Abstract

Principal Investigator: Cynthia A. Danford

Research Title: Developing an Eating and Activity Behaviors Data Collection Instrument for Preschool Children

Purpose: My family-centered research has utilized an event history calendar (EHC) with parent-older child dyads to explore eating and activity behaviors in the family. Using reflection and autobiographical memory, the EHC is a useful tool for understanding factors influencing lifestyle choices in the context of the family. To obtain a comprehensive perspective from families with young children, the next vital step is developing a complimentary instrument for preschool children. Thus, the purpose of this study is to develop a pictorial instrument for preschool children to capture the child's perspective on lifestyle activities in the family related to eating and activity behaviors such as mealtime, playtime, screen time, and bedtime (sleep). Data from the preschool child will increase parent awareness of their child's knowledge and help describe patterns and links between behaviors and life activities, so that family-centered interventions to develop healthy lifestyle habits can be tailored.

Background/Significance: Children as young as preschool are presenting with biomarkers of heart disease, the leading cause of death in U.S. adults. Elevated cholesterol, hypertension, metabolic syndrome, bone and joint problems, and obstructive sleep apnea that present in childhood perpetuate into associated adult health problems and decrease life expectancy by 17-27 years. Prevention of complications from overweight must begin during the impressionable preschool years when children are actively learning lifestyle skills. Since children are dependent on their parents to provide and model healthy lifestyle behavior, methods to capture a comprehensive family perspective on eating and activity behaviors, including the preschool child is a critical need.

Method: The sample will include parent (primary caregiver)-preschool child (3-5 years) dyads, both from the same household. First, a preschool age-appropriate pictorial instrument with a manualized protocol will be developed. Second, using a qualitative approach, the preschool child will complete the new instrument and the parent will complete a related EHC, in audiotaped sessions. Constant comparative method will be used to analyze the preschool age-appropriate pictorial instrument with dialog and the parent EHC and interview. Reliability will be established by analyzing concordance with the preschool child and parent. Refining and retesting will follow.

Nursing Relevance/Implications: Development of a preschool pictorial instrument will bridge a gap in assessing family behaviors related to eating and activity by including the preschool child's perspective. This instrument will augment parent-reported assessment by acknowledging the contribution of the preschool child and their influence on family functioning as well as highlighting the awareness and understanding of preschool children. The results will enhance detection of behavior patterns influencing eating and activity so that realistic family-centered interventions on healthy habits can be tailored. The instrument has potential to help nurses, nurse practitioners, and other primary care providers gather comprehensive data on eating and activity behavior in a clinic setting

Abstract

Principal Investigator: Kamila A. Alexander, PhD, MPH, RN

Research Title: Sexual Safety and Sexual Security: Explorations of Relationship Dynamics among Black Emerging Adult Men

HIV/AIDS and sexually transmitted infections (STIs) among Black emerging adults, ages 18 to 25, in the United States have reached alarming rates. While scientists work to identify sexual risks in these communities, most research focuses exclusively on individual women's or men who have sex with men's behavioral decisions and subsequent biological outcomes. High mortalities and morbidities drive these investigations but scientists tend to overlook vital emotional dimensions of relationship dynamics that inform sexual decision-making. As a result, our current approach to understanding individual sexual health is imbalanced – privileging cognition and autonomy rather than a comprehensive relational perspective that includes both biological and emotional domains.

Prior research findings among young Black women demonstrate that scientists narrowly define strategies for protection relating to sexual activity. The concepts, *sexual safety* and *sexual security* are distinct and interactive; describing ways women maintain their emotional and physical protection. Young women initiated sexual safety behaviors such as negotiating condoms to prevent biological morbidities. However, they also set rules to protect themselves from emotional harm. Feelings of sexual security often informed or were informed by sexual safety behaviors. Women developed patterns of sexual security as resilient responses to diverse relationship experiences. Sexual safety and sexual security are cultivated within the context of relationship dynamics but are underexplored in the sexual health literature.

In this investigation, I propose to fill two sexual health research gaps. First, few scientists develop sexual health promotion models that attend to biological and emotional domains of relationship dynamics. Second, a sparse amount of literature exists that examines these dynamics from the perspectives of Black emerging adult heterosexual men (BEAHM). The overall purpose of this research is to explore relationship dynamics as experienced by BEAHM while managing their sexual safety and sexual security. Participants will be Black heterosexual men ages 18 to 25 in Baltimore, MD. I will use critical narrative analysis methodology to analyze: 1) meanings of sexual safety and sexual security among BEAHM and 2) ways BEAHM perceive and manage sexual safety and sexual security in recent and current sexual relationships. I will conduct 30 to 90 minute digitally-recorded interviews to elicit descriptions of men's relationship experiences. I will simultaneously collect and analyze data for conceptual, thematic, and structural meanings using constant comparative technique. Analytic memos and field notes will contextualize the data and ensure reflexivity throughout the research process.

This research study is innovative and highly relevant to American Nurses Foundation's research priorities and can broaden the discourse around HIV and STI prevention in nursing practice. Findings may improve nurses' contributions to decreasing health disparities by illuminating strategies for assessment of self-care among BEAHM as well as factors related to the dynamics of sexual health maintenance in this understudied population.

Abstract

Principal Investigator: Andrea L. Gilmore-Bykovskyi, PhD(c), MS, RN

Research Title: Development of a Computerized-Analytic Framework for Examining Mealtime Social Interactions and Behavioral Symptoms among Nursing Home residents with Neurodegenerative Dimentia

Purpose: The purpose of this study is to develop and test a computerized-analytic framework for examining mealtime social interaction and behavioral symptoms among nursing home (NH) residents with neurodegenerative dementia.

