

U21 Health Sciences - Doctoral Student Forum - Presenter Abstracts

1. Florence Weierbach, RNBC, MPH, MSN, PhDc, University of Virginia

After Hospital Discharge: Elder's Needs and Community Resources

Research Question, Purpose and Aims: The research question seeks to examine the providers of assistance to recently hospital discharged community dwelling elders with CHF who have activities of daily living (ADL)/instrumental activities of daily living (IADL) needs? The purpose is to describe the elders' perception of the provision of services by the community, including family members, for recently hospital discharged elders with CHF requiring assistance with ADL/IADL needs. The specific aims are: 1) to describe the community resources that recently discharged hospitalized rural elders with ADL/IADL needs identify as requiring during the first two weeks after discharge, and 2) to describe how recently discharged hospitalized rural elders with ADLs/IADLs needs address their needs upon return to their community home.

Significance: Elders are prone to chronic illnesses, such as CHF that limit their ADLs/IADLs. Rural elders have higher rates of institutionalization than their urban counterparts. The community's contribution to rural elders with ADL/IADL needs is not clear especially in regard to the ability for them to remain in their home.

Methods: This multi site 2 hospital study identified elders with CHF requiring assistance with ADLs/IADLs during hospitalization and one home visit after discharge. The number of participants was 20. The participants were over 64 years old, have CHF, ADL/IADL needs, a Mini Mental Status Exam (MMSE) over 21, community dwelling and lived alone or with others. A semi-structured interview guide based on the elder-friendly community model and ADLs/IADLs organized the home visit. The community context of the study is a health planning district. Qualitative analysis includes content analysis of the interview using a hermeneutic approach.

Findings: Findings include the identification of themes dealing with the elder's needs and their experiences in receiving assistance from family, friends, neighbors, health and non health care workers in the area where they live. Descriptive data includes demographic and health information on the participants.

Discussion: The discussion concludes with recommendations based on the findings. Recommendations focus on practice, considerations for hospital and community policy, and future research with rural elderly. Support for this study was provided in part by the Rural Health Care Research Center, School of Nursing, University of Virginia.

2. Aletha Rowlands, PhDc, RN, CNOR, RNFA, University of Virginia

Determining Best Predictors of Incorrect Surgical Counts in the Operating Room

Problem: The surgical team relies heavily upon the practice of the "surgical count" to eliminate retained foreign bodies. Despite vigilant surgical counting standards, guidelines, protocols, policies, and other safety measures, the incidence of incorrect counts and retained foreign bodies remains a major health issue for patients requiring surgical intervention.

Specific Aims: The central question explored in this study is what is the relationship between patient safety (quality of care) to patient outcomes in the operating room. Four basic ideas underpin this question: first, patient outcomes are in part, a result of the environment of care, second, these system (organizational/individual) characteristics affect patient outcomes; third, the use of patient safety practices will affect patient outcomes; and finally, the patient's own characteristics affect outcomes. The specific

aim is to determine what system and client characteristics best predict occurrences of incorrect surgical count.

Design: This cross-sectional, correlational study uses medical record abstraction in conjunction with primary data, which is collected from perioperative staff. Data will be collected from two types of hospitals: a large Academic Level 1 Trauma Center and a smaller community hospital.

Setting: Two hospitals were selected based on location, type of hospital, and number and types of surgical procedures performed in the operating room. Hospital A is a 584-bed academic medical center with a full-service surgery center for adults and pediatrics. Surgical specialties include bariatrics, cardiac, dentistry, general surgery, gynecology, neurosurgery (complex), ophthalmology (complex), orthopedics, otolaryngology (complex), plastics (complex), thoracic, urology, and vascular. The main operating room consists of 26 suites with 15,507 surgical procedures performed in 2006 (McGowan, 2006). Hospital B is a 176-bed non-profit community hospital. The hospital provides a variety of surgical services including bariatrics, dentistry, general surgery, gynecology, neurosurgery (limited), ophthalmology (limited), orthopedics, otolaryngology (limited), pediatrics (limited), plastics (limited), thoracic, urology, and vascular. The main operating room consists of 7 surgical suites with 6,446 surgical procedures performed in 2006 (Uricola, 2006).

