthcare can adversely impact caregivers' health and wellbeing. In collaboration with caregivers and community stakeholders, we developed Caring of Caregivers Online (CocoBot), a theory-based intervention using artificial intelligence (AI) "chatbot" technology to provide caregivers with on-demand and interactive self-management skill development. We integrated a participatory design (PD) approach to elicit end users' needs and experience in the context of adopting conversational AI-based self-management intervention for caregivers of children with asthma.

**Methods:** We conducted two separate PD sessions with four parents of children with asthma and three community stakeholders from a local Asthma Coalition working with caregivers residing in underserved communities. The components of the PD sessions included post-it boarding, iterative phases of ideation, design activities, and group discussion. Sessions were video and audio-recorded. Transcripts and field notes were analyzed through three steps: 1) unitize data with post-it notes, recording transcripts, and meeting notes; 2) deductively assign data units into domains; and 3) inductively identify categories within each domain. The research team reviewed, discussed findings and resolved discrepancies.

**Results:** Three main themes emerged from the PD sessions including content needs, features and functions, and other aspects. Content needs refer to what information that the caregivers would like to know about self-management for themselves such as managing "straight-up stress" and the feeling of "constantly being on the edge." The features and functions of having a conversational AI-based tool include tracking symptoms and self-care reminders. Participants also reported other aspects such as avoiding frequent login or too many text messages.

**Implications:** Participatory design is an approach to bring the end-users and stakeholders into the design process. It embraces techniques that are valuable for both initial exploration and ideation phases of a project, where potential end-users take an active role in co-designing solutions for themselves. PD methods can be used in the design and development of self-management interventions for patients and their families.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Qualitative Study of Long-Term Fathering of Former Newborn Intensive Care Unit Infants

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**Gesine Hearn, PhD, RN, Sociology, Idaho State University, Pocatello, ID; Gina Clarkson, PhD, ARNP, NNP-BC, Nursing, Idaho State University, Pocatello, ID**

**Purpose:** The purpose of this qualitative study was to explore the experience of fathering a previous Newborn Intensive Care Unit (NICU) infant with health needs four years after the NICU.

**Background:** Infants with health needs are at greater risk of poor neurodevelopmental outcomes. Early father involvement has been shown to improve behavioral problems by age 5, enhance cognitive development, and positively impact child and family well-being. Little is known about long-term fathering of these infants. Although there are many qualitative studies while fathers were in the NICU, none have studied long-term follow-up 4 years later.

**Methods:** After Institutional Review Board approval, fathers of infants hospitalized between 2013 and 2014 in a large southeastern NICU were interviewed in the spring of 2018 using grounded theory approach. Semi-structured interviews focused on fathering an infant with health needs. We asked fathers about the child's ongoing health needs, father involvement, beliefs of quality involvement, paternal confidence, and challenges. Grounded theory was used for data analysis.

**Results:** Nineteen fathers participated. The median age of the fathers was 38 years old (ranging from 28 to 57). Racial demographics included 12 white fathers (63%), 5 black fathers (26%), and 2 Hispanic fathers (11%). At the time of the interview, sixteen (84%) were married or engaged to the mother of the NICU infant, 2 (11%) were divorced or separated, and one remained single and friends with the mother. We found that although fathers initially told us that the children "were doing great", as the interviews proceeded, they began to discuss ongoing health issues and we discovered that things were not as great as initially implied ('yes, but no'). They discussed how they have '*adapted to health issues*' and made accommodations for the child. Fathers discussed having difficulties '*balancing their work and home life*'. They were involved in many ways including attending healthcare appointments, participating in schooling, and playing with the child, especially '*outside play*'. They discussed '*normalizing*' as much as possible and about enjoying '*just hanging out*' with their child. Although the health issues '*created more effort for the fathers*', they believed that the health issues helped them to be a more confident father ('*health issues improved confidence*'), although they were fearful of new or worsening health issues ('*concerns for future health issues*') and this made them '*more vigilant*'. Fathers described how their involvement in the NICU helped them with their current involvement, confidence, and beliefs.

**Implications:** An understanding of long-term fathering of a NICU infant (now child), with health needs is important to furthering research with families of children with health care issues. In particular, this study adds to the body of evidence that nurses should encourage fathers to be involved with their infants while in the NICU. We found that nursing instructions were pivotal to these fathers' involvement and confidence. Even basic involvement boosted confidence and subsequently led to more involvement. This involvement/confidence pattern is critically important, especially for fathers of children with disabilities.

**Funding:** Idaho State University: SEED Grant LIGS23

## FRIDAY PEER-REVIEWED POSTER SESSION

### Infants with Single Ventricle Heart Disease and Survival in Rural Communities

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*Emily Moore, RN, MSN, CPNP, Heart Center, Seattle Children's Hospital, Kenmore, WA*

**Purposes/Aims:** The purpose of this study is to examine the outcomes of infants with single ventricle heart disease SVHD who are status post stage-one surgery and pending stage two (inter-stage period) discharged to their home communities. Aims: 1) Describe the pre-discharge health status variables and inter-stage mortality through secondary analysis of existing data for rural and non-rural infants discharged from a large regional hospital. 2) Describe the pre-discharge health status variables and inter-stage mortality through secondary analysis of existing data in a national public dataset.

**Description of Method:** Quantitative descriptive design using secondary analysis to assess data previously collected.

**Internal Consistency of the Method:** Secondary data analysis of data previously collected: a summary of demographic characteristics in a descriptive analysis. Frequencies and percentages calculated for categorical variables. Mean, standard deviation, quartiles, and ranges for continuous variables. RUCA codes, based on zip codes, will be used to identify rural/urban status. Demographic and clinical characteristics will be summarized by rural/urban status and compared using two-samples, t-tests or Wilcoxon rank sums tests if continuous, and chi square or Fisher's exact tests if categorical. Distance to the point of care will be calculated using the infant home and facility zip codes. Distances will be compared using two-sample t-tests or Wilcoxon rank sums tests based on mortality status.

**Logic Linking the Method to Nursing Research Problem:** Examination of SVHD is important, these vulnerable infants experience a high level of morbidity and mortality related to high risk circulation. Despite routine care, mortality is as high as 15% during the inter-stage period. What complicates research is the low incidence of SVHD, making it difficult to conduct prospective studies with effective sample sizes. Secondary data analysis is a procedure that allows analysis of data previously collected for another purpose. The method of secondary data analysis enables us to obtain effect estimates to inform future research as it relates to creating more precise, targeted intervention strategies and improved clinical outcomes. This works towards reducing health disparities and inequities for infants with SVHD who reside in rural communities and proactively identifies strategies to improve post-operative and inter-stage management. Determining the outcomes of infants with SVHD from two large data sets will serve to better inform nurses about the associated morbidity and mortality. Additionally, nurses can better appreciate the use of secondary data analysis, particularly in the context of "big data."

**Conclusions:** By exploring and describing pre-discharge data of outpatient infant morbidity and mortality during the inter-stage period, we can determine if there is risk associated with morbidity and mortality and intraoperative/hospital course. Future direction involves taking the findings from this descriptive study and comparing it to national datasets. By increasing the sample size and looking closely at data, we will then be able to identify the risk factors that impact infant morbidity and mortality among rural and urban dwelling infants with SVHD, which will inform nursing practice. By likening our data set to a larger national public dataset, we can compare outcomes and estimate effect sizes for potential more extensive nursing studies.

## FRIDAY PEER-REVIEWED POSTER SESSION

### A Back-Transport Policy for Pediatric Alaska Native Cardiac Patients

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*Emily Moore, RN, MSN, CPNP, Heart Center, Seattle Children's Hospital, Kenmore, WA*

**Purposes/Aims:** To create a partnership between a regional hospital and an Alaska Native hospital to promote successful, culturally appropriate discharge planning and allow children with congenital heart disease (CHD) to return to their home communities as safely as possible. Aims: a) Describe best practice and create a process to define inpatients considered eligible for transport; b) Determine initial success of the program as indicated by changes in readmission rates and mortality.

**Rationale/Background:** CHD is the most prevalent birth defect in the United States and leads to extended hospital stays and higher mortality rates. The average length of stay for a rural child with CHD was 22 days with roughly 1/3<sup>rd</sup> of patients readmitted within 30 days. Delivering optimal, equitable, and economic healthcare is a significant challenge to children born with CHD. Rurality can contribute to the vulnerability of these infants. Evidence suggests that rural children with CHD may not be receiving standardized discharge treatment as compared to their urban counterparts. Due to medical and social complexities often faced within this population, a well-coordinated partnership to promote successful discharge planning is imperative to enhance quality of care.

**Brief Description of the Undertaking/Best Practice:** Previously between Seattle Children's Hospital and the Alaska Native Medical Center, there was a break-down in communication regarding discharging CHD patients and consequently unsafe patient management. After reviewing literature, key stakeholders from these institutions met to outline a process to define patients who may be eligible for transport back to Alaska. The stakeholders developed a new clinical care guideline stating that "Alaska Native patients with CHD are eligible for transport once recovered from surgical repair and are approaching discharge readiness. Patients must be at a level of care where they are weaning off oxygen, working up to goal feeds, weaning off opioids to meet criteria. Patients who still require ICU level care or active cardiac surgery management are not eligible". A team-based care model was designed for the discharge/transport process. Each transport was assessed for safety, efficiency, communication, and education. Feedback for quality and improvement was evaluated, appropriate changes were applied to each subsequent transport. Success was measured through provider feedback and patient outcomes, specifically <30-day readmission rates and reported death.

**Assessment of Findings/Outcomes Achieved:** On average providers voiced their endorsement of the new process, which included improved provider communication and patient hand off between the two institutions. With length of stay and readmission decreased by half. Mortality decreased from 3 to zero.

**Conclusions:** Delivery of safe and effective, culturally appropriate care was the core value being assessed within the project. Two institutions were able to develop a successful partnership to improve quality of care and patient safety. The creation of back-transports has had a profound impact on our indigenous families and their quality of life. This work demonstrates the power of communication and its impact on delivery of care. Future research regarding this work will involve further studying this population and the relationships between access to healthcare and health outcomes using remote monitoring services such as telemedicine capabilities.

## FRIDAY PEER-REVIEWED POSTER SESSION

### HBM Factors as Predictors of Parental Misclassification of Weight in Preschoolers

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**Tanna Marie Woods, RN, MSN, PhD, Nursing, Nightingale College, Salt Lake City, UT; Mary Nies, PhD, RN, FAAN, FAAHB, School of Nursing, Idaho State University, Pocatello, ID**

**Purposes/Aims:** Parental misclassification and underestimation of child weight is well-documented. Demographic factors like child age and sex have been linked to misclassification. However, modifiable factors that could potentially frame future intervention and prevention strategies have not been sufficiently explored. This study explored potential modifiable factors using the Health Belief Model as a conceptual framework.

**Methods:** This descriptive, cross-sectional study had eight questions examining relationships between HBM components of perceived severity, perceived barriers, and perceived susceptibility. Parents of children age 2 to 5 could participate. People were excluded if a sibling was participating or if the child had a disease known to effect weight/size such as pituitary and thyroid conditions.

A convenience sampling of 198 parent-child dyads were recruited from 17-day care and standalone preschool facilities. Recruitment included query letters sent home with children, and the investigator inviting parents at drop off and pick up times. Parents returned completed surveys to a locked box at their center; the investigator calibrated the scale and collected child height and weight at the preschool.

The Early Childhood and Family Health Questionnaire captured self-reported parental data, including demographics, as well as data from previously established and validated scales for knowledge and parental self-efficacy.

Sample size calculations were performed using G\*Power: Statistical Power Analyses to determine the maximum needed samples to answer the questions. Sample size needs varied, ranging from 82 for point-biserial to 169 for logistical regression questions. Frequencies, chi-square tests of association, Cramer's V, Kappa coefficients and statistics, and logistic regressions were used to analyze data.

**Results/Findings:** The study population had 37.2% obese/overweight children, though 98.5% of parents reported no health care professional had notified them of weight issues and that 97.5% attend yearly annual well child visits. Also, 76.4% of parents reported being extremely likely to intervene if a provider told them of a weight problem.

Parental misclassification of child weight was confirmed across three methods: 46.7% (Likert), 49.7% (weight-reporting) and 64.1% (pictorial method). Kappa values showed both the pictorial method ( $\kappa = -.028$ ,  $p = .42$ ) and Likert scale method ( $\kappa = -.032$ ,  $p = .37$ ) parental agreement with actual child weight was not significantly better than chance alone.

Parental obesity risk knowledge had a small, significant relationship with parental ability to correctly classify child weight with the Likert method ( $rpb = .17$ ). A logistic regression model including self-efficacy, ORK-10 score, obesity exposure, child sex, and parental age was statistically significant for the Likert method.

**Conclusions:** Study results indicate parental willingness to intervene when aware of child weight issues. However, parents cannot accurately recognize healthy versus unhealthy weight by any method and report that health providers are not informing them of weight deviations. Further, important relationships between the HBM variables were identified. Instead of the direct effects, the study showed that barriers (self-efficacy) mediate the effect of perceived severity (knowledge) regarding parental ability to assess child weight accurately. These relationships and incorporation of the HBM principles of barriers and severity into prevention and intervention strategies need explored in future research.

**Funding:** 2018 Sigma/Chamberlain College of Nursing Education Research Grants in the amount of \$7500 260776

## FRIDAY PEER-REVIEWED POSTER SESSION

### Characterizing Older Adults' Engagement in Advanced Directives: Plans for End of Life

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*Ezra C. Holston, PhD, RN, Orvis School of Nursing, University of Nevada, Reno, NV; Wei-Chen Tung, PhD, RN, FAAN, Orvis School of Nursing, University of Nevada, Reno, NV; Kristen Lott, MSN, RN, Duke Transplant Center, Durham, NC*

**Background:** End of life care is changing with the proliferation of advanced care planning and advanced directives. Older adults can autonomously design their end of life care so that they control the quality, type, duration, and extensiveness of care regardless of the duration. Advanced directives provide the mechanisms to choose specific actions and behaviors that will retain older adults' independence, self-image, and/or self-awareness at the end of life. However, it is unclear if older adults are proactively engaging in advanced care planning for the end of life process and/or completing specific advanced directives for a quality and individualized end of life.

**Purpose:** This descriptive, cross-sectional study was designed to characterize the relationship among age (50 and older), gender, and the use of advanced care planning and advanced directives by community-residing older adults in good health.

**Methods:** A convenience sample ( $n = 177$ ) was recruited from multiple communities in Northern Nevada via snowball sampling, fliers, personal contacts, referrals, and in-person contact. Data were collected with a self-report survey adapted from the American Association of Retired Persons North Carolina end of Life Care Survey. Participants completed the survey at their convenience and returned it via regular mail, email, or in-person. Data were analyzed with descriptive statistics and Kruskal Wallis test. The sample was categorized into age groups

**Results:** Group 1 (age 50-59) had 28 participants (16%), Group 2 (age 60-74) had 84 (48%), and Group 3 (age  $\geq 75$ ) had 57 (32%). Participants were predominantly White, female, married or was married, and in good to excellent health. Group 2 had the highest number of participants for each demographic with Group 1 having the lowest. Most of the participants (80-93%) spoke with at least four persons about end of life care: A spouse (44-86%), a family member (44-86%), and/or a friend (23-32%). The majority ( $>70\%$ ) did not consider talking to professionals knowledgeable about advanced care planning. The use of advanced directives or creating a "last will & testament" positively related to age, where Group 3 mostly likely had the highest use. Being an "organ donor" inversely related to age with Group 1 having the highest use. With Kruskal-Wallis test, the age groups were significantly different in the advanced care planning ( $\chi^2 = 5.7 - 8.0, p = .00-.03, df = 2$ ) and advanced directives ( $\chi^2 = 7.3 - 23.4, p = .00-.03, df = 2$ ). Gender and marital status were not significantly different in the advanced care planning and advanced directives.

**Implications:** Group 1 showed a slight interest in advanced directives, and Groups 2 and 3 intensified it. The use of advanced directives increased with age, a positive relationship. Current and future nurses need to educate older adults aged 50-59 about the importance of advanced directives for a quality end of life. Nurses can also employ older adults' desire to be independent and have autonomy at the end of their life to promote advanced care planning. Further investigation is warranted to examine the clinical utility of these findings.

**Funding:** Funded by Sigma Theta Tau, Nu Iota Chapter Research Award.



## FRIDAY PEER-REVIEWED POSTER SESSION

### Goals of Care Conversations in Home Hospice Heart Failure Patients: A Qualitative Study

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**Dawon Baik**, PhD, RN, College of Nursing, University of Colorado, Aurora, CO; **David Russell**, PhD, Department of Sociology, Appalachian State University, Boone, NC; **Lizeyka Jordan**, MPH, Visiting Nurse Service of New York, NY; **Ruth Masterson Creber**, PhD, MSc, RN, FAHA, Weill Cornell Medicine, NY

**Aim:** To explore perspectives from patients, family caregivers, and hospice interprofessional team members on end-of-life goals-of-care (GoC) conversations with heart failure (HF) patients receiving home hospice care.

**Background:** As HF patients near the end of life, there is an urgent need for GoC communication between patients, their family caregivers, and interprofessional team members to make end-of-life decisions based on patients' desires and preferences for care. Yet, little research has explored how GoC conversations between HF patients/family caregivers and the hospice interprofessional team occur in the home hospice setting.

**Methods:** A qualitative descriptive study design was used to investigate GoC conversations between HF patients/family caregivers and the interprofessional healthcare team in the home hospice setting. Semi-structured interviews with HF patients, their caregivers, and interprofessional team members were conducted at a large not-for-profit hospice agency in New York City between March 2018 and February 2019. The qualitative interviews were analyzed using content analysis methods to identify emerging categories and themes.

**Results:** A total of 39 interviews were conducted, including with 32 hospice interprofessional team members (nurses, physicians, social workers, spiritual counselors), 5 HF patients, and 2 family caregivers. Interprofessional team members indicated that building trust with patients and their family caregivers helped to facilitate GoC discussions. Specifically, empathy combined with active listening to patients' thoughts and preferences was an important way to develop trusting relationships with hospice patients. Sharing the same primary language was an important factor for building trust. Interprofessional team members highlighted that linguistic understanding facilitated cultural understanding. Family support and engagement promoted GoC conversations; however, many HF patients lacked support from family caregivers. Family caregivers experienced emotional distress such as anxiety, hopelessness, and denial, which inhibited family caregivers from engaging in end-of-life care and establishing GoC for the hospice patients. Moreover, many patients and their family caregivers had different GoC-related preferences for the end of life, which required interprofessional team members to manage and resolve conflicts between them.

**Implications:** Further research on building and maintaining trusting relationships in the home hospice setting based on patients' disease trajectory is needed to understand and facilitate GoC conversations. Moreover, family caregivers in the home hospice setting might experience more emotional distress due to responsibility of a loved one's end-of-life care; thus, further studies should develop the interventions that assess and reduce physical and emotional distress of family caregivers.

**Funding:** Eugenie and Joseph Doyle Research Partnership Fund from the Visiting Nurse Service of New York

## FRIDAY PEER-REVIEWED POSTER SESSION

### Live Hospice Discharge: Experiences of Patients, Caregivers & Hospice Staff

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**Purpose:** This pilot study explored how patients, caregivers, and hospice staff anticipate and experience unanticipated live hospice discharge.

**Background:** We defined unanticipated live hospice discharge as when patient decline does not occur as expected, (i.e. death within six months). Although hospice care can be extended with documentation of ongoing patient decline, at some point ineligibility for hospice benefits occurs when patient death does not. In 2016, 16.8% of all Medicare hospice discharges were live discharges, mostly due to patient ineligibility because of disease stabilization (no progressive decline). Current hospice trajectories of anticipated 6 month decline are based on a cancer model, where prognostication of decline is reasonably well known. Decline becomes more difficult to predict for patients with diagnoses of dementia, respiratory disease, or heart failure. Regardless of diagnosis, live discharge can be distressing to patients, caregivers, and the hospice staff that support them. Patients/caregivers may experience emotional distress (guilt at not dying, abandonment by hospice staff, uncertainty, frustration) and concern about the unanticipated removal of needed supportive resources (nursing care, help from aides, equipment, medications). Staff may feel they have “let down” the patient/caregiver.

**Methods:** To obtain a wide range of experiences in-depth group discussions were held with two hospice nurse aides, two hospice nurses, and a hospice administrator. Initial discussions were conducted by specialty, then further discussion was held with all hospice staff participants. This enabled expertise-specific perceptions of live discharge and avoided any perceived power differential among staff that might have forestalled conversation. Five patient/caregiver dyads with a variety of diagnoses who had experienced live discharge were interviewed by telephone. Discussion/Interview prompts addressed the initial inclination that live discharge might occur, positives/negatives of live discharge, and the process (sequence, timing) of live discharge.

**Results:** Preliminary examination of the hospice agency discharge data across five years showed that 19% of dementia patients (n=150), 13% of cancer patients (n=283), and 8.5% of cardiac patients (n=96) experienced live discharge, suggesting differences in patient decline and hospice eligibility by diagnosis. Hospice nurses and administrators try to prepare for patient care continuity (e.g. using home-health agency referrals), and to emotionally support patients/caregivers for a potential live discharge; aides were often unaware of these planning conversations. Patients/caregivers discussed positive experiences of excitement, (entry into a clinical trial offering hope but rendering them ineligible for hospice care), to the more common negative experiences of frustration and fear as they coped with potentially losing supportive staff, coordinated services, and availability of medications. Patients/caregivers reported relationship stressors and decisional uncertainty due to extended (and unanticipated) patient life. Some noted a “catch 22” in that it was hospice services that facilitated patient stabilization, yet also rendered the patient ineligible for continued services. These patients/caregivers still needed and wanted hospice care, with most saying they expected hospice readmission when the patient declined and eligibility returned.

**Practice/Policy Implications:** Regulatory guidelines for hospice eligibility may need increased flexibility to accommodate protracted patient decline. Patients, caregivers, and hospice staff need alternative ways to support patients/caregivers when live hospice discharge becomes necessary.