Background/Significance: NH residents with neurodegenerative dementia experience profound social isolation, contributing to frequent behavioral symptoms such as physical and verbal aggression. These symptoms disrupt care and safety and cause enormous patient suffering. Behavioral symptoms also pose a major challenge during mealtimes, compromising residents' nutritional status which is central to maintaining function, quality of life, and the dignity of persons with dementia. Research suggests that the quality of interactions during meals can influence nutritional status, but little is known about what types of interactions most effectively reduce mealtime difficulties such as behavioral symptoms. Person-focused interactions have been found to be effective at reducing behavioral symptoms during other care processes, such as bathing. While a growing number of studies are exploring social interaction in NH residents, none have examined the relationship between nutritional status, person-focused mealtime interactions and behavioral symptoms. Progress in this area is hindered by the lack of an analytic framework for documenting the dynamic, time-sensitive nature of these relationships.

Methods: (*Study Design*) This observational study will use video-recorded data of provider-resident mealtime interactions. Valid/reliable observational measures will be adapted for use with Noldus video-analysis software for coding the person-focused qualities of social interactions and the frequency/intensity of behavioral symptoms. Nutritional status, demographics, disease stage and comorbidities will be abstracted from medical records. (*Sample/Setting*) Participants will include residents diagnosed with neurodegenerative dementia (target N=20) who require mealtime assistance and care providers from memory units in two NHs. (*Procedures*) Each resident participant will be recorded for 3 meals. Following observations, data will be cleaned, formatted and coded using computerized measures. Development and testing of a computerized-analytic framework using Noldus will be guided by event-sequence analysis. (*Instruments*) We will measure person-focused interactions with the Person-Centered Behavior Inventory and Global Behavioral Scale. Behavioral symptoms will be measured using the Pittsburgh Agitation Scale.

Analysis Plan: (1) Compute the frequency/duration and type of person-focused social interaction and the frequency/duration and intensity of behavioral symptoms overall and according to disease stage, nutritional status and type of behavior. (2) Evaluate feasibility of the computerized analytic framework by assessing ease of use, technology stability, and ability of the analytic framework to identify patterns of social interaction that precede/co-occur with behavioral symptoms.

Nursing Relevance/Implications: The proposed research is directly responsive to the American Nurses Association's research priorities, which highlight a need to identify factors/care processes that contribute to improved outcomes. This research will provide the critically needed methodological foundation to examine the impact of mealtime interactions on behavioral symptoms and nutritional health in NH residents with neurodegenerative dementia.

Abstract

Principal Investigator: Muna H. Hammash, PhD, RN

Research Title: Precipitants of Acute Exacerbation of Congestive Heart Failure

Background: Symptom exacerbation is common in patients with heart failure (HF) and is associated with high hospital admission rates, mortality, and economic burden. The majority of previous studies focused on examining a limited number of variables as correlates of hospital readmissions, using chart review or retrospective analysis of medical databases, and were not guided by a theoretical framework.

Purpose: To explore the precipitants of exacerbation of HF using the Multi-dimensional Model of Precipitants of Exacerbation of HF (MMPHF). Specific aim: To determine the predictive power of the model for rehospitalizations for exacerbations of HF at 1 and 3months after discharge.

Methods: One hundred adult patients admitted for exacerbation of HF will be included in this longitudinal predictive study. Patients with HF secondary to valvular disease, recent myocardial infarction, recent or undergoing heart transplant, stroke, dementia, and coexisting terminal illness will be excluded. Using patient interview and medical record review, data on factors derived from the MMPHF will be collected to determine whether they predict HF exacerbation. Patients will be followed at 1 and 3 months after discharge; data will be collected on dates and reasons for rehospitalization for acute exacerbation of HF.

Implications: This study will provide important information about the precipitants of exacerbation of HF. The findings will be used to identify patients at risk for acute exacerbation of HF so that interventions can be developed to decrease exacerbations and reduce readmissions.

Abstract

Principal Investigator: Miriam I. Kayle, RN, MSN, CCNS

Research Title: Adaptive challenges for Adolescents with Sickle Cell Disease and their Parents

Purpose The purpose of this study is to explore and describe the adaptive challenges faced by adolescents with Sickle Cell Disease (SCD) and their parents, and the adaptive work they engage in to self-manage the disease. An understanding of these challenges will allow for the design of interventions aimed at supporting self-management of symptoms and disease complications for adolescents with SCD.

Background/significance SCD is an inherited blood disorder that predominantly affects African Americans in the United States. Adolescence is a critical period for patients with SCD. Adolescents are at increased risk of mortality and poor health outcomes, including recurrent hospitalizations and increased risk of complications. A significant challenge for adolescents with SCD and nurses is the unpredictability and complex nature of these symptoms which vary widely between individuals and for the same individual across the disease trajectory. Adolescents in particular are susceptible to unpredictable complications as they undergo dramatic physical, emotional, and cognitive changes in the midst of the disease course. This unpredictability results in frequent and challenging encounters for the adolescent with the health care system. The focus of care for adolescents with SCD needs to be directed at improving their adaptive capacities to self-manage the disease. The Adaptive Leadership framework constitutes a novel model of care that emphasizes the ability of individuals to adapt both physically and psychologically to their disease. It is a dynamic model that implicates the trajectory of symptoms over time. It aims at maximizing adaptive capacities of adolescents with SCD and builds on a collaborative relationship between the adolescent and the nurse to monitor symptoms and plan adaptive work.

Methods A qualitative descriptive focus group design will be used to study adolescent and parent adaptive challenges to living with SCD. Separate adolescent (n=2) and parent/caregiver (2) focus groups with 6-8 participants each will be recruited from the Pediatric Sickle Cell Center at Duke Children's Hospital (Durham, NC). Participants will be recruited through provider or self-referral. Inclusion criteria for the adolescent groups are a diagnosis of SCD (HgbSS genotype), age 11-18 years old, English speaking, and ability to provide consent/assent. Inclusion criteria for the parent will be having an adolescent with SCD, English speaking, and ability to provide consent. Data analysis will include an inductive coding technique to identify codes and themes.

