

Abstract

Principal Investigator: Kimberly Allen

Research Title: Decision-Making for Infants with Hypoxic Ischemic Encephalopathy

Purpose: Hypoxic ischemic encephalopathy (HIE) is a brain injury that occurs because of a hypoxic-asphyxia event during the prenatal, intra-partum or postnatal periods that prevents adequate blood flow to the infant.¹ HIE is one of the most serious complications of full-term infants,² occurring in up to 2.5 per 1000 live births^{3,4} with 40-60% of these infants either dying by age 2 or having severe disabilities.^{5,6} In the past, treatment options were limited to standard medical treatment.^{7,9} Now, experimental treatments exist to reduce the consequences of HIE,^{1,10,11} but the outcomes are uncertain.^{7,10-12} Parents and health care providers (HCP) must decide on treatments immediately following birth (e.g., resuscitation) and continuing throughout the infant's life (e.g., developmental therapies and g-tubes). The decisions made may impact the duration and quality of the infant's life. Thus parents and HCP need to feel that the decisions they make are in the best interests of the infant to decrease parental and HCP conflict¹⁵ and parental regret.^{16,17} Therefore, the purpose of this study is to explore the parental and HCP decision-making trajectory for infants with HIE from birth to 6 months of age.

Background/Significance: Infants with HIE have a 'normal' developmental appearance, but may be neurologically devastated from the hypoxic-ischemic event. Parents and HCP must make critical decisions for these infants in short periods of time. Parents may have difficulty accepting and understanding how their normal appearing, full-term infant could have developmental disabilities. HCP are often faced with trying to explain the prognosis of the infant and range of long-term outcomes to parents, but the neurologic damage is difficult to see in the physical appearance of the infant. The disconnect between what the parents visualize and the prognosis the HCP provides can result in conflict between parents and HCP.¹⁷ The conflict can lead to parental mistrust of HCP and parents may advocate against HCP recommendations,¹⁸ which could lead to additional infant suffering.

Methods: A longitudinal, multiple case study design will be used to prospectively examine 12 cases of decision-making for infants with HIE recruited from Duke University Hospital. Case study design was chosen to allow for the context and complexity of the decisionmaking to be explored through multiple sources of data.⁴² Data collection methods will include infant chart reviews, open-ended interviews with parents and HCP, and parent self-report instruments. Interview data will be analyzed using content analysis to explore how the decisionmaking trajectory develops overtime.⁶⁵ The self-report instruments will provide additional information about influences (e.g., stress) on the decision-making trajectory.

Nursing Relevance/Implications: Understanding the decision-making trajectory may allow for interventions to be developed to aid parents and HCP in making these difficult, uncertain decisions. Strategies may also be developed to decrease parental and HCP conflict

Abstract

Principal Investigator: Peggy Ann Berry

Research Title: Coping Strategies of Novice Nurses after Workplace Bullying

Project Summary: Over 70% of novice nurses are exposed to workplace bullying (WPB) within the first 2 years of nursing. Our preliminary findings indicate that 57.9% (n=114) of novice nurses were the target of WPB and 14.7% (n=29) observed WPB behaviors. The WPB behaviors were primarily perpetrated by their nursing colleagues (59.4%, n=117), leading to decreased work productivity (Berry, Gillespie, Gates, & Schafer, 2011). Novice nurses are at high risk for developing anxiety and traumatic stress due to WPB exposures at a time when they should be focused on acclimating to the acute care environment of hospitals and increasing their nursing competency.

The *purpose of this study* is to determine the traumatic stress symptoms and/or coping strategies associated with WPB in a cohort of novice nurses. This study is *innovative* as there is little longitudinal data on WPB in nursing and it will provide a snapshot of novice nurses who have been bullied after being in the same employment after one year while providing individual actions by other novice nurses that stopped bullying behavior. The *specific aims* for this study are **(1) Determine the relationship of nurse characteristics (e.g. PTSD, anxiety, perceived stress, age, gender, educational attainment) and continued victimization of WPB; and (2) Determine the coping strategies used by novice nurses to stop WPB.**

A mixed-method design will be utilized using primarily descriptive statistics and Poisson Regression (1st phase, quantitative data) and constant comparative analysis (2nd phase, qualitative data). Participants will complete web-based versions of the PTSD civilian survey, Stress Scale, Trait Anxiety scale, demographic questionnaire, which will capture date of licensure exam, and other workplace characteristics. A semi-structured telephone interview will be done in the second phase.

Based upon the review of literature and our prior study, it is important to understand how WPB is managed or stopped by novice nurses who choose to stay in the bullying environment. Ultimately, understanding this phenomenon will help meet the gap in the science so that an intervention can be designed with the potential to protect novice nurses against the negative consequences of WPB.

Abstract

Principal Investigator: Barbara Blake

Research Title: Aging with HIV: Development of a culturally sensitive educational intervention

Purpose: The purpose of this study is to develop an educational intervention for older adults living with HIV.

Background/Significance: Highly active antiretroviral therapy has transitioned HIV disease from a death sentence to a chronic illness. This has resulted in a growing population of older adults who are living with HIV/AIDS. The Centers for Disease Control and Prevention estimates that over 165,000 HIV positive individuals living in the United States are 50 years of age or older. Among individuals living with HIV, approximately 44% are Black and 31% are White.

With proper treatment, HIV positive individuals can expect to have a long and productive life. However, persons aging with HIV must be prepared to address the co-morbidities that often occur with age; such as diabetes, bone disease, high cholesterol, cardiovascular disease, cancer, and cognitive impairment. It is therefore important to educate adults who are aging with HIV on how to reduce the risk of developing and managing these chronic illnesses.

Understanding the influence of ethnicity and culture on health and healthcare are critical when caring for older adults. Therefore, as educational interventions or other strategies are developed for adults aging with HIV, input from these populations must occur so that gender, ethnicity, sexual orientation, and other factors that impact health and aging can be addressed.

Methods: This will be an exploratory study using qualitative research methods. Initially, six focus groups consisting of six participants will be conducted. Groups will be formed based on gender and ethnicity. The male groups will be further divided based on sexual orientation. Participants will be recruited from local agencies that provide services to people living with HIV.

The focus groups will be conducted in a confidential room located at a local community organization. Each participant will receive informed consent using a cover letter. All focus groups will be audio taped and expected to be approximately 1 to 2 hours in length. Questions will focus on aging with HIV, concerns about aging with HIV, and educational needs of older adults living with HIV. At the end of the focus group, participants will be asked to complete a demographic form and given a \$35 incentive. Participants will also be invited to participate in future focus groups to review the findings from the initial focus groups and the educational intervention that will be developed based on those findings. All focus group audiotapes will be transcribed verbatim and validated. Analysis of the transcripts will be done using thematic content analysis.

Nursing Relevance/Implications: Nurses who work with older HIV positive older adults need to become involved in developing innovative strategies to help these adults succeed in maintaining a high quality of physical, mental, sexual and emotional health.

Abstract

Principal Investigator: Mary-Michael Brown

Research Title: The feasibility of using teach-back to reinforce discharge instructions and its influence on 30-day hospital readmissions among heart failure patients: A pilot study

Purpose: To assess the feasibility of using teach-back to reinforce discharge instructions among heart failure patients and assess its influence on their 30-day readmission rate.

Background/Significance: Heart failure is one of the most devastating, costly, and pervasive diseases in the U.S. Large, available datasets of Medicare beneficiary claims reveal that approximately 25% of heart failure patients are readmitted within 30 days; 50% are readmitted within six months; and up to 65% are readmitted within one year. Early readmissions following inpatient treatment for heart failure are likely due to an avoidable complication and may reflect insufficient preparation by the discharging hospital. Teach-back, also known as repeat-back and tell-back, involves asking a patient to repeat in his/her own words, the content discussed during an interaction with a clinician. Teach-back has been recommended as a promising method to reduce readmissions but one for which further research is required. Research also is needed to test the feasibility of incorporating teach-back when providing instructions, particularly among diverse populations.