**Funding:** Consortium for Families & Health Research, University of Utah; Research Interest Affinity Group, College of Nursing

## FRIDAY PEER-REVIEWED POSTER SESSION

### Advance Care Planning in Assisted Living Communities: DNP Quality Improvement Project

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*Francesca Stracke, MSN, ARNP, FNP-C, ACHPN, DNP Student, School of Nursing, Pacific Lutheran University, Tacoma, WA*

**Background:** Expensive and aggressive medical interventions are often provided at end-of-life (EOL) in the absence of informed decision making. Advance care planning (ACP) discussions and completion of advance directives (ADs) correlate with reduced health care costs, improved quality of life and are a central part of community-based palliative care (PC). Most health care systems have well established in-patient PC but many do not have community-based programs. The theory of health-related quality of life provides a framework which supports the benefits of ACP as the theory promotes alignment of education about medical interventions with personal preferences to facilitate health care decision making consistent with individual values.

**Purpose:** The purpose of this study is to identify if having ACP discussions in assisted living communities will facilitate the completion of ADs and Physician Orders for Life-Sustaining Treatment (POLST) forms as well as increase assisted living residents' understanding of the necessity of such documents.

**Methods:** This is a quality improvement project involving Plan-Do-Study-Act cycles as the Primary Investigator, who is a nurse practitioner experienced in ACP, conducts ACP discussions in two assisted living communities as the focus of her scholarly project in candidacy for the degree of Doctor of Nursing Practice. Approval of the university's Human Participants Review Board has been obtained for this project. Convenience sampling includes recruitment of participants from two assisted living communities and the sampling frame is all interested English-speaking residents who demonstrate decisional capacity or have available surrogate decision makers. Free materials for the ACP discussions include Washington State Medical Association downloadable AD and POLST forms, The Conversation Project Starter Kit, CPR decision support video available through University Board of Regents and Metro Minnesota Council on Graduate Medical Education, educational material from Honoring Choices® Pacific Northwest website, Dementia Action Collaborative of Washington State Dementia Road Map.

**Outcomes:** Qualtrics pre and post intervention surveys have been created to collect data. Data analysis will include Chi-squared test to compare the number of ADs and POLST forms completed during the project to the number in existence prior to the project. Improved understanding of the necessity of these documents will be queried via Likert scale, which will then be compared via paired t-test to participants' pre intervention knowledge. The project implementation phase has been initiated and is expected to conclude at the end of 2019. Data analysis is planned early in 2020.

**Conclusions:** It is anticipated that participants will find the intervention informative and appreciate the opportunity to identify, document and communicate their personal values and preferences. This will impact clinical practice through aligning care with personal values and preferences and has the potential to reduce health care costs through decreased aggressive treatments at EOL. This project may serve as an example for other community-based PC projects or program development. Reimbursement for ongoing ACP sessions is available from Centers for Medicare and Medicaid Services. Nurse practitioners can bill for sessions which they conduct and which registered nurses conduct with their meaningful contribution and minimum direct supervision.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Concept Analysis of “Peaceful Death” for Adolescents

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*Nisa Wongchan, MSN, RN, College of Nursing, University of Arizona, Tucson, AZ; Kimberly Shea, PhD, RN, FWAN, College of Nursing, The University of Arizona, Tucson, AZ; Kittikorn Nilmanat, Prince of Songkla University, Thailand*

**Purposes/Aims:** To clarify “peaceful death” and promote nursing practice to care for end-of-life adolescents.

**Definition of Concept:** The definition of “Peaceful death” is different depending on the adolescent’s religion that defines spiritual well-being. In Buddhism “peaceful death is death with good minds that are thought to merit and release the bad things, happiness and peace with family and loved ones”. For Christianity, “peaceful death is practiced on the way to God”. For Islam, “peaceful death is the result of believing and practicing the hug of Allah”. Moreover, “peaceful” and “death” are defined in the dictionary. Peaceful is defined as “free from disturbance, tranquil, inclined to avoid conflict” and death is defined as “the end-of-life of a person or organism; the state of being dead”. Peaceful death refers to death with dignity in all religions.

Antecedents for this concept are personal experience with dying, social context and quality of care at the end of life. Attributes of a peaceful death are spiritual well-being, social, individual cultures and individual’s experiences. Consequences of a peaceful death are family satisfaction, bereavement, family and loved ones satisfaction, and facing with end of life. Based on the attribute of spiritual well-being, as the tool to support their life their religion, hope, faith and belief are a source of comfort when facing life-threatening disease. Moreover, spiritual well-being is related to feeling strong and influencing selfcare to help the adolescents cope with stress.

**Conceptual Process:** The Walker and Avant (2019) process was chosen as a method for clarifying this concept. Analysis of the “peaceful death” used this method to test the primary components of the concept. Key terms are peaceful dying, adolescent, personal experience, pain and symptom management in adolescents, religion and culture, quality of care, social and family, and pediatric oncology were investigated.

**Logic Linking to Nursing Practice or Research Problem:** The peaceful death concept is related to the idea of death with dignity at end-of-life. This concept will be used for adolescents at the end stage. The reason for this concept analysis is that adolescents are frightened when they have to face near death. They have not thought about death before. Adolescents are more likely to not accept death as a prognosis. The peaceful death concept in the adolescent is concerned with helping them to cope with stress, control suffering, pain, and discomfort. Preparation of the family for the end of life is vital.

**Conclusions:** Patient-centered care by the multidisciplinary team must focus on the peaceful death by delivering this type of care. Moreover, this concept was analyzed to promote the practice of end-of life adolescent nursing. There are three components of peaceful death; 1) the personalization of care must be consistent with religious definitions, 2) social support through family, friends and community involvement reduces loneliness, fear, and sadness, and 3) quality care is simply to provide what the adolescents feels is important.

## FRIDAY PEER-REVIEWED POSTER SESSION

### E-Cigarettes, Subsequent Smoking, and Related Quit Attempts among College Students

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*Michelle D. Correa, Undergraduate Barrett the Honors College Co-Investigator, Edson College of Nursing and Health Innovation, Arizona State University, Phoenix, AZ*

**Purpose/Aims:** The present study will investigate the student population at the university. The aims of this study are: (1) To determine how e-cigarette use is associated with subsequent smoking (cigarette, hookah, cigarillo, smokeless tobacco, marijuana) use; (2) To investigate the other smoking forms' relationship with e-cigarette cessation; and (3) To compare how e-cigarette use is associated with cessation of other smoking forms. The study design is a cross-sectional study using survey data.

**Rationale/Conceptual Basis/Background:** Electronic cigarette, also known as e-cigarette, use has increased three-fold from 2011 to 2013 and continues to gain prevalence among youth- preteens, adolescents, and young adults. With multiple marketing methods, e-cigarettes dominate sales markets by targeting not only the younger but also the older generations. Both non-users, who have never used e-cigarettes or cigarettes, and e-cigarette users agree that e-cigarettes do not contain tar, are not addictive nor considered a tobacco product, and solely produce vapor with water. Though adolescents and young adults perceive e-cigarettes as a "safer" alternative, the device is still not safe.

Research has indicated that while e-cigarettes may be a cessation aid for cigarette smokers, the product may produce the adverse effect of a nicotine addiction and/or combustible tobacco product use. Those who are not aware of the short-term and long-term consequences of e-cigarettes may exacerbate their current medical problems, continue their nicotine addiction through e-cigarette use, or initiate a nicotine addiction had they not smoked before. Previous studies have analyzed the relationship between e-cigarette use and subsequent cigarette use among adolescents. With these studies, they examined the frequency of e-cigarette use and other forms of smoking on different scales, such as daily, monthly, and annual use. Research has not shown: (1) how a person's withdrawal from nicotine is affected by their e-cigarette smoking habits; nor (2) if e-cigarette withdrawal symptoms are enhanced/improved/unaffected when used with other smoking forms, such as cigarette, hookah, cigarillo, smokeless tobacco, or marijuana.

**Methods:** Participants will be recruited via flyers, emails, social media posts, and university online advertisements. They will complete a screening questionnaire, ensuring they meet the criteria of: (1) being a "current" e-cigarette user; and (2) a student at the university. Eligible participants will then be routed to the anonymous questionnaire analyzing their e-cigarette and other smoking form habits and assess how each smoking form affects their perception of e-cigarette withdrawal symptoms if used as an e-cigarette replacement, using the DSM-5 behavioral rating scale.

**Results:** Data collection is currently in progress until December of 2019; the thesis will be completed by March of 2019.

**Implications:** Research in this study will fill the gap in current findings to include a comprehensive overview between e-cigarettes and other smoking uptake and e-cigarette quitting behaviors- whether they have attempted to quit and how their nicotine withdrawal was affected by these other smoking behaviors. Nurses may gain a better understanding behind e-cigarette or other smoking behaviors. This understanding may guide nurses in their patient health education or motivational interviewing for those hoping to quit nicotine or non-nicotine smoking.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Low Value Care Perceptions in the Secret Self-Management Loop

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**Adrienne Martinez-Hollingsworth, PhD, MSN, RN, PHN, UCLA Department of General Internal Medicine, School of Medicine, UCLA National Clinician Scholars Program, Los Angeles, CA; MarySue V. Heilemann, RN, PhD, FAAN, School of Nursing, UCLA School of Nursing, Los Angeles, CA; Janet C. Mentes, PhD, RN, FGSA, FAAN, School of Nursing, UCLA, Los Angeles, CA; Nalo Hamilton, PhD, MSN, APRN-BC, School of Nursing, UCLA, Los Angeles, CA**

**Purpose:** The purpose of this study was to examine primary data collected for a qualitative study exploring care-seeking experiences among Latina, older adult, women living with type 2 diabetes and symptoms of depression or anxiety. Initial analysis resulted in the development of a theory, the Secret Self-Management Loop (SSML); this secondary analysis seeks to highlight participants' perceptions of low value care and evaluate the data for thematic commonalities.

**Background:** The SSML is a middle-range theory describing how lost trust in care providers and the medical system impacts chronic illness self-management among Latina, older adult, women living with type 2 diabetes and symptoms of depression or anxiety. This theory reflects four interconnected phases that impact medication regimen adherence, compliance with diagnostic testing and dietary recommendations. Primary data collected during the development of this model reflected participants' perceptions of low value care they received, which contributed to their loss of trust. In the literature, low value care has been evaluated in terms of decision-making around surgical procedures (low back pain), in pre-surgical clearance appointments (cataract surgery) and in the excessive use of antibiotics for viral infections. Few studies have explored low value care among ethnic, minority elders in community-based clinic settings. A better understanding of how low value care influences trust building and maintenance among aging, Latino adults with chronic illness in these outpatient clinical environments may contribute to the development of targeted interventions for this population.

**Methods:** This study was a secondary review of qualitative data. Participants (n=16) were English-speaking, Latina women, 60 and over living with type 2 diabetes and depression or anxiety. A semi-structured interview guide was used during 1:1 interviews about diabetes experiences and interactions with care providers. Thematic analysis was guided by Braun and Clark (2006) systematic framework. Participants' in vivo quotes on the topic of low value care were the sole focus. For this study, low value care was defined *a priori* according to the University of Michigan, Center for Value-Based Insurance Design (2019) as "services that have little or no benefit to patients". This definition also includes a recognition of care that may result in patient harm, and that which wastes health resources.

**Findings:** Three themes were identified in this secondary review of qualitative data. These themes included: 1) having excessive or unnecessary appointments; 2) getting unnecessary or repeated diagnostic testing; and, 3) having medication refills withheld for long-term prescriptions unless an appointment was scheduled. Participants saw these examples of low value care as damaging to their trust and relationships with their clinical providers. Data also linked these behaviors with Phase 2 of the SSML: *Doubting Provider Motivations*.

**Implications:** Lost patient trust damages providers' ability to care for Latina, older adult, women with diabetes and symptoms of depression or anxiety. A better understanding of manifestations of low value care could provide insight into how providers can improve patient trust. Recognition of specific low value care activities, such as medication withholding, allow for the development of targeted strategies that address these trust-damaging practices.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Planting the Seeds of Health and Resilience

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*Shawna Beese, MBA, BSN, RN, NE-BC, College of Nursing, Washington State University, Spokane, WA; Teresa Louise Bigand, PhD, MSN, RN, CMSRN, CNL, Professional Nursing Development, Providence Health Care, Spokane, WA; Marian L. Wilson, PhD, MPH, RN-BC, College of Nursing, Washington State University, Spokane, WA*

**Purpose/Aims:** Our primary aim was to investigate whether gardens were a source of nutrition for the food bank users we sampled, and whether food bank recipients would be interested in using gardens as a nutritional resource.

**Rationale/Background:** Food bank users represent an important population to explore the benefits of garden access for because they are at risk for insufficient access to fresh nutrient dense foods, may benefit from a low cost alternative sources of food, and they experience higher incidence of food insecurity. The activity of gardening also provides a myriad of secondary health benefits such as elevating mood, easing anxiety, vast cardiovascular benefits, and increasing general wellbeing.

In addition to personal health benefits, gardening has been shown to promote expansion of community networks and social cohesion for those who participate. According to a systematic review of literature gardening improves participant's health; provides important cultural ecosystem services (recreation, cultural enrichment, and community building); and can be way for a meaningful quantity of food to be grown.

**Methods:** The database was based on survey and interviews of 207 recipients of the food bank of a mid-size city in the Pacific Northwest. A series of t-tests and chi-square analysis were used to test for relationship between use of home/community gardens as a supplemental food source and various health variables.

**Results:** A total of 175 adults responded to questions on garden use. Of those, no significant differences were observed between using home or community gardens as a source for food, and any of the measured health variables (pain, depressive symptoms, sleep disturbance, body mass index). A significant positive relationship was noted between food bank users who expressed interest in using community gardens and those who reported home or community gardens as a source for food ( $r = .24$ ;  $p = .005$ ). While 49 (28%) of survey respondents reported they use home or community gardens as a food source, 64 (37%) state that they are interested in using community gardens. Of those who are interested in gardens, more than half (53%) reported running out of food due to lack of money.

**Implications:** Food bank users are receptive to gardens as a possible food source. Opportunities exist to possibly influence food and land use policy, to increase food resilience by increasing gardening capacity in both communities and individual residences.

A future longitudinal study may be needed to detect relationships between gardening and possible secondary health benefits, in addition to quantify the impact on food insecurity for those who garden. In this study, it was not possible to quantify the amount of food obtained from gardens or whether respondents were engaged in gardening activities themselves.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Ambulance Patient Offload Delay: A Process Map to Improvement

*Heidi Yttri, RN, Emergency Department, St. Jude Medical Center, Fullerton, CA*

**Purpose:** This study aimed to develop an individualized plan for an emergency department to reduce their ambulance patient offloading times without additional staff or physical space.

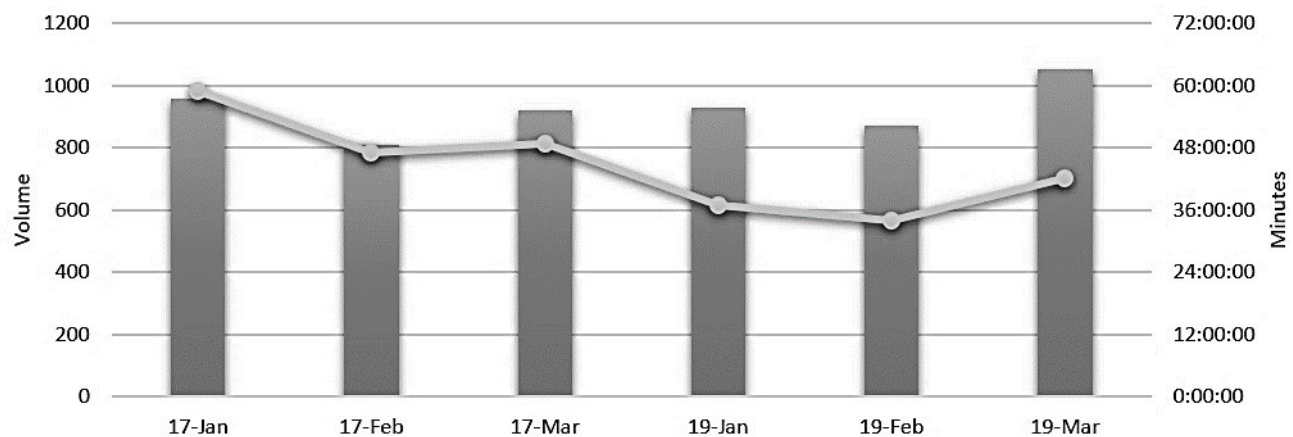
**Background:** Ambulance patient offload delays in the emergency department have been determined to be harmful to patients, costly to the emergency medical service companies, and stressful for the emergency department staff. To date, research has only proposed costly and risky options to address this issue.

**Methods:** This was a quantitative quasi-experimental study using a retrospective and prospective review. Nurses at a select hospital were educated on an offloading process map. The knowledge acquisition of the educational intervention was measured using a pre and posttest. Offloading times at the hospital were retrieved three months before the intervention education and three months after. Aggregate electronic medical record data was gathered at the conclusion of the study to assess whether the change in offload delays had an impact on the overall length of stay in the emergency department.

**Results:** Statistically significant improvements were found in the offloading times ( $t = 3.19, p = .042$ ) as well as the nurse knowledge ( $t = -12.29, p = .000$ ) post-intervention. There was no improvement in the length of stay of the ambulance patients even though their offloading time was decreased after the educational intervention.

**Implications:** This study is the first of its kind and although it showed improvements in reducing offloading times, it may be difficult to translate the intervention to other hospitals. The act of educating nurses on delayed offloading and its various implications was shown to be an effective tool to decrease offload delays and may be effective at other hospitals. The problem of ambulance patient offload delay has not been researched thoroughly enough to supply hospitals with successful and evidence-based solutions. While this study's process map does not offer a plan that can be applied to every emergency department, the process map can be individualized by leaders at each hospital to tailor the map to coincide with their desired practices.

### Ambulance Patient Offload Time



	17-Jan	17-Feb	17-Mar	19-Jan	19-Feb	19-Mar
Ambulance Transports	957	807	919	929	870	1052
Monthly 90th Percentile APOT	58:53:00	46:57:00	48:46:00	37:03:00	34:01:00	42:03:00

Ambulance Transports    
  Monthly 90th Percentile APOT



## FRIDAY PEER-REVIEWED POSTER SESSION

### Care Coordination Barriers: Impact of School Nurse Access to Electronic Health Records

*Christina Baker, MS, BSN, NCSN, RN-BC, College of Nursing, University of Colorado, Anschutz Medical Campus, Aurora, CO*

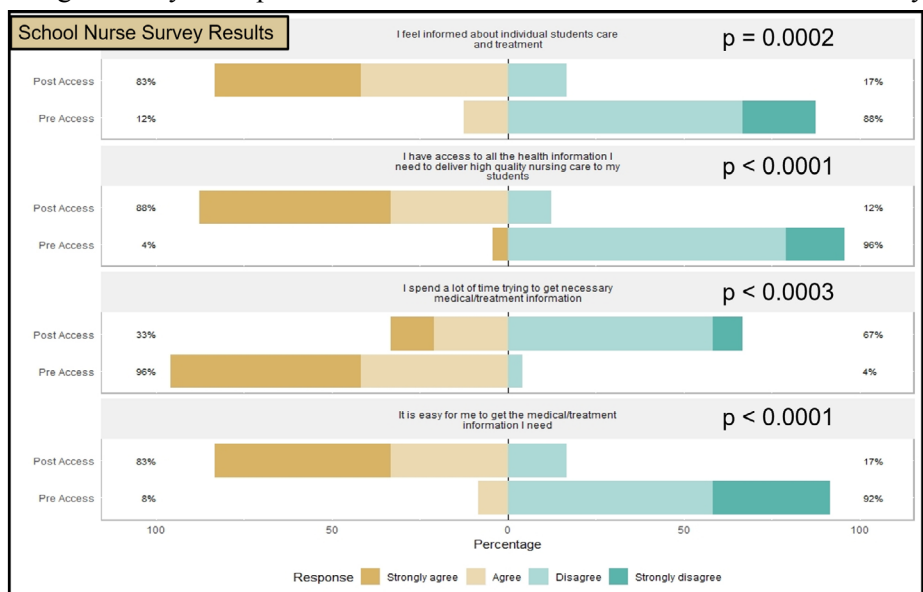
**Purpose:** This is a quasi-experimental pre/post study evaluating school nurse access to a hospital-based electronic health record (EHR). The purpose of this research was to determine the impact of school nurse access to protected health information (PHI) in an EHR on patient outcomes and school nurse and clinic nurse satisfaction with care coordination for school-aged children with chronic medical conditions.

**Background:** School-aged children spend around 1,080 hours at school each year and many of them have chronic diseases, therefore it is imperative to include school nurses as part of the healthcare team. Care coordination between health care providers and school nurses is currently hindered by inadequate communication using fax, phone and traditional mail. An electronic health record (EHR) is now the standard in documentation and communication in hospital systems but is usually not a realized mode of communication with school nurses. There is limited published research on how school nurse access to a hospital EHR could affect care coordination for students with chronic medical conditions, their outcomes and school nurse and/or hospital-based clinic nurse satisfaction with care coordination.

**Method:** School nurses (n=24) from 2 urban school districts and hospital-based clinic nurse care coordinators (n=18) were included in this study. REDCap surveys were sent by email to the school nurses and the clinic nurses' pre-access (for school nurses) to the hospital-based electronic health record and 6-10 months post-access. Surveys had 17-19 questions with Likert scale answers and 1 open ended question that asked school nurses and clinic nurses about satisfaction accessing medical information & coordinating care. Electronic chart reviews of patient data for demographics, medical complexity, diagnosis, emergency room visits, hospital admissions, and length of stay is still being analyzed.