Nursing relevance/Implication This study will identify the adaptive challenges and the adaptive work of adolescents with SCD and their parents as they attempt to self-manage the disease. The findings will provide a framework for the classification of challenges faced by adolescents and their parents and will be useful to inform nursing interventions as nurses work collaboratively with adolescents and their parents to foster an adaptive approach to care management and delivery.

Abstract

Principal Investigator: Deborah J. Kenny, PhD, RN, FAAN

Research Title: Lived Experiences of Female Veterans after Iraq and Afghanistan who are Homeless or Near Homeless: A Phenomenological Study

Purpose: The goals of this pilot study are to: 1) Describe female homeless veterans perceptions of homelessness, and 2) Identify their needs to attain and maintain self-sufficiency.

Background/Significance: The percentage of women serving in the military has risen from around 5% to almost 16%. This is expected to increase even further as women are allowed into combat roles in the military. Women are experiencing war in an unprecedented way and are more likely than male service members to suffer PTSD and other mental health disorders. Concurrently, the population of female homeless veterans is rising nationwide and female veterans are three to four times more likely to be homeless than their civilian counterparts. While some quantitative studies have included women in examining homelessness, most studies have used primarily the male population. Little is being done to qualitatively describe how these women became homeless or to determine, from them, what they need to regain independence.

Methods: This proposed study is the second arm of a pilot qualitative study currently being conducted. Five women with an average age of 50 in homeless shelters in Colorado have already been interviewed. Because we believe that women of different ages have different needs, we propose to interview 10-15 more women and will purposively select those younger women from the current wars in Iraq and Afghanistan, who are seeking shelter or care from the Veteran's Administration's homeless program in San Antonio, Texas. We propose to use a brief demographic questionnaire, then semi-structured interviews to elicit rich data form the participants. We will use phenomenological narrative analysis to assist the women interviewed to interpret the meanings of homelessness from a historical and contextual basis. The interview method used is designed to assist participants as well as the researcher to process their situation and gain a thorough understanding of what they need to escape from it.

Analysis: Qualitative data will be transcribed and analyzed concurrently with data collection, using narrative analysis coding and categorizing methods. The Atlas.ti data management software program is used to manage the data. Quantitative data will be analyzed descriptively using SPSS 21.

Nursing Relevance/Implications: This pilot study is intended to inform a larger study that has the potential to provide a generalizable foundation for supporting this growing sub-population of homeless veterans. We expect to be able to provide evidence-based individualized care and policy recommendations to prevent and treat homeless among female veterans. This study will provide the basis for further study and future interventional research in this area.

Abstract

Principal Investigator: Ann Kutney-Lee, PhD, RN

Research Title: The Magnet Transformation: A Panel Study of Outcomes in Emerging Magnet Hospitals

Purpose: The purpose of this study is to explore how the attainment of Magnet recognition affects changes in patient outcomes, including surgical mortality and failure-to-rescue, and nurse job outcomes, such as dissatisfaction, burnout, and intention to leave, over time.

Background/Significance: The existing literature suggests that outcomes of both patients and nurses are better in Magnet hospitals due to the presence of a strong nurse work environment. A significant limitation of these studies, however, is that they are primarily cross-sectional in design, which limits the degree to which one can make claims about the nature of the relationship. With the exception of a singular case study, there are no longitudinal, empirical examinations of how patient and nurse outcomes change over time in hospitals that complete the journey to Magnet accreditation.

Methods: This study will employ a retrospective, longitudinal, two-stage panel design to achieve the study purpose. Secondary data sources including nurse survey, patient discharge records, and administrative hospital data, will be linked. Each data source is available at two time points: 1999 and 2006. There are 137 Pennsylvania hospitals, including 10 hospitals that obtained Magnet recognition between the two years, and 127 non-Magnets, for which we have data from all sources at both time points. To determine if obtaining Magnet status was associated with changes in patient and nurse outcomes, we will employ the use of a two-period difference model with the fixed effect of Magnet status.

Nursing Relevance/Implications: Our findings will be of great interest to hospital administrators and nurses who work in Magnet credentialed institutions, or who are pursuing Magnet recognition, as well as the patients cared for in them. An essential piece of the Magnet application is documentation of improved outcomes over time. Although hospitals must demonstrate this empirically to Magnet appraisers, this information is often not shared in the scientific literature to build the broader evidence base of the value of the Magnet process to both patients and nurses. Our study presents one of the first opportunities to examine how emerging Magnet hospitals change with regard to patient and nurse outcomes.

Abstract

Principal Investigator: Peggy M. MacKay, RN, MN, CPN

Research Title: Quiet Room: A Study to Measure the Effectiveness of a Minimal Stimulation Environment on Infants and Young Children in the Postoperative Period

In the care of the hospitalized child and family, attention to pain management and comfort is paramount. The nurse recognizes the potential impact the environment can have on the comfort of patients. The Quiet Room Study will use an experimental design to examine the impact of a minimal stimulation environment on the comfort (as measured by the nurse and family using the established Faces Legs Activity Cry Consolability or FLACC, scale measurement) of postoperative patients ages birth to 6 years on 3 medical/surgical inpatient care areas. Both groups will monitor room noise levels. The experimental group will employ a low noise, low light environment. The control group will provide a routine environment Random assignment to control and experimental groups will be utilized.

Abstract

Principal Investigator: Sarah B. Nadimpalli, RN, MA, PhD Candidate

Research Title: Quiet Room: Relationships Between Discrimination and the Health of South Asian Americans

Purpose: The purpose of the proposed study is to (1) investigate the relationships between self-reported discrimination (SRD) and mental health among adult male and female SAAs (Indian, Pakistani, and Bangledeshi groups) and (2) investigate the relationships between SRD and physical health (self-reported physical health conditions and direct, physiologic measures [BMI, waist-to-hip ratio, and blood pressure]) of SAAs.

