

Showcasing Stu

Last winter, in an effort to help highlight the hard, dedicated work of its members, NSNA asked student nurses to share their current research projects with *Imprint*. Presented here are abstracts and descriptions of some of the many submissions. Thank you to everyone who submitted and good luck with your research!

Interventions for Pre-Hypertensive African-Americans, 18-25

Submitted by: Wuraola Bukola Afolabi, Armstrong Atlantic State University, Savannah, GA

Persons of African descent have been identified as having the largest incidence of hypertension out of all ethnic groups. The Center of Disease Control offers that African-Americans are more likely to be pre-hypertensive and to develop both Stage I and Stage II hypertension (CDC, 2007). The proprietors of Healthy People 2010 designated hypertension as one of the major disorders in need of dire attention (U.S. Department of Health and Human Services, Public Health service, 2000). They identified that between the years of 1988 to 1994 only 18% of young adults had their blood pressure under control. Thus, a wellness target is to increase the proportion of young adults 10 years and older with hypertension whose blood pressure is under control from 18 % to 50 % (Edelman and Mandle, 2006). Through these target constructions, researchers have identified that there is an arguable correlation between the likelihood of pre-hypertensive young adults developing staged hypertension in their later years. The initial identification of hypertension is pivotal in the treatment of the disease and the role of nurses in this process allows for close proximity to patients and the space for health promotion through the appropriate interventions. The predominant research in the treatment of hypertensive

African-Americans has yet to offer an efficient method of treatment. Moreover, there is a lack of research and study on intervention methodology for young African-American pre-hypertensive adults between the ages of 18-25. An adequate analysis of this pre-hypertensive group is of the greatest need and adequate interventions would prove to stifle the evolution of their hypertension to more pathological stages. In accordance with information obtained from previous studies and trials, the proposal of an intensive education and self-monitoring program for pre-hypertensive young Black adults is necessary. The goals of the program will be to educate the patient on the importance of blood pressure control and maintenance through diet and exercise. The implementation strategies will consist of: identification of pre-hypertensive status, family history of hypertension, completion of diet and activity assessments, education in relation to hypertension, and the completion of daily check off sheets. The evaluation of this plan will include a nurse-patient follow up after a two-month period, a review of daily check off sheets, and a blood pressure assessment with previous pre-hypertensive readings lowered to normal.

dent Research

Intervening to Decrease Burnout and Turnover of Emergency Room Nurses Related to Unidentified Post Traumatic Stress Disorder

Submitted by: McRae Heard, University of New Mexico. Principal investigator: P.J. Woods PhD, MBA, RN. Additional investigators: McRae Heard and Jessica Anderson, University of New Mexico, Albuquerque, NM

Post traumatic stress disorder (PTSD) is defined as a psychiatric diagnosis from the aftermath of an event that caused actual or threatened serious injury or death producing intense fear, helplessness or horror (American Psychiatric Association, 1994). Laposa, Alden and Fullerton (2003) found an individual may also exhibit PTSD symptoms from both direct involvement and witnessing traumatic events. These data indicate nurses exposed to traumatic events on a regular basis may be at risk for

developing PTSD. A convenience sample (N=31) of adult (n=18) and pediatric (n=13) Emergency Room (ER) Nurses in an acute care hospital setting completed the PCL-C tool (Weathers, et al. 1993), which measures PTSD. Data were also collected on demographics and participants were asked to rank-order preferred interventions known to prevent or treat PTSD symptoms. Results showed 7.7% (n=1) of the pediatric nurses demonstrating diagnosable PTSD, and 38.8% (n=7) of the adult ER nurse participants' scores indicated significant symptoms of PTSD. 46.2% of the pediatric nurses (n=6) preferred brief 15-20 minute voluntary debriefing sessions offered by another RN per request, and 33.3% adult nurses (n=6) preferred 15-20 minute massage or aromatherapy sessions offered after every shift. These data indicate future studies of PTSD in ER nurses are warranted with larger sample sizes. In addition, successful identification of PTSD in ER Nurses could lead to prevention or successfully treating PTSD. This could decrease nurse burnout and increase retention.

The Effectiveness of Pet Therapy on the Institutionalized Geriatric Population

Submitted by: Cari Shoemaker and Sarah Indovina, Capital University, Columbus, OH

Pet Therapy has been used in health care throughout history. In the past twenty years, there has been an increase in the interest of pet therapy effectiveness. Many research studies have been conducted to test the physical well-being, mental health status, and social interactions among the institutionalized geriatric population. This paper will review several of these studies and conclude by giving recommendations for future research on this topic, as well as best nursing practice applications.