**Results:** Data analysis comparison done with paired Wilcoxon Rank-Sum & McNemars test found that school nurses did not feel that they were considered part of the health care team and had multiple barriers to obtaining accurate and timely medical information when trying to coordinate care for children with chronic medical conditions. Post access findings suggest a significant improvement for school nurses 6-10 months after initial access to a hospital-based HER in: feeling informed about individual care and treatment, having access to all the health information they need to deliver high-quality nursing care, spending time trying to get necessary medical treatment information, and ease of getting medical treatment information (Table 1). Hospital-based clinic nurses reported a decrease in time spent on communication about forms and notes with school nurses post access. Post-access both school nurses and clinic nurses reported increases in feeling like they were part of a coordinated health care team. Patient data: they were more medically complex and on Medicaid.

**Implications:** Knowledge of barriers in communication between hospitals and schools will help nurses in multiple settings address this significant care coordination issue. Hospital-based nurses and school nurses may benefit from forming an inter-professional team and educating hospital administrators and providers that sharing of information is vital for efficient and effective care coordination for school-aged children with chronic medical conditions.



## FRIDAY PEER-REVIEWED POSTER SESSION

### Assessing Rapport-Building Skills through Gaming

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**Jacqueline Paik, MS, PHN, School of Nursing, Loma Linda University, Loma Linda, CA; Dolores J. Wright, PhD, PHN, School of Nursing, Loma Linda University, Loma Linda, CA**

**Purpose:** The purpose of this presentation is to describe the process of constructing and using a video game to assess rapport-building skills by senior public health nursing (PHN) students during a home visit. Many undergraduate nursing students belong to Generation Z. They live and learn in the digital/virtual world. Video games are only the most recent expression of gamification in nursing education.

**Background:** During the third week of each term, senior PHN students participate in real time simulated home visits. Our faculty developed this process to compensate for the lack of PHNs with whom the students could do co-home visits for observational purposes. Students expressed fear, frustration and anxiety at the prospect of making a home visit without ever having observed or participated in one. After participating in a simulated home visit with standardized patient actors, students expressed being more comfortable and having confidence in making home visits to their assigned clients. Each student also does a supervised home visit with the instructor. However, since home visits and the clients seen are so variable, developing and using a rubric for assessment purposes was extremely challenging.

**Method:** The PHN faculty coordinated with the university's Information Technology (IT) department to develop a video game for simulated home visits. The IT team was responsible for developing all of the graphics and randomization of potential responses. Scoring for response choices is embedded within each response. One PHN faculty member took the lead in developing a case scenario similar to one used in the face-to-face simulated home visit. The faculty wrote a script where every event had four potential responses and each of those responses had another four response choices. When graphed out, this script looked like a growing tree. Faculty also developed a rubric to evaluate the rapport-building skills of students. This rubric would allow the faculty to gather measurable information about the students' ability to build rapport with a client family.

**Outcomes:** This video game was available for use for the first time during the 2018-2019 academic year and faculty pilot- and beta-tested the game autumn term. During subsequent terms, the individual scores ranged from 83% to 98% with an average of 93.7%.

**Conclusion:** The faculty believe the video game provides a standardized assessment tool of rapport-building skills that are developed by the PHN students during their clinical rotation.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Feasibility of Phototherapy as a Community-Based Solution for Vitamin D Deficiency

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**Mary S. McCarthy**, PhD, RN, FAAN, Center for Nursing Science & Clinical Inquiry, U.S. Army, Tacoma, WA; **Evelyn B. Elshaw**, MS, RD, CD, Research, Geneva Foundation, Tacoma, WA; **Barbara M. Szekely**, BSN, RN, Research, Geneva Foundation, Tacoma, WA

**Purpose:** The purpose of this study was to demonstrate the feasibility of a phototherapy kiosk to engage community adults in health promotion and to stimulate production of circulating 25-hydroxyvitamin D (OHD) as safely and efficiently as a vitamin D<sub>3</sub> oral supplement (OS).

**Background:** Vitamin D deficiency contributes to accelerated bone loss during adulthood, and has been linked to a growing list of conditions including musculoskeletal injuries, inflammatory and metabolic disorders, depression and suicide, and cardiovascular disease. Optimal production of vitamin D comes from sun exposure, however, fear of skin cancer, premature aging, and climate interference limits recommendations for a safe level of exposure. UVB radiation with a wavelength of 290-320 nm penetrates exposed skin and may efficiently produce vitamin D<sub>3</sub> using a convenient phototherapy kiosk.

**Methods:** A prospective, randomized, feasibility study was conducted with adult subjects who were randomized to either six PK treatments or OS of D<sub>3</sub> 600 IU daily over 10 weeks. Serum 25OHD was drawn at baseline, 10 weeks, and 14 weeks. The primary outcome was serum 25OHD level. Mann-Whitney test was used to assess continuous data, and Chi squared test for pairwise comparisons of categorical data. Significance set at  $p < 0.05$ .

**Results:** The study was completed after 98 adults volunteered; attrition was 18% with final N = 88; OS, n = 45 and PK, n = 43. Sample: median age 35 yrs, mostly female (60%), and no differences observed between groups for age, race/ethnicity, marital status, military affiliation, or season of enrollment. No difference with respect to Fitzpatrick skin type, body mass index, or percent body fat was noted. Majority of participants (n = 57, 64.8%) were fair skinned. Self-reported weekly sun exposure was similar between groups at baseline (Mdn OS 10 hrs, PK 9 hrs), but significant decreases occurred over time, both  $p < 0.05$ . Median daily intake of both calcium (Mdn OS 760 mg; PK 596 mg) and vitamin D (Mdn OS 180 IU; PK 161 IU) was well below the RDA for each nutrient; no significant differences between groups. Baseline median serum 25OHD levels were similar,  $p = 0.25$ . By 10 weeks, PK median level was 30.0 ng/mL (IQR 25.8-37.0) and OS was 26.0 ng/mL (IQR 21.5-30.5),  $p = 0.02$ . The difference in 25OHD levels persisted at 14 weeks, although the PK group returned to baseline, 27.0 (IQR 22.0-32.5) and OS group declined to 21.0 (IQR 17.0-30.0),  $p = 0.02$ . Satisfaction with the functionality of PK was high, with an average Device Usability Score of 92%.

**Conclusion:** With suboptimal intake of key nutrients like calcium and vitamin D, historically low compliance with taking pills, and low sun exposure, limited potential to optimize serum 25OHD continues to pose a threat to physical and mental health, disease prevention, and resilience so critical to individual wellness. At a time when self-care measures are highly valued for health promotion, programmed UVB phototherapy, available as a kiosk in the community, appears to be a safe, efficacious alternative to oral vitamin D supplementation with consistent use.

**Funding:** Clinical trial grant #217121 Benesol, Inc.

## FRIDAY PEER-REVIEWED POSTER SESSION

### American Indian/Alaskan Native Assessment of Hazardous Sites in Los Angeles County

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*Christine Samuel-Nakamura, PhD, FNP, Nursing, University of California, Los Angeles, Los Angeles, CA;*  
*Felicia Schanche Hodge, Dr.PH., School of Nursing, UCLA, Los Angeles, CA*

**Purpose:** Ethnically diverse communities are at risk for contamination by mere association via proximity to hazardous sites. There is little data on American Indians (AI) in Los Angeles County (LACo), particularly in key areas of proximity to hazardous sites such as Superfund (SF) sites. The purpose of this study was to identify the distribution and risk of environmental contamination of residents and explore the knowledge levels, attitudes, and cultural perceptions of AI/Alaskan Natives (AN) and other diverse groups.

**Background:** California and LACo reports the greatest concentration of AI/AN in the nation. A large migration of AI/ANs from rural reservations, Alaska, and tribal areas to urban settings resulted from a Bureau of Indian Affairs relocation program from 1952 to 1970. The purpose of this relocation was forced assimilation and to provide occupational and educational opportunities. This LACo study will determine if AI/AN residents live in close proximity to hazardous sites and if they are cognizant of environmental contamination sites, if they feel at risk for themselves and their families, and their cultural environmental perceptions.

**Methods:** This study recruited adult AI/AN residents in LACo by convenience sampling utilizing UCLA Health Qualtrics (an online survey). Study advertisement occurred at an urban AI/AN clinic and at several AI/AN organizations. A survey was administered to 100 adult (21+ years) AI/AN residents of 10+ years. Demographic data, knowledge levels, attitudes, and perceptions regarding contamination of lands and levels of contamination at LACo sites were assessed via online survey. Datasets on contaminated sites were obtained from the USEPA (Biennial Reporting System and SF datasets) and was integrated with participant and environmental Geographic Information System (GIS) location data. This information formed much needed data for the development of a larger proposal addressing distribution, risks and environmental justice issues for urban AI/ANs.

**Results:** GIS mapping of hazardous sites in LACo were constructed that expanded our findings as to the locations of disadvantaged neighborhoods, particularly in proximity to these sites. GIS data was analyzed providing 3D mapping which visually portray hazardous sites as well as locations of minority populations.

**Significance:** The study addresses hazardous sites in LACo in areas where minority populations reside, potentially laying the foundation for future studies and addressing environmental justice issues.

**Conclusion:** This study is in progress and provides important information on hazardous sites in LACo, particularly in minority neighborhoods. This information is particularly significant for recent residents from out of state rural sites who have little knowledge of health risks to residents in close proximity to hazardous sites.

**Implications:** Findings have the potential to support policy development, legislation, and advocacy for the AI/AN groups as well as for the larger LACo general population. Obtaining data on AI/AN residents and their proximity to hazardous sites will allow a platform for future research and health resource allocation, and intervention programs. Nursing outreach to augment prevention efforts, screening, education, and monitoring are recommended. These efforts have a potential to be addressed at the city, county, tribal and federal levels.

**Funding:** Research reported in this publication was supported by the 2018-19 SON UCLA School of Nursing Intramural Grant program Grant.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Content Analysis of Health-Related Tweets during Wildfires

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**Purposes/Aims:** The purpose of this study is to identify dimensions of community-level responses to wildfire-related smoke events through social media posts. Aims include: 1) Assessing the proportion of relevant tweets that relate to each concept in the framework used to inform social media mining; 2) Identifying sub-concepts; 3) Identifying additional concepts not reflected in the framework.

**Rationale/Background/Conceptual Basis:** Wildfires and wildfire smoke are increasing in the Western U.S. and British Columbia. The fires are larger and burning more acres. Smoke travels beyond the wildfire zone and pollutes the air with fine particulate matter (PM<sub>2.5</sub>) which causes airway inflammation. Smoky skies correlate with asthma and COPD exacerbations, emergency visits and hospitalizations. In Beijing, outdoor air pollution indices correlate with social media posts about ‘outdoor air pollution,’ illustrating the potential to use social media as a public health surveillance tool. To that end, our team developed a conceptual framework based on five clinical and public health concepts, to broaden the search. Concepts included: 1. Ambient air quality conditions, 2. Respiratory symptoms and exacerbations, 3. Risk perception and self-efficacy, 4. Behavioral responses and self-care management, and 5. Quality of life and healthcare utilization. We generated search terms per concept and used them to retrospectively search Twitter during the 2017 and 2018 wildfire season (June-October).

**Methods:** This is a secondary analysis of a subset of tweets mined during the worst two weeks of air quality among Twitter users in “Spokane, WA.” Deductive content analysis will be used to categorize tweets according to the conceptual framework, which will serve as the categorization matrix, including: 1) Ambient air quality conditions, 2) Respiratory symptoms and exacerbations, 3) Risk perception and self-efficacy, 4) Behavioral responses and self-care management, and 5) Quality of life and healthcare utilization. Inductive content analysis will be used to identify sub-concepts based on the data, as well as concepts that may not have been in the original framework.

**Results:** Results will inform a revision of the conceptual model which will drive relevant search terms for ongoing study. Exemplar tweets will be noted in relation to each concept and sub-concept identified through the analytic process.

**Implications:** Social media offers a nuanced approach to listen to community-level concerns as well as communicate protective strategies in real time to segmented audiences. Results from this study ultimately will inform public health surveillance via social media, and protective public health messages during wildfire season that are responsive to community-identified needs.

**Funding:** The Empire Health Foundation and the Jonas Scholar Program.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Factors and Trends Associated with Influenza Vaccination Uptake in Adults

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**Purpose:** The purpose of this research is to explore adult's beliefs and perceptions of the flu vaccine and influenza, particularly factors negatively affecting flu vaccination uptake.

**Background:** According to the CDC, only 37.1% of adults received the influenza vaccine during the 2017/2018 flu season. During this flu season, there were 959,000 influenza related hospitalizations in the United States with an estimated 79,400 deaths, many of which may have been prevented were a higher number of adults vaccinated. Knowledge, attitudes, and personal beliefs, often impact a person's decision to obtain a seasonal flu vaccine. Healthy People 2020's goal of 70% compliance may be more readily achieved as the modifiable trends and factors that hinder adults from getting the flu vaccination each year are investigated.

**Methods:** A cross-sectional anonymous survey was used. The survey provided to the general public was a SurveyMonkey® link which was posted on social media, distributed via email, and short message service inviting the public to participate in the study. The potential subjects were adults who read and write English, and have access to email or social media, and the internet. Subjects provided consent to participate in the study via an informational page, which was accessed prior to the questionnaire. The survey was anonymous and voluntary, with no personal identifying information linked to the survey.

**Results:** About 50.9% of the sample (n=942, 70.82% 18-35 years old, 81.93% female, 34.68% Bachelor degree) reported that they had not received the influenza vaccine during the 2018-2019 flu season. Furthermore, 49.95% of respondents reported the belief that the flu vaccine can cause illness. Of the respondents that reported they did not receive the flu vaccine, their reasons given were: a lack of time (18.44%), forgetfulness (16.15%), and lack of belief in its efficacy (12.38%). The majority of respondents (85.79%) did not report comorbidities that would prevent vaccination. Only 12.74% of the sample were aware of the number of hospitalizations and deaths associated to the flu annually.

**Implications:** Influenza vaccination uptake in adults has been, and will continue to be, one of the major forms of prevention of the seasonal flu. Family Nurse Practitioners and other Healthcare Providers have a responsibility to be aware of the different trends and factors associated with the uptake of vaccination in adults in order to educate and increase the number of adults receiving the vaccine on a yearly basis. With the help of the above research, new forms of education that target patient specific barriers to vaccination, and accurately inform them of the risks and benefits of vaccination can increase the number of patients receiving the vaccine, and decrease the occurrence of hospitalization and death associated with the influenza virus.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Sleep Quality Comparison of Day Shift and Night Shift Nurses

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**Purpose:** This quantitative study examines registered nurses sleep quality and compares the sleep quality between day and night shift, as well as explore factors affecting sleep.

**Background:** Adequate amount of sleep is a determinant to health and well-being. Sleep deprivation can be associated with neurocognitive dysfunction and may negatively affect occupational safety and patient safety. Sleep quality and quantity were also found to correlate significantly with long nursing shifts, lack of sleep, and quality of life. Additionally, adequate sleep is needed to fight off infection, support the metabolism, work effectively and safely, as well as prevent heart disease, high blood pressure, obesity, and diabetes. This study focuses on nurses' sleep quality and the relationship between different shift work and sleep quality.

**Methods:** A descriptive, exploratory, quantitative methodology survey was used to study participants that were recruited through email invitation. Individuals were eligible to participate if they: (a) were aged 18 and older, (b) understood, read, and wrote English, and (c) were registered nurses currently practicing nursing. Two different hyperlinks of the same survey were distributed in the email to separate day shift versus night shift nurses. Survey questions were pilot tested to 10 currently practicing registered nurses. Data was collected and analyzed utilizing SurveyMonkey® reporting tools.

**Results:** There were a total of 91 participants (n= 37 in day shift, n= 54 in night shift). Majority of the participants were females (75.68% day shift; 77.78% night shift), between the ages of 26 to 35 years old (45.95% day shift; 53.70% night shift), and had approximately 1 to 5 years of experience (40.54% day shift; 53.70% night shift). Majority of the participants either worked in the Intensive Care Unit (ICU) or telemetry. 21.62% of day shift and 29.63% of night shift perceived poor sleep quality. After working a shift, 48.65% of day shift and 33.3% of night shift registered nurses reported feeling rested after sleeping. Majority of night shift registered nurses (RNs) reported fewer hours of sleep after working their shift compared to dayshift RNs. 43.24% of day shift RNs reported 5-6 hours of sleep after work, while 44.44% of night shift RNs reported 4-5 hours of sleep after work. Majority of night shift RNs (49.06%) reported work shift has frequently affected sleep pattern compared to dayshift RNs (18.92%). Compared to dayshift RNs, a majority of night shift RNs reported sleep occasionally affected mood or social relationships, and ability to exercise. Participants identified several factors including inconsistent sleep schedule (48.65% day shift; 66.67% night shift) and stress (56.76% day shift; 33.33% night shift) as reasons that caused difficulty in falling asleep.

**Nursing Implications:** The results indicate that a majority of night shift RNs have poorer quality of sleep compared to day shift RNs. The findings also suggest that night shift RNs are adversely affected more than day shift RNs. Interventions placed in workplaces that promotes good sleep habits, especially that of night shift RNs. Further studies are needed to determine interventions that promote adequate sleep in RNs in respect to their health.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Complications of Severe Frictional Abrasions in the Emergency Department Setting

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**Purposes/Aims:** The purposes of this research are to define population demographics of patients with severe frictional abrasions (road rash), and to identify complications.

**Rational/Conceptual Basis/Background:** Severe frictional abrasions or “road rash” are skin injuries caused by frictional and thermal contact with contaminated surfaces such as gravel or asphalt. The pathophysiology more closely resembles a burn rather than a simple abrasion. These wounds are often not prioritized in trauma settings due to their association with other critical injuries. In the US, over 200,000 patients are seen annually with traumatic abrasions, but there is very limited clinical consideration in the literature about the morbidity and mortality and no evidence-based treatment guidelines.

**Methods:** This retrospective chart review identified patients who had been entered into the trauma system of a Level 1 Trauma Center in 2016. Inclusion criteria included patients >14 who experienced a motorcycle or bicycle accident with severe road rash. Wounds were identified by description of severity based on a predefined screening tool. The longitudinal records of patients were reviewed for subsequent injury-related encounters in a 4-month follow-up period. RedCap was used for data management and SPSS was used for data analysis. Institutional review board approved this project as an expedited study.

**Results:** A total of 212 patients met inclusion criteria. The population was predominantly male (85%) with a median age of 43 years. Women and men were equally likely to develop wound related complications but men were more likely to have wound care documented. Men were also more likely to return to a clinic for wound related concerns or be readmitted. Patients between ages 15-29 had low rates of wound related complications; rates were highest between ages 30-55. Being of above 75 did not increase rates of wound complications but did have higher rates of mortality. The Majority of patients had additional traumatic injuries and 86% of patients were admitted. Most patients who had wound care complications had a LOS between 0-5 days.

62% of patients had wound related complications. Of these patients, 46% went to the operating room for wound washouts, 17% developed cellulitis, 9% developed sepsis, 8% had flap surgeries, 5% needed skin grafting, and 4% had amputations.

64% of patients did not have documented wound care within the first 24 hours, and 46% did not have any wound care documentation during their stay. 75% of patients who had complications did not receive any documented wound care. Getting wound care within the first 24 hours reduced rates of getting sepsis, but did not reduce rates of surgical site infections or surgical interventions. Only 30% of patients received discharge instructions that referenced wound care. After leaving the hospital, 32% of patients returned to a hospital or clinic for wound related concerns.

**Implications:** Patients with severe frictional abrasions are at risk for developing complications including cellulitis, sepsis, and surgical site infections. Wound care and discharge instructions have an impact on wound-related complications and rate of readmission.



## FRIDAY PEER-REVIEWED POSTER SESSION

### Building Enduring Understandings for Safe, Accountable Nursing Practice

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**Purpose/Aims:** 1) To provide a conceptual foundation for accountable nursing practice 2) To engage students in meaningful learning opportunities focused on accountable nursing practice 3) To create opportunities for students to demonstrate newly gained enduring understandings in the clinical setting.

**Rationale/Background:** Accountable care is best demonstrated when professional nurses have focused their efforts on providing safe, high-quality care resulting in positive impacts for those they serve. The American Association of Colleges of Nursing, National League for Nursing, and Quality and Safety Education for Nurses have identified competencies for new nurses. Evolving role expectations for new nurses in increasingly complex healthcare delivery systems highlights the vulnerability of novice nurses practicing within established legal, ethical, and professional frameworks. New nurses must be prepared to practice within these health care delivery systems. For nursing faculty, intentionally designing and facilitating meaningful learning experiences can provide learners with enduring understandings that inform an emerging professional practice.

**Undertaking/Best Practice/Approach/Methods/Process:** In a senior-level nursing leadership course, an idea-based learning framework was used to design a series of three modules focusing on accountable care. Each module was delivered in a live classroom session and included short lectures with interactive discussion, engaged learning activities, and reflection.

In the first week, learners were presented with essential concepts of nursing informatics in relation to evidence-based practice and quality and safety in nursing. Learners engaged in small-group exploration of technology at the point of care, discovering human factor contribution to error, common points of failure in technology, and strategies for mitigating risk. Finally, learners navigated the path of data beyond the point of care, including the application of the nursing process within electronic health records to support positive safe patient outcomes.

During the second week, learners were presented with concepts related to nursing ethics and legal issues in healthcare. Learners were randomized into two groups, each reviewing evidence for a selected civil legal simulation case. After the immersive simulation, learners identified the legal implications and vulnerabilities related to safety and accountability as new insights to carry forward into practice.

In the third week, the scope for professional nursing practice was the focus. Learners were randomized into groups, each examining a case where nursing care was compromised resulting in harm. Learners applied principles of Root Cause Analysis to uncover errors and suggest potential solutions based on the best available data.

**Outcomes Achieved/Documented:** Enduring understandings were clearly evidenced through course activities related to accountable care and process improvement such as reflective blog posts, process improvement projects in clinical/community contexts, TED-style talks developed and attended by peers and faculty.