Background: Exposure to discrimination has well-documented negative effects on the physical and mental health of ethnic minorities. The majority of discrimination and health studies have focused on African American and Latino American populations. Asian Americans, in particular South Asian Americans (SAAs), are underrepresented in these studies.

Despite a paucity of health studies including SAAs, it has been found that this population experiences disproportionate rates of stress-related illnesses, coronary heart disease, diabetes, and depression compared to Caucasian Americans. There are currently more than 3.4 million SAAs living in the US; the following groups comprise 97% of South Asians living in the US: Asian Indians (2,662,112), Pakistanis (211,356), and Bangladeshis (69,687). Collectively, SAAs have experienced a historical legacy of discriminatory immigration policies, violent hate crimes, and chronic insults. An advanced understanding of how discrimination may contribute to poorer SAA health outcomes, which is often theoretically linked to stress, is a timely and significant endeavor in nursing science.

Design: The proposed cross-sectional, quantitative study will be facilitated by a funded parent study conducted by the NYU School of Medicine's Promotion and Prevention Center, Project RICE: Reaching Immigrants through Community Empowerment.

Setting/Sample: Project RICE will provide the applicant with a sample recruitment framework and assist in physiologic data collection efforts through several community health screenings cohosted by the United Sikhs and the New York City Taxi Workers. Inclusion criteria are: English or Punjabi speaking Indian, Pakistani, or Bangladeshi SAAs between the ages of 21-70 who live in NYC. Exclusion criteria include the following: SAAs who live outside NYC.

Procedures: Participant recruitment and data collection will take place at several community health screenings where SAAs in NYC attend. IRB approval has been granted for this study.

Instruments: Self-reported measures include The Everyday Discrimination Scale, the SF-36, and several demographic and psychosocial control variables. Direct measures of height, weight, blood pressure, and waist-to-hip ratio will be taken.

Analysis: Multivariate analysis including multiple linear regression and logistic regression will be used to evaluate the relationship between discrimination and several health outcomes while controlling for several factors.

Nursing Relevance/Implications: Nursing science can address discrimination as an important promoter of illness and provide future research, community interventions, and social policy recommendations that will ameliorate its impact on the health of SAAs.

Abstract

Principal Investigator: Soohyun Nam, PhD, APRN, ANP-BC

Research Title: Social Networks and Obesity-risk Behaviors among Black Women

Purpose: To develop an understanding of how social networks affect obesity-risk behaviors and obesity, specifically: to examine the association among social network factors, obesity and obesity-risk behaviors such as diet, physical activity and sleep among Black women, accounting for socio-demographic, clinical, psychosocial, and environmental factors.

Background/Significance: Given the high prevalence of obesity among Black women and the many challenges in improving obesity-risk behaviors in the current social environment, developing effective obesity interventions should be a top public health priority and needs to be informed by the social networks which influence the individuals' daily lifestyle. Although recent observational studies indicate obesity is found in social network clusters, no data are available regarding how social network structure and function is related to obesity-risk behaviors and obesity among this high-risk group.

Methods: A descriptive correlational, cross-sectional study will be used. Approximately 150 Black women will be recruited from the Greater New Haven Area. All participants will be asked to complete a validated study questionnaire (sociodemographic, clinical, psychosocial environmental factors, and social networks) and anthropometric measures will be collected from the participants. Descriptive statistics, univariate, bivariate analysis, and multiple linear and logistic regression will be performed. To describe the relationship among social network factors, obesity, obesity-risk behaviors, clinical, psychosocial, environmental factors, Pearson's correlation coefficient or Spearman's rank correlation coefficient will be computed. The primary outcomes are continuous (each obesity-risk behavior: physical activity, diet, sleep) and dichotomous (obesity: yes/no). Bivariate and multivariate logistic regression will be performed for the dichotomous outcome (obesity) to examine the association among outcome of interest and social network, socidemographic, clinical, psychosocial, and environmental factors. Similarly, associations among the social network characteristics, clinical, sociodemographic, psychosocial, and environmental factors, and obesity-risk behaviors (continuous outcomes) will be examined by using bivariate and multivariate linear regression model. All tests will be performed for a two-sided test at a 5% significance level.

Nursing Relevance/Implications: With the overwhelming prevalence of obesity among Black women, obesity is an increasingly important public health problem. The proposed study investigating determinants of social network factors influencing obesity-risk behaviors among Black women will provide necessary knowledge: (1) to develop effective social network interventions targeting obesity and type 2 diabetes; (2) to disseminate sustainable social network interventions to high-risk adults of diverse race/ethnicity and translate in the community; and (3) to reduce health disparities by investigating the interplay of behavioral, biological, and environmental determinants of health for high-risk populations. This project will guide nurses develop effective lifestyle interventions for obesity and provide new insights regarding patient's self-management of obesity-related chronic diseases, which will ultimately reduce the burden of obesity and obesity-related morbidity and mortality, and reduce health disparities.

Abstract

Principal Investigator: Janet L. Odom-Forren, PhD, RN, CPAN, FAAN and Deborah Reed, PhD, MSPH, RN, FAAOHN

Research Title: Postoperative Symptom Distress of Orthopedic Ambulatory Surgery Patients: A Qualitative Study

Purposes: 1) To identify symptoms that cause postoperative distress after orthopedic ambulatory surgery; 2) To identify symptom management techniques that effectively reduce the distress of orthopaedic postoperative symptoms at home after ambulatory surgery; and 3) To identify facilitators and barriers to self-management of postoperative symptoms.

Background: Approximately 60% of all surgeries in the U.S. are performed in the ambulatory setting, involving over 34 million patients in 53 million procedures annually. Over 50% of ambulatory surgery patients report moderate to severe postoperative pain and up to 60% of these patients experience post discharge nausea and/or vomiting (PDNV). Other symptoms reported include sore throat, hoarseness, urinary retention, constipation, fatigue, and headache. Patients who have undergone orthopaedic procedures can experience severe nausea and pain at home after discharge. Because these and other symptoms occur at home, many are underreported by patients and caregivers and affect the quality of patient recovery. Postoperative symptom distress prevents timely resumption of activity resulting in prolonged recovery, resource use, and costly delay in resumption of work related activities.