Methods: A randomized experimental design will be used for this pilot study in which participants will be assigned to either the comparison or intervention group. Sixty consecutively admitted patients will be enrolled in the study on two inpatient nursing units. To be included, participants must be receiving inpatient treatment primarily for heart failure; speak English; and be cognitively intact. Both comparison and intervention participants will be given heart failure discharge instructions by unit-based discharge teaching nurses via the heart failure instructions usual standard of care. In addition, the intervention group will be asked to teach-back the name of their diuretic, three foods to avoid, one reportable weight gain measure, and three reportable symptoms of a worsening condition. All data for both the comparison and intervention groups will be collected on a standardized form. Feasibility for the intervention group will be descriptively presented as: (a) the duration of the educational session, (b) the number of times teach-back was required per category to reach teach-to-goal, (c) the percentage of patients reaching teach-to-goal for all categories, and (d) teaching nurses' ratings of the educational session. Participants' 30-day hospital readmission rates will be measured using the hospital's admission-transfer-discharge (ADT) system and analyzed using a Wilcoxon rank sum to test the hypothesis that participants receiving instructions using teach-back will have fewer 30-day readmissions compared to patients receiving instructions per the usual care.

Nursing Relevance/Implications: While teach-back has been studied in the informed consent process and is a recommended activity during heart failure teaching, further investigation is warranted to bridge the gap about the processes (feasibility) and outcomes of teach-back in the inpatient heart failure population.

Abstract

Principal Investigator: Lori Candela

Research Title: The Work Life of Nurse Faculty

Purpose: The purpose of this study is to examine factors associated with the work life of nurse faculty in the United States and how those factors may affect their intent to become, stay, or consider leaving the faculty role.

Background/ Significance: By 2015, it is estimated that up to 1 million additional registered nurses will be needed to provide health care for people in the United States. However, nursing programs are turning away otherwise qualified students due to insufficient resources, particularly a lack of nurse faculty. The situation is expected to worsen as up to 75% of the current nurse faculty workforce may retire by 2019. Although many studies have been conducted regarding the work life of faculty, there is a lack of current knowledge in terms of nurse faculty factors associated with their work life. As resources continue to shrink and public calls for program and faculty productivity mount, there is an urgent need to better understand the work life of today's faculty.

Methods: The study will involve a nonexperimental descriptive/correlational design. *Setting/sample:* Participants who choose to participate will be asked to complete an instrument on-line via SurveyMonkey.com. The sample will include nursing faculty across the US who are currently employed in an NLNAC- and/or CCNE- accredited nursing program. *Procedures:* IRB approval will be obtained prior to the commencement of any recruitment or research activities. Next, a comprehensive list of nursing programs accredited by NLNAC and/or CCNE will be compiled using Microsoft Excel. Subsequently, an e-mail will be sent to all nursing program administrators (i.e., directors/deans) informing them of the purpose of the study and requesting that they forward the invitation to participate to all their faculty. A follow-up e-mail will be sent one month after initial contact to serve as a reminder in order to maximize participation. *Instruments/ analyses plan:* The Nurse Faculty Work-Life Survey (NFWS) will be used to obtain demographic and other information regarding the work-life of nurse faculty. Descriptive statistics will be reported for all demographic data and Pearson's product-moment correlation analyses will be conducted. Other analyses include several MANCOVAs, a discriminant function analysis, and a canonical correlation analysis. In addition, exploratory factor analyses (EFAs) and structural equation modeling (SEM) will be used.

Relevance/Implications: The results of the study will provide needed information for nurses considering a move to academia as well as those who already work as faculty. Academic administrators will be able to use the results to target and advocate for resources that may be used to develop innovative strategies aimed at both recruiting and retaining nurse faculty.

Abstract

Principal Investigator: Esther Chipps

Research Title: New Graduate Nurses' Judgments of the Classification and Risk Level of Patient Care Errors

Background/ Significance: Increased recognition of the role of the Registered Nurse (RN) in making decisions and judgments that impact the safety of the patient environment has led to a multitude of strategies to boost the preparation of the new graduate nurse. Despite these efforts, little is known about the successes of these strategies and the challenges new graduate nurses face as they integrate this new knowledge into their first year of practice.

Specific Aims: The specific aims of this study are to: (1) determine if new nursing graduates' judgments about errors (severity, level of risk, and contributing factors associated with risks) changes over their first year of work experience, (2) determine if education (Associate vs. Bachelor's degree) and job role preparation (internship/residency program, hospital setting, clinical specialty, previous hospital experience) and related demographic variables (gender, age) predict the magnitude of change in error and risk classification over the first year of work experience and (3) explore the perception of new graduates about the culture of safety in their work environment, their readiness to participate in quality improvement and safety aspects of the RN role and their perceived ability to manage risk reduction and error mitigation after one year of nursing work experience.

Methods: Aim 1 and 2: A longitudinal repeated measures design is proposed. Fifty new graduate nurses will be recruited. A questionnaire previously developed and validated by the principal investigator will be administered. This questionnaire includes four clinical vignettes that nurses will read and then: (1) rate the severity of the error (2) rate the perceived risk of the error and (3) identify potential contributing factors leading to an error. Subjects who agree to participate will receive three surveys with the same vignettes, but in a different order. These surveys will be emailed at three time points: within 1-2 months of anticipated employment, at 6-7 months of employment and then at 12-13 months. Data analysis for Aims 1 and 2 will be descriptive statistics and ordinal regression analyses. **Aim 3:** A qualitative approach with semi-structured interviews and content analysis will be used. A convenience sample of 10 RNs (5 RNs with BSNs and 5 RNs with ADs) will be recruited. Interviews will be audio taped and transcribed verbatim. Each interview will be coded. Initial themes will be identified and grouped into domains. Using an iterative process, domains will be regrouped into main themes.

Nursing Implications: Ensuring that the nursing workforce is fully prepared to engage in safety practices immediately upon entering the healthcare system is critical to providing safe patient care. This study will provide further insights on the "education-practice" gaps among new graduate nurses in the area of patient safety and quality improvement.

Abstract

Principal Investigator: Jeungok Choi

Research Title: Web-based Discharge Instructions Using Pictographs: A Pilot Study

Purpose: To pilot test the effect of Web-based, pictograph-enhanced discharge instructions on older low-literate adults' comprehension, and recall, adherence to discharge instructions, and complication frequency and readmission to hospital or emergency department at 4 weeks and 8 weeks after discharge from hospital.

Background: Discharge instruction for hip replacement surgery consists of recommended homecare actions. These healthcare actions are difficult to be followed at home with current text-based format, because written text alone is not suitable for presenting lengthy, complex discharge instructions. To address this issue, the PI has developed paper-based, pictograph-enhanced discharge instructions and validated their appropriateness, accuracy, and relevance by 5 nurse experts. The objectives of this study are to integrate these paper-based instructions into a Web-based medium and to test the effects in low-literate older adults after hip replacement surgery. Our approach, based on human cognitive preference for picture-based, rather than text-based, information, is to use pictographs (simple line drawings showing explicit discharge care actions to be taken) in addition to simplified text. Pictographs can also show a step-by-step procedure and make an entire discharge action sequence easier to learn.

Methods: A posttest repeated-measures design will be used to compare Web-based pictograph-enhanced discharge instructions to usual text-based discharge instructions. Participants will be a convenience sample of 30 low-literate older adults under postsurgical hip-replacement care. Low-literacy text and pictographs will be integrated into Web-based instructions using a Web-development application as mock-up screens and uploaded to the server of the Heywood Hospital. One or two days before discharge, participants and their family caregivers will receive web-based discharge instructions in a 60-minute teaching session. The comparison group will receive text-only discharge instructions currently offered at the Hospital. At the end, participant will receive the URL of the Web site for use at home. At 4 and 8 weeks after hospital discharge, the PI will collect data in face-to-face interviews at participants' homes. Low health literacy will be measured by the S-TOFHLA. Comprehension and recall will be measured by a series of PI-developed questions corresponding to the content of the discharge instructions. Adherence to discharge instructions will be measured using the Discharge Instruction Questionnaire and pill counting. Frequency and type of complications and unscheduled admissions or visits to the hospital and ED will be measured by participants' self-reports. Repeated measures analysis of variance models will be developed to test the intervention effect (web-based, pictograph-enhanced discharge instructions vs. text-only instructions) across time (4 weeks vs. 8 weeks post-discharge).