Sample: Two distinct samples are required to determine best predictors: patients requiring surgical intervention and those perioperative registered nurses providing direct care during the surgical intervention. Beginning with patients, a medical record review will be conducted for patients requiring surgical intervention for disease, injuries, and deformities. Inclusion criteria for sample selection are: 1) patients that have undergone surgical intervention of any type at the main OR; and 2) surgical patients of all ages. Exclusion criteria are: 1) those patients seeking surgical intervention from the smaller specialty ORs within the organizations (e.g., the OB/GYN OR, or the GU OR); and 2) patients undergoing surgery at the off-site ambulatory surgery center for either clinical site. For perioperative personnel, the researcher will recruit perioperative personnel employed at the main OR in either Hospital A or Hospital B. Inclusion criteria are perioperative personnel that work in the main OR and provide direct care for patients requiring surgical intervention; 2) employed as full-time, part-time, or prn; and 3) employment status as either a hospital employee or agency personnel on assignment. The one exclusion criterion includes perioperative personnel working in the first assistant role.

Instruments: Demographic information is collected on all participants in the study. For perioperative personnel, the information includes age, gender, race, educational level, certification, employment status, and number of years with OR experience. This information will be collected on the *Staff Information Form* (SIF) and requires approximately one minute to complete. Perioperative personnel will be completing this form during the orientation of the study. For surgical patients, the information includes age, gender, race, risk classification score, how the procedure was posted, the length of the procedure, difficulty of the procedure, the number of perioperative personnel assigned to the patient, and the results of the surgical count. The researcher is collecting the data using a *Patient Information Form* (PIF), which takes approximately 15 minutes to complete.

Primary Analysis Methods: Descriptive statistics will be obtained for demographic and study variables. Logistic regression will be used to determine which variables (client and system characteristics) affect the probability of incorrect surgical counts. This is an appropriate choice because logistic regression is better suited for data when the outcome variable is dichotomous.

3. Barbara Maling, RN, MA, MSN, ACNP, University of Virginia

Southern Blacks Giving Nursing Care in Virginia during the American Civil War, 1861-1865

Purpose: The purpose of this paper is to discuss and analyze writings and experiences of Southern blacks giving nursing care in Virginia during the American Civil War. Issues of race, class, gender, the

status of medicine and nursing, and the need for African-Americans to give nursing care are considered within the context of the war.

Methods: Primary sources include but are not limited to letters, diaries, and hospital rosters from: The National Archives in Washington DC, USA; Alderman Library at the University of Virginia in Charlottesville VA, USA; and Howard-Tilton Memorial Library at Tulane University in New Orleans LA, USA. Secondary resources are also used.

Findings: Large numbers of free and enslaved blacks gave nursing care in Virginia during the American Civil War. Their care was given in military hospitals as well as in Southern homes. In most cases, the boundaries of nursing duties are not clearly defined. Many blacks did a combination of jobs including nursing. Blacks faced perils from war injuries, contagious disease, and abuse from those for whom they worked.

Discussion: Despite the fact that numerous African-Americans nursed during the war, little scholarly research exists on them. Race, class gender issues in the Antebellum South defined the involvement of blacks. Class distinguished power, education and refinement. Gender distinguished patriarch from subordinate, and race marked the difference between free and bound. Thus, the attributes of class, gender, and race not only shaped identities but also dictated life choices.

A unique intersection of events during the Civil War shaped nursing experiences for blacks. Because African Americans were an oppressed people and nursing was largely considered menial work, large numbers of blacks could give care without impunity. Nonetheless, they became a large and significant part of the Confederate medical response.

4. Josephine Yau, PhD Student, Department of Nursing Studies, University of Hong Kong

A Randomized Controlled Trial of a Family Intervention to Reduce Secondhand smoke (SHS) exposure in babies

Supervisors: Professor Sophia Chan, Professor TH Lam, Dr. Daniel Fong

Objective: A randomized controlled trial to evaluate the effectiveness of a proactive family smoking cessation intervention to non-smoking mothers and smoking fathers to protect the infants and mothers from SHS exposure, and to help the fathers quit.

Methods: This is a multi-centered randomized controlled trial undertaken at the Maternal and Child Healthcare centres (MCHCs) in Hong Kong. Both qualitative and quantitative methodologies were employed. Formative research including qualitative telephone interviews of mothers who participated in the pilot study were conducted to obtain information to guide the development of the intervention. A conceptual framework was developed using the transtheoretical model to help fathers to quit smoking; social-cognitive theory to empower the mother to execute household no-smoking policy and social-ecological theory to facilitate the development of a family intervention. Baseline and follow-up questionnaires for both father and mother were developed, and intervention materials such as the health educational packet were designed. A pilot study was carried out from 21/4-18/6, 2008, to test the feasibility of the study.