Methods: This qualitative study will use two focus groups of ambulatory surgery patients who have experienced a shoulder or knee orthopaedic procedure and their caregivers (N = 12 each group) and two focus groups of multidisciplinary clinicians (N = 12 each group) to elicit understanding of postoperative symptoms and symptom management techniques that effectively reduce the distress of postoperative symptoms. Patients and caregivers will be recruited from the offices of the University of Kentucky Department of Orthopaedic Surgery and Sports Medicine. The purposive sample for the clinician groups will be composed of clinical nurse specialists (N = 2), staff nurses from an ambulatory surgery center (N = 3), athletic trainers or physical therapists (N = 2), an orthopaedic surgeon or fellow (N = 1), pharmacists (N = 1), clinical manager (N = 1) and anesthesia providers (N = 2). The use of four focus groups will encourage rich discussion and facilitate saturation of the data. Participants' responses to the interview questions and the group discussions will be the focus of our analysis rather than numerical summaries. Consistent with established qualitative analysis procedures, data collection, coding, and analysis will be ongoing and integrated

Nursing Relevance: The proposed study will have a substantial impact on postoperative care because it will provide information that will allow development of a tailored mHealth intervention for self-care management of postoperative symptoms at home.

Abstract

Principal Investigator: Victoria M. Pak, RN, MS, PhD

Research Title: Biological Mechanisms of Sleepiness Symptoms in Obstructive Sleep Apnea and Cardiovascular Disease

Purpose: The purpose of this pilot study is to identify likely biological mechanisms of sleepiness symptoms in Obstructive Sleep Apnea (OSA). The findings of this study will identify whether sleepiness is associated with biomarkers relating to oxidative stress and inflammation which contribute to cardiovascular disease risk.

Background/Significance: Up to 32% of U.S. adults are at risk for developing or currently have OSA. Not all patients with OSA develop excessive daytime sleepiness (EDS) at any given level of disease severity. Elderly patients with OSA and sleepiness are at increased risk of death than those without it. Daytime sleepiness associated with OSA has been found to be the only sleep disturbance symptom associated with total and cardiovascular mortality in adults, although the mechanism is unidentified.

Methods: A pilot case-control study will be conducted to investigate the relevant biological markers as they relate to sleepiness. We will recruit 20 sleepy and 20 non-sleepy newly diagnosed OSA patients from the clinic population at the Penn Sleep Center to determine whether elevated biological markers are related to sleepiness symptoms. Blood and urine samples will be obtained after an overnight sleep study. EDS symptoms will also be measured by using the self-report Epworth Sleepiness Scale (ESS) and objectively by the Psychomotor Vigilance Test (PVT).

Instruments: 1) Epworth Sleepiness Scale (subjective sleepiness measure). Assessment of average daytime sleepiness was performed using the ESS, which is a self-administered questionnaire and aims to assess the degree of sleepiness. 2) Psychomotor Vigilance Test (objective sleepiness measure). The PVT is a gold standard for the assessment of neurobehavioral impairment associated with sleep loss. This is a simple test used to classify subjects as sleepy vs. non sleepy by objective criteria.

Statistical Analysis: The primary analysis will compare sleepy OSA patients with both subjective (ESS $\geq$ 10) and objective (PVT $\geq$ 2) sleepiness to non-sleepy OSA patients with neither subjective (ESS < 10) nor objective sleepiness (PVT < 2). We will assess the association between inflammatory (TNF-α, ICAM-1) and oxidative biomarkers (NOX activity, urinary isoprostanes, total antioxidant status) and sleepy vs. non-sleepy status using an analysis of covariance (ANCOVA), adjusting for potential confounders of interest.

Nursing Relevance/Implications: Excessive daytime sleepiness can lead to substantial impairment in quality of life, cognitive and intellectual function, work, and social relationships. The observations of this pilot study will provide preliminary evidence linking biomarkers relating to oxidative stress and inflammation to symptoms of excessive daytime sleepiness in OSA. The data will have clinical implications and indicate that excessive daytime sleepiness is not a benign but a potentially important risk factor for cardiovascular disease. This has great significance for nursing and public health in order to improve treatment options, symptom management, and reduce cardiovascular risk.

Abstract

Principal Investigator: Rebecca B. Porter, PhD, RN; Sharon J. Tucker, PhD, RN, PMHCNS-BC; and Ann M. Williamson, PhD, RN, NEA-BC

Research Title: Effect of Booster Doses of Mindfulness-Based Stress Reduction on Registered Nurse Well-Being and Stress Management

Purpose: The purpose of this study is to evaluate the effects of a program of 8 weekly "booster sessions" of mindfulness-based stress reduction (MBSR) on well-being, stress, moral distress and perceptions of hospital ethical climate (PHEC) among registered nurses (RNs) who have already completed a standardized 8-week MBSR program.

Background/Significance: The work of acute care clinical staff RNs is physically, mentally, and spiritually demanding. The demands of nurses are known to cause work-related stress, including burnout and moral distress, and can be compounded by personal life stressors, leading to compromised health, job dissatisfaction or professional attrition. Efforts to address RN stress management within the work environment aimed to improve RN well-being, job satisfaction, and indirectly the quality of patient care, have included self-care strategies, such as MBSR. Mindfulness-based stress reduction, a meditative technique, has shown to improve health indicators including symptoms of burnout and professional attributes, including job satisfaction. While some research has demonstrated sustainability of these improvements for a short-term, no research has specifically addressed the sustainability of these effects in response to "booster doses" of MBSR, nor the effects of mindfulness meditation on moral distress or PHEC.