**Conclusions:** As the context for patient care and professional nursing practice continues to shift, preparing new nurses to be responsive to the changing needs of health care delivery systems is imperative. Creating significant learning experiences allowing learners to apply and practice key concepts is a critical step in preparing nurses for practice. Continuing to collaborate with community partners to better align education and practice is essential for promoting enduring understandings for accountable nursing care.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Skin and Soft Tissue Infections in the Emergency Department

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*Cynthia D. Connelly, PhD, RN, FAAN, Beyster Institute of Nursing Research, University of San Diego, San Diego, CA*

**Purpose/Aims:** The purpose of this study is to describe relationships among sociodemographics, physical examination findings, treatment modality, and management in patients with acute skin and soft tissue infection (SSTI). **Specific Aims:** (1) examine the relationships among demographics, physical examination findings, treatment modality, patient disposition, and reason for return visit to the ED; (2) identify factors (demographic, physical examination findings, treatment modality, patient disposition, that increase the probability of hospital admission/ discharge.

**Background:** The International Classification of Diseases (ICD) codes for patients presenting with cellulitis or abscess account for 1.4% of all hospital admissions and \$5.5 billion in annual health care costs nationally. In the emergency department (ED) specifically, 2.83 million visits per year are for cellulitis, abscesses, or SSTI. Because of the tremendous impact on national health care utilization and cost, robust outcome data is needed to inform admission and management decisions, as well as to establish ED disposition guidelines around SSTIs. The lack of current evidence on non-purulent SSTI management and admission criteria results in unnecessary hospitalizations, inconsistent hospital admission clinical characteristics, and overuse of antibiotics. Compounding this problem is the lack of clear criteria for ED disposition and follow-up, which results in less-than-optimal patient outcomes.

**Conceptual Framework:** Age, gender, ethnicity, educational level, and establishment of primary care provider will be descriptively analyzed to examine whether they are related to study outcomes. Patient specific clinical characteristics for those with SSTIs include initial heart rate, initial temperature, and history of diabetes mellitus (DM), human immunodeficiency virus (HIV), methicillin resistant staphylococcus aureus (MRSA), intravenous drug use (IVDU), and/ or alcoholism will be described. The treatment and management of the SSTI, specifically whether the patient received an incision and drainage (I&D) only, oral (po) medications only, I&D and oral medication, intravenous (IV)/ parenteral medication only, or I&D and IV/ parenteral medications will be noted. Differences in patient disposition, particularly whether the patient was admitted to the hospital or discharge home from the emergency department, may exist between the patients with purulent and non- purulent SSTIs of the extremity when their patient specific characteristics, social determinants, and treatment/ management modalities are considered.

**Methods:** A retrospective cohort design. Data will be extracted from the electronic health record (EHR) of patients with non-purulent and purulent SSTI who presented in a Level IV ED located in Imperial Valley, California. Inclusion criteria: > 18 year old, SSTI to extremity (purulent or non-purulent). Exclusion criteria: Subsequent visit for same disorder, SSTI in other parts of the body, died in the ED/ left AMA/ LWOT, more than one SSTI diagnosis, seen for a subsequent visit for a SSTI diagnosed elsewhere. Descriptive and inferential statistical analyses will be conducted

**Results:** Pending

**Implications:** Understanding the common, presenting characteristics associated with SSTIs, management strategies, antibiotic use, and disposition practices will be discussed and reviewed as it provides insight to develop potential clinical decision aids for SSTIs.

## FRIDAY PEER-REVIEWED POSTER SESSION

### U.S. Military Service Members Navigating Infertility Care: A Grounded Theory Approach

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**Purpose/Aims:** The long-term goal of this study is to understand how ADSM and their partners navigate the infertility healthcare process within the military healthcare system while managing a military career. The specific aims are the following: 1) elicit ADSM's and their partner's experiences of seeking treatment for infertility within the military healthcare system; 2) illustrate examples of ADSM's and their partner's information-seeking behavior, participation in treatment decision-making processes, and health system navigation; 3) explore ADSM's and their partner's expectations while seeking infertility care; and 4) identify facilitators or barriers to effective infertility care while maintaining a military career and its impact on career progression.

**Background:** In the United States, one out every six couples of childbearing age experiences infertility. Advances in medical science, have motivated many military couples who experience infertility to pursue the option of utilizing assisted reproductive therapy (ART). Although advances in ART allow for increased chance of conception, they require patients to engage in rigorous medical evaluations, invasive procedures, and lengthy treatment cycles. Many patients who undergo ART are challenged with complex decisions about treatment options and can endure financial hardships. There are numerous factors that can disrupt, delay, or limit active duty service member's (ADSM) access to available ART services such as Permanent Change of Station, Temporary Duty, and deployment orders. The perceptions and behaviors of military leaders and healthcare providers may also influence the decision-making processes and experiences of ADSM and their families who seek ART. Overall, these factors can cause emotional and physical crises that can affect many aspects of the lives of military couples. Despite the potential impact on the health and military readiness of our armed forces, to date, there is a paucity of studies that have been conducted among this unique population. **Methods:** A qualitative design using grounded theory methods for data collection and analysis will be employed. Participants will be recruited using purposive sampling followed by theoretical sampling. Data will be derived from the following: 1) demographic questionnaires; 2) semi-structured, in-depth interviews; 3) field notes; and 4) literature. Quantitative data from collected from the demographic questionnaires will be organized and analyzed using Statistical Package for Social Sciences. Qualitative data will be managed and examined using NVivo (QSR International). The researchers will employ constant comparative analysis - the practice of analyzing, comparing, and coding data in order to name, categorize, and conceptualize the data and relationships among data.

**Results:** Study in progress, results pending.

**Implications:** An understanding of how military couples perceive and manage rigorous ART demands may enhance access to care, decrease patient costs, improve outcomes, and provide better support for military couples who experience infertility. This may ultimately improve the health and military readiness of our armed forces. In addition, the results may assist health care professionals, congressional and military leaders, and policy makers understand the content needed to develop effective infertility treatment programs and policies in the Department of Defense.

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## FRIDAY PEER-REVIEWED POSTER SESSION

### Marijuana Use during Pregnancy: Analysis Reveals Conflicting Policy

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**Purpose:** This poster/presentation explores the phenomenon of legalized marijuana use during pregnancy and the postpartum period within the context of state and federal substance use identification and screening standards, and child protection policies. Current initiatives are examined, conflicting policies are identified, and recommendations for advocacy, practice, and research are provided.

**Rationale/Background:** Research indicates the number of pregnant and postpartum women using marijuana has increased in recent years, notably in young, urban, and socioeconomically disadvantaged women, and studies show the growing trend is concurrent with an increased perception of safety. Despite federal classification of marijuana as an illegal substance, at present, a significant number of states continue to move forward with legalizing use of medical and/or recreational marijuana. This legalization is proceeding more quickly than the development of evidence based clinical guidelines, which have been hindered by a lack of research on marijuana use. Further, states have not reconciled legal use statutes with state and federal laws relating to substance use and screening and mandatory or discretionary reporting of child abuse and neglect.

**Approach/Process:** A modified Bardach approach, including a comprehensive literature review and exploration of contextual factors, including federal and state laws/regulations and recommendations by professional organizations, informs this policy analysis.

**Outcomes:** States vary greatly in statutory standards regarding marijuana use. Thirty-two states and D.C. allow for the medical use of marijuana, while 11 states and D.C. have legalized recreational use. Even so, federal law requires states to adopt policies and procedures to identify infants exposed prenatally to *federally* defined illegal substances. Standards for assessment and testing of pregnant women and newborns, as well as thresholds for mandatory Child Protective Services reporting, vary greatly among and within states with legal marijuana use. Variation can lead to differential treatment and discrimination for certain groups, including women of color and women living in under-resourced communities. Positive marijuana screens, even in states where it has been legalized for medical and/or recreational purposes, can result in a child neglect report or abuse charge, impacting custody, bonding and parenting, parental employment, finances, and overall family well-being. Stigma and fear prevent women from enrolling in substance use treatment programs, seeking medical care during pregnancy, and may impact pregnancy-related mortality. Poor access to care and limited resources may further contribute to the difficulties women face navigating the social services and legal system.

**Conclusion/Recommendations:** Professional recommendations guide current practice, and future research is needed to inform policy moving forward. Health care professionals must acknowledge and eliminate personal bias, understand the current evidence, initiate the conversation about marijuana use during pregnancy and breastfeeding, and work with their state and local health departments if legalization of marijuana is being considered or implemented to assist with education of clinicians and families. Conflicting state and federal policies regarding substance use and child welfare reporting should be reconciled to provide clear guidance as significant implications exist for vulnerable pregnant and post-partum women, newborns, and families.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Loneliness in Pregnancy and the New Parent: A Scoping Review

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**Purpose/Aims:** A scoping review of loneliness in new parents will be conducted to identify, characterize, summarize and map existing literature on loneliness in pregnancy and the five years following birth in a transparent, replicable format. The review seeks to map methodologies used to research the topic, how loneliness has been measured and defined in the new-parent population, and foundational questions related to loneliness in the new-parent population.

**Rationale/Conception Basis/Background:** Researchers have only recently begun to study loneliness during the transition into new parenthood. While it is true that loneliness in the population of older adults has been well studied (revealing a prevalence rate of twenty to forty percent), and studies of loneliness in older adults have shown connections between loneliness and mental and physical well-being (with correlating effects on depressive symptoms, impaired sleep, increased vascular resistance and increased systolic blood pressure, to name a few), the experience of new parents with loneliness has not been methodically researched. Research on loneliness in the older adult is helping scientists to understand the physiological pathways between loneliness and associated health outcomes. Current research, however, indicates that loneliness is common across the lifespan, and even suggests people may be at greater risk for loneliness and related risk factors during periods of transition throughout life. This scoping review, therefore, aims to capture the state of the current literature on loneliness in new parenthood to identify gaps and make recommendations for future areas of study and related interventions.

**Methods:** After assembling the team, and in collaboration with the Spencer S. Eccles Health Sciences Library Systematic Review Core team at the University of Utah, a review protocol was developed *a priori* using the framework as outlined by Arksey (2005) and expanded by Peters (2015). The review will be conducted using Arksey's five-stages framework: 1) identifying the research question, 2) identifying relevant studies, 3) study selection, 4) charting the data and 5) collating, summarizing and reporting the results.

**Results:** The scoping review is currently ongoing. The complete results of this scoping review will be presented at the Western Institute of Nursing conference in 2020.

**Implications for Translation to Practice/Further Research/Policy:** As loneliness research across the lifespan is gaining momentum and taking shape, it is important that research contribute to a base of knowledge that will inform clinical practice and interventions designed to support new parents and their children. This scoping review will identify gaps in the knowledge base of loneliness in the new-parent population in order to provide that crucial support.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Improving the Experience of Student Veterans: A Student-Led Initiative

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**Purposes:** To optimize Student Veteran experiences enrolled in an undergraduate nursing program in the Pacific Northwest.

**Background:** Student Veterans (SV) represent a growing community among nursing students as the wars in Iraq and Afghanistan drawdown. These students bring unique experiences and views to the educational milieu offering opportunities and challenges to the schools they attend. The literature shows that SVs often struggle with their civilian identity, lack an understanding of university culture, and face financial difficulties. Due to the demands of military life, SVs have frequently experienced responsibilities and interpersonal dynamics their civilian colleagues have not. Further, female SVs are over-represented in post-secondary education, 85% of SVs are between the ages of 24 and 40, 62% are first-generation students, 47% have children, and 47.3% are married.

**Description of the Undertaking:** In spring 2019, Linfield College's Good Samaritan School of Nursing conducted a needs analysis with four SVs via interviews whose questions were informed by the extant literature. Themes included students 1) feeling challenged by the transition, 2) sought structure, and 3) missed the camaraderie of the military. Subthemes revealed that SVs thought they needed help with GI Bill formalities, time to acclimate to the culture of nursing school, and guidance to develop strategies for balancing school, families, and work.

After the needs analysis, SVs decided among themselves to respond to the concerns they identified. Recognizing the challenge of funding restraints, the SV community prioritized their interests accordingly.

Based on the priorities of the SVs, their primary concerns were the need for peer support, clear direction related to GI Bill benefits, guidance regarding the academic schedule, and a greater understanding of their experience as SVs from the faculty and their student colleagues. Veteran students partnered with their peers, faculty, and staff to implement their prioritized interventions.

**Outcomes Achieved:** In response to the illuminated concerns, the Veterans Club was revitalized with new officers and increased membership, including SVs and non-veteran students. Veterans Club participation and activities have increased over the past three semesters; enrollment doubled to more than 20 participants. In response to the need for peer support, a hyperlink was included on the Linfield Veteran Support webpage allowing interested SVs an opportunity to connect to a Veteran peer resource. SVs felt this approach addressed and supported the notion that SVs feel more comfortable when interacting with someone who has had similar experiences. SVs felt incoming students would benefit from interacting with other Veterans, and that peer coaching would benefit both parties.

SVs will host a learning session for non-Veteran students and present the experiences and concerns of SVs to faculty in the spring of 2020.

**Conclusions and Recommendations:** SVs expect that their work will strengthen future Veterans' support (e.g., HRSA) grant applications. The Veterans Club leadership anticipates providing direction and resources to enhance the club's ongoing success through expanding student participation, outreach to the Veteran community, and partnering with SVs at area campuses.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Reducing the Rate of Falls in Hospice Patients: A Fall Prevention Pilot Program

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**Background:** As the population ages, there is an increase in the incidents of falls. Falls are the predominant cause of nonfatal and fatal injuries among adults aged 65 years and older. Extensive research has been conducted in fall prevention in hospitals, skilled nursing, and rehabilitation units. End-of-life care in a hospice setting presents a greater challenge in risk identification and prevention of falls. A local San Diego hospice has had 457 falls between July 2018 to mid-March 2019 with a lack of consistent detailed fall education and documentation.

**Purpose:** The purpose of the pilot is to create/implement an evidence-based, multifactorial, and multidisciplinary fall prevention program within the hospice setting. The anticipated measurable impact is to reduce fall rates and increase nursing fall prevention documentation during hospice care. During the course of this project, hospice teams will adopt a higher standard of fall assessment, documentation, and intervention tactics. The effectiveness and cost benefit analysis may serve as a model for other hospice facilities and may be considered for Registered Nurse (RN) and Licensed Vocational Nurse (LVN) curriculum, continuing education, and hospice certification.

**Methods:** Three one-hour, in-person educational presentations have been completed for the pilot teams. Additional one-on-one sessions and a recorded presentation documented compliance. A validated pre- and post-test served as a final confirmation of the pilot teams' fall prevention knowledge, techniques, and required documentation. Currently, the final stage of the project includes a 90-day follow-up fall rate report and audit of nursing fall documentation compliance.

**Outcomes Achieved:** The objective is to reduce fall rates in this hospice setting by 30% and increase RN/LVN's knowledge and documentation of fall prevention by 90% within 90 days.

**Conclusions:** Research indicates thirty million older adults fall each year, resulting in approximately 30,000 deaths. Hospice patients are particularly vulnerable due to comorbidity conditions. Falls of elderly patients result in substantial medical costs, premature death, and unnecessary pain and suffering. Many of these falls are preventable. Fall prevention is essential and can best be accomplished utilizing a multifactorial and multidisciplinary approach to assess fall risk and to implement evidence-based preventive strategies.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Knowledge of Appropriate Criteria for Diagnostic Imaging of AP Nursing Students

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**Purpose:** The purpose of this quality improvement project (QIP) is to assess and address advanced practice nursing students' (APNS) knowledge and confidence in ordering diagnostic imaging. This QIP is aimed at providing education on the current diagnostic imaging appropriateness criteria for commonly presenting complaints therefore increasing the knowledge and competence of the targeted APNS. This program may guide development of further educational programs to increase competence and knowledge of current and future advanced practice providers (APP) to prevent overuse and misuse of diagnostic testing and thus improve patient outcomes.

**Background:** There has been an increase in the utilization rate of noninvasive diagnostic imaging practice due to new and readily accessible technologies. Noninvasive diagnostic imaging tests are often inappropriately or inaccurately ordered by health care providers which increase costs, increases length of stay, delays treatments, and increases risk of exposure to radiation thereby decreasing the quality of patient care. Evidence of the magnitude of the problem is the 2017 Medicare mandate of diagnostic imaging computerized clinical decision support systems in an effort to address this burgeoning problem. There is limited research to assess knowledge and educational preparedness when it comes to the ordering and interpretation of radiological imaging. What has been reported is that radiological imaging information should be incorporated into APP's educational preparation. Education based on appropriateness criteria for accurately ordering radiological diagnostic tests may lead to improved competence and knowledge of future APPs. Competency in provider diagnostic ordering and criteria education will help reduce both length of stay and radiation exposure and will promote better outcomes using cost-effective methods.

**Framework and Methods:** The ACE Star Model of Knowledge Transformation framework will be utilized to inform this QIP, beginning with the synthesis of evidence-based practice guidelines to create the educational session. The content will include a synthesis of diagnostic imaging guidelines presented in case scenarios format delivered by the DNP student project investigator who has practiced as an ACNP for 3 years. A convenience sample of APNS will be recruited from the University of Arizona during their clinical intensive skills workshop. A paper pretest survey will be completed by the APNS prior to participation in the educational session addressing identified knowledge gaps of diagnostic imaging and use of The American College of Radiology Appropriateness Criteria, ARC-AC. Following the educational session, which will be recorded to provide future asynchronous education, the ANPS will complete a brief post-survey to assess effectiveness.

**Assessment of Findings:** Following IRB approval, data collection is planned for the spring of 2020. The educational session effectiveness data will be analyzed with SPSS and a summary of the descriptive statistics will be presented to ANS program director to evaluate the session for possible future incorporation into didactic ANS content. Increased awareness and utilization of appropriateness criteria when ordering diagnostic radiological testing may impact practice. Armed with knowledge and awareness these future providers may translate evidence based guidelines into, competency and safe ordering practices and decrease patient costs, radiation exposure and length of stays.



## FRIDAY PEER-REVIEWED POSTER SESSION

### Formalizing a Debriefing Protocol to Address Moral Distress among Emergency Nurses

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**Claire C. Bouchard**, AGACNP-DNP Candidate, MSRN, College of Nursing, University of Arizona, Tucson, AZ; **Wanda Larson**, PhD, M.Ed, RN, CPEN, CEN, Nursing, University of Arizona, Tucson, AZ; **Patricia Daly**, PhD, FNP-BC, ENP-BC, FAANP, College of Nursing, The University of Arizona, Tucson, AZ; **Evangeline M. Dowling**, PhD, RN, College of Nursing, University of Arizona, Tucson, AZ

**Purpose:** This quality improvement project will explore the feasibility of a reactive debriefing protocol to ameliorate moral distress among emergency nurses.

**Background:** Moral distress is a complex phenomenon affecting clinicians who perceive themselves as being unable to deliver optimal patient care because of organizational or situational constraints. Nurses within the ED often suffer from high levels of moral distress due to frequent exposure to ethical conflicts and end-of-life care scenarios. High levels of moral distress are known to impact the retention of skilled staff members which is associated with poor patient outcomes, decreased patient satisfaction scores, and reduced reimbursement from the Center for Medicare and Medicaid Services.

Data suggests that consistent use of debriefing after adverse events may prevent or ameliorate moral distress among ED nurses. This approach includes three key debriefing questions: What was expected to happen versus what happened, what did and did not go well, and how protocol may be changed to sustain positive results.

**Methods:** The Knowledge to Action framework will be utilized to build this quality improvement project and assist with the adaptation of a debriefing tool to the practice site. Key stakeholders within the ED and trauma leadership teams will be involved in identifying methods to address barriers to the implementation of a debriefing tool and the sustainability of this project. The literature supports the use of the Debriefing In Situ Conversation in Emergency Room Now (DISCERN) tool for use in ED settings. Education on moral distress and the DISCERN tool will be provided during staff meetings. A paper copy of the tool will be distributed in all trauma and death packets and collected after each use. It asks users to fill in answers to the key debriefing questions and does not include any patient or staff identifiers.

Data collection is planned for June 2020 with a goal of 50 nurse participants; each will complete the Moral Distress Scale-Revised (MDS-R), a validated tool to quantify moral distress among nurses. This Likert-type scale will be distributed to staff nurses at baseline and at the conclusion of the seven-week project; sustainability data will be collected during post intervention weeks one, three, and four. The number of DISCERN tools used and basic demographics will be collected for analysis.

**Outcomes Achieved:** The pre- and post-intervention MDS-R scores will be compared to determine if there is an association between moral distress and debriefing. Relevant statistics will be completed on the demographic data to describe the population.

**Conclusions:** Despite the known disadvantages associated with moral distress and the established benefits of debriefing, only a limited number of studies have investigated debriefing as an approach to address moral distress. While this project will measure the short-term impact of a debriefing protocol within a single practice setting, the results may yield long term benefits such as an improvement in staff retention and patient outcomes. Organizational policy implications include a possible system-wide adoption of this protocol, which may yield data to support future research on the benefits of debriefing.

## FRIDAY PEER-REVIEWED POSTER SESSION

### A Qualitative Inquiry: The Nurse Perspective on Tea for the Soul

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**Purpose/Aims:** To investigate the lived experience of practicing registered nurses with a Tea for the Soul Program in an acute care setting. By identifying core themes common to the needs of participants this study also aimed to extrapolate on key areas of concern to focus on in addressing the needs of nurses in the prevention and amelioration of moral distress, compassion fatigue and burnout and the promotion of moral courage and moral resilience.

**Rationale/Conceptual Basis/Background:** Tea for the Soul (TFS) is an anecdotally documented and understudied Care Model that addresses bereavement and other emotional needs of nurses and healthcare providers related to impactful patient care experiences. This program is facilitated by a Chaplain and or Social Worker or Counselor and provides participants a venue to express their feelings and explore ways of coping effectively with the death of a patient, and other stressful and traumatic workplace experiences.