Nursing relevance: This study is expected to provide knowledge and skills needed to develop effective strategies that improve discharge communication for low-literate older adults. Study findings will further shed light on healthcare education approach for immigrants and refugees speaking English as a second language.

Abstract

Principal Investigator: Rose Constantino

Research Title: Comparing Online with Face-to-Face HELPP Intervention in Women Experiencing Intimate Partner Violence

Purpose: The purpose of this research is to compare the feasibility and efficacy of online versus face-to-face HELPP (Health, Education, Legal, Participant Preferred) intervention versus a wait list control group in women experiencing intimate partner violence.

Background: Intimate Partner Violence (IPV) is a pervasive social and public health problem, resulting in millions of injuries and more than 1000 deaths annually. Healthy People 2020 acknowledges the urgency of reducing injury and violence. Most IPV injuries are predictable and preventable, however interventions for IPV survivors lack compelling evidence to show whether face-to-face or online intervention is feasible and effective to enhance the survivor's physical, emotional and interpersonal well-being and reduce IPV.

Significance: A critical barrier to progress in caring for IPV survivors is the lack of evidence-based feasible and effective interventions. Face-to-Face intervention is effective if participants are able and willing to attend and complete all scheduled interventions. However, the dynamics in IPV is that survivors refrain from discussing or talking about the abuse. Therefore, we developed HELPP as either an online or face-to-face intervention. Our **central hypothesis** is that the three study groups (Online, Face-to-Face, and Waitlist Controls) differs post 6-week HELPP intervention in three domains: personal, interpersonal and community. Our **research question is:** Are there changes among the three study groups as measured by self-report questionnaires at two testing intervals? The Neighborhood Legal Services Association (NLSA) will be the source of participants.

Methods: This pilot randomized controlled trial design compares three study groups. We will recruit 38 participants for this pilot to allow for a 20% attrition rate giving us at least 30 female participants 18 years of age and older who have experienced IPV. Participants will be randomly assigned to one of three study groups after an IRB approved informed consent process and baseline testing. Each online and face-to-face participant will access the 6 HELPP modules online or by hard copy once every week for 6 weeks for 30-35 minutes at a time facilitated by a trained psychiatric nurse practitioner. The waitlist group will participate only in data collection. The following instruments will be used: 1) Sociodemographic Data Questionnaire (SDQ), 2) Patient-Reported Outcomes Measurement Information Systems (PROMIS), 3) Personal Resource Questionnaire (PRQ), 4) Safety Behavior Checklist (SBC), 5) Danger Assessment (DA) and 6) HELPP Intervention Ease of Use Questionnaire (HIEUQ). **Analysis.** One-way ANOVA and post-hoc multiple comparisons and/or nonparametric statistical procedures will be used as appropriate to compare the mean/median values of outcome variables among three groups at each time point respectively.

Nursing Implications: Our challenge in nursing innovation is to harness the power of online or face-to-face HELPP intervention in facilitating dialogue on health, education on safety and danger, legal and social support with IPV survivors.

Abstract

Principal Investigator: Pamela DeGuzman

Research Title: Effect of Walkable Neighborhoods on Health Outcomes of Low Income Women

Purpose: The purpose of this research study is to investigate the influence of walkable neighborhood features on the health outcomes of its low-income residents, and to understand how walkability may affect the difference in health outcomes between African American (AA) women and women from other racial backgrounds, using individual-level health data sampled from low-income neighborhoods in three United States cities, and objective walkability measurements.

Background/Significance: Health disparities exist in the United States and are associated with poor outcomes among racial and ethnic minorities. Geography has been identified as a potential cause of disparities, and may affect health through differences in the neighborhood environment specifically geographic features that are pedestrian-friendly. Because many (AAs) live in neighborhoods that are more than 80% black,¹ neighborhood characteristics may be a factor in health disparities. Within the AA population, low-income women are at particular risk of poor health outcomes.^{2-6 7} These negative outcomes may be influenced by the built environment.

Methods: The proposed retrospective, correlational study will use secondary data from Welfare, Children and Families: A Three Cities Study, a longitudinal study of low-income women and children from three United States cities; geographical information systems; and multi-level analysis methods to address the following research questions: To what extent does living in a neighborhood with more walkable characteristics influence the health outcomes of its residents? To what extent do these characteristics explain differences between the health outcomes of African American women and women from other racial backgrounds? To what extent do socioeconomic conditions, social integration and support, and individual stressors affect the relationship between neighborhood walkability characteristics and the health outcomes of the neighborhood's residents? To what extent these differences influence the relationship of these features between the health outcomes of African American women and women from other racial backgrounds? The conceptual framework is adapted from the *Social Determinants of Health and Environmental Health Promotion*⁸ and Nightingale's theory of nursing and health.⁹ The study sample will include female caregivers of the children who participated in the most recent wave of data collection. The dependent variables to be studied are physical health, obesity, health-related limitations and mental health. Each walkability feature will be studied as an independent variable and will be evaluated at a census block-group level. Analysis will be conducted with multi-level modeling to determine the impact of neighborhood walkability on health outcomes in a sample of low-income women.

Nursing Relevance/Implications: Results from this research will assist nurses with developing policy and interventions that will support a health-promoting built environment for vulnerable populations, particularly for low-income minority women.

Abstract

Principal Investigator: Rhonda Goodman

Research Title: Web-based Discharge Instructions Using Pictographs: A Pilot Study

Purpose: The study purpose is to examine the use of oral storytelling (OST) versus digital storytelling (DST) as a school nursing intervention to reduce the emotional health consequences of female adolescent stress. The study will: 1) compare the effect of OST with DST on stress, anger, anxiety, and depression; and 2) determine an effect size for a digital storytelling intervention. The overall goal of this study is to provide an accessible, affordable, adolescent-friendly approach that can be used by school nurses wishing to intervene to decrease adolescent stress.

Background: Adolescents are exposed to high levels of stress, which may lead to such emotional challenges as depression, anger, and anxiety. Female adolescents experience and report greater stress than their male counterparts and have a greater incidence of self-injury behavior. Therefore, the need exists to explore ways to reduce the high levels of stress experienced by adolescent females. School nurses are uniquely positioned as valuable resources for adolescents experiencing stress. Storytelling has the potential to create opportunities for reflecting on and articulating life experiences, giving “voice” to feelings, concerns and dilemmas.

Methods: Both OST and DST can be used by nurses working in the school setting. While both OST and DST may give adolescent females “voice”, the DST method has the greater potential to provide and build upon story-sharing skills, such as expressing a coherent story and creating meaning through metaphor. An experimental design is planned. Forty-eight adolescent female participants will be randomly selected from two grade-groups, 9th and 12th grade.

Within each grade-group, participants will be randomly assigned to OST or DST. The OST group will have 3, 2-hour sessions one month apart, focused on school, home and circumstantial stress. The DST group will have a comparable content and process structure with the addition of acquisition of the skills of creating a coherent story expressed through metaphor with digital technology. DST participants will use computers equipped with accessible, affordable software to create their digital stories. Self-report stress (Adolescent Stress Questionnaire), anxiety (State Scale of the State-Trait Anxiety Inventory), anger (State Scale of the State-Trait Anger Expression Inventory) and depression (Beck Depression Inventory) will be collected pre- and post-intervention. Descriptive and inferential statistics will be used to analyze the data. Full and restricted regression models will enable testing differing effects of OST and DST by grade-group, controlling for initial starting stress levels. This analysis will be repeated for anger, anxiety and depression.

Nursing Relevance/Implications: If storytelling can effectively decrease the emotional consequences of stress for adolescent females, and if approaches tested in this study can be made available for school nurses, these findings would make a significant step toward improving adolescent emotional health.