Methods: The mixed method design of this pilot study will use quasi-experimental pretest – posttest and qualitative method with a comparison group. The study sample will be recruited from acute care RNs in one university academic medical center who have completed an 8-week MBSR program. Participants will be randomized to one of 2 groups: a treatment group will commit to 8 weekly sessions of guided MBSR meditation with support from a trained MBSR therapist, and will further commit to 10-15 minutes of daily practice. The comparison group will continue in their usual practice, not attend weekly sessions, nor receive any additional support.

In addition to demographic questions, measurements of stress, mindfulness, moral distress, burnout, and perceptions of hospital ethical climate will be at baseline, the conclusion of the 8-week program, and then 3 months later. Focus groups with the participants will be held to learn the feasibility of workplace mindfulness meditation.

Nursing Relevance/Implications: This study will add new information about the effects of booster doses of MBSR on RNs ability to manage stress. Novel and important information about the effects of MBSR on experiences of moral distress and perceptions of ethical climate will provide insight into the use of MBSR as a strategy to transform moral distress and alter perceptions of the hospital ethical climate as indicators of job satisfaction and attrition. Based on the success of this pilot project, we plan to expand the next study to include a larger group of RNs.

Abstract

Principal Investigator: Jessica Rearden, MS, RN

Research Title: Examining Opportunity for Cancer Clinical Trial Participation Among Underrepresented Groups

Purpose: Racial/ethnic minorities, older adults, and the economically disadvantaged are significantly underrepresented in cancer clinical trials (CCTs). In order to take part in a CCT, a patient must have the opportunity to participate and be eligible for the study. Opportunity is defined as an offer for screening and/or enrollment in a CCT from a healthcare provider or researcher. A determinant of opportunity for participation is eligibility, which include the key attributes/characteristics a person must have in order to participate in a CCT.Specific aims include: 1) compare differences in socio-demographics (age, race/ethnicity, sex, primary spoken language, insurance status) among the following groups: Opportunity-Eligible [OE] Group, Opportunity-Ineligible [OI] Group, No opportunity-Eligible [NE] Group, and No opportunity-Ineligible [NI] Group; 2) examine the relationship between patient socio-demographics and eligibility status (eligible/ineligible); and 2a) examine the relationship between socio-demographics and specific reasons for exclusion for those variables demonstrating significant associations. A third exploratory aim will examine the independent socio-demographic predictors of opportunity among those who are eligible.

Background/Significance: Contrary to popular assumption, under-represented groups are willing to participate in CCTs. For social justice, health equity, and generalizability of findings, all cancer patients should have equal opportunity for CCT participation. The study is guided by the CCT participation theory of Ford and colleagues.

Methods: We will use a cross-sectional design to study opportunity and eligibility for CCT participation using a patient questionnaire via telephone at the time of enrollment and a retrospective electronic medical record (EMR) review. We will use a matched sample of 210 new cancer patients with cancers that have a high number of enrolling CCTs. Patients will be stratified by eligibility status (eligible/ ineligible for enrolling CCTs) based on retrospective EMR review. This will result in four groups: OE, OI, NE, NI (see Purpose). Retrospective EMR review will also reveal common reasons for exclusion. Relationships between socio-demographics and group, and socio-demographics and eligibility status, will be examined using chi square tests, ANOVA, and two sample t-tests. For significant socio-demographic variables, the relationship of socio-demographics with reasons for exclusion will be examined using chi-square tests or two sample t-tests. Fisher exact tests will be used for the bivariate assessment of associations between opportunity status and socio-demographics, followed by binary logistic regression modeling to determine whether opportunity status is predicted by socio-demographics.

Implications: This study will explicate whether groups are disproportionately excluded from CCT participation. As clinicians, healthcare providers and principal investigators, nurses are central to the development and conduct of CCTs. With the nursing knowledge gained from this work, interventions can be developed and tested to promote equitable patient recruitment and accrual in CCTs.

Abstract

Principal Investigator: Mary Anne Hales Reynolds, RN, PhD, ACNS-BC

Research Title: Palliative Care Needs of Young and Middle Age Adults (20-59) with a Potentially Life Limiting Cancer Diagnosis: A Pilot Study

In 2012, 1.6 million new cases of cancer were diagnosed and 560,000 people died from a cancer related illnesses. The diagnosis of a potentially life threatening cancer is a documented stress that encompasses biological, cognitive and socioemotional dimensions. Early introduction to palliative care is important in addressing stress and its outcomes. Cancer and palliative care are most often associated with the elderly, yet 160,000 (28%) of those deaths last year were adults between the ages of 20 and 59. Based on the Life-span Developmental Model, each defined age group will have experiences that will impact their cancer, palliative care experiences, and quality of life. However, in the cancer and palliative care literature, this age group is rarely looked at as a separate and unique population within the context of a life limiting diagnosis such as cancer.

The purpose of this descriptive exploratory pilot study is to identify and describe the palliative care needs of young and middle age adults (20-59) with a potentially life limiting cancer diagnosis. Specifically, this study will examine perceived changes relating to quality of life since diagnosis, available resources, and knowledge about palliative care.

After approval from the University's human subjects committee, 25 subjects will be recruited from two oncology practices. After informed consent is obtained, subjects will complete a demographic survey, two questionnaires relating to quality of life (CDC HRQOL-14 and PROMIS-43), and answer six survey questions about their personal perceptions of physical, psychological, social, and spiritual changes since their diagnosis, available resources and their knowledge about palliative care. The demographic and quantitative data will be analyzed using simple descriptive statistics. The qualitative data from the survey questions will be analyzed looking for similarities between subjects.

The results from this study will provide valuable information and direction for further research protocols that can be used with much larger samples. With a large sample, specific variables and their relationships can be examined. In addition, different non-cancer population with a life limiting illness can be added. Depending on the outcomes and defined needs of this and future studies, clinical guidelines might be developed and interventions planned and implemented with emphasis on the role of advanced practice palliative care nurses.