Results: 5 themes were identified from the in-depth interviews including Household smoking conditions; Mothers' efforts in motivating the father to quit; Implementation of household no-smoking policy by mother; Maintaining family health and harmony and the role of health care providers. We screened a total of 2,205 mothers in the pilot study, with 150 mothers meeting the inclusion criteria and consented to participation. 133 families were successfully randomized, with 66 in the intervention group and 67 in the control group. 15 families from the intervention group (15/66, 22.7%) joined the family intervention. 81% of fathers were daily smokers and they mainly smoked at washroom (35.8%), kitchen (22.3%) and

balcony (11.5%) with the ventilator on (48%). Half of them desired to quit but 45.3% were in pre-contemplation stage. About 55% of the mothers opened the windows when the fathers smoked at home and only 5.4% actually stopped them from smoking at home. 19.6% did not provide any help when their husbands tried to quit and 15.5% provided no spiritual support to the fathers during quitting process.

Conclusion: The qualitative interviews indicated that the mothers were satisfied with their husbands' smoking behavior and they thought it was acceptable to smoke at home, as long as the fathers were smoking away from the babies. Furthermore, they felt reducing smoking among the husbands is good enough as they were not sure how to support them to quit smoking completely. The pilot study confirmed the feasibility of this study to be carried out in the MCHCs. The baseline data showed that few mothers took an active role in helping the father to stop smoking, and hence an empowerment intervention was designed to facilitate the mothers to implement the household no-smoking policy at home, as well as to support the fathers to quit smoking.

5. Mary Thompson, MS, PNP-BC, PhD Student, University of Virginia

Teen Mothers' Feeding Practices as a Risk Factor for Childhood Overweight

Purpose: The purpose of this study is to explore the use of an innovative method of self-video narratives as a means of examining the feeding practices of low-income teen mothers of preschool-age children. The goal is to describe mothers' feeding practices, as they occur routinely for the child, which may allow a better understanding of the factors involved in the preschool child's feeding environment. Parental feeding practices are important to study as research has supported the theory that parental feeding practices can be a risk factor for some children who develop childhood overweight. Childhood overweight is a growing, national and global, public-health problem.

Sample: Teen mothers were targeted for this study because a) children born to teen parents are at increased risk for health problems; and b) previous research using self-video has been successful with this age group. Targeting the preschool-age group is also important because this is when adiposity rebound (AR) occurs. Early AR has been identified as a risk factor for obesity, making prevention and intervention especially important in this age group. In addition, preschool-age children are in the early stages of developing health habits and it is an ideal time for prevention. Finally, few studies concerning mothers' feeding activities with their preschool-age children have been conducted. Teen mothers from the non-Hispanic Black and Mexican American racial/ethnic groups are also targeted, as these are minority populations most affected by the increase in childhood overweight.

Research Question: What are the feeding practices of low-income mothers who were teens at the birth of their preschool child?

Methods: The data for this qualitative study will be self-made video narratives of the feeding practices of teen mothers. Self-video documentation provides an ability to study a wide variety of factors that might have an effect on the teen mothers' food choices and feeding practices. This method is based loosely on Video Intervention/Prevention Assessment (VIA) which began in 1994 at Boston Children's Hospital. VIA uses qualitative data analysis techniques derived from "visual anthropology", a method for studying human behavior using photographs and motion pictures. In this study, NVivo 8 qualitative data analysis computer software will be used as an aid to analyze transcribed text and visual data from the video narratives.

Findings and Discussion: Pending further data from the study.

6. **Eliana Nasar, PhD Student, National University of Singapore**

Assessment and Management of Birthing Needs of Singapore Women: Development of a Singapore Assessment of Birthing Needs Questionnaire

Background: Childbirth is a significant and deeply felt physiologic, cognitive, cultural, social and spiritual experience. In many parts of the world, it is considered a normal and healthy event in the life time of a woman. Many Singaporean women are now delaying starting a family to pursue academic and career achievements. Furthermore, a high rate of immigration has produced a heterogeneous, multi cultural society. With these phenomenons in mind, it is a challenge for the health professionals to deliver quality care to pregnant women with different cultural beliefs and socioeconomic status. Existing social support groups and knowledge drawn from only Singaporean born women are now inconsistent with the diverse social profile of the country.

Purpose: The purpose of this program of research is to explore the birthing experience of women residing in Singapore and develop resources to assist both health professionals and women. This presentation will focus on the cultural features of the birthing experience which have emerged from literature reviews and a qualitative pilot study of 30 women. This data will be then used to develop the "Singapore Assessment of Birthing Needs Questionnaire" which aims to assist health professionals to better determine women's needs and provide support prenatally.