Abstract

Principal Investigator: Vallire Hooper

Research Title: An Exploration of the Incidence of Unplanned Perioperative Hypothermia (UPH) and Surgical Site Infection (SSI) in the Ambulatory Surgical Patient: A Pilot Study

Title of Project: An Exploration of the Incidence of Unplanned Perioperative Hypothermia (UPH) and Surgical Site Infection (SSI) in the Ambulatory Surgical Patient: A Pilot Study

Purpose: The purpose of the proposed study is to describe the incidence of unplanned perioperative hypothermia (UPH) and surgical site infection (SSI) in an outpatient surgical population of a large academic healthcare setting. The effect of evidence-based interventions associated with the prevention of UPH will also be explored. The resulting dataset will be used to conduct power and sample size calculations for future grant submissions and multi-site studies.

Background/Significance: Surgical site infections increase healthcare costs by 10 billion dollars annually. Unplanned perioperative hypothermia, a common occurrence in surgical patients in both inpatient and outpatient settings, has been associated with a 68% increase in the incidence of SSI. Outpatient surgeries comprise 75% of all surgeries; however, the incidence of UPH and SSI in this population is not well describes. The ASPAN Evidence-Based Clinical Practice Guideline for the Promotion of Perioperative Normothermia recommends numerous preoperative and intraoperative warming interventions as a means of maintaining normothermis throughout the surgical continuum. Preoperative and intraoperative warming have been shown to prevent UPH, thus contributing to the reduction of SSI. The incidence of UPH and SSI in the ambulatory surgical patient population, as well as the relationship of warming interventions to the development of UPH in this population, however, has not been well elucidated.

Methods: A retrospective exploratory research design using medical record abstraction is proposed. A purposive convenience sample of 700 medical records will be abstracted for demographic, anesthesia, and surgery specific data related to the development of UHP and/or SSI. Dependent variables include patient temperature and development of SSI. Descriptive statistics will include measure of central tendency and frequency measures and will be calculated for the entire same as well as by group stratification. Logistic regression analysis will be used to explore the relationship of the independent variable to development of UPH.

Nursing Relevance/Implications: The proposed study will be used an innovative, practice-based research approach to explore the incidence of UPH and SSI in a heterogeneous ambulatory surgery population. An analysis of the relationship of preoperative and intraoperative warming measures, the majority of which are independent nursing interventions, to the development of UPH will also be conducted. This field of research is a priority area in the perianesthesia/perioperative nursing specialties. Results of the study will add to the body of comparative effectiveness research regarding the prevention of UPH and SSI in the ambulatory surgical population, thus contributing to reduced healthcare costs and improved patient outcomes in this sizeable but understudied population.

Abstract

Principal Investigator: Olga Jarrin

Research Title: Evidence for a Pathway to Excellence in Home Health Care

Background/Significance: This study proposes to use a large dataset including over 5,000 home health care nurses who participated in a multistate nurse survey to explore the critical relationships between the nursing practice environment and outcomes for both nurses and patients. Because no home health care agencies have ever been recognized by either the ANCC's Magnet Program or Pathway to Excellence Program, the less complicated and less expensive Pathway Program standards were chosen as a framework to guide this research study which also addresses *The Margretta madden Styles Credentialing Research Grant* priority questions: Which [credentialing criteria] standards influence which [nurse and patient] outcomes?

Purpose: The purpose of this research is to examine the effects of the home health care nursing work environment on nurse and patient outcomes. The specific aims of the study are to: 1) Empirically validate the association between the Pathway to Excellence nursing practice environment standards and home care nurse outcomes (job satisfaction, intent to leave, burnout). (2) Explore the association between the Pathway to Excellence nursing practice environment standards and home care patient outcomes reported in the Home Health Compare database.

Methods: This is an observational, cross-sectional study design utilizing secondary data analysis to examine the home health care nurse work environment on nurse and patient outcomes. Two types of secondary data will be linked to analyze outcomes in four states (CA, FL, PA and NJ) during the year 2006:

1. A survey of the nurse work environment from 7,676 nurses who identified their practice area as community or home health on the Multi-state Nursing care & Patient Safety Study collected by the University of Pennsylvania.
2. Home Health Compare Datasets including: structural characteristics of home health care agencies, such as ownership, services provided, and zip codes of the service areas; and risk-adjusted, agency level quality measures of 10 patient outcomes.

Binary logistic regression and multivariate linear regression will be used as indicated to model the Pathway to Excellence Practice Standards that are significantly associated with home health care nursing workforce outcomes. Linear regression models will be used to assess the effects of the nursing practice environment on home health care nurse and patient outcomes.

Nursing Relevance/Implications: While nurse satisfaction and retention are important outcomes in and of themselves, the unspoken assumption is that satisfied and experienced nurses will be better able to provide the highest quality of patient care, and obtain better outcomes for their patients. This study will help to answer the question "Which Pathway to Excellence standards influence which outcomes?" in the context of home health care. This study aims to demonstrate that in home health care better nursing work environments improves outcomes for both nurses and patients.

Abstract

Principal Investigator: Mary Johansen

Research Title: Emergency Department Workforce Factors and the Quality of Patient Care

Purpose: Workforce factors and the quality of hospital care have been the subject of heated debate among policy makers, yet little attention has been focused on emergency department care. This pilot study will be the first to examine workforce factors and the quality of emergency department care. We will estimate the rates of patient mortality, length of stay, leaving against medical advice and revisits to emergency departments among adults, and determine whether the differences in outcomes are a function of the characteristics of the patients themselves, and/or of the characteristics of the emergency departments. We hypothesize that in hospital-based emergency departments with better nurse staffing and better organizational climate patients will have better outcomes.

Background: Over the past 15 years, the number of patients in the US seeking care in emergency departments has increased by more than 25%. It has been reported that in the US each day 40% of all emergency departments are faced with overcrowding. At a time when emergency department visits are escalating, a number of hospital-based emergency departments have closed. Recent figures suggest that between 1991 and 2008, over 600 emergency departments have ceased to operate due to budgetary cuts. In line with the national trend, New Jersey (NJ) emergency departments are experiencing increased volume with almost 3 million emergency department visits annually.

Methods: This is a cross-sectional study that examines workforce factors and the quality of care in hospital-based emergency departments across the state of NJ. Data on hospital characteristics and emergency department patient discharges will be obtained from the New Jersey Department of Health and Senior Services; data on Magnet accreditation, a measure of organizational culture, will be obtained from the American Nurses Credentialing Center. The sample will include all hospital-based emergency departments (n = 73) in NJ. Patients will include ~6.4 million adults 21-90 years of age admitted to a NJ emergency department between January 1, 2008 and December 31, 2009.

Data on hospital characteristics will be linked with data on Magnet accreditation, and emergency department patient discharge data. Patient data will be risk adjusted based on the Elixhauser Comorbidity Index as described by the Agency for Research and Healthcare Quality. Linear and logistic regression models will be used to address the aims of the study. To account for the clustering of patients within hospitals, all final model estimates will be computed using Huber-White procedures to adjust the standard errors.

Nursing relevance/Implications: This study of workforce factors in hospital-based emergency departments should shed new light on the impact of nursing on patient outcomes. Findings from these analyses will help determine whether additional investments in nursing could contribute to hospital-based emergency department outcomes, a topic that has received little attention in the literature.

Abstract

Principal Investigator: Cheryl Krause-Parello

Research Title: Canine Companionship during Forensic Interviews: Examining Stress Indicators in Sexually Abused Children

Purpose: The purpose of this before and after experimental study is to investigate the psychobiological interface between animal-assisted therapy (AAT) and stress indicators salivary cortisol, immunoglobulin A (IgA), blood pressure, and pulse, in child survivors of sexual abuse during forensic interviews at a Child Advocacy Center (CAC). In recent literature, AAT is supported as a therapeutic intervention to reduce stress and enhance health. With such high rates of child sexual abuse, there are a growing number of recovering abuse survivors that require interventions to promote the healing process and prevent future, negative repercussions from the trauma of abuse. Stress-related psychological issues such as traumatic stress have been linked to traumatic events, and can disrupt an individual's life and become an antecedent for substance abuse, depression, self-blame, and suicide. The long-term goal is to provide an innovative and effective intervention during forensic interviews that promotes well-being in vulnerable populations, including children, and victims of spousal and elder abuse, by reducing stress and consequently preventing impaired well-being. The proposed project describes an innovative and cost-contained initiative to support child survivors of sexual abuse. The central hypothesis is that AAT can lead to stress indicator reduction in sexually abused children, as measured by in vitro measure salivary cortisol, and in vivo measures blood pressure and pulse. This hypothesis will be tested by measuring these in vitro and in vivo measures in sexually abused children before and after forensic interviews with or without a certified therapy canine present. Salivary cortisol levels and IgA will be measured by using a commercially-available, unstimulated saliva collection device, and will then be subjected to enzyme immunoassay (EIA) analysis within 3-4 months of data collection, as per manufacture's protocols. The data will be analyzed and interpreted using repeated measures ANOVA, mixed designed ANOVA (within-subjects comparing pre and post intervention), tests, and correlations between physiological and clinical measures. Despite the high risk of traumatic stress in child survivors of sexual abuse, there have been no interdisciplinary studies to investigate the therapeutic effects of AAT on stress indicators in child survivors of sexual abuse during forensic interviews. This study is innovative in its examination of a nontraditional intervention that could be applied to multiple populations for various reasons. The project describes a new pathway to better well-being for the most vulnerable populations, with the potential to provide empirical knowledge in a controversial area with little experimental data.