Abstract

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Research Title: A Randomized Controlled Trial to Test the Effectiveness of a Multicomponent Intervention in Improving Delirium-Related Outcomes in Acute Stroke

Purpose: The purpose of this study is to test the effectiveness of a multicomponent intervention in improving inpatient and post-discharge delirium-related clinical outcomes in patients admitted for acute stroke.

Background/Significance: Delirium is a frequent complication in hospitalized older adults, affecting more than 2.3 million and responsible for 17.5 million additional hospital days with a projected cost of $1.3 trillion by 2020. Delirium in acute stroke is associated with higher mortality, longer hospitalization, greater functional decline than stroke patients without delirium, and a predictor of dementia. Multicomponent interventions involving pharmacological management and engaging at-risk patients in therapeutic interventions are reported to have some benefit in minimizing delirium-related complications. However, there is limited evidence supporting a benefit in homogenous high-risk groups with direct assessment validation of delirium vs. chart review.

Methods: A two-group randomized controlled trial will be used to test the hypothesis that a multicomponent intervention will improve delirium-related outcomes in acute stroke patients. The study will be conducted at a quaternary teaching facility and major regional stroke referral center. A convenience sample of 332 patients will be recruited to adjust for attrition so that an adequate sample size of 141 per group can be obtained. Eligible patients include aged $\geq$ 50 years with acute stroke, English speaking, and consented within 48 hours of admission. Patients unable to be interviewed, delirium on admit, or prior enrollment will be excluded. Consented patients will be randomized to Usual Care or Delirium Care. While both groups will receive standardized Stroke Care, subjects in the Delirium Care group will receive a multicomponent delirium prevention intervention: 1) Pharmacist medication review with recommendations to the Stroke Team guided by calculation of anticholinergic burden and drug risk; and 2) therapeutic activities by trained Volunteers twice a day. Data will be collected on admit, daily and 30-days postdischarge to determine delirium incidence (primary endpoint) and secondary endpoints (length of stay, neurological deficit, functional status, care transitions, mortality). Instruments include: NIH Stroke Scale, Mini-Cog, Montreal Cognitive Assessment, Richmond Agitation Sedation Scale, Confusion Assessment Method, Modified Rankin Scale, Anticholinergic Cognitive Burden Scale, and Anticholinergic Drug Scale. Intervention effectiveness will be evaluated by logistic regression. Confounders will be identified via stepwise procedures, predictor selection using the Akaike Information Criterion statistic, and goodness-of-fit tests to evaluate the final model. Secondary analyses will be performed using chi-square, Fisher's exact, t-tests or other non-parametric tests. Kaplan-Meier analysis and log-rank tests will be used to compare the cumulative incidence of delirium.

Nursing Relevance/Implications: To the researchers' knowledge, this is the first study of its kind addressing the effectiveness of a multicomponent intervention in stroke patients. Study findings are expected to uncover information to drive early intervention and ameliorate delirium-related sequelae in this profound public health threat.

Abstract

Principal Investigator: Cyndi G. Roller, PhD, RNC, CNP, CNM

Research Title: Health Care Decision Making for Transgender Individuals

Problem: Healthcare needs of transgender individuals (TI) are many and complex. The healthcare disparity they experience results in poor and limited access to healthcare placing them at high risk for poorer health status. Despite their unique health profiles, there is little evidence that addresses how they make decisions about engaging in healthcare. This lack of evidence limits our understanding about how the health of this marginalized population is affected by their decision making about accessing care. Understanding how they engage in accessing healthcare will help us to develop more effective systems resulting in improvement of their overall health.

Purpose: Examine the process TI use to make healthcare decisions about engaging in health care.

Framework: Patient-Centered Outcomes (PCOF) framework will guide this study. The PCOF will facilitate development of knowledge to be used to promote better access to healthcare for TI by producing evidence-based information derived from research guided by transgender patients.

Design: Grounded theory will be used for this study. Twenty five transgender adults will be recruited to describe how they engage in accessing healthcare. Constant comparative analysis will be used to facilitate theory generation about the process TI use to make healthcare decisions.

Abstract

Principal Investigator: Emily Tuthill, BS, RN

Research Title: Promoting Exclusive Breastfeeding Among HIV Positive Mothers in South Africa: a theory-based approach using the Information, Motivation and Behavioral skills model of health behavior change

Purpose. Using the Information, Motivation, and Behavioral Skills (IMB) model of health behavior changes as the theoretical and conceptual framework, the proposed study aims to change prevalent non-EBF practice through a well-targeted IMB-model based intervention.

Background. In 2010 approximately 370,000 children were newly infected with HIV worldwide as a result of mother-to-child transmission (MTCT). Over 90% of these infections occurred in South Africa. HIV represented the main cause of maternal mortality in South Africa and accounts for over 50% of deaths in children under 5 years old. Exclusive breastfeeding (EBF) has been identified as a key intervention to reduce MTCT of HIV and improve infant health. Although breastfeeding by HIV+ mothers carries a risk of HIV transmission from mother-to-child, that risk decreases from 42% to 2% with the practice of EBF and appropriate antiretroviral therapy. The multiple benefits of EBF in protecting infants from MTCT of HIV and providing optimal nutrition while protecting them against diarrheal and respiratory illness compared to other feeding methods are significant. Given the overwhelming evidence illustrating these benefits, in 2010 the World Health Organization updated their infant feeding guidelines to recommend in limited-resource settings HIV+ mothers engage in EBF for the first 6 months of their infant's life. However, despite increased resources devoted to promoting EBF within prevention of MTCT of HIV programs, it remains a rare practice. In South Africa, 76% of HIV+ mothers feed their infants a combination of breast milk, cow milk and porridge by 3 months, and approximately 25% introduce water within the first 3 days of the infant's life.