**Methods:** This study utilized a qualitative grounded theory approach in conducting one-on-one staff interviews. Participants included nurses who had previously participated in the TFS program and who volunteered to participate in the study. Ten interview questions were constructed by researchers within the context of the medical center's research council. Interviewers asked open-ended questions about the nurse's experiences with the TFS Program including: (a) if the program personally benefited them, (b) did the program help them feel better about the work they do, (c) did the program help with their job satisfaction and (d) could they tell about a difficult situation that they were able to talk to the TFS staff about. Interviews were conducted in a private area at the medical center and were continued until data saturation of common themes occurred (n=7). A content analysis process was utilized to analyze the data

**Results:** Nineteen subthemes were identified amongst the interview responses. These subthemes were as follows: collaborative work environment, compassion fatigue, comfort source, conversation, grief/end-of-life, interprofessional, job satisfaction, nurse-patient relationship, patient effect, prayer, presencing, TFS program characteristics, psychological needs, physical needs, reflections, reflective practice, role effectiveness, sacred encounters, and therapeutic. Four core themes identified were: (a) Community, (b) Improved patient care outcomes, (c) Self-Care, and (d) Professional practice. The overarching themes of compassionate service, ministry of presence, reflective practice and sacred encounters emerged as phenomena that nurses reported experiencing as a result of the TFS program.

**Implications:** Hospital counselors and chaplains are well positioned to help meet the bereavement needs of nurses in various areas of practice by assisting them in identifying and articulating their feelings of grief and distress. The TFS Program pulls from available hospital counseling resources and can facilitate spiritual insights as a source of strength and coping, thus aiding in the amelioration of moral distress, and the improvement of nurse job satisfaction within their work setting. Further quantitative research and program evaluation across healthcare system hospitals to determine TFS effectiveness in varying geographic regions and among interdisciplinary providers is recommended.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Exploration of Standardized Patient Role Variability on Learning Outcome Achievement

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**Purpose/Aims:** Use of standardized patients in simulated learning allows students to develop skills of communication and clinical judgment through presentation of a problem in a controlled and planful manner. And yet, as students interact with the standardized patients, the script appropriately adjusts in response to the student queries and actions. The purpose of this study is to explore the influence of standardized patient variability within a given scenario on the student learning experience and attainment of the learning outcomes.

**Background:** The body of evidence supporting integration of simulation into nursing education indicates that simulation offers opportunities for learners to develop context-specific knowledge, skills, and attitudes in controlled, prescribed situations. Less clear is the extent to which variations in simulation interfere with or enhance student learning. Standardized patients add value to the experience of simulated learning precisely because of their ability to respond in a realistic, humanistic manner to the actions and communications brought to the experience by the learners. These variations in experience are likely to occur when standardized patients are used in multiple-encounter simulations. One such simulation introduced 47 students to the effects of dementia on both the patient and the patient's caregiver, across two separate encounters. Students were divided into four groups, with each group scheduled to participate in one 4-hour simulation. The simulations were enacted in two parts, with each part including a 30-minute scenario in which two standardized patients interacted with two student nurses in a home-like setting. Each scenario was recorded. Following each scenario enactment, a 90-minute debriefing session was held. The debriefing sessions were not recorded.

**Methods:** Learning objectives for the simulation were reviewed to identify behavioral indicators and cues that would provide an opportunity to stimulate student learning of the objective(s). From these indicators and cues, the researchers constructed an observational checklist that will be used to independently view the eight recordings (four per scenario). Independent observations will be compared and differences reconciled.

**Results:** The researchers will summarize key similarities across the four instances of each scenario, identify any significant differences, and reflect on the potential impact to learning caused by the differences in interactions.

**Implications:** Simulation affords opportunities for learners to develop skills of communication, collaboration, and clinical judgement in risk-free settings. In order to develop clinical judgment, learners must have practice noticing, prioritizing, and responding to cues.

Actions taken given one set of cues may differ from those taken given a different set. The researchers intend to explore the extent to which key learning cues are present and to investigate how cue variations interact with achievement of the learning objectives. Through this exploratory research, the researchers will recommend implementation strategies to ensure opportunities for achievement of learning outcomes.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Bridging Academia and Business: Implementing a Mindful Eating Program in the Workplace

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*Patricia Daly, PhD, FNP-BC, ENP-BC, FAANP, College of Nursing, The University of Arizona, Tucson, AZ*

**Purposes:** The purpose of this research was to examine the feasibility and effectiveness of conducting a mindful eating program in the workplace to promote health.

**Background:** Employees struggling with obesity are at increased risk for serious illness including cardiovascular disease and diabetes. Reducing obesity is a priority for employers seeking to lower the incidence and severity of chronic illness and the associated demand for health care costs (HCC) and impact on productivity. Disappointed by efforts to insurance-related techniques to decrease HCC employers have begun to try to manage HCC by addressing their employees' key lifestyle risks. Mindful eating (ME) anti-obesity programs have been shown to lower BMI. Unlike Western medicine models of pharmaceuticals and bariatric surgery, ME increases overall health while empowering the individual. This study evaluates a ME pilot program initiated for city employees in 2015.

**Methods:** A 6-week in-person on-site ME program was initiated at the workplace of city water workers in southern Arizona. Informed by **Information, Motivation, Behavioral Skills** model of Behavior (IMB) change, weekly classes 1) Imparted nutrition **Information** ledge including fat and calorie content of food 2) increased **Motivation** enhancing understanding of eating triggers employing satiety sensitizing exercises and 3) promoted newly acquired **Behavioral** skills as participants practiced mindfully eating a meal at each session.

The sessions were conducted by a certified ME educator at the work site with catered food supplied for each session. Following a 30-minute nutrition didactic, participants engaged in a satiety sensitizing exercise then consumed a meal served buffet style. IRB consented participants' HbA1c, blood pressure (BP) height and weight were recorded prior to and immediately following the program with a post-survey evaluating program effectiveness.

**Results:** Fifteen city water workers (2 males) enrolled in the 6-week ME program, 14 completed the program and final data collection. Only one outlier participant gained weight (7 lbs.) and increased HbA1c (0.3). The remaining participants (13) lost an average on 8 lbs. and 0.1 HbA1c, and lowered BP by 8 points. Most cited the most valuable aspect of the program was a better understanding of their relationship with food and eating triggers. The second most identified facilitator was the group support of co-workers. Identified barriers included time commitment of attending class following a long workday and not routinely having family/friends present. Project findings were shared with workplace management and employee health. This study demonstrates the feasibility and effectiveness of a mindful eating program to promote health in the workplace.

**Implications:** Future directions include expanding partnering with businesses to include larger samples of employee health ME programs. Additional interventions identified in the literature that may be pursued in workplace health promotion including office system improvements, preventive care service bundles, in-house monitoring of BP, HbA1-c testing, and access to nutritious food. Nurses are notably absent from the ME literature although our focus on health promotion, education in nutrition and human behavior uniquely qualifies nurses to lead as ME educators. Nurses should aim to lead future ME research and business partnerships as effective anti-obesity interventions.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Integrating Interprofessional Simulation into the Curriculum

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**Mary Jo Stanley**, PhD, RN, CNS, CNE, School of Nursing, California State University Stanislaus, Turlock, CA; **Sevaughn Banks**, PhD, MSW, Social Work, CSU Stanislaus, Turlock, CA; **Jennifer Peltier**, MSN, RN, School of Nursing, California State University, Stanislaus, Sonora, CA; **Wendy Matthew**, MSN, RN, CHSE, Nursing, California State University Stanislaus, Turlock, CA; **Sherri L. Brown**, RN, MSN, School of Nursing, California State University Stanislaus, Turlock, CA

**Purposes/Aims:** Today's health care settings require health care professionals to effectively work together in teams to provide safe, quality patient care. Faculty are tasked with finding contemporary ways to integrate interprofessional education (IPE) competencies into meaningful learning experiences to better prepare nursing and social work students for the workforce. Our purpose is to present IPE research findings from recent simulation collaborations between two allied health professionals as an integrated component of the curriculum.

**Rationale/Conceptual Basis/Background:** Current post-secondary education provides limited integration of IPE across the curricula even when empirical evidence in the literature suggests otherwise. National and regional nursing and social work accreditation recommends integration of interprofessional communication and collaboration. To guarantee successful exposure to interprofessional workforce scenarios, IPE must be integrated into the curriculum in order to have an impact on student learning and prepare them for real-world team-based collaborative experiences.

**Methods:** Non-experimental, mixed methods designs were used to answer research questions for two individual studies. Study one looked at student performance of NPSG; study two evaluated students' performance using a modified Team STEPPS tool, and students completed a pre/post IPEC competency tool. Qualitative data was also collected using the post-simulation debriefing sessions for both studies.

**Results:** For study one, measurement error was calculated using Excel's inverse binomial distribution to estimate the 90% confidence interval given the observed probability; all NPSG categories fell within the expected normalized range. Quantitative data identified four themes *Seeing the whole picture, Working as a team, Not just on your Plate, A roadmap for care*. For study two, a comparative two sample t-test, differences in pre and post mean scores for the IPEC survey was determined with a 95% confidence level;  $p = 0.05$ . Students' performance was rated using the Team STEPPS 2.0 modified tool; scores of poor or very poor were determined for the areas of communication and leadership. Qualitative data from debriefing identified two themes: *A team work mindset* and *Exposure therapy*.

**Implications:** The research findings from these studies affirm support for continued IPE exposure in education through simulation as a mechanism to support IPE skill sets. Intentional curriculum development that is inclusive of IPE and aligned with course objectives and professional accreditation standards supports educational practices that prepare students for real-world IPE experiences.

**Funding:** IDEAS Grant: G0106-34106-1508 California State University, Stanislaus

## FRIDAY PEER-REVIEWED POSTER SESSION

### Spirit of Compassion at the Bedside

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*Quincyann Tsai, RN, MSN, Professional Development and Education, Kaiser Permanente West Los Angeles, Los Angeles, CA; Lina Najib Kawar, PhD, RN, CNS, Pasadena, Kaiser Permanente, Pasadena, CA*

**Purpose/Aims:** The purpose of this study is to describe the self-reported prevalence of compassion fatigue (CF), burnout (BO), and compassion satisfaction (CS) among clinical nurses (CNs) in Kaiser Permanente Southern California (KP). All KP inpatient CNs were invited to participate in the study. This abstract pertains 106 inpatient West Los Angeles medical center (WLAMC) CNs, who voluntarily completed the survey.

**Rationale/Background:** CF among CNs is on the rise. CF possesses unique symptoms, risk factors, and triggers. Recurrent exposure to patients' pain, suffering, or end of life issues may take a toll on the psychosocial health and wellbeing of nurses and could contribute to this prevalent growing CF phenomena. This era of patient's complexity at the regular medical surgical (Med/Surg) units is comparable to the ICU patients' condition in the 1970s. Shorter length of stay currently practiced at those units could be physically, emotionally, and mentally exhausting and might lead to providing less compassionate, nurturing care.

**Methods:** This presentation reports the quantitative results of a multi-site/multi-system cross-sectional study designed to explore the incidence of CF and examine the relationship between CF, BO, CS, age, and length of experience as a staff registered nurse in the inpatient care settings. The inclusion criteria involved inpatient staff registered nurses employed at KPSC employed fulltime, part-time, or per diem. CNs were recruited using informational flyers of the study. Data was collected using the Professional Quality of Life (ProQOL) 30-item scale via survey monkey to measure nurses' CF, BO, and CS. Descriptive and ANOVAs were conducted to compare the differences.

**Results:** The 106 CNs represent 21% of WLAMC nurse population. This sample average age was 39 years and 12 year nursing experience. Of the participants, 25% are considered at risk for CF and 25.5% are at risk of BO, however 32% seem to show CS. There were significant differences between and among the groups that yielded significant results related to position (relief charge versus CNs) on CS and length at WLAMC and CF. In general, CNs nurses scored low to average on CF and BO and average on CS. Relief charge nurses exhibited higher CS levels compared to CNs. Shorter time of years worked at WLAMC contribute to CF among the CNs.

**Implications/Future Research:** Findings are not generalizable beyond the sample. Results can be helpful to encourage management in building supportive environment to mitigate CF and BO. Also, apply tactics that increase CS and decrease CF and BO based on the literature and are suitable for WLAMC culture. This might mitigate the occurrence of CF and BO.

Future research to examine which strategies can be offered to support and rejuvenate the relief charge nurses. Investigate what methods nurses who worked at WLAMC for longer time can offer to other nurses to combat CF and BO. Continue the research to find the factors contributing to the charge nurses CS. Reducing CF occurrence among nurses will contribute to the overall patients' health, safety, and satisfaction.

## FRIDAY PEER-REVIEWED POSTER SESSION

### The Deliberate Use of the DNP Essentials: A Framework for Educational Practice

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The Doctor of Nursing Practice (DNP) Essentials are required foundational competencies in DNP programs and represent the framework for advanced practice nursing (APN; AACN, 2006). The Essentials have transformed advanced practice nursing by expanding the scope beyond direct clinical to contextual focuses that shape health care delivery (AACN, 2006). In addition, the Essentials represent the “D,” or “doctor,” in the DNP degree and distinguish DNP education from master’s level APN programs. Despite almost 15 years since development of the DNP, it is unclear whether DNP students understand and appreciate the Essentials’ relevance to APN. In response, one institution revised a DNP scholarship forum to deliberately incorporate the Essentials in their entirety as a structure for course delivery.

Previous to this revision, the forum had been presented in a discussion format highlighting only a few select Essentials. However, in response to DNP students’ feedback and their lack of understanding of the relevance of required non-clinical courses, faculty identified a need to articulate the difference and strength of a DNP versus master’s degree APN program. The faculty team identified the Essentials as a relevant framework and reorganized course content to be scaffolded by the Essentials. Assigned readings and discussion group assignments were based on the eight Essentials. Each group discussed and presented a summary of an assigned Essential. Then other groups were tasked with producing thought-provoking questions that led to thorough discussion of how that particular Essential is operationalized in advanced practice nursing.

The hope is that early introduction and comprehension of the DNP Essentials in a BSN-DNP program will serve as a foundational piece to the DNP educational experience. Furthermore, we anticipate that deliberate education of the DNP Essentials will translate into a profound understanding of the “doctor” in DNP and thereby produce stronger DNP graduates who are impactful professionals. Although faculty feel the DNP forum structured around the Essentials was anecdotally successful, they intend to analyze student feedback through pre-post knowledge assessments next academic year.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Health Equity in the Literature on PhD Education in Nursing: A Content Analysis

**Dena Hassouneh**, PhD, RN, ANP, PMHNP, FAAN, School of Nursing, Oregon Health & Science University, Portland, OR; **Molly Campbell**, BSN, RN, School of Nursing, OHSU, Portland, OR; **Mary Davis**, MN, School of Nursing, OHSU, Portland, OR; **Ellen Garcia**, MN, OHSU, Portland, OR; **Amy Leatherwood**, MN, OHSU, Portland, OR; **Kiki Fornero**, MSN, RN, School of Nursing, OHSU, Portland, OR; **Maggie Schien**, BSN, RN, OHSU, Portland, OR; **Robin Tarter**, RN, BSN, MS, Oregon Health & Science University, Portland, OR

**Aim:** To answer the question, “How does the literature on PhD education in nursing reflect concerns about structural justice and health equity?”

**Rationale:** There has been a lack of progress toward achieving health equity in the U.S. since the problem was recognized almost 35 years ago with publication of the *Heckler Report on Minority Health*. Addressing interlocking systems of oppression and their impacts on nursing science is critical to preparing scholars who will help reverse this trend through structural change.

**Methods:** We conducted a summative content analysis using the approach described by Hsieh & Shannon (2005) to assess the extent to which publications about PhD education in nursing address the need to prepare scholars to achieve health equity. We searched CINAHL over the past ten years using the combined terms, “PhD,” “doctoral education,” and “nursing” and obtained 37 results. We located all published articles. Dissertations (n=3) and articles deemed not directly relevant to PhD education in nursing (n=3) were excluded, yielding a total of 31 articles. We also conducted a second, third, fourth, and fifth search combining the terms “doctoral education” “nursing” and “anti-racism” or “classism” or “health equity” or “justice” or “patriarchy,” respectively, but obtained no results. Our analysis consisted of the following steps: 1) reading texts for manifest content related to equity and structural justice. We defined content relevant to health equity and structure justice as content critical of oppressive societal structures such as feminism, anti-racism, classism, or *any* other critical theoretical perspectives; 2) searching the texts for the presence of the key words “equity,” “disparities” and “justice”; and finally 3) grouping articles into topical categories.

**Results:** There is a lack of discussion relevant to health equity and structural justice in the literature on PhD education in nursing. Of the 31 papers searched, two contained the key word “equity” in a single statement without further elaboration. None of the papers were critical of oppressive societal structures. However, one paper which expressed concern over the paucity of theory taught in nursing PhD programs, was critical of the dominance of biomedicine in nursing PhD education. The number of articles listed by topic are found in table 1.

**Implications:** Although health inequities are major national priorities, the literature on PhD education in nursing examined in this analysis did not substantively address this concern. Given these results and the continued lack of significant progress toward health equity goals, attention to how PhD programs in nursing are preparing scholars to contribute to achieving health equity and structural justice is needed. Relying on a single database to identify relevant literature was a limitation of this work.

table 1.

# of articles	Paper Topic
8	PhD versus DNP degree
4	BS-PhD education
4	Choosing a degree for doctoral study
4	Developing writing skills
1	Admissions
2	Faculty role preparation
2	Distance Education
2	Teaching and supervision of PhD student
1	Profile of research faculty
1	Data Science
1	Educational quality
1	Theory content



## FRIDAY PEER-REVIEWED POSTER SESSION

### Depression in Men with Physical Disabilities: A Critical Qualitative Investigation

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*Dena Hassouneh, PhD, RN, ANP, PMHNP, FAAN, School of Nursing, Oregon Health & Science University, Portland, OR; Kiki Fornero, MSN, RN, School of Nursing, OHSU, Portland, OR*

**Aim:** To explore men with physical disabilities' experiences of depression as part of a larger community-based participatory research study.

**Background:** In 2012, the Centers for Disease Control reported that men with physical disabilities represent 12% of the total non-institutionalized population. Between 37-64% of this large and growing population experiences clinically significant depressive symptoms, which is 2-6 times higher than the rates found in non-disabled men. The combination of co-occurring physical and mental health conditions is synergistically more impairing than either type alone and is strongly predictive of 10-year mortality in men. Taken together, these findings document the significant and detrimental impact depression has on men with physical disabilities' functioning, independent living, and life expectancy. Despite these detrimental effects, little is known about how men with physical disabilities experience depression.

**Method:** A qualitative investigation grounded in the critical paradigm of inquiry. Critical disability theory informed our approach to data collection and analysis. Academic and community investigators gathered data from (N=24) self-identified men with physical disabilities with co-occurring depressive symptoms. In-depth interviews were conducted both individually (n=8) individual and in groups (n=16). All interviews were audio-recorded and transcribed verbatim. Data were analyzed using reflexive thematic analysis as described by Clark & Braun (2019). Peer review and debriefing and selected member checks supported the trustworthiness of findings.

**Results:** A critical and holistic examination of data revealed that participants' experiences of mental distress were linked to larger societal structures. Such structures included gendered power relations, which had both restricting and enabling functions, and the experience of precarity in the context of a neoliberal capitalist society. The effects of gendered power relations were also evident in participants' interpretations of masculinity both in terms of how they positioned themselves in the gender binary and their concerns about the pairing of depression and disability. Fear that depression would be perceived by others as a form of weakness ultimately led participants to keep quiet about their depression. The desire to avoid being perceived as weak and vulnerable also shaped how participants expressed themselves and inhabited their physical bodies in public space. Common perceptions that men's social value was directly linked to their earning power, which ultimately served to reify the traditional masculine role of breadwinner in this group, bolstered the social capital of those participants who fulfilled this role and undermined the capital of those who experienced greater marginalization.

**Implications:** Our results point to the significant influence of societal structures on participants' risk for and responses to depression. The expectation that individuals will care for and transform their health in the context of an increasingly competitive American society, along with concomitant threats to the social safety net, fostered participants' vulnerability to depression. We conclude that biomedical approaches to diagnosis and treatment which locate social problems in individuals, are insufficient to address the problem of depression in men with physical disabilities and call for greater recognition that individual problems are embedded in the fabric of society.

**Funding:** National Institute of Nursing Research R15NR016362

## FRIDAY PEER-REVIEWED POSTER SESSION

### SBIRT Training: Impact on BSN Students' Knowledge and Attitudes on Alcohol and Drug Use

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*Beverly Quaye, EdD, RN, PHN, NEA-BC, FACHE, School of Nursing, California State University, Fullerton, CA; Manal Alatrash, PhD, RN, School of Nursing, California State University, Fullerton, CA*

**Purposes/Aims:** The study investigated differences in knowledge and negative attitudes/beliefs regarding alcohol and drug use based on demographic characteristics, and examined the impact of SBIRT training on the level of knowledge and negative attitudes/beliefs regarding alcohol and drug use in BSN students.

**Rationale/Conceptual Background:** Use of alcohol and drugs is one of the most alarming problems in the US. Alcohol and other drug disorders (AOD) continue to have detrimental effects on population health, healthcare systems, and US economy. Screening, Brief Intervention, and Referral to Treatment (SBIRT) aims to prevent substance use disorder from occurring, or identify AOD in its early stages. SBIRT training can provide BSN nursing students in the community health setting with proficiency in knowledge and skills, and may influence their attitudes and beliefs affecting patient outcomes. SBIRT utilizes Motivational Interviewing techniques proven to empower patients in making healthy behavioral changes. The literature emphasizes that there are knowledge gaps in nursing practice in regards to substance abuse; therefore, nursing schools must educate and train students to become competent in detecting alcohol and drug use and intervening as appropriate.

**Methods:** A single-group, pretest-posttest design was employed to investigate the impact of SBIRT training on knowledge and negative attitudes/beliefs regarding use of alcohol and drugs. A convenience sample of 488 BSN nursing students enrolled in the Population Health Nursing course was recruited. Participants received a four-hour education session and virtual simulation training, and conducted family assessment in the community. The pretraining-posttraining survey was completed at baseline and after completion of the training.