Therefore, this study will make a significant contribution to the field of nursing, and has implications for health and public policy. Continuing advances in our quest for pathways by which supportive resources affect mental health are essential to designing interventions that will ultimately reduce stress indicators and promote wellbeing in this population base.

Abstract

Principal Investigator: Arlene Keeling

Research Title: Nurses' Role with Migrant Workers during the Great Depression and World War II years, 1938 – 1945

Purpose: The purpose of this study is to identify, describe, and analyze the role nurses played in caring for migrant workers and farm families during the Great Depression and World War II years, 1938-1945. The nurses' role will be analyzed within the social, political and economic context of the period and within the state of the art of nursing and medicine.

Background/Significance: Today the United States is experiencing a severe economic recession that is considered to be the worst since the Great Depression of the 1930s. It is also a country at war. Many Americans, particularly those in rural areas, lack access to health care. The recent Institute of Medicine report on the *Future of Nursing* expresses a vision for a transformed health care system in which nurses would work at the full extent of their training and as full partners with physicians to make quality care accessible to diverse populations. Evidence from the Great Depression and World War II era documents how nurse *did* work at the full extent of their training and in collaboration with physicians to provide access to care. From 1938-1945, the Farm Security Administration (FSA) increased the U.S. federal government's involvement in rural health care, initiating medical care cooperatives and a migrant health program using a decentralized approach. Public Health Nurses, technically supervised by local physicians, played a key role, staffing migrant camp clinics and carrying out much of routine care, including health education. Yet, little has been written about the nurses; role and that story should be told.

Methods/Design: Traditional historical methods with a social history framework will be used for data collection, data immersion, the development of a chronology and themes. Both primary and secondary sources will be analyzed. **Sample/Procedures** Primary sources to be investigate are the papers of the Farm Security Association (Record Groups 96 and 2234) in the Federal Records Center, Seattle, and the monthly reports of the Agricultural Workers Health Association (AWHA) housed in the Bancroft Library, UCSF-Berkeley (file 243). Papers tom the Belle Glade migrant camp in Florida are located at the Regional Archives in Atlanta, Georgia. **Analysis:** In addition to thematic analysis within the context of the period, critical analysis of social (race, class and gender) political, and economic context, as well as the state of the art of nursing, public health and medicine, will be done.

Nursing Implications: The IOM report provides an unique opportunity and a defining moment for the nursing profession to lead change in meeting the nation's health care needs. Evidence from nursing history, particularly about money promoting access to care, can inform health policy decisions today.

Abstract

Principal Investigator: Denise Kresevic

Research Title: Analyzing Patterns of Infection and Indwelling Catheter Use in BPH Patients with Urinary Retention

Purpose: Worldwide efforts are ongoing to decrease the use of indwelling urinary catheters in all care settings and populations. However, the sub-population of patients with urinary retention due to benign prostatic hyperplasia (BPH) is often catheterized for a long duration, and is not often included in recommendations to reduce catheter use. The purpose of this study is to assess post-void residual (PVR) volumes in patients with BPH and compare styles of management (e.g. indwelling catheter, BPH medication). Additionally, we will compare outcomes and complications in patients who are managed with or without an indwelling catheter, with or without BPH medication.

Background/Significance: Elevated PVR is often associated with BPH. Medical therapies for BPH have improved dramatically over the past decade, including the use of alpha adrenergic antagonists and 5alpha-reductase inhibitors which have largely replaced surgical therapy. However, these medications do not lead to immediate relief, and an indwelling urinary catheter is often placed for bladder decompression. It is clinically accepted that a catheter should be placed in patients with acute urinary retention (AUR; inability to void) and PVR >500 mL. However, catheters are often placed in patients with more modest PVRs (250–500 mL) due to concern for the risk of urinary tract infection (UTI) or renal insufficiency. Urinary retention is an accepted indication for indwelling catheter placement; however standardized guidelines for catheter placement for BPH-induced urinary retention or the removal of catheters for BPH treated with medication are lacking. Indwelling urinary catheter placement is the most frequent cause of the development of a UTI, which remains the most common hospital-acquired infection.

Methods: We are proposing a retrospective chart review on male veterans with BPH who have documented urinary retention. This study will be completed to assess the relationship between PVR in BPH and the development of a UTI (with or without catheter placement, with or without BPH medication management). Patients with documentation of PVR will be identified through a systematic data pull. Eligibility will be limited to those male veterans at the LSCDVAMC who are 65 and older with a documented PVR due to BPH.

Nursing Relevance/Implications: Nurses are usually the providers responsible for placement and care of indwelling catheters, and the providers who most often utilize the portable transabdominal ultrasound to measure PVR. An indwelling catheter is associated with significant co-morbidity and increases the risk for infection, muscle weakness, and incontinence after removal. With this study it is hoped that data can be gathered on outcomes which will contribute to nursing knowledge regarding complications of elevated PVR with and without catheter placement or medication management. It is very important for guidelines to be in place which reduce the length of catheter placement even for patients with BPH-induced retention.

Abstract

Principal Investigator: Patricia Moreland

Research Title: An Exploration of the Incidence of Unplanned Perioperative Hypothermia (UPH) and Surgical Site Infection (SSI) in the Ambulatory Surgical Patient: A Pilot Study

Purpose: The study purpose is to understand how adolescents and young adults (AYA; aged 19-29 years) with congenital heart disease (CHD) describe, appraise, and manage illness uncertainty and to examine the relationship between uncertainty and post-trauma symptoms.

Background/Significance: Adolescents and young adults with CHD are at risk for developing persistent and/or late occurring adverse medical and psychological outcomes related to their disease or its treatment. Illness uncertainty has been identified as a significant source of psychological distress in AYA with chronic illness. Those who appraise uncertainty as a threat and consider their coping abilities and social support as inadequate can develop symptoms resembling those seen in Post-Traumatic Stress Disorder.¹ Post-trauma symptoms have been found to interfere with life functions and disease management.

Methods: The study will use a mixed-methods design. The setting will be University of North Carolina Healthcare pediatric and adult cardiology clinics. The sample will include approximately 30 participants with congenital heart disease. Inclusion criteria are: (a) age 19- 29 years; (b) history of surgical treatment for congenital heart defect during the first five years of life; and (c) able to speak, read, and understand English well enough to provide written informed consent and to understand and respond to the interview questions and questionnaires. Data will be collected during one study visit lasting approximately 2 hours. Data will be collected in the following order: completion of demographic and medical history forms, semi-structured interview, and the Post-Traumatic Stress Disorder-Reaction Index (PTSDRI).² Qualitative data will be analyzed using the constant comparative method of Glaser and Strauss.³ Quantitative data will be analyzed using the Statistical Analysis System. A correlation matrix will be estimated and used to examine the relationship between demographic and clinical variables and PTSD-RI scores. Results will be integrated to examine the relationship between the qualitative themes and RI scores.