Prevalence of Sleep Disturbances and Related Symptoms in a National, Community Sample of Older Adults

Submitted by: Denise Landers, University of Virginia, Charlottesville, VA; Rose KM, Landers D, Bourguignon C, Hinton I

Introduction: Beginning in 2005, the National Health and Nutrition Examination Survey (NHANES) included questions regarding sleep habits and the presence of sleep disturbances. We explored the descriptive sleep characteristics of persons age 60 years or older, along with their respective reports of sleep disturbances.

Methods: A total of 1570 persons age 60 years or older completed telephone or in-home surveys between 2005 – 2006 for the ongoing NHANES study. In addition to descriptive characteristics of the sample, we analyzed the 8 questions of the NHANES sleep module that comprise the “general productivity” subscale of the Functional Outcomes of Sleep Questionnaire (FOS-Q), to explore the relationships between scores on this scale and other functional outcomes. **Results:** 51% of the study sample was male. The sample consisted of 61% Non-Hispanic White; 20.4% Non-Hispanic Black; and 15% Mexican American. Over 55% of the sample reported that they had slept on average for 7 hours or less per night over the past month; with 61% of reporting sleep onset latency of 15 minutes or less. Frequent snoring was reported by 33% of the sample; while 78.3% reported that they never snorted or stopped breathing while sleeping; 5.4% of the sample reported that they had a diagnosis of sleep apnea and 18% reported feeling “unrested during the day” as “often,” or “almost always.” Eleven percent reported frequent use of sleeping pills. Scores on the FOS-Q general productivity subscale were positively correlated with feeling depressed ($r=.29$; $p<.00$); and mental health ($r = .21$; $p<.00$). Negative correlations were found between FOS-Q scores and memory problems ($-.10$, $p<.00$) and emotional health ($-.14$; $p<.00$). **Conclusion:** Findings from this national sample of older Americans show that less than half get the recommended 8 hours of sleep each night, with affective disturbances most highly correlated with FOS-Q scores.

Medication Nonadherence Among Patients with Psychiatric Illnesses: Reasons and Interventions

Submitted by: Erin Jinna P. Santos, University of Texas, Arlington, TX

There are 75% of patients on antipsychotics who are nonadherent (Kozuki, Poupore, & Schepp, 2005). Medication nonadherence has been found to increase the risk of relapse and rehospitalizations, produce preventable costs (Kozuki et al., 2005), sever social ties, and ultimately decrease the patient’s quality of life. Psychiatric patients were interviewed for their own reasons for not taking their medications. One of the patients had stated, “they [prescribers] are just trying to dope me up.” According to Dr. Degravelles, mental illnesses cause fluctuations in the motivation of a patient, which leads to decreased medication adherence. Other reasons found were: (1) discomfort with the medication’s side effects (as cited in Cutler, 2003), (2) medication regimens are too complex, (3) lack of family support, (4) fear of social stigma, and (5) cost (as cited in Cutler, 2003). To improve medication adherence, psychiatric treatment facilities have conducted medication education groups (as cited in Kozuki et al., 2005), family interventions, and electronic monitoring systems (Lecomte et al., 2008). There are disagreements on the most effective strategy for better medication adherence of psychiatric patients but the employment of various programs may maximize the results.

Facilitators and Barriers to Living Kidney Donation in African Americans: A Comparison of Pre- and Post-Transplant Perspectives

Submitted by: Stephanie J. Ensminger, University of Alabama School of Nursing, Birmingham, AL

African Americans account for approximately one third of all total candidates waiting for a kidney transplant, yet, in 2007, they received only about 25% of all transplanted kidneys (OPTN, 2008). Given this disparity, increasing the number of kidney transplants performed in African Americans is of vital importance. This study investigated the area of living kidney donation among African Americans and explored facilitators and barriers to living kidney transplants as seen by African American pre- and post-transplant patients. The 22 participants were English-speaking African American pre- and post-transplant patients being seen in the renal transplant clinic of a southeastern state. The data collected for this IRB-approved, mixed method research study consisted of both quantitative and qualitative data. Quantitative data was gathered from the pre-transplant participants through use of the 27-item Living Organ Donor Survey (LODS) tool created by Lunsford et al. (2007). Face and content validity and reliability of the LODS were previously established by its creators. The LODS tool looked at willingness to donate as well as recipients' concerns for potential donors. Qualitative data was gathered from both pre- and post-transplant participants by use of open-ended investigator-designed

interview questions. Content validity of the interview questions was established by experts in the field of renal transplant. The interview questions focused on three aspects of living donation: thoughts about transplant, thoughts about donor organs, and asking for living donation. Results from the LODS indicated a higher willingness to ask friends than family for a living donation. In addition, the LODS revealed that many of the concerns participants expressed for the living donor were psychosocial concerns. Ideas of sacrifice, time away from family, financial strain, time away from work were key concerns for the participants. Results of the interview questions revealed that pre- and post-transplant participants shared many of the same thoughts about transplant and donor organs. Willingness to ask, as measured by the qualitative interview questions, differed slightly between the pre- and post-transplant groups, with a higher percentage of the pre-transplant group being willing to ask for a living donation. The reasons given by the post-transplant participants for not having had a living transplant are similar to those found in other comparable investigations: family history of disease precluding donation and lack of matches found among eligible donors.