**Results:** The results of a series of one-way analysis of variance (ANOVA) models showed no significant differences in knowledge and attitudes/beliefs based on demographics including gender, racial identity, and ethnicity. The results revealed that knowledge about alcohol and drug use significantly increased after completing SBIRT training (Table 1), showing a mean increase of 0.62, 95% CI [0.39, 0.85],  $t(351) = 5.24$ ,  $p < .001$ , Cohen's  $d = 0.28$ . Additionally, negative attitudes and beliefs regarding alcohol and drug use were significantly reduced (Table 2), showing a mean decrease of 1.93, 95% CI [-3.08, -0.78],  $t(315) = -3.30$ ,  $p < .001$ , Cohen's  $d = -0.19$ .

**Implications:** This study successfully identified several knowledge areas and negative attitudes that significantly improved after the training. The findings of this study support the positive changes reported after SBIRT education and training. AOD disorders are constantly taking lives; therefore, adding SBIRT to initial assessments during patients' access to care supports the public health initiatives of health promotion, early identification of high-risk behaviors, and early intervention and disease prevention. This improves population health, and reduces morbidity and mortality of AOD accidents and deaths. Introducing this method into the community health setting provides a venue for patients and families and vulnerable populations that are often untreated or have limited access to care. Furthermore, nurse leaders who support SBIRT have experienced improved quality and safety patient outcomes. Training nurses in SBIRT to reduce excessive drinking and substance use across the continuum of patient care is required for policy implications.

**Funding:** Substance Abuse Mental Health Administration/NIH Grant # 50136118

## FRIDAY PEER-REVIEWED POSTER SESSION

### Offering Psychoeducation: Effects on College Students' Health Literacy and Wellbeing

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*Kaitlyn Anne Bassler, MSN, RN, School of Nursing, Pacific Lutheran University, Tacoma, WA*

**Purposes:** The purpose of this study is to determine how delivering stress management and mental health information to college students impacts their mental health literacy and wellbeing.

**Rationale:** College years are a critical period for interventions that raise awareness and mitigate symptoms of mental health disorders. Studies have revealed that college students have low mental health literacy. People with low mental health literacy are more likely to have severe mental health symptoms and are less likely to seek help. Data from the American College Health Association National College Health Assessment II (ACHA-NCHA II) revealed that over half of college students experience at least one mental health concern over the past 12 months. It is important to address mental health problems as they emerge, as ongoing mental health disorders in early adulthood are associated with adverse long-term outcomes, including persistent mental and physical health problems, intimate relationship dysfunction, and impairments in both academic and professional settings. Early intervention may decrease severity and persistence of mental health problems.

**Methods:** Psychoeducation will be delivered in two ways: a face-to-face one-time Mental Health Information Session and weekly electronic newsletters containing educational material and resources pertaining to mental health problems, stress management strategies, and accessing care. Convenience sampling will be used to establish a sample of college students from baccalaureate and graduate level education at a small liberal arts university in Western Washington. All university students will be recruited to participate via emails and flyers. At the beginning of the academic year, all students will initially be e-mailed the pre-survey and will be invited to attend the Mental Health Information Session. All students will also receive weekly electronic newsletters unless they opt to unsubscribe. Toward the end of the academic year, the post-survey will be e-mailed to all students. Wellbeing will be measured using the General Psychological Wellbeing Index. Mental Health Literacy will be measured using the Mental Health Literacy Scale.

**Outcomes Achieved/Documented:** T-tests and ANOVA will be used to evaluate whether self-reported participation in the workshop and/or reading the weekly newsletter impacted the use of coping strategies, reduced stress levels, and improved mental health literacy and wellbeing scores. Other variables that will be measured include age, educational level, intended major, living situation, and participation in sports. Final results will be available no later than April 15, 2020.

**Conclusions:** Improving wellbeing and mental health literacy among college students may serve as a primary and secondary prevention of mental health problems and crises. If these programs are successful in improving mental health literacy and wellbeing, they may be repeated in subsequent academic years. Nurses may consider offering educational services on college campuses to address deficits in mental health literacy and wellbeing in this population.

## FRIDAY PEER-REVIEWED POSTER SESSION

### ACE Score Categories and Family Functioning within a Juvenile Detention Center

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*Kristi Eilers, RN, MSN, Pacific Lutheran University, Tacoma, WA*

**Purpose:** Children exposed to Adverse Childhood Experiences (ACEs) are at heightened risk for developing disease and dysfunction that are the leading causes of death. This exposure also increases the likelihood of utilizing unhealthy coping mechanisms; causing distress in adulthood that specifically impacts parenting skills and child development. The provision of strategic interventions to promote family engagement can result in positive change within the family system.

This study aims to answer the question of what are the implications of categorical differences within the ACE score in measured outcomes as it pertains to the development of family engagement programming at a juvenile detention center setting?

The goals of the current data analysis include (1) test the relationship between the ACE score at the time of entry and subsequent behavior within a juvenile correctional setting; (2) develop recommendations for family engagement programming based on the correlation of ACE score categories and significant variables; and (3) explore if family functioning as measured by Family Assessment Measure–III (FAMIII) at the time of commitment acts as a moderator between adversity faced in childhood and assessed outcomes.

**Background:** ACEs have a deleterious effect on individuals; the outcomes from which can cross generational lines. The original ACE study questionnaire examined the study participants' exposure in childhood to incidents of psychological abuse, physical abuse, sexual abuse, living with those that abuse substances, mental illness in the household, physical abuse of mother or stepmother, and incarcerated household members. Multiple studies have shown that ACE exposure has a cumulative effect; both in raising the chances of being exposed to other categories of adversity as well as higher ACE scores leading to an increase in risk factors for primary causes of death.

**Undertaking/Best Practice/Approach/Methods/Process:** Special considerations and outcomes seen in the juvenile detention population are explored in this data analysis specific to the individual and the family's expression of underlying trauma and functioning.

Independent variable: ACE score categories, as assessed by the Adverse Childhood Experience Questionnaire.

Dependent variable categories include: Incident reports while incarcerated, achievements in the correctional school system, and success in meeting goals of commitment at the time of release.

Covariate variables: Demographics, placement in special correctional programming, special education or disability diagnosis, IQ score, and prescription of mental health medication.

Moderator: Current family functioning, as assessed by the Family Assessment Measure–III (FAMIII).

**Outcomes Achieved/Documented:** This correlational data analysis will explore possible relationships between the type of adversity faced in childhood and selected variables while detained in a juvenile detention facility. The results of this analysis are expected to be complete by the end of January 2020.

**Conclusions:** The nursing profession can proactively assess for ACEs and provide evidence-based interventions as a primary prevention strategy for ACE-related detrimental outcomes. This data analysis will also examine how assessing and addressing the larger family system may lead to improved outcomes. This project will emphasize the importance of evaluating exposure to adversity in childhood to form a truly effective and evidence-based treatment plan.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Achieve Access Parity for Psychiatric Care: Repeal the Medicaid IMD Exclusion Rule

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**Briony Marie DuBose**, MHI, RN, LSS BB, PhD Student, Hahn School of Nursing and Health Services, University of San Diego, San Diego, CA; **Eileen Fry-Bowers**, PhD, JD, RN, CPNP, Hahn School of Nursing and Health Science, University of San Diego, San Diego, CA

**Purpose:** This project evaluates the federal Medicaid Institutions for Mental Disease (IMD) Exclusion Rule, its impact on patient outcomes and the healthcare system and provides recommendations to achieve access parity for psychiatric care.

**Background:** Approximately 3.4% of Americans have a psychiatric or mental illness and suicide is 10th leading cause of death. While the rate of mental illness has slightly increased for adult populations, America's youth has experienced a significant rise in depression. From 2008 to 2017, occurrence of depression in the adolescent population increased from 8.3% to 13.3%. As adolescents mature into adults, it is likely the rate of mental illness for the adult population will rise as well as it is the common thread that binds the "diseases of despair": drug abuse, alcoholism and suicide. Arising out of the deinstitutionalization movement of the 1960's, the Medicaid IMD Exclusion Rule (§1905(a)(B) of the Social Security Act) prohibits reimbursement for Medicaid recipients ages 21 to 64 years receiving inpatient care at a psychiatric hospital with 16 or more beds. Consequently, the rule limits payment for psychiatric treatment to general hospitals and smaller, non-specialized centers, which blocks patients from receiving inpatient care, and transfers the financial burden of care onto psychiatric hospitals. In 2017, the United States spent 63% of the \$3.5 trillion health expenditure on hospital care, physician services and prescriptions but only 5% on "other care" which includes care provided in psychiatric and substance abuse facilities. This lack of national spending compounds gaps in infrastructure for the treatment of mental illness. Over time, the Medicaid IMD Exclusion Rule has contributed to a 96% reduction in the number of inpatient psychiatric beds, without increases in community and outpatient resources, and furthered stymied access, availability and payment for psychiatric care, particularly to those who need it most, Medicaid recipients.

**Approach:** A modified Bardach approach, including a comprehensive literature review and exploration of contextual factors, professional recommendations, financial and healthcare organization outcomes, informs this policy analysis.

**Outcomes:** The Rule doesn't protect the mentally ill and is detrimental to both patients and providers. A psychiatric patient's need for inpatient hospitalization is similar to a medical patient's need for inpatient hospitalization. They may require a more thorough evaluation, stabilization, crisis support or protection from self-harm or to harm to others. However, accessing emergent care as Medicaid recipient is challenging due to lack of available resources, financial resources and insurance coverage, all of which are compounded by the Rule. The rule discriminates against Medicaid recipients and prevents equality in access and treatment for mental health that is on par with medical treatment.

**Recommendations:** The IMD Exclusion Rule is approaching its 55th anniversary. It requires re-evaluation. Although a state waiver process is available, use of this option has the potential to increase the incidence of racial and ethnic disparities across states. Full repeal of the IMD Exclusion Rule could help provide immediate access to inpatient care that is consistent nationwide and be a vital step toward creating financial, treatment and ethical parity for mental health services.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Maternal HIV Stigma and the CD4 Count of Children Living with HIV

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**Purpose:** We conducted a secondary analysis using baseline data from the Asha Nutrition trial in India. The purpose of this analysis was to determine the effect of maternal HIV stigma on the CD4 count of children living with HIV. Specifically, we investigated whether mother's stigma coping strategies (avoidant coping score), stigma fears, enacted stigma score, internalized stigma score, and stigma about stories heard were predictive of her child's CD4 count.

**Rationale:** Stigma associated with maternal HIV could interfere with family interactions and lead to reduced caregiving effectiveness, negatively affecting health outcomes among children.

**Methods:** Flyer-based recruitment was used at community health centers and primary health clinics and data were collected from face-to-face interviews and blood samples. Descriptive analysis was conducted for all relevant demographic categorical variables and possible correlates. A correlation matrix was created for pair-wise comparison between each variable. To analyze the relationship between child's CD4 count and maternal predictor variables, multiple linear regression analysis was conducted. The criterion used for statistical significance was  $p < 0.05$ .

**Results:** This analysis was conducted with a sample of 109 HIV-positive children living with HIV-positive mothers. In the unadjusted analysis, the only predictor variable of statistical significance was mother's stigma fear of disclosure to her community. It was negatively correlated with child CD4 count (where for each one-unit increase in mother's stigma fear of disclosure to her community, her child's CD4 count decreased by 404 cells (95% CI=-665,-142;  $p=0.003$ )). In the final multivariable model, covariates predictive of CD4 count in children were: mother's stigma fear if disclosed to family, mother's stigma fear if disclosed to her community, stigma about stories heard, mother's CD4 count, and whether she was Christian (vs. Hindu). All covariates predictive of child CD4 count demonstrated a positive relationship with child CD4, except for mother's stigma fears of disclosure to her community, which demonstrated a negative relationship (for every one-unit increase in mother's stigma fear of disclosure to her community, her child's CD4 count decreased by 320 cells (95% CI=-561,-80;  $p=0.010$ )).

**Implications:** Contrary to our expectation, our analysis revealed that mother's avoidant coping score was not predictive of her child's CD4 count. Mother's stigma fear of disclosure to her community was significantly associated with decreased child CD4 count. Further research is necessary to investigate why stigma from community members as a social group negatively affects the mother and her child, in comparison to other social groups, such as family, healthcare workers, and colleagues. Thus, our study suggests a need for public health nurses to address misconceptions that exacerbate stigma by focusing interventions on awareness of HIV/AIDS within the community in order to mitigate negative health outcomes in children.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Nurses Experience as a Second Victim and Support Needs after a Patient Adverse Event

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**Gerl Schmotzer**, RN, MPH, PhD, PHNA-BC, School of Nursing, California State University San Marcos, San Marcos, CA; **Elizabeth Haquang**, BSN, School of Nursing, California State University San Marcos, San Marcos, CA; **Derek S. Drake**, DNP, RN, NE-BC, CNML, CNL, St. Francis Medical Center, Lynwood, CA

**Purpose:** The purpose of this study was to assess the relationship between the second victim experience, the support mechanisms currently available in place, and the desired forms of support following a patient adverse event (PAE) in a community-based hospital.

**Rationale/Conceptual Basis/Background:** The Second Victim is a health care professional who observe or experience a PAE. This experience can result in harm to the physical, physiological, professional, and personal wellbeing of the healthcare provider. These professionals often struggle to find support after an adverse event. They may not know where to find assistance or guidance. They may fear disciplinary actions. They may consider leaving the profession as a result. The second victim may suffer emotional trauma that can have lasting effects that persist for months or years. Nurses are particularly susceptible to this occurrence since they provide the majority of patient care. Research has indicated that having a supportive culture may reduce second victim related trauma. Therefore, strategies at the organizational level are needed to assist the second victim.

The model guiding this study was The Social Network and Social Support Framework. This framework helps to explain the ways in which social support and social networks influence health.

**Methods:** This cross-sectional, descriptive study was conducted at community-based hospital in Southern California. Registered nurses who provided direct patient care were invited to participate by email and by word of mouth. Of the invited nurses, 154 participated.

Two surveys were administered consecutively. The first survey was the Agency for Healthcare Research and Quality's Hospital Survey on Patient Safety Culture. This survey is used to assess staff opinions about patient safety culture, medical errors, and event reporting. The second survey was the Second Victim Experience and Support Tool. This tool assesses the second victim's physiological and physical distress along with support received from colleagues, supervisors, and other support mechanisms. The surveys took approximately 30 minutes to complete and nurses received a \$25 Amazon gift card.

**Results:** Preliminary results indicate nurses feel they receive institutional and managerial support following a PAE. However, there are additional forms of support activities needed for patient care nurses to help them overcome their distress following a PAE.

**Implications for Translation to Practice/Further Research/Policy:** Nurses who have observed or experience a PAE need to be supported following an event. Preliminary findings indicate nurses need time away from their units to process their feelings of distress and an opportunity to elicit support from a peer support program.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Cervical Cancer Knowledge and Screening Practices of Latinas in Southern California

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**Geri Schmotzer**, RN, MPH, PhD, PHNA-BC, School of Nursing, California State University San Marcos, San Marcos, CA; **Elizabeth Haquang**, BSN, School of Nursing, California State University San Marcos, San Marcos, CA; **Carolina Quirarte**, BSN, RN, Department of Nursing, University of California Medical Center, La Jolla, CA

**Purpose:** The purpose of this study was to describe the knowledge, beliefs, and screening practices of Hispanic women in a rural setting.

**Rationale/Conceptual Basis/Background:** Cancer is the leading cause of death in the United States (U.S.), secondary to cardiovascular disease. The American Cancer Society estimated that one of the five most commonly diagnosed cancers among the Latino Community was cervical cancer. Hispanic women have a 44% higher incidence rate than non-Hispanic white women of developing cervical cancer. Additionally, they have the highest mortality rate in the majority of Southern California's counties. Annual screenings have helped to detect malignancies at an early stage. However, the low rates of Pap screening practices among Latinas are thought to contribute to the higher mortality of this cancer. Barriers to cervical cancer are multifaceted. Access to the health care system and cultural beliefs about cancers are thought to contribute to the health disparities found in the screening rates for Hispanic women. Nevertheless, in order to improve screening rates, it is necessary to determine which factors create the greatest barriers to screening.

The Behavioral Model for Vulnerable Populations considers the impact of health care utilization on health outcomes and focuses on economic, social, and psychological factors that may help to predict screening practices and was used to guide this research.

**Methods:** This cross-sectional, descriptive study was conducted over a ten-month time frame beginning in August 2018. Data collection occurred during a one-time interview with 95 low-income Hispanic women in a rural community in Southern California. A pretested semi-structured questionnaire, modified for a Hispanic population, was used to assess their knowledge and screening practices of cervical cancer. The questionnaire was conducted in the participant's choice of English or Spanish and took approximately 20 minutes to complete. A trained Research Assistant administered the survey. Participants received a ten-dollar Walmart gift card upon completion. All research guidelines for obtaining informed consent and protecting human subjects were followed.

**Results:** Preliminary results indicate most Latinas are knowledgeable about cervical cancer symptoms, prevention, and risk factors but experience barriers to screening. Barriers that contribute to low screening rates include personal, socio-economic, and cultural levels.

**Implications for Translation to Practice/Further Research/Policy:** Latinas experience multiple barriers to cervical cancer screenings. Preliminary findings indicate understanding the barriers to preventive services is necessary to create health promotion interventions that address cervical cancer screening barriers experienced by Latinas.



## FRIDAY PEER-REVIEWED POSTER SESSION

### A Gap Analysis of LGBTQ Health Education in Baccalaureate and Graduate Nursing Programs

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*Clara S. Eickhoff, RN, BSN, CMSRN, School of Nursing, Pacific Lutheran University, Tacoma, WA*

**Purposes/Aims:** This study provides a broad overview of the LGBTQ nursing education currently being taught in nursing schools across the United States, assesses schools' readiness for quality LGBTQ nursing education, and identifies the barriers to integrating this important course content. Leininger's Culture Care Theory is used as a guiding framework.

**Background:** About 4.5% of the U.S. population identifies as LGBT according to a recent Gallup poll. Numbers among youth and young adults are higher, even as high as 10-12% according to recent CDC data. The LGBTQ population has historically faced stigma and discrimination in the United States, including in their healthcare. This discrimination leads to significant health disparities, such as substance abuse, obesity, and depression. While discrimination in healthcare has declined significantly in recent years, there are still barriers to LGBTQ people receiving the culturally congruent care they need. Recent literature demonstrates a recurring theme as key to addressing this incongruence; nurses and other healthcare providers generally have a desire to care for this population with cultural congruence, but need more education about working with this population and addressing their unique healthcare needs. While there are a handful of case studies published about how individual nursing schools are addressing this care gap, only one published study has looked at the curricula across multiple schools of nursing, namely RN programs in North Carolina.

**Methods:** A Qualtrics survey has been distributed via email to all U.S. nursing schools with graduate and/or baccalaureate programs that are CCNE accredited and other AACN member schools that have publicly available email addresses (n=896). The survey asks for quantitative data about the school's demographics, quantity of LGBTQ education hours, specific topics covered, teaching methods, interest in expanded LGBTQ education, faculty knowledge and comfort with LGBTQ content, and barriers to expanded content. Two qualitative, open-ended questions seek to capture additional aspects of the topic not addressed in the structured quantitative questions.

**Results:** Data will be collected Sept-Dec 2019 and analyzed in early 2020 as part of this DNP project. Descriptive statistics will be reported. Items with nominal data will be analyzed using chi-square. Interval and ratio data will be analyzed using t-test, ANOVA, and correlation as appropriate. Qualitative data will be analyzed using thematic analysis.

**Implications:** Caring for patients with cultural congruence and addressing health disparities are responsibilities of all nurses and healthcare professionals. Robust education about these topics helps nurses to assume these responsibilities in their practice. The data gathered in this study will provide valuable insights into what gaps still remain in the pursuit of providing high-quality LGBTQ health education to nursing students. Possible future efforts include development of CE programs or educational modules, curriculum redesign, and policy change.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Changes in the Health Behaviors of Polish and Foreign Students Studying in Poland

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**Michał Machul**, MSN, PhD Student, Medical University of Lublin, Lublin, Poland; **Piotr Pawłowski**, BSN, Medical University of Lublin, Lublin, Poland; **Daria Makuch**, Medical University of Lublin, Lublin, Poland; **Paulina Mazurek**, Medical University of Lublin, Lublin, Poland; **Anna Obuchowska**, Medical University of Lublin, Lublin, Poland; **Beata Dobrowolska**, Medical University of Lublin, Lublin, Poland; **Agnieszka Chrzan-Rodak**, Medical University of Lublin, Lublin, Poland; **Monika Bieniak**, Medical University of Lublin, Lublin, Poland; **Jadwiga Bąk**, Medical University of Lublin, Lublin, Poland; **Justyna Chałdaś-Majdańska**, Medical University of Lublin, Lublin, Poland; **Katarzyna Karska**, Medical University of Lublin, Lublin, Poland

**Aim:** The aim of the study was to analyze and compare the changes in the lifestyle and factors conditioning health behaviors of Polish and foreign students studying in Poland.

**Background:** Educational migration across the world challenges healthcare professionals with the issues relating to cultural adaptation among foreign students. Students face different cultural values, language and/or organizational barrier regarding university structure and healthcare system. They are exposed to stress, sleep disturbances, decreased physical activity, as well as changes in eating habits including irregular food consumption, food quality decline, and alcohol abuse or exposure to other stimulants.

**Methods:** The survey was conducted on a convenience sample of 444 students attending different courses at one accessible medical university in Poland. Students group comprised of 231 foreign students (17.8% from Europe, 6.8% from North America, 75.3% from Asia) and 213 Polish students (control group). The data was collected at the turn of 2018/2019. The study was approved by the Ethics Commission at the Medical University of Lublin (No. KE-0254/24/2018). Following research tools were used to collect data: Fantastic Lifestyle Questionnaire (FLQ), Satisfaction With Life Scale (SWLS), Perceived Stress Scale (PSS-10) as well as a short form for the collection of student sociodemographic data. The data was statistically analyzed with Statistica 11 software.