Nursing Relevance/Implications: The results could be used to sensitize nurses to the potential for uncertainty and post-trauma symptoms in adolescents and young adults with CHD. The results could also help nurses identify patients at highest risk for developing post-trauma symptoms that potentially can interfere with disease management. Understanding the adolescents and young adults' experience of CHD will enable development and testing of nursing interventions to decrease uncertainty and post-trauma symptoms and improve CHD management.

Abstract

Principal Investigator: Mary Nies

Research Title: Physical Activity Preferences for Low-Income Sedentary Urban African American Older Adults

Purpose: The **overall goal** of the PI's research is health promotion and disease prevention for vulnerable populations. The PI has a long history of research and publications with vulnerable women. This research project continues the focus on health promotion, however, with a new population for the PI, vulnerable older adults.

The **purpose of the proposed research** is to 1) determine physical activity preferences for low-income sedentary urban African American older adults; and 2) determine information needed for low-income sedentary urban African American older adults to deliver a lay intervention in the community.

Background/Significance: This study will be valuable in helping low-income sedentary urban African American older adults find ways to include physical activity in their daily life and ways to deliver a lay led intervention in an urban community.

Methods:

Design. This is a descriptive qualitative study.

Sample. Participants will be African American, age 55 or older, low-income, and sedentary.

Instruments. Demographic information will be obtained by self-report. Low-income status will be determined by total annual household income of 300% or less of the federal poverty level. The Physical Activity Recall instrument will determine sedentary behavior.

Procedure. Recruitment will be accomplished through collaboration with a Federally Qualified Health Center (FQHC) and local senior centers. Focus groups will be conducted, with 6-8 participants per group, for a possible total of 64 participants.

Analysis. The taped transcripts of the focus groups will be transcribed verbatim. The PI will use content analysis to evaluate the data. Findings will be disseminated to both the community and professional groups.

Nursing Implications: Determining preferences for physical activity and involving lay individuals to assist low-income sedentary urban African American older adults engage in physical activity has the potential to greatly improve health for this vulnerable population. The engagement of a FQHC for this project is unique and innovative aspect of the proposed research. FQHCs are located in areas of the country that are designated as Health Profession Shortage Areas or Medically Underserved Areas, and they serve populations that are low income and have high rates of Medicaid and Medicare insurance or are uninsured. Involving a FQHC enhances community involvement and success of the project.

Abstract

Principal Investigator: Patricia Poirier

Research Title: Impact of cancer treatment on desired functional status

Purpose/Specific Aims: To explore factors that impact individual's desired functional status during cancer treatment. Specific aims: (1) Further develop and test the psychometric properties of the Comprehensive Inventory of Functioning-Cancer (CIF-CA) with men and with women with a variety of cancer types. (2) Examine the relation between individual characteristics and desired functional status individuals undergoing cancer treatment.

Rationale/Significance of Study: A major focus of oncology nursing is maintaining and supporting quality of life, including functional status, individuals undergoing cancer treatment. Research has consistently shown that patients undergoing cancer treatment experience changes in functional status. Functional status has been shown to decline during both radiation therapy and chemotherapy. These studies have all measured actual functional status, that is what activities patients actually engage in or are able to engage in. Research has not shown what activities patients desire to engage in or what activities are most valuable to them. Recent focus on patient-centered care requires sensitivity to patients' preferences, values, and needs. Although there are many instruments that measure actual functional status, few measure desired functional status. Inability to perform desired activities may have a detrimental effect on individual's relationships with family and co-workers. The CIF-CA is a unique instrument that measures both actual and desired functional status. The CIF-CA has been primarily tested in women with breast cancer. Further development and testing of the CIF-CA will allow it to be used in men and women with varied cancer diagnoses. Nurses can then use the CIF-CA to measure the outcomes of interventions to support patients' desired functional status during treatment.

Conceptual Framework: Roy Adaptation Model.

Main Research Variables: Actual and desired functional status as measure by the CIF-CA.

Design: cross-sectional

Setting: cancer treatment centers in northern and eastern Maine.

Sample: 200 patients undergoing chemotherapy or radiation therapy for stage I-III solid cancers.

Methods: The CIF-CA will be used to measure actual and desired functional status. Demographic characteristics will be measure by an investigator-developed worksheet. Psychometric tests of validity and reliability including construct validity coefficients, internal consistency reliability coefficients, and content validity index will be performed on the CIF-CA. Multiple regression analyses will be used to model desired functional status as a function of individual characteristics.

Implications for practice: Findings from the proposed project will help provide a valid and reliable instrument that oncology nurses can use to identify what activities patients most wish to maintain during their cancer treatment. This will help oncology nurses in all settings to develop patient-centered evidence-based models of nursing care.

Abstract

Principal Investigator: Nancy Ryan-Wenger

Research Title: Development of a Taxonomy of Human, Environmental, Biomechanical and System factors that Contribute to Pediatric Patient Falls and Fall-related Injuries

Significance: Hospitalized patient falls, defined as any unplanned descent to the floor [or onto an object], with or without injury, are *medical errors* that have captured the attention of health care regulatory, quality, and insurance agencies. The current paradigm is to use “evidence-based” pediatric fall risk scales to target high risk children for additional fall prevention interventions. Yet, from 1 to 9 of every 83 hospitalized children continue to fall from their cribs, beds, chairs, and examination tables each year. These fall risk scales have unacceptably low inter-rater reliability levels (55.1%-80%) and high false positive and false negative predictions (14.7%-75.7%). Adverse event reports clearly indicate that most falls would not have been predictable from the demographic and clinical risk factors in pediatric fall risk scales. Our multi-disciplinary research team from nursing, biomechanics, human performance, and statistics proposes a new paradigm which asserts that most pediatric patient falls and injuries result from a *Momentary Confluence of Events* that include child, parent, and caregiver human factors, and environmental, biomechanical, and system factors. For a more comprehensive understanding and a common language for the phenomenon of pediatric patient falls, we propose two **SPECIFIC AIMS:** 1) Generate and evaluate a taxonomy of pediatric patient falls and injuries that includes human, environmental, biomechanical, system, fall, and injury factors; 2) Identify meaningful clusters of factors that describe the most common types of pediatric patient falls and injuries.

Methods: Design. We will employ a retrospective, cross-sectional, mixed methods design with data that are quantitative and qualitative in nature. **Setting.** The study will take place in a free-standing 354-bed children’s hospital in the Midwest. **Sample.** The sample will consist of approximately 400 hospitalized pediatric patients, ages birth to 21 years, for whom an adverse event report (AER) for a fall was filed. **Procedure.** AERs and medical records will be reviewed according to the Momentary Confluence Model’s six contributing factors, falls, fall-related injuries, and level of harm. Biomechanical accident reconstruction methods will combine the child’s human factors and environmental factors to create an anthropometric model of the individual, calculate the force of the fall, impact velocity, the impulse-momentum relationship, tissue tolerance, and injury severity, and to develop 3-dimensional models of the fall. **Analysis Plan.** Using qualitative data analysis software and SPSS, we will integrate deductive and inductive qualitative data and quantitative data to develop the taxonomy variables and their definitions. Then, cluster analysis will be used to identify natural patterns among sets of variables specified by the investigators.

Nursing Relevance: This will be the first study to systematically identify human, environmental, biomechanical, and system factors that occur prior to, during, and after a fall. Our results will provide preliminary evidence for developing and testing interventions to modify factors that could interrupt the momentary confluence of events.

Abstract

Principal Investigator: Nop Ratanasiripong

Research Title: What college women know, think and do about HPV and HPV vaccine

Background: Cervical cancer, while preventable, remains the world's second leading cancer-killer of women, accounting for 300,000 deaths each year. In the United States, 12,000 women are diagnosed annually with cervical cancer and 4,000 women die from this disease each year. The development of cervical cancer nearly always begins with a sexually transmitted Human Papillomavirus (HPV) infection. Approximately 20 million Americans between the ages of 15 and 49 are currently infected with HPV and another 6 million people become newly infected each year. Amount these HPV infections, 74% occur in the 15 to 24 year old age group. Healthy People 2020 called for a reduction in the rates of invasive cervical cancer and HPV infections among women. In 2006, an opportunity for prevention of HPV infection occurred when the first HPV vaccine (Gardasil®) was approved for girls and women aged 9 to 26. However, the national vaccine uptake rate among young women has been unexpectedly low. In addition, proposals to make HPV vaccination mandatory for girls have been met with controversy. Concerns include the mixed message an STI prevention vaccine sends, that is, prevention by vaccine vs. abstinence. Concerns about the vaccine's cost and side effects and misunderstanding by women about the need for continued Pap testing have been raised. Some advocacy groups have voiced concerns about whether receipt of HPV vaccine might encourage unsafe sexual practices because it might create a misunderstanding that HPV vaccine prevents all STIs. Little is known about how and if public controversies have influenced the uptake of HPV vaccine or whether HPV vaccine recipients indeed engage in more unsafe sexual behaviors/practices, compared to their non-HPV recipient counterparts.