Method: This presentation will outline the parameters and outcomes of the systematic review of the literature. It will also present the preliminary data from the in-depth interviews of the child-bearing women. Women were recruited from an antenatal clinic of a large tertiary maternity hospital. Interviews were conducted at a place and time convenient to the women. Average duration of each interview was around 30 minutes. Data was analysed using a thematic content analysis.

Conclusion: This presentation will focus on the cultural features of the birthing experience which have emerged from the literature and preliminary data from the qualitative study.

7. **Julie Hall, PhD Student, University of Nottingham**

Supervisor; Professor Patrick Callaghan

Title of Research; A Case Study; Using Integrated Care Pathways in mental health care.

Research Methodology; The research methodology being used is a case approach of a single integrated care pathway used in a UK mental health Trust. This methodology was selected as it offered the opportunity to consider the inputs, process and outcomes of the care pathway, through the use of multiple research methods. The methods used have been interviews with healthcare professionals, focus groups with service users and carers, documentary analysis and quantitative analysis of health episode and performance data.

Registration Date; ESRC 1+3 Part-time studentship from September

Expected Submission Date; September 2009

Progress against Research Time plan; All the agreed annual timescales have been met since this research began. In brief year one objectives were to complete the literature review, agree the methodology and methods, and gain Medical Research Ethics Approval. Year 2 objectives were to complete the interviews and focus groups and the analysis if the data. Year 3 (this years) objectives have been to complete the documentary analysis and the analysis of the Hospital Episode and performance data.

8. Munikumar Ramasamy, PhD Student, University of Nottingham

Recruiting Ethnic Minorities into palliative and end of life care studies: What does the Literature say?

Professor Jane Seymour, Dr Tony Arthur, School of Nursing, University of Nottingham

Background: There is growing recognition of the importance of eliciting perspectives on palliative and end of life care from people in minority ethnic groups, but little is known about diverse issues encountered and strategies that may be employed to enable recruitment. This paper describes the problems faced by researchers and the strategies employed to address them, as reported in the published literature.

Method: Electronic databases and hand searching of key journals were used to identify studies that involved minority ethnic groups in palliative and end of life care research. Search terms included: palliative, end of life, cancer, death and dying, ethnic minorities and recruitment. Data related to recruitment problems and strategies were extracted. Studies were compared and contrasted to illustrate strengths and weakness of different recruitment approaches.

Results: Old age, social disadvantage and the sensitive nature of end of life care research are key themes in recruitment plans of the researchers who attempt to include minority ethnic groups in palliative and end of life care research. Existing studies show both sample and researcher centred challenges. Communication barriers, gate keeping factors and feeling uncertain about the research process are central issues for participants. The ethnic origin of the researcher, their linguistic skills, and research methods are key issues for researchers. Using key community leaders, ethnic associations and ethnically matched researchers may yield productive recruitment outcomes and also contribute to the cultural education of researchers.

Conclusion: Recruiting from minority ethnic communities is a major challenge for palliative and end of life researchers. Researchers need to incorporate these challenges within their recruitment plan. Traditional recruitment methods often fail to recruit appropriate samples. Involving the wider ethnic minority community enables the design of culturally sensitive recruitment approaches.

9. Andrea Knopp, MN, MPH, PhDc, University of Virginia

Healthcare Experiences of Zabbaleen Women

Problem: Despite increased life expectancy and decreased maternal deaths since the 1970s, women continue to experience health inequalities in the Middle East. Gender roles and cultural norms of the region place women in a marginalized position resulting in isolation and disconnection from society including health care information and resources. The women of the Zabbaleen community are a unique population in Cairo, Egypt. These women share several characteristics known to contribute to inequities in healthcare: gender, low socioeconomic status, low literacy/education levels and cultural norms in a low to middle income country. Currently, an estimated 40,000 to 60,000 Zabbaleen Coptics live in the poor urban area of Mokattam. The men typically are the garbage collectors for the city. They store this garbage inside the home in the center room or immediately outside the door. The women and children sort, recycle and make marketable goods from the trash. Living with and sorting garbage results in increased risks of injury from sharp objects, respiratory disorders, and high rates of hepatitis.

Methods: A qualitative study of the healthcare experiences of these Middle Eastern women has the potential to increase understanding of health disparities and inequities related to culture, ethnic origin, gender and economic status from a global perspective. The proposed qualitative study will explore the

unique lived experiences of the Zabbaleen women giving insight into healthcare experiences. The information gained will be useful in developing programs to provide culturally appropriate interventions and improve health education, health resources and health access for vulnerable populations. The primary aim of this ethnographic study is to increase understanding of health disparities and inequities related to culture, ethnic origin, gender and social economic status from a global perspective. Outcome will be three articles based on findings from 15 interviews conducted in Cairo Egypt with the Zabbaleen women.