**Results:** The average age of surveyed foreigners was 21.7 (SD=3.48), and the Polish students 22.1 (SD=4.46). Women constituted 70% of the respondents. Polish students assessed their health condition as good more often (60.1%) than foreign students (50.2%). Foreign students more often admitted that student's life has definitely changed their lifestyle (54.1%) than Polish colleagues (36.6%). The average rating for the lifestyle measured by FLQ among the Polish students was M=36.26 (SD=6.21), and for the foreign students it was M=33.55 (SD=6.71), ( $p<0.001$ ). The study showed statistically significant differences between the Polish and the foreign students in terms of elements of lifestyle: Family and friends, Nutrition, Alcohol, Sleep and stress, Insight and Career and social roles ( $p<0.001$ ). Age, gender, economic status, self-assessment of health condition, self-assessment of lifestyle, and country of origin had a significant impact on selected health behaviors presented by foreign students ( $p<0.001$ ). The level of life satisfaction of Polish students and foreign students were similar (M=23.69; SD=5.12 and M=23.89; SD=5.99, respectively). Students from Europe obtained a statistically higher score on the SWLS than students from America and Asia. The level of stress intensity was higher in Polish students M=22.78 (SD=3.87) than in foreigners M=20.34 (SD=5.88), ( $p<0.001$ ).

**Implications for Translation to Practice/Further Research/Policy:** Study results show that studying in a different culture affects students' lifestyle and health behaviors. Findings may be helpful for the development of a university strategy assisting the international exchange students and foreign students in the processes of adaptation to different culture so that proper health behaviors, and healthy environment for the education could be formed. Further, qualitative study is recommended focusing on students' expectations, factors conditioning their negative health behaviors, and strategy of adaptation so that a holistic health promotion could be implemented.

**Funding:** Ministry of Science and Higher Education in Poland. Project entitled "Najlepszy z Najlepszych 4.0"

## FRIDAY PEER-REVIEWED POSTER SESSION

### The Patient Care Experience as Perceived by Hispanic Patients

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**Purpose/Aims:** The purpose of this study is to understand how English and Spanish-speaking Hispanic patients with chronic illness who are high utilizers of health care, perceive and interpret the care experience with the goal of generating a theoretical model to guide care delivery and improve perception of the experience of care for this population.

**Rationale/Conceptual Basis/Background:** Patient perception of the care experience, referred to as “patient satisfaction”, has clinical and fiscal implications for today’s delivery of care. The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey is used to quantify this experience and guide improvement in clinical performance. Historically, overall racial and ethnic minorities have been under represented in survey development. Specifically, the HCAHPS was developed using results from three state pilot tests with a Hispanic response rate of only 1,551 in contrast to the white response rate of 11,748. The Hispanic and Latino populations comprise 17.6% of the total US population, making them the largest minority group in the US. Fifteen percent (15%) suffer from chronic kidney disease and additionally, chronic liver disease was the 7th leading cause of death in 2015. This population faces numerous social barriers that exacerbate the health disparities already being confronted, leaving them with poorly coordinated and fragmented health services. Ware and Linder-Pelz’s theory development has contributed to the concept of patient satisfaction, but the lack of attention to the perceptions of racial and ethnic minority participants represents a major gap in this theoretical model. It is important to capture this growing minority group’s voice; as Lawler said in 1971, “[w]e need to understand the concept of satisfaction before we can really explain why certain factors cause it and others are caused by it”. As a result, the HCAHPS may not adequately reflect the care experience as perceived by minority populations, especially for Hispanic patients.

**Methods:** This study employs a qualitative grounded theory approach to conduct individual, in-depth semi-structured interviews with an anticipated sample size of 20 participants, adjusted as needed to achieve theoretical saturation. Hispanic patients recruited from a transplant institute (liver or kidney transplantations) will be purposively selected. Data will be analyzed using grounded theory methods to code, interpret symbols, and analytically frame the concepts to generate a theoretical model.

**Results:** Data collection and analysis in progress.

**Implications:** This study will lay the foundation for developing and psychometrically testing a Hispanic-specific patient satisfaction instrument in the future. In vivo quotes may assist in developing instrument items. Any categories generated from this proposed study may inform the development of sub scales that would be tested using confirmatory factor analysis. An improved understanding of how Hispanic patients experience the delivery of health care in the context of chronic illness and transplantation will allow for further development of the concept of patient satisfaction and inform efforts to improve patient experience and close the gap in health inequity.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Health Care Access and Utilization among U.S. Farmworkers

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**Background:** Agriculture is a dangerous industry and has the highest fatality rate among all other industries in the United States. Farmworkers experience high rates of occupational injury, illness, and mortality, yet have limited access to health care. The studies that have examined health care utilization of this group find the use of health services remain significantly low. The implementation of the Patient Protection and Affordable Care Act (ACA) of 2010 was a major health program that increased health care accessibility and broadened farmworker eligibility for health insurance, yet no study has measured the impact of the ACA upon U.S. farmworkers.

**Purposes/Aims:** The purpose of this research is to examine health care access and health care services utilization among U.S. farmworkers following the implementation of the ACA in 2010. The specific aims of this study include the following (1) apply the Behavioral Model for Vulnerable Populations (BMVP) with a national sample of farmworkers to describe the predisposing, enabling, and need factors that are independently associated with U.S. health care utilization (2) describe the difference in health care utilization by legal status and health insurance status among farmworkers who used U.S. health services and (3) determine the odds of U.S. health care utilization as accounted for by the BMVP predisposing, enabling, and need factors.

**Methods:** This study will apply a retrospective cross-sectional design using secondary data from the 2011 – 2014 administrations of the National Agricultural Workers Survey (NAWS), yielding a sample of n=7260. Respondents of the NAWS include U.S. hired farmworkers who work for a U.S. agricultural employer for crop-related production. Statistical Package for Social Sciences (SPSS) version 24 will be used to conduct data analysis. Descriptive statistics will be conducted to address Aim 1 and inferential statistics (e. g.,  $\chi^2$  tests, analysis of variance (ANOVA), multivariate logistic regression) will address Aims 2 and 3.

**Results:** This secondary data analysis will estimate the prevalence of health care utilization following ACA implementation among U.S. farmworkers as well as estimate the impact of legal status and health insurance coverage among farmworkers who used health care services.

**Implications of Findings to Nursing:** Nurses play an important role in mitigating barriers to health care for farmworker families. Understanding the many barriers and influencing factors of health care utilization can inform nurse-led outreach efforts, community programs, and health policies to improve health care service delivery for this underserved group.

**Funding:** Dean's Research Scholar Award from the University of San Diego Hahn School of Nursing

## FRIDAY PEER-REVIEWED POSTER SESSION

### “Family, Life Changes, Identity” Narratives from Persons of Color with Serious Illness

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**Purpose:** Illustrate narrative analysis methodology and describe serious illness experiences of persons of color.

**Background:** Comprehensive palliative care (PC) for patients with serious illness improves quality of life (QOL), quality of care and patient satisfaction. The growing population of persons of color living with serious illnesses experience disparities in receiving PC, dissatisfaction with that care, and care inconsistent with their wishes, leading to decreased QOL and increased suffering. Cultural aspects of care for persons of color with serious illness can be discovered through listening to them and collecting their illness narratives. Based on story theory, “meaning making” in illness can be applied to communication between person and nurse by incorporating person-centered illness narratives. Research defining and integrating cultural values and beliefs in care provides opportunities to improve QOL for this population.

**Methods:** Using the methodology of narrative analysis, persons of color illness experiences were explored. First, audio-recorded narrative interviews were collected from a purposive sample of 20 hospitalized persons of color recruited at an academic hospital. Second, the narrative audio-recorded interviews were written into illness narratives by the PI. Through member checking, the PI and patient reviewed written narratives for accuracy, then the patient approved illness narratives were uploaded into the patient’s electronic health record. Third, a thematic analysis was conducted of the 20 co-created illness narratives. Using an iterative inductive analysis, open coding allowed codes to form patterns as they emerged from the illness narratives. The codes were discussed through weekly research meetings until consensus was achieved.

**Results:** The participants (n=20) had illnesses of: cancer (15%), end stage renal disease (20%), and heart failure (75%). Some participants had more than one illness. Illness lengths were 1-5 years (40%), 6-10 years (20%), 11-15 (20%), 16-20 (10%), and less than one year (10%). Race/ethnicity of the participants included: Black (40%), Hispanic/Latino (45%), Native American (10%), and more than one race (5%). Participant gender and age were: male (60%), and female (40%), with a mean age of 52 years. Three prominent themes which emerged from the analysis of the narratives were family, life changes, and identity. In the main theme of family, subthemes included family influences (with both positive and negative narratives), family cohesion, support from family, and family pride. The life changes theme included subthemes such as physical changes, social and spiritual adversity, adaptation, and growth. Participants commonly identified turning points in their illness course as both positively and negatively “life changing”. The identity theme included subthemes emerging from participants discussing their various life roles, including employment, culture, religion, and family. Participants described how their identities had been remodeled in the context of coping with their illness while discovering a new purpose/meaning in their current life.

**Implications:** Narratives from persons of color with serious illness can inform nurses understanding of patients’ illness experiences and enhance communication between nurses and patients. Improved communication may provide opportunities for the type of culturally congruent care that leads to improved QOL and can lessen suffering for persons of color with serious illness.

**Funding:** National Institutes of Health National Institute of Nursing Research under award K99 NR016686

## FRIDAY PEER-REVIEWED POSTER SESSION

### Bodyweight Misperception by Chinese Americans Influenced by Cultural & Social Ideals

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**Background:** Bodyweight misperception is a phenomenon fortified by the desire to achieve the ideal body that is emphasized in cultural mores and societal norms. It represents one of the precursors of maladaptive health behaviors among adolescences and young adults in the Western society. For females of diverse ethnic backgrounds such as Chinese American, bodyweight misperception is attributed to the unique cultural perceptive and daily stressors in their lives. It can negatively impact their self-perceived weight status, which can affect their physical health, psychosocial health, health practices and behaviors, and quality of life. However, bodyweight misperception is barely captured in the current science about women's health with minimal, at best, understanding of the Chinese women's perception about this phenomenon.

**Purpose:** The objective of this literature review was to explore (1) the prevalence of bodyweight perception, (2) the factors associated with it, and (3) the negative health consequences triggered by it, in Chinese American females. This review contributes to the knowledge about appropriate weight-management strategies with the provision of culturally competent care for Chinese American females.

**Methods:** A comprehensive search for peer-reviewed articles was completed in PubMed, MedLine, CINAHL, PsycInfo, Cochrane, Google Scholar, and ProQuest. The keywords included Chinese American, acculturation, quality of life, body image, weight misperception, bodyweight misperception, weight dissatisfaction, body dissatisfaction, and weight management. The bibliography section in each article was searched to identify related articles.

**Results:** In Chinese American adult females, variation in weight status was associated with age, marital status, educational attainment, and subjective health status. Factors contributing to the misperception phenomenon include cultural ideals internalization, mass media influence, acculturative stress, and social pressure. For Chinese American females, overestimation was more commonly observed than underestimation, with weight-loss attempt as the most frequently reported predictor. Bodyweight misperception was also associated with physical and psychological health of Chinese American females, with both weight underestimation and overestimation having undesirable consequences on their quality of life.

**Implications:** Chinese American females have a distinct set of cultural beliefs that influence their bodyweight perception and health status (health promotion and disease prevention). Along with internalized cultural ideals, they are influenced by mass media and social pressure(s), which are reflected in their bodyweight misperception. Current and future nurse professionals need to tailor interventions to counteract these influences for the support of healthy weight perception and attainment in Chinese American females. Moreover, nurse professionals must establish culturally responsive relationships while providing care to these ethnic minority females, particularly when discussing bodyweight assessment and chronic illness management.

**Keywords:** Chinese American, bodyweight, bodyweight misperception, weight dissatisfaction, body image, cultural competency

## FRIDAY PEER-REVIEWED POSTER SESSION

### Give the VIP Treatment to Prevent Missed Injuries after a Fall

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**Purpose/Aims:** The purpose of this project was to develop a standardized post-fall assessment for geriatric patients residing in long-term care facilities.

**Learning Objectives:** Following the presentation participants will be able to:

- Identify the importance of doing a systematic post-fall assessment.
- Learn about how the post-fall (VIP) assessment was developed.
- Learn how the protocol will be implemented.

**Rationale/Background:** Evaluation of patients who have fallen varies significantly between nurses as well as health care facilities. In many cases, injuries go unrecognized or their identification is delayed due to poor or incomplete assessments and follow-up.

**Undertaking/Best Practice/Approach/Methods/Process:** A literature review revealed that in the past 10 years, very few studies were conducted on post-fall assessments, and the majority of these studies were conducted outside of the United States. Due to the lack of current literature on the subject, the Advanced Trauma Life Support's primary, secondary and tertiary surveys were used as a framework for the development of the post-fall assessment algorithm. The algorithm was simplified and then adapted to fit the long-term care setting. Nursing post-fall assessment documentation and training videos were developed to train long-term care nurses regarding the post-fall assessment.

The training was piloted at a statewide nursing conference where attendees evaluated and provided feedback on the project and training module.

**Outcomes Achieved/Documented:** A post-fall assessment evaluation was developed which included the production of a standardized post-fall assessment algorithm, accompanied by a documentation guide. A training video was produced to illustrate the use of the assessment tools and to allow nurses to practice their new skills.

**Conclusions:** Standardized post-fall assessment tools will lead to more thorough evaluation and follow-up of patients who have fallen in long-term care facilities. This will lead to more rapid identification and treatment of injuries sustained after a fall.

**Recommendations:** Pilot the program at two long-term care facilities to test its effectiveness. Feedback from the pilot facilities will be used to further refine the assessment prior to implementation at multiple facilities in the future.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Direct Care Staff Experience Using CALM for Behavioral Symptoms: A Content Analysis

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**Diana Lynn Woods, PhD, RN, APRN-BC, FGSA, FAAN, School of Nursing, Azusa Pacific University, Azusa, CA; Linda R. Phillips, PhD, Aging Arizona, Tuscon, AZ; Renee Rose Johnson, PhD, RN, FNP, Nursing, California State University, Los Angeles, CA**

**Background and Significance:** Behavioral symptoms of dementia (BSDs) such as restlessness, agitation, aggressive behavior, yelling, and nighttime awakenings, exhibited by more than 85% of those with dementia, result in distress for the person with dementia (PWD) and avoidance in caregivers. Direct care staff (DCS) who work with residents exhibiting BSD frequently find themselves with limited tools at their disposal to alleviate these behaviors. Over time DCS may experience compassion fatigue. Teaching direct care staff (DCS) calming interventions (CALM), specifically therapeutic touch and the use of therapeutic communication skills, may promote increased confidence and competence and connectedness between residents and staff, strengthen relationships, decrease compassion fatigue, decrease self-reported stress and improve the quality of care.

**Purpose and Aims:** The purpose of this pilot study was to assess the acceptability and feasibility of DCS delivering a CALM intervention to cognitively impaired residents in Assisted Living.

**Method:** This was a descriptive exploratory pilot study. DCS completed Archbold's Caregiver Preparedness Scale pre and post the educational intervention. DCS educational training was completed over 4 months. Semi structured interviews were conducted by the Co-Investigator, experienced in interviewing, at the end of the study. The Co-Investigator was not known to the DCS and was not involved in data collection. Interview data was transcribed and analyzed using content analysis. Themes were identified.

**Results:** Seven of 10 DCS completed the study. Five of 7 (71%) showed an increase in preparedness. Specific items showing an increase were "How well do you think you are prepared to take care of the resident's emotional needs?" "How well prepared do you think you are for the stress of caregiving?" and "How well prepared do you think you are to make caregiving activities pleasant?" Interview data supported positive experiences of relaxation and self-reported decrease in stress for the DCS and an observed decrease in BSD for the residents compared to baseline.

**Conclusions:** This pilot study provides beginning evidence for the effect of CALM on the DCS, increasing preparedness with PWD, increasing relaxation, confidence in preparedness and self-reported decrease in stress for the DCS. Especially pertinent in the preparedness scores are those related to questions of being able to manage the stress of caregiving, and thus potentially decreasing compassion fatigue.

**Funding:** Azusa Pacific University Faculty Research Council



## FRIDAY PEER-REVIEWED POSTER SESSION

### The Failure to Fail Conundrum: A Scoping Review

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*Jessica Ochs, DNP, APRN, ANP-BC, FNP-BC, CNE, School of Nursing, Endicott College, Beverly, MA*

**Purpose:** The purpose of this scoping review is to determine what the current research has determined regarding the issue of ‘failure to fail’ within nursing programs. This ethical conundrum has been in the literature for years (Scanlan, Care, & Gessler, 2001) yet it is still not openly or frequently discussed in many academic nursing settings. Previous identified reasons for not failing students who were deserving of it includes: threat of the appeals system, emotional difficulty in failing a student, the lack of confidence to fail a student, documentation challenges, and lack of mentorship and time (Bachmann, Groenvik, Hauge, & Julnes, 2019; Hughes, Mitchell, & Johnston, 2016; Luhanga, Yonge, & Myrick, 2008). This review aims to shed more light into this complex issue by appraising and synthesizing the evidence and recommendations.

**Rationale/Conceptual Basis/Background:** Nurse educators are charged with the monumental task of educating future nurses by molding them into knowledgeable and competent, safe practitioners. Anecdotally nurse educators do not feel they are able to fail a student in clinical and therefore they are confronted with the ethical conundrum of passing a student in clinical who demonstrates unsafe behavior. This anecdotal sentiment has been murmured among the halls of academic nursing buildings for years causing much angst to the those affected but still the research into this phenomenon is minimal. A scoping review will add to the literature by synthesizing what is known and hopefully serve as a starting point encouraging new research to be conducted on this important topic.

**Methods:** A scoping review utilizing PRISMA standards

**Results:** Pending

**Implications:** The ‘failure to fail’ phenomenon in nursing education has far reaching implications in the academic nursing world. First, faculty and administrators need to be aware that there is a problem, and second, they need to have evidence to support changes within the academic institution to halt this practice. Nurse educators and leaders are the gatekeepers to the nursing profession (Bachmann, Groenvik, Hauge, & Julnes, 2019), and need to feel confident and be supported in exercising their clinical judgment with unsafe nursing students. By synthesizing the available research, nurse educators will be able to add to their repertoire of knowledge and skills in handling the unsafe nursing student.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Refinement and Psychometric Testing of the Breastfeeding Relationships Scale

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*Natsuko Wood, PhD, RN, College of Nursing, Washington State University, Spokane, WA; Celestina Barboasa-Leiker, PhD, College of Nursing, Washington State University, Spokane, WA; Ira Kantrowitz-Gordon, PhD, CNM, ARNP, FACNM, Child, Family, and Population Health Nursing, University of Washington School of Nursing, Seattle, WA*

**Purposes/Aims:** The purpose of this study is to evaluate the psychometric properties of the revised Breastfeeding Relationships Scale to improve detection of altered breastfeeding relationships due to perceived insufficient milk (PIM).

**Rationale/Conceptual Basis/Background:** Only 57.1% of mothers exclusively breastfeed at the first month postpartum. PIM is a paramount concern for breastfeeding mothers. Mothers interpret their infant's behaviors, such as crying and fussiness and, frequent feeding demands, and perceive their infant's poor weight gain as signs of PIM. PIM reduces confidence in breastfeeding, leading to attempts at quantifying her milk supply through manual expression or pumping and adding formula supplementation. Alternative feeding methods reduce infant suckling on the breast which ultimately decreases breast milk production and prevents exclusive breastfeeding directly on the breast.

Several scales measure PIM within the constructs of the mother's breastfeeding self-efficacy and breastfeeding satisfaction. However, none of their items are written in the context of breastfeeding relationships. To address this gap, the 3 item, self-reported, Breastfeeding Relationships Scale was designed and tested during a home-based breastfeeding pilot intervention study, The Protecting Your Ability to Breastfeed Your Baby. The internal consistency among the items at posttest on Days 6, 13, and 27 postpartum, among the sample of 14 dyads of breastfeeding mothers and their infants, was 0.63. Subsequently, the instrument was revised. Multiple items were added to better assess the relational aspects of this complex interaction.

**Methods:** A cross-sectional study is being conducted. The revised scale has 25 items, is available online, and takes approximately 10-15 minutes to complete. Two hundred and fifty breastfeeding mothers between 1 and 6 weeks postpartum for 80% power for the detection of large sized effects are being recruited through social media, word of mouth, and via a brochure placed at clinics. Exploratory Factor Analysis (EFA) will be conducted to determine the dimensionality of the factor structure and internal consistency of the scale, using robust maximum likelihood estimation, oblique rotation for multi dimensions, and Geomin factor loadings. A scree plot of eigenvalues will be examined along with the direction and magnitude pattern coefficients to determine the factor structure and factor labels. Standardized factor loadings will be inspected to see which items account for at least 9% of the variance in the construct. The scale will be considered internally consistent if Cronbach's alpha is greater than 0.70. All psychometric analyses will be conducted in SPSS version 25 and Mplus version 8.1. The study was certified as exempt from the need for review by the Washington State University institutional Review Board.

**Results:** Data collection is currently underway. Recruitment strategies yielded 30% (n=75) in the first 5 weeks. Results will be available by the conference, including descriptive statistics and EFA parameters.

**Implications:** Findings will be used to refine the theoretical model upon which the intervention is based. An instrument capable of assessing breastfeeding relationships in terms of PIM can help support increased establishment/sustainment of exclusive breastfeeding directly on the breast.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Nursing Satisfaction with the EMR: Variability by Nursing Role and Demographics

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*Mary Field, MBA, BSN, RN, CPHON, Hematology/Oncology, Seattle Children's Hospital, Seattle, WA; Carol Shade, DNP, MS, RN, CPHIMS, SHIMSS, Nursing Informatics, Seattle Children's Hospital, Seattle, WA*

**Purpose:** Evaluate nursing and unlicensed assistive personnel satisfaction with the electronic medical record in an academic pediatric hospital and explore differences in satisfaction by selected demographics.