Study Purpose: This study will use a theory-driven approach to: (1) to identify factor that influence HPV vaccine uptake among college women and (2) to examine the post-vaccine sexual behaviors/practices of college-aged women.

Methods: A cross-sectional study will be conducted with a random sampling of college women ages 18-26 attending a large, public university in southern California. The Theory of Planned Behavior will guide the study and provide a framework for understanding the factors associated with vaccine uptake and with post-vaccine sexual behaviors/practices. An electronic self-administered survey will be utilized to examine HPV related knowledge, attitudes, subjective norms, perceived behavioral control, sexual behaviors/practices, HPV vaccination intention, and HPV vaccine status. Demographic and sexual health history data will also be collected and examined.

Nursing Relevance/Implications: Findings from this study will provide a research-based foundation to inform policy and clinical practice interventions to potentially increase HPV immunization rates among young women and, in the long run, contribute to decreased risk for cervical cancer and negative HPV-related health outcomes.

Abstract

Principal Investigator: Amy Sawyer

Research Title: Tailored Intervention to Promote CPAP Adherence

Purpose: The study aims are to determine the effect size, feasibility, and acceptability of a tailored intervention on continuous positive airway pressure therapy (CPAP) adherence among newly-diagnosed obstructive sleep apnea (OSA) patients.

Background/Significance: Poor adherence to CPAP is a significant problem resulting in suboptimal health and functional outcomes. Although few in number, studies that have tested interventions to improve CPAP adherence have shown relatively small effects in selected samples and were costly. No published studies to date have applied a tailored intervention strategy to promote CPAP adherence.

Methods: Adults with newly-diagnosed OSA (n=72) will be recruited from a clinical sleep center, enrolled in a pilot randomized controlled trial (RCT), and subsequently randomized to a tailored intervention or usual care (control). The tailored intervention is based on tenets of Social Cognitive Theory, focusing on enhanced patient education, CPAP skill-building, promotion of early positive experiences with CPAP, establishing early accurate and personalized cognitive perceptions of OSA and CPAP, and proximate social support resources for treatment response feedback. The Self-Efficacy Measure in Sleep Apnea (SEMSA) will be employed as a critical indicator for tailoring the intervention delivery and content. The primary outcome, CPAP adherence, will be objectively measured as time on mask at effective pressure (hrs/night) by the CPAP device at 1wk, 1mos, and 3mos. The central hypothesis is that critically timed tailored interventions focused on sociocultural aspects and cognitive perceptions of OSA and CPAP will improve CPAP adherence. Differences in CPAP adherence will be compared between the treatment and control groups and used to calculate the effect size ($=\frac{\text{differences between groups}}{\text{standard deviation}}$) needed for a subsequent R01 application. Operational feasibility will be examined with focus groups conducted with sleep center and study team members prior to study start-up, after 25%, and 100% of participants are enrolled. Resource requirements and RCT operations will be examined by the PI, project manager, and two expert RCT consultants at study completion. Cost of training and intervention delivery, including personnel costs, time, and equipment will be collected. Acceptability of the tailored intervention and control condition by participants will be examined with individual, semi-structured interviews conducted with 50% of participants of each group randomly assigned to interviews at the terminal research visit. Content analysis of interview data will provide insight for study condition refinement.

Nursing Implications/Relevance: Adherence to CPAP is critically important to maximize health and functional outcomes in OSA patients. CPAP initiation and management among OSA patients is commonly overseen by advance practice nurses and supported by staff nurses in sleep specialty and general practice settings. Nurses play a pivotal role in promoting CPAP adherence. With potential positive findings, a subsequent multi-site full study is planned to support translation of the intervention to clinical practice.

Abstract

Principal Investigator: Casey Shillam

Research Title: Persistent Pain in Community-Dwelling Older Adults: Prevalence and Referral for Specialty Management

Purpose: The objective of this proposed study is to explore the patterns of referral for pain management programs in older adults. The specific aims of this study are to: (1) determine the referral rates of older primary care patients to pain management programs; (2) identify the characteristics that differentiate those receiving a referral from those not receiving a referral to a pain management program; and (3) compare referral patterns between middle-aged and older adults.

Background/significance: The Institute of Medicine Future of Nursing report calls for innovative new models of primary care teams comprised of advance-practice nurses, registered nurses, physicians, and other healthcare professionals to provide comprehensive chronic disease management. Persistent pain in older adults results in significant declines in physical function, increased disability, and functional dependence, resulting in disproportionate utilization of healthcare dollars. Pain management programs offer multidisciplinary treatment resulting in improved function, higher overall quality of life, decreased use of the healthcare system, and decreased rates of disability. However, only 15% to 20% of the pain-management-population is over the age of 65, due to age-related biases of both referring practitioners and older pain patients. As the fastest growing segment of our population, this group will require the chronic care that new primary care team models will be well-positioned to deliver. With nurses provided chronic pain management, they must understand the mechanisms to best support effective treatments. Pain management clinics are one mechanism that nurses can incorporate into the plan-of-care for older adults with persistent pain.

Methods: The study will use a cross-sectional descriptive design to collect data from electronic medical records. A random sample of 200 patients with persistent pain over 50 years of age will be selected from the academic health center primary care system. Data will be extracted from primary care patient records, including age, gender, race/ethnicity, number of comorbidities, the number and type of analgesic medications, type of insurance, and any pain qualifiers documented in the chart notes. The discipline of the provider, referral to a pain management program, and number of follow-up visits with the primary care provider will be collected. Descriptive statistics, Pearson-product moment correlations, and analysis of variance will be calculated to address each of the three research aims.

Nursing Relevance/Implications: This proposed study will inform directions for future research to explore specific factors that either promote or deter referral in this population and to understand variability in referral rates. While the proposed study will explore patterns of referral by primary care providers, including nurse practitioners, it will also be used to inform the future role of the registered nurse in the primary care delivery system in managing persistent pain.

Abstract

Principal Investigator: Eileen Stuart-Shor

Research Title: Global Cardiovascular Risk Assessment: Kenya Heart and Sole Program

Purpose: The purpose of this secondary analysis is to test the feasibility of integrating a non-laboratory based risk prediction tool at the point of service in community-based CVD/metabolic screenings and clinics.

Background/Significance: There is an emerging epidemic of CVD in sub-Saharan Africa which is predicted to worsen and is often attributed to westernization of lifestyle (smoking, physical activity, diet). Clustering of risk factors has been noted in developing countries, making a compelling case for calculating global risk scores to prioritize treatment. In previous work by the researchers we have observed high rates of HTN, DM, obesity and multiple risk factors in central province Kenya, but little attention has been paid to calculating global risk scores.

Methods: Data for this secondary analysis will be drawn from a dataset of a convenience sample of consecutive adults who present for CV/metabolic screening at 1 of 5 community clinics in central province Kenya in June 2011. The June 2011 clinical/research team, led by the PI, is comprised of an established, productive partnership between UMass Boston, the University of Nairobi and the Kijabe and Tumutumu Hospital Schools of nursing. Trained US/Kenyan student/faculty clinical teams will gather demographic, physiologic and self-reported measures of lifestyle behaviors from screening participants. Based on this data they will calculate the 5-year risk of developing CVD utilizing the Gaziano risk prediction tool. Following informed consent the screening data, including the global risk score, will be entered into a database. Researchers for the secondary data analysis will utilize the de-identified raw data from this June 2011 screening cohort to calculate individual participants global risk score and will compare the researcher generated score to the score obtained by clinicians at the point-of-service. Data analysis will consist of standard statistical methods for the analysis of secondary data. Descriptive statistics will be performed to describe the characteristics of the study population by gender and race. Unadjusted analysis will be performed to examine the crude association between researcher-generated and point-of service clinician generated risk prediction score using Chi²

Nursing Relevance/Implications: This study will test the feasibility of integrating a simple risk prediction chart that could be used by nurses and community health workers at the community level to prioritize treatment and improve timely referral. This has important implications for practice and policy and places nursing at the nexus of a practice improvement that could contribute to halting the unfolding NCD epidemic in Kenya.