Methods. The proposed project included two phases. In Phase 1 the IMB model is applied to elicit the most prominent IMB barriers inhibiting mothers living with HIV from practicing EBF using focus group discussions and interviews. Phase 2 involves using this data to inform the design of an IMB-model based intervention to enhance those IMB determinants influencing EBF behavior using motivational interviewing techniques. Our IMB intervention will be piloted in a RCT with a control (n=34) and intervention arm (n=34). Rigorous evaluation will occur to evaluate the efficacy of the intervention on EBF-relevant information, motivation, behavioral skills determinants, and EBF practices at 6 weeks follow-up.

Implications. The proposed study contributes an innovative and practical approach to help eliminate MTCT of HIV through utilizing a well-established and empirically proven model that has been successfully implemented to eliminate other types of HIV risky behavior in South Africa. A contribution that constitutes a critical step in meeting the 2011-2015 Millennium Development Goals established by the United Nations General Assembly Special Session and provides a valuable tool that nurses in South Africa can utilize with their patients.

Abstract

Principal Investigator: Laura M. Wagner, PhD, RN, GNP

Research Title: Improving Communication of Adverse Events and Errors in Nursing Home Settings

 Background and Significance: Adverse events and errors are a expected part of nursing care in nursing home settings. Nursing home residents are particularly vulnerable to adverse events and errors because of their complex physical and mental health care needs, as well as challenges common to nursing homes such as short staffing, frequent turnover, and poor safety culture. Disclosure of the adverse event or error to the resident/family is an important part of the process of adverse and error management. While numerous researchers have implemented and tested disclosure programs and identified key components necessary for a successful program, the focus of these interventions is limited to physician disclosure in acute care settings. Given that gerontological nurses take a leading role in caring for residents in nursing homes, the Purpose of this proposed research is to test an intervention aimed at training nurses working in nursing home settings about disclosure of an adverse event or error, with the following aims: 1) to examine whether gerontological nurses' knowledge regarding disclosure processes improves as a result of the training; and 2) to determine if the training affects the outcome of the actual disclosure process for both the nurse and the resident/family. Methods This study will employ an experimental (interventional) research design. Pre- and post-intervention data, as well as posttest data, will be collected at three San Francisco Bay Area nursing homes. The Adopting a Disclosure and Apology Program & Training in Nursing Homes (ADAPT) program will be refined and implemented, with the following components: support from leadership team formation, policy adoption, and staff training supported by the principal investigator. We will measure whether knowledge improves as a result of the training as well as describe and compare the quality of the disclosure experience for both nurses and families. Relevance/Implications Gerontological nurses working in nursing home settings have many opportunities to participate in the disclosure process given the high prevalence of adverse events and errors occurring in this setting. Failure to communicate effectively after an adverse event or error threatens the resident/family-nurse relationship, impairs quality of care, and may increase risk of liability. Improving the disclosure process enhances the consistency and quality of communication with residents and families, improves transparency, and elevates the culture of safety. This is the first study to measure the quality of actual disclosures provided by nurses following adverse events and errors in nursing homes.

Abstract

Principal Investigator: Jiayun Xu, PhD(c), BSN, RN

Research Title: Decision Making Prior to a Rehospitalization Among Patients with Heart Failure

Purpose: The purpose of the study is to compare (1) HF self-care, (2) decisional delays, and (3) the decision making process prior to rehospitalization in HF patients who have been rehospitalized within and beyond 30 days of an admission for HF.

Background/Significance: Rehospitalizations among HF patients are common and costly. Because hospitals and institutions are penalized for 30 day rehospitalizations, it is becoming increasingly important to determine how and why patients are being rehospitalized. Current hospitalization prediction models do not consistently or strongly predict readmission, suggesting the need to examine and explore other patient characteristics such as patient decision making. The proposed study is directly aligned with the American Nurses Association's (ANA) priorities of improving patient outcomes and assessing patient understanding of self-care – in the context of HF.

Methods: The study, guided by a modified naturalistic decision making framework, uses a convergent parallel mixed-methods design to gain an in-depth understanding of the HF patient's decision making process with a focus on the critical modifiable variables of self-care and decisional delay. All participants will be recruited through the Johns Hopkins Hospital. A total of 128 participants and 20-32 participants will be recruited for the quantitative and qualitative portions of the study, respectively. For the quantitative portion of the study, participants will be recruited via quota sampling and divided into two groups – patients rehospitalized within and beyond 30 days of an admission for HF. For the qualitative portion of the study purposive criterion sampling based on the patient's HF Self-Care Maintenance scores will be used to select participants in 4 sampling strata. All participants will complete a 20-25 minute quantitative survey on variables related to HF self-care and decisional delay, and 20-32 participants will be interviewed on their decision making process prior to rehospitalization. Analysis of covariance (ANCOVA) will be used to analyze the quantitative data. Qualitative descriptive analysis using open coding, creation of a codebook, and reflexivity will be used to analyze the qualitative data. Quantitative and qualitative findings will be merged in mutual context with data displays and matrices. The qualitative data will be examined for fit with the quantitative data to inform interpretation of both significant and non-significant quantitative findings.

Nursing Relevance/Implications:
An understanding of how HF patients make decisions can serve to inform the development of decision making interventions to improve HF self-care, decrease decisional delays, and to improve HF patient health outcomes. Additionally, understanding the patient's decision making process can help nurses better tailor HF patient discharge planning and education to help decrease rehospitalizations.

Abstract in lay language – "Why is this research important"
Decreasing rehospitalization rates is critical to reducing heart failure (HF) costs, which are projected to rapidly increase. The study will examine the decisions made before rehospitalization from a HF patient perspective in order to gain a more comprehensive understanding of: (1) how patients manage their HF and when they decide to seek medical attention, and (2) whether or not decisions prior to rehospitalization differ between patients who are rehospitalized within and beyond 30 days of their last hospital admission for HF. Findings will be used to develop HF patient decision support aides to improve patient management of HF, which may decrease unplanned rehospitalizations and health care costs.