**Background / Significance:** There is a wide assortment of published literature linking healthcare job satisfaction and burnout rates to the burden of documentation required by the electronic medical record, however most articles focus on the provider perspective, which is different from that of a clinical nurse. It is important to consider a variety of demographics as they relate to nursing satisfaction with the electronic medical record. Specifically, years of service, practice location, and nursing role may create differing satisfaction reports. Satisfaction by role and demographics may have direct relationships on retention, performance, and cost efficiencies of hospitals. Seattle Children's Hospital is currently in the process of adopting new electronic medical record software, therefore this presents the ideal time to establish a nursing satisfaction organizational baseline.

**Undertaking:** In an effort to ensure optimal implementation of new electronic medical record software and to ensure nursing stakeholder representation, a quality improvement project was undertaken. A literature search was performed, which identified a nursing focused questionnaire published by Otientio et. al, 2007. This instrument measures electronic medical record use, quality, and satisfaction from the nursing perspective through 34 unique Likert scale questions. The nursing informatics department at Seattle Children's Hospital established content validity through reviewing this tool. In addition to adopting the tool, this group recommended including demographics questions, which will allow for a more robust data analysis. This tool was disseminated to all 2,000 nursing and unlicensed assistive personnel at Seattle Children's hospital via REDCap.

**Evaluation and Outcomes:** pending data analysis, survey closes 10/2/19 with data analysis targeted 10/3/19 – 10/31/19. Analysis will be summarized using means, standard deviations, medians, and inter-quartile ranges. Categorical variables will be summarized using frequencies and percentages.

**Conclusions:** pending data analysis.

## FRIDAY PEER-REVIEWED POSTER SESSION

### A Telehealth Modality to Improve Medication Adherence in Older Adults

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*Rachel Gerard-Buonomo, BSN, RN, DNP-S, Hahn School of Nursing, University of San Diego, San Diego, CA; Jonathan Mack, PhD, RN, APN-BC, Hahn School of Nursing, University of San Diego, San Diego, CA*

**Purposes/Aims:** The purpose of this study is to assess the efficacy of bi-weekly videoconferencing visits and weekly message reminders with medication adherence measured by the Morisky Medication Adherence 8-Item Scale over a 3-month period in the older adult population.

**Rational/Background:** Medication non-adherence is a major cause of morbidity in the older adult population, with over 40% being non-adherent, especially with self-administration. Non-adherence can lead to a sequelae of preventable problems including medical and psychosocial complications, reduction in quality of life, and even death. Poor adherence also effects economic expenditure by increasing costs and wasting healthcare resources. The United States pays between 100-300 billion dollars of avoidable costs annually due to medication non-adherence.

**Undertaking/Best Practice/Approach/Methods/Process:** Evidence-based interventions include utilization of a telehealth device to facilitate bi-weekly videoconference calls with older adult participants using a scripted template and a weekly message medication reminder over a 3-month period. Medication adherence will be measured via the MMAS-8 before and after the intervention. A questionnaire will be administered pre and post intervention to assess for a reduction in health-care resources (911 calls, Emergency Department, Urgent Care visits and hospitalizations).

**Outcomes Achieved/Documented:** Data collection is still in progress.

**Conclusions:** Telehealth devices can improve medication adherence in older adults resulting in improved health outcomes, as well as reduced economic health expenditures and wasted resources. Telehealth devices can also be utilized in outpatient settings to facilitate patient-provider communication and improve medication adherence and satisfaction among older adults. This device can be used for Remote Patient Monitoring and Chronic Care Management and qualify for reimbursement using CPT code 99490.

## FRIDAY PEER-REVIEWED POSTER SESSION

### A Psychometric Evaluation of the Casey-Fink Graduate Nurse Experience Survey

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*Kathy Casey, MSN RN-BC, Nursing Education and Research, Denver Health, Denver, CO*

**Purpose:** The purpose of this study was to evaluate the psychometric properties of the Casey-Fink Graduate Nurse Experience Survey using a large sample of graduate nurses who participated in the 12-month Vizient/AACN Nurse Residency Program during the years 2008 to 2018.

**Background:** Transitioning from the role of nursing student to professional nurse is widely recognized as a period of stress, role adjustment and reality shock. Accurate measurement of graduate nurse perceptions of support, confidence, and skill acquisition is needed using a reliable and validated scale. The measurement tool most frequently used in published studies to measure graduate nurse self-reported perceptions of the transition to practice experience is the Casey-Fink Graduate Nurse Experience Survey. This survey was constructed over 20 years ago and many items need to be updated and revised. The factor structure of the scale was last examined in 2004.

**Methods:** A convenience sample of 71,919 participant responses, collected at the 6 month data collection period, was used in the study. Data from 23,489 participants were used for the initial exploratory factor analysis of the scale. Data from a separate sample of 24,378 participants were used to confirm the factor structure. A third random sample of 24,052 participants was used to cross-validate the factor structure.

**Results:** Exploratory Factor Analysis revealed a scale with 24 items on five factors, accounting for 49.5% of the variance in scores. The five factors were labeled job satisfaction, support, role confidence, organize/prioritize care, and preceptor support. The factor loadings ranged from .452 to .947. Reliability estimates for the five factors ranged from .73 to .94. The five-factor structure was validated by confirmatory factor analysis.

**Implications:** This study confirmed the Casey-Fink Graduate Nurse Experience Survey has satisfactory construct validity and reliability to measure graduate nurse role transition. Study results will be used to inform survey revisions and refinement of items to reflect the current practice environment and based on the perspectives of today's working graduate nurses.

## FRIDAY PEER-REVIEWED POSTER SESSION

### A Mixed-Methods Examination of Parents' Lived Experiences with Anencephaly

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*Shandeigh N. Berry, PhD(c), RN, CNOR., College of Nursing, Washington State University, Spokane, WA; Gail ONeal, PhD, RN, Washington State University, Spokane, WA; Billie Marie Severtsen, PhD, RN, College of Nursing, Washington State University, Spokane, WA; Andra Davis, PhD, MN, RN, College of Nursing, Washington State University, Vancouver, WA; Lonnie Nelson, PhD, Washington State University, Spokane, WA*

**Purpose/Aims:** The purpose of this interpretive phenomenological mixed methods study is to explore the impact of the lived experience of parents with a history of a pregnancy complicated by anencephaly. The aims of the study are to: i) determine the primary lived experiential components of parents with a history of a pregnancy complicated by anencephaly; ii) characterize residual parental grief following postnatal loss; and iii) identify common experiences associated with grief intensity to determine themes corresponding with poor psychosocial outcomes, such as symptoms of depression, anxiety, and intense grief.

**Background:** Congenital anomalies are the leading cause of infant death in the United States (US). Nearly 25% of parents who experience perinatal loss develop long-term adverse physical and psychosocial outcomes resulting from intense grief, such as depression, anxiety, substance abuse, posttraumatic stress disorder, suicidal ideation, hypertension, obesity, premature death, and cancer. One in 1,000 pregnancies are affected by anencephaly, a lethal congenital anomaly, in the US annually. However, the majority of perinatal loss research has focused on miscarriage and stillbirth, resulting in a significant gap in knowledge surrounding this prevalent perinatal healthcare concern. To date, no studies have investigated the experience or long-term effect of an anencephalic pregnancy on parents in the US. Therefore, it is necessary to examine the phenomenon of having experienced a pregnancy complicated by anencephaly.

**Method:** A convergent parallel mixed methods approach guided this study. Online recruitment through [anencephaly.info](http://anencephaly.info) yielded 76 respondents, whose ages ranged from 16-62 years, and with losses occurring from three weeks to 40 years prior. The first 24 participants to contact the principal investigator, in accordance with the study protocol, were enrolled, interviewed, and completed the Perinatal Grief Intensity Scale (PGIS) and demographic questionnaire. All data were collected concurrently, then analyzed separately. Interview interpretation, which will continue over the next 6 weeks, is guided by Heideggerian interpretive phenomenology. A data matrix will be developed to synthesize the PGIS scores and demographic characteristics with common experiential themes and patterns, identifying associations between intense grief reactions and parental experiences.

**Results:** Preliminary findings from the 24 participants (male=5; female=19) indicate a stark absence of patient-centeredness in care following a diagnosis of anencephaly. Contrary to medical and societal expectations, participants embraced parenthood, experienced the pregnancy as viable, and lived with intentionality as they strove to find meaning throughout their loss experience. Misconceptions of perinatal loss invalidated parental grief, resulting in societal silence and isolation.

**Implications for Translation to Practice/Further Research/Policy:** The staggering response from parents wishing to participate in this study illuminates a desperate need to further investigate the phenomena surrounding a pregnancy complicated by anencephaly. While further recommendations will be presented upon completion of data synthesis, preliminary findings suggest a critical need to restructure perinatal care to embrace a patient-centered approach. Results from this study will provide a foundational understanding of the meaning parents apply to a pregnancy complicated by anencephaly which will be instrumental to evaluating, refining, informing and improving perinatal bereavement theory and care.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Qualitative Research with Adolescents: Is Phenomenology an Appropriate Method?

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*Ashley Roach, MS, RN, School of Nursing, Oregon Health & Science University, Portland, OR*

**Purpose:** The use of phenomenology as a method for conducting nursing research has become well-established in the last several decades. It has been used with a variety of populations from children to older adults. This method of research allows participants to share their experiences in their own words, providing rich descriptions and insights into a phenomenon. Despite the popularity of the method, a review of the literature found few phenomenological studies conducted with adolescents. The purpose of this presentation is to discuss the appropriateness of phenomenology for use in adolescent research.

**Description of Method:** Phenomenology as a philosophy has origins in the early 1900's with Husserl, Heidegger, Sartre, and Merleau-Ponty. Researchers began using phenomenology as framework for conducting research in the 1970's, with wide variation in methodology. Some researchers have emphasized an interpretive approach while others focus on describing the phenomenon. In phenomenology, the researcher seeks to understand the lived experiences of participants by using open-ended questions. Although the goal is to understand the phenomenon of interest, structured interviews are not used. Interviews are interpreted by identifying meaning units, themes, and thematic structures across interviews and are conducted until saturation is reached.

**Internal Consistency of Method:** There are several methods used to ensure rigor in phenomenological research, including having a clear definition of the phenomenon, well-defined inclusion and exclusion criteria, bracketing, prolonged engagement, peer review and debriefing, and member checking. These methods help ensure that the research represents the actual phenomenon.

**Logic Linking Method and Research Problem:** Developmental theories suggest that adolescents are less egocentric than they were in previous developmental stages and at the same time they are highly self-aware. They are able to be self-reflective about past experiences, while they are still developing their self-regulation abilities. Adolescents often make decisions based on emotion rather than logic. These aspects of adolescent development provide opportunities and challenges in conducting phenomenological research. Adolescents are able to discuss and provide insight into their experiences. However, they may not have full insight into the consequences of their behaviors and they may be self-conscious about fully disclosing all aspects related to a phenomenon. Although participants in phenomenological studies have reported therapeutic benefits from being able to share their stories, researchers should be aware of emotionally sensitive topics and have mechanisms in place to manage any risks to participants. Other challenging aspects of conducting adolescent research include recruitment and obtaining parental consent, as adolescents are often in settings such as schools and clinics without their parents.

**Conclusion:** Adolescence is a unique developmental time period and having adolescents share their experiences in their own words can provide nurses with greater insight into how to care for this population. Despite the challenges in conducting phenomenological research with the adolescent population, adolescents are developmentally able to be self-reflective about their experiences and discuss them with others. Therefore, researchers should not shy away from using this method for conducting research, but rather look for opportunities to include adolescent voices in research through phenomenology.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Value Stream Mapping Impacting Patients' Perceptions of Quality Care at an Urgent Care

**Deanna D. Jung**, DNP, APRN, AGACNP-BC, ACCNS-AG, School of Nursing, California State University, Fullerton, Fullerton, CA; **Christine Hoang**, DNP, RN, School of Nursing, Cypress College, Cypress, CA

**Aim:** This project aimed to decrease lengthy wait times in an urgent care facility; thus utilized a quantitative correlational approach to examine whether there was a relationship between the Value Stream Mapping technique in reducing wait times and improving patients' perceptions of quality care using the Urgent Care Patient Satisfaction instrument.

**Background:** Lengthy wait times continue to be a public health issue in the United States, which has led to delays in necessary medical care, threatened patient safety, increased poor health outcomes and patients experienced dissatisfaction and mistrust with the entire health care system.

**Methods:** There were 663 patients who sought care during the two-week study period VSM was implemented and 271 patients completed the survey. The project employed two models: Input-Throughput-Output to understand crowding and to develop potential solutions alleviating such problems, and Lewin's Three-Step to identify group behaviors toward change process.

**Outcomes Achieved:** Findings revealed average wait times for the entire sample was 59.22 minutes. A one-way ANOVA test using Welch correction for unequal variances was conducted to compare patient type on wait times and found significant differences,  $F(2, 280.73) = 283.88, p < .001$ . Post hoc comparisons using Tamhane's test illustrated substantial differences between injury patients and urgent care patients ( $p < .001$ ), as well as differences between employee health physicals/workers compensation patients and urgent care patients ( $p < .001$ ). Wait times for post implementation groups were statistically significantly lower for all patient types (all  $ps < .001$ ). (Figure 1)

**Conclusions:** These findings can be applied in primary care and out-patient services to develop effective strategies which align with their cultures and leadership styles to initiate and accept workflow redesigns among frontline staff and providers.

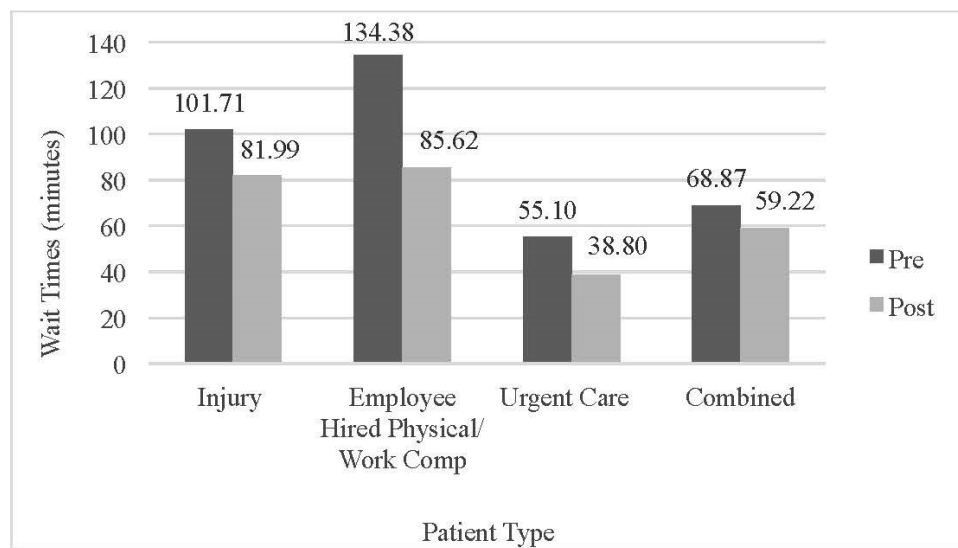


Figure 1. Average wait times for patient type at pre and post implementation



## FRIDAY PEER-REVIEWED POSTER SESSION

### Pressure Injuries and One-Year Mortality: Integrative Review

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*Eileen Jimenez, MSN, RN, ACCN-AG, CWON, University of Nebraska Medical Center, Reedley, CA; Janet Cuddigan, PhD, RN, FAAN, University of Nebraska Medical Center, Omaha, NE; Kevin Kupzyk, PhD, College of Nursing - Statistics, University of Nebraska Medical Center, Omaha, NE*

**Purpose/Aims:** Pressure injury experts have recognized that unavoidable pressure injuries can occur and may represent a type of end-of-life skin failure. Skin may begin to fail long before death is imminent. Unavoidable pressure injuries, particularly in older adults, may serve as a marker of skin failure and provide a signal to health care providers that a review of the patient's condition and goals of care may be appropriate. The purpose of this integrative review was to examine the characteristics and comorbidities of those who develop a pressure injury and did not survive beyond one-year. Integrative review methodology provided a systematic method to gain a more comprehensive understanding of the relationship between pressure injury development and the risk of one-year mortality.

**Method:** Whittemore and Knaf's methodology guided the effort. A systematic literature search of CINAHL, PubMed, and EMBASE databases identified 1,001 articles of interest published between 1967 and September 2018. Criteria for review inclusion were a sample of at least 10 adult subjects with pressure injuries, data on comorbidities and one-year mortality, multivariate statistical analysis and written in English. The exclusion criteria of neurologic dysfunction and spinal cord injury were intended to exclude those patients known to have a greater risk for pressure injuries independent of end-of-life concerns. Twenty studies met the criteria for analysis.

**Consistency of Method:** The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guided the systematic review and reporting of the database searches. A checklist for quantitative article appraisal was developed and used in the review.

**Results:** Of the 20 studies identified, nine studies explored the relationship between pressure injury wounds, patient characteristics and risk for mortality. Seven studies included patients with a specific disease or condition and included the development of a pressure injury as a variable for determining significant factors that were associated with an increased risk of mortality. The development of mortality prediction instruments was the focus of four studies in which pressure injuries were considered for inclusion; three of the studies found pressure injuries to be a statistically significant factor for one-year mortality risk. The studies employed multivariate analysis and reported one-year mortality risk in odds ratio, relative risk, or hazard ratio and had a significance probability value of .05 or less. Pressure injuries were associated with an increased risk of one-year mortality in 19 studies. In multiple studies the characteristics of age 65 and older, home care recipients, cancer, dementia, diabetes, frailty, infection, low hemoglobin, and organ disease/dysfunction of cardiac and cerebrovascular systems were found significant for one-year mortality.

**Conclusion:** The knowledge gained in the integrative review is guiding the development of a research proposal. The goal of the research is to determine if, when comparing hospitalized patients with similar characteristics and comorbidities, there is a difference in the risk for one-year mortality between those that develop an unavoidable pressure injury and those that remain injury free.

## FRIDAY PEER-REVIEWED POSTER SESSION

### Structural Equation Modeling Using Secondary Data in Nursing and Health Research

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**Megan C. Thomas Hebdon**, PhD, DNP, RN, NP-C, College of Nursing, University of Utah, Salt Lake City, UT; **Terry Badger**, PhD, RN, PMHCNS-BC, FAAN, College of Nursing, University of Arizona, Tucson, AZ; **Tracy Crane**, PhD, MS, RDN, College of Nursing, The University of Arizona, Tucson, AZ; **Pamela G. Reed**, PhD, RN, FAAN, College of Nursing, University of Arizona, Tucson, AZ

**Purpose:** The purpose of this integrative methodological review was to outline current reporting and best practices when using secondary data analysis for structural equation modeling in healthcare research, while also addressing patterns related to study purpose and design and participant characteristics.

**Background:** With the emergence of Big Data, secondary data analysis is a cost-effective, time-saving technique to address novel health care research questions. There are challenges germane to working with pre-collected data in the areas of theory driven methods, sampling, missingness, and measurement, because the researcher cannot modify prior work. Structural equation modeling adds a layer of complexity to secondary data analysis, due to the need for larger samples and the risks of confirmation bias with model testing.

**Methods:** A literature search was performed in PubMed, PsychInfo, and CINAHL for articles that used secondary data analysis for structural equation modeling in healthcare research. Following article evaluation for inclusion and exclusion criteria, 33 articles were included in the final analysis. Articles were analyzed for reporting of the following criteria: study purpose, study population, alignment with primary study, original purpose of data, primary study data collection, treatment of missingness, a priori model specification, theory driven models, a priori goodness of fit indexes, and attention to sample size.

**Results:** Studies included in the review were from large regional, national, or organizational databases (n=9), randomized controlled trials (n=10), longitudinal studies (n=6), and cross-sectional studies (n=8). The study purposes were primarily focused on physical and mental health outcomes (n=21), while smaller numbers focused on healthcare workforce outcomes (n=7) and hospital system outcomes (n=5). Most studies used adult participants (n=30), three addressed children and youth (n=2), with one study having both adult and youth participants. Secondary data analysis alignment with the primary study population (n=30), data collection procedures (n=27), and a priori model specification (n=32), and a priori goodness of fit indexes (n=23) were clearly reported in most studies. Many studies did not describe treatment of missingness (n=23) or a process for determining sample size (n=24). Rules of thumb for sample size varied: 10-15 events per predictor, assumption of 30, over 200, or five to ten cases or participants per parameter.

**Implications:** Overall, factors affecting validity were clearly reported among selected studies, although missingness and sample size determination were major areas where reporting was missing. In addition, health outcomes and adult populations were the focus of most studies, which leaves a gap for further studies addressing pediatric and young adult population, healthcare workforce issues, and health system outcomes using structural equation modeling and secondary data analysis. Secondary data analysis for nursing and health care research will continue to grow with the wealth of available data sources and structural equation modeling will have ongoing use for model testing, measuring latent variables, and examining complex relationships. Consistent reporting of methods is essential for reproducibility, determination of internal validity, and generalizability, because nursing and health care research findings contribute to health system delivery and individual health outcomes.

**Funding:** The author is supported by NIH for a T-32 postdoctoral fellowship. Grant number: T32NR013456.

## **WIN HONORS**

The Western Institute of Nursing proudly recognizes outstanding members and friends with the following awards and honors in 2020.

### **AMERICAN NURSES FOUNDATION/WESTERN INSTITUTE OF NURSING RESEARCH GRANT**

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.

**Alexi Vasbinder**, BSN, Pre-Doctoral Candidate, School of Nursing, University of Washington, Seattle, WA

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The Ann M. Voda American Indian/Alaska 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.

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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.

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The honorary designation of WIN Emeriti was established in 1984 by the Western Council on Higher Education for Nursing (WCHEN). The Western Institute of Nursing (WIN) has continued this honorary designation to recognize retired nurses or other individuals who have demonstrated distinguished service to WIN or its predecessor, WCHEN.

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