Abstract

Principal Investigator: Laurie Theeke

Research Title: Living with Loneliness and Chronic Illness in Appalachia

Purpose: The purpose of this study is to develop enhanced understanding of the emotional meaning of loneliness for older adults living with chronic illness in Appalachia. There are two specific aims: to explore the structure of emotional meaning in stories of older people who have lived with loneliness and chronic illness, and to identify positive and negative emotive words used when describing loneliness in the context of chronic illness.

Background/Significance: Loneliness is recognized as a significant psychosocial stressor for older adults globally, eliciting a physiological stress response that has been linked to multiple chronic illnesses. The literature on loneliness has had a predominant focus on quantitative design, with an emphasis on the social aspects of loneliness or the specific link between loneliness and depression, though loneliness is thought to have unique emotional components that may impact health. As a result of the historical social focus, it has been difficult to translate what we know about loneliness into implementable interventions in the clinical setting. Additionally, preventive interventions targeting the emotional aspects of loneliness are lacking. Recent studies report that loneliness is a unique psychological construct separate from depression and that it may be amenable to interventions that are tailored to individual as they exist in their culture. Older adults in Appalachia experience loneliness and health disparities in chronic illness, making them a unique group to study. The theoretical foundations for this study are threefold: the overall study design is based on Peplau's (1997) interpersonal theory of nursing which acknowledges the need for human connection, the scientific rationale is provided by the Psychoneuroimmunological paradigm developed by McCain and colleagues (2005), and the methodology is informed by Story Theory by Liehr and Smith (2008).

Methods: This project uses a qualitative phenomenological design. The project will be conducted in Northern West Virginia and participants will be included who have a score of 40 or greater on the UCLA Loneliness Scale, are community dwelling, have a diagnosis of chronic illness, and are able to participate fully in a 2-3 hour loosely structured interview. Sampling will continue until redundancy is reached in the qualitative data. Interviews will be centered on talking points designed to gather stories of the emotional components of loneliness while staying within the framework of Story Theory. Interviews will be audio taped, transcribed verbatim and analyzed in two ways; thematically and using Pennebaker linguistic word use analysis to identify positive and negative emotive words used when describing loneliness.

Nursing Relevance/Implications: Enhanced understanding of the emotional aspects of loneliness could lead to unique cognitive behavioral interventions targeting emotional components. This type of intervention could be then be translated to the clinical setting and eventually become a reimbursable form of therapy with future research

Abstract

Principal Investigator: Wei-Chen Tung

Research Title: Evaluation of a Video-based Intervention to Promote Condom Use Among Chinese College Students

Purpose: This pilot project consists of two phases. **Phase 1** is to assess the suitability of the VOICES HIV/STI prevention video with Chinese subtitles. Feedback will be used to revise subtitles. **Phase 2** is to (a) evaluate the effectiveness of the translated VOICES (video with revised subtitles, group discussion, and condom feature education) on the TTM stages, condom use self-efficacy, perceived benefits and barriers to condom use, and HIV/AIDS knowledge among Chinese college students; and (b) explore factors (demographics, HIV/AIDS knowledge) affecting TTM stages, self-efficacy, and perceived benefits and barriers.

Background/Significance: Chinese college students are vulnerable to HIV infections and other STIs. There are no linguistically and culturally appropriate HIV/STI programs in the United States for Chinese student populations. The study intervention is based on the VOICES (Video Opportunities for Innovative Condom Education and Safer Sex), a 45-min, small group video-based program. Transtheoretical model (TTM) has shown promise in promoting adoption of consistent condom use and will be used to understand factors associated with condom use. This research will address the gap in our knowledge about the efficacy of the translated VOICES on TTM constructs (stages, self-efficacy, perceived benefits and barriers) and HIV/AIDS knowledge among Chinese college students in the U.S.

Methods: An IRB approval has been obtained. The setting will be the University of Nevada-Reno (UNR). The subjects will be Chinese students studying at the UNR. The target sample size is 20 for Phase 1 and 65 for Phase 2. One group pre-test/post-test quasi-experimental design will be employed. No personally identifiable information will be collected. The entire process will be in Chinese. The research assistant will disseminate the invitation via email to subjects to invite participation. Students can email research assistant their available dates and times to meet with PI for this study. Phase 1 participants will watch a 20-minute video and provide comments on Chinese subtitles. Phase 2 participants (4-8/per group) will watch a 20-minute video with revised subtitles followed by one 25-minute small group discussion and condom feature education. Structured self-report questionnaires for Phase 2 including Demographics, Sexual History and Condom Use, Self-Efficacy, Decisional Balance, and AIDS Questionnaire will be used to collect data prior to and immediately after intervention. Data will be analyzed descriptively and with McNemar's test, paired t-test, multiple linear regression, and logistic regression. Each participant will receive a \$10 UNR bookstore gift card at the session.

Nursing Implications: Nurses play an important role in implementing culturally competent care to diverse populations. Examining the efficacy of the translated VOICES program on TTM constructs and HIV/AIDS knowledge has important implications for nurses to plan cost-effective, evidence- and theory-based, and culturally sensitive HIV/STI programs that are tailored to the specific characteristics and needs of Chinese student

Abstract

Principal Investigator: Carole White

Research Title: Toward a Better Understanding of Readmissions for Elderly Stroke Survivors

Background: Older adult stroke survivors are particularly vulnerable to readmission with at least 40% being readmitted in the first year after stroke. We do not have a clear picture regarding the determinants of readmission and particularly those modifiable factors which could alter this trajectory. Further research is needed to more comprehensively understand the experiences and needs of this group following discharge from hospital. The purpose of this study is to identify patient/caregiver and health care system factors that are associated with readmission for older adult stroke survivors in the initial 6 months following a stroke.

Methods: A mixed methods design will be utilized. Our target population is older stroke survivors and their family caregivers living in South Texas. Using electronic medical records (EMR) from two hospital systems, we will assemble a cohort of 227 stroke survivors over the age of 65 years admitted with acute stroke and discharged alive and follow them through their EMR to estimate the risk of readmission in the 6 months following discharge and to identify factors associated with readmission. Socio-demographic and physiological variables as well as information related to health care delivery on discharge from the hospital and support for self-management will be abstracted from the EMR. For readmitted participants, detailed information including cause and contributing factors will be abstracted. From this cohort, older adult stroke survivors who are readmitted during the 6-month follow-up period (n=40) and their caregivers (n=25) will be recruited to provide qualitative descriptions of their transition to home after a stroke including the availability and utilization of health care services, their ability to self-manage, and the events leading to their readmission. Interviews will be conducted in-person prior to discharge and then 2-3 weeks later by telephone. The time to readmission will be examined overall and by ethnicity (Hispanic versus non-Hispanic) using Kaplan-Meier estimates. Multivariate logistic regression models will be fitted to examine the relationship between the patient and system-level characteristics and readmission within 6 months of index stroke. Content analysis will be used to identify themes from the interviews.

Nursing Relevance/Implications: While nurses play an increasingly important role in the care of chronic illness and improving long-term outcomes, including the prevention of readmissions, relatively few studies have addressed post-discharge care strategies for stroke, particularly older stroke survivors. The qualitative data generated from this study will complement the quantitative data and generate a more comprehensive understanding of the determinants of readmissions. A better appreciation of the factors associated with readmission, including the perspectives of both the stroke survivor and family caregiver, will help in the design of more patient-centered solutions to address the gaps in care for our target population of older adult stroke survivors in South Texas.