10. Bethany Coyne, MSN, PNP, PhD Student, University of Virginia

Outcomes After Transfer of Pediatric Renal Transplant Patients to Adult Providers

Improvements in immunosuppression and transplant surgical technique have increased the survival of children with end-stage renal disease. These patients have complex needs, and the current medical system is not prepared to effectively transfer the care of these individuals from pediatric to adult health care systems. Too often transfer of care occurs during moments of crisis and leads to poor outcomes.

Long-term goal of this program of research is to enhance care for kidney transplant recipients through higher quality transitions using nurse practitioners as transition leaders. As the foundation for a future nurse intervention study.

Major objective of this study is to test the hypothesis that post-transfer (from pediatric to adult services) risk factors for adolescents and young adults who are kidney transplant recipients will have a major impact on health outcomes post-transplant. The **primary specific aim** of this study is to use a national database, the Scientific Registry of Transplant Recipients (SRTR), to test the hypothesis that the increased risk of graft loss after transfer of care (from pediatric to adult services) for adolescent and young adult kidney transplant recipients over a 3-year post-transfer follow-up period, will be related to post-transfer risk factors (incidence of medication-non compliance, incidence of acute rejection, loss of insurance), when controlling for age, race/ethnicity, length of time since transplant, donor type, and kidney function at time of transfer.

Secondary aims of this study are 1) to test the hypothesis that patient risk factors (medication compliance prior to transfer, age, race/ethnicity, insurance status) will predict poor post-transfer medication compliance for youth who are kidney transplant recipients and 2) to describe the incidence of post-transfer risk factors (medication non-compliance, acute rejection, loss of insurance, change in kidney function) during a 3- years post-transfer follow-up period. A retrospective, longitudinal, correlational design using secondary data from the SRTR will be used to evaluate the transfer of care of 1200 kidney transplant recipients (ages 16-25) over a 3-year post-transfer follow-up period. The study will measure the impact of three post-transfer independent variables (risk factors): 1) incidence of medication non-compliance, 2) incidence of acute rejection, and 3) loss of insurance on graft loss after transfer of care. A consecutive sample will be drawn from the SRTR database based on the inclusion/exclusion criteria. Logistic regression will be used to analyze the relationships between graft loss after transfer of care and incidence of medication non-compliance, incidence of acute rejection, and loss of insurance while controlling for identified covariates. Descriptive statistics will be used to summarize sample characteristics and post-transfer risk factors. The results of the study will identify risk factors that nurse transition leaders can target in subsequent studies to improve transition services for youth with a history of a kidney transplant.

11. Devon Noonan, MS, FNP-C, University of Virginia, PhD/MPH Student

Predicting Waterpipe Use Among U.S. College Students

Problem: College students experiment with a wide range of tobacco products in addition to cigarettes, which increases their susceptibility to developing lifelong nicotine addiction. Waterpipe smoking is a new

trend among college students and young adults and is associated with multiple health problems, including addiction. The Theory of Planned Behavior (TPB), which will serve as a framework for this study, was designed to predict behavior and its psychological determinants. In order to design interventions that will affect behavior, it is imperative to focus on factors underlying these behaviors such as attitudes and perceptions of norms that are modifiable. Identifying modifiable predictors of waterpipe use will help health care providers target individuals at risk and subsequently provide salient information to tailor tobacco prevention programs geared towards preventing waterpipe use and the long-lasting problem of nicotine addiction.

Methods: The proposed prospective study will examine the potentially modifiable predictors of waterpipe smoking among college students using the Theory of Planned Behavior. The specific aims are to examine: (Aim1) the influence of attitudes, subjective norms, perceived behavioral control, behavioral beliefs weighed by outcome evaluation, normative beliefs weighed by motivation to comply, and control beliefs weighed by perceived power, on the intention to smoke waterpipe; (Aim 2) the influence of intention on actual subsequent waterpipe smoking behavior; and (Aim 3) the relationship between behavioral beliefs and attitudes, normative beliefs and subjective norms, and control beliefs and perceived behavioral control. The sample will be a stratified, random sample of U.S. college students ages 18-24. This study is in keeping with the goals of *Healthy People 2010*, to help individuals of all ages improve their quality of life and increase life expectancy.

Results: Completion of this study is pending. Results of this study will be used to design interventions geared towards preventing waterpipe use in college students that can be tested in future studies.