What Are the Best Practices to Reduce Pain in Children During Medical Procedures?

Submitted by: Tracie L. Robinson and Samantha G. Topino, Aurora University, Aurora, IL

Pain is felt by everyone, including infants and children. There are many ways to reduce pain during medical procedures for infants and children. These include distraction, topical anesthesia, sucrose, breast feeding, kangaroo care and behavior of parents and nurses. The effectiveness of these techniques varies based on age. Research findings indicate that parents should use humor and distraction. Nurses can offer a movie or toys to children. Kangaroo care and sucrose are effective for infants. Topical anesthesia can be used for all ages, although its effectiveness is uncertain. Nurses, who implement non-pharmacological with or without pharmacological interventions, can reduce pain in children during medical procedures by adjusting to the age and developmental stage of the child.

The Effects of Simulation on Nursing Students' Success in Course Testing

Submitted by: Susan Hatfield, Xavier University, Cincinnati, OH

All professional nursing programs are forever setting goals to produce competent nurses by transitioning an undergraduate nursing student into a professional and competent registered nurse. Simulations allow the students to practice using real life scenarios in a risk free, controlled environment. The students gain skills and experiences by being exposed to different scenarios that would otherwise pose too high of a risk to real life patients. The purpose of this retrospective cohort study was to determine if multiple simulation scenarios could influence the unit test scores of the Nursing II students at the Good Samaritan College of Nursing and Health Science. The sample for this study was drawn from 53 Nursing II students, whom at the time were fulfilling their first medical-surgical nursing course in an Associate Degree (ADN) curriculum. The convenience sample was randomized and evenly distributed into a control and an experimental group, with the control group receiving two simulation scenarios and the experimental group receiving five scenarios (Sullivan-Mann, Perron, & Fellner, 2008). As a result of the repeated measures of variance (ANOVA) of the mean test scores of the experimental and control group, the variability was relatively small and not significant. Thus, there was insufficient evidence to conclude that there were differences among the experimental and control group with respect to the mean unit test scores. Even though this study could not prove a variance in the mean of unit test scores, it is a beginning step to pursue future studies on the effects that simulation has on the students' performance. This can be accomplished by focusing on the individual test questions, which pertain more on the content of the simulation scenario versus the entire unit test which focuses on a myriad of disease processes.

Patient Population in the Labor Unit

Submitted by: Diana N. Gonzalez, School of Nursing, Stony Brook University
Co-authors: Diana N. Gonzalez and Francoise B. Cromer, Ph.D., Women's Studies Program, Stony Brook University, Stony Brook, NY

During a four week clinical internship in June 2008, Diana N. Gonzalez interviewed 41 patients of low-socio economic status in the general area of the Labor Unit at the Enrique C. Sotomayor, Obstetrics and Gynecology Hospital in Guayaquil, Ecuador. The research was aimed at identifying the demographics of the patient population and how each patient classified the treatment they received in the Labor Unit (physical, psychological and emotional). Preliminary results suggest that there is a need for improved methods of healthcare delivery such as patient sensitivity, availability of patient support systems (increased visiting hours), patient-provider communication and the implementation of patient-centered care practices.

The Importance of Coral Reef Preservation for Future Medical Cures

Submitted by: Katelyn Mescher and Ashley Sturgess, Capital University, Columbus, OH

Recent experimentation has found soft corals and sponges to have potential medical uses in treating cancer and other disease. Research was conducted via underwater transect data collection using SCUBA diving on several coral reefs in Cozumel, Mexico; approximately 3 years after hurricane Wilma destroyed much of reef. Three 100 m linear transects each of fore reef, hind reef and reef crest of the Casa Del Mar shore near fringing reef were measured for the total coverage (in centimeters /100m/reef zone) of 5 species of sponge (brown encrusting, variable boring, rope pore row, pink vase, black ball) and 6 species of soft coral (Eunicea sp., Plexaura homomalla, Pterogorgia citrina, Gorgonian ventilina, Pterogorgia sp, Pseudopterogorgia sp.). This data was compared to

prehurricane transects made, in 2002 by Capital University students using the same transect data collection protocol 1 km south of this site of the 2009 site on comparable regions of Parisio Reef. These comparisons showed a significant drop in species abundance, surface coverage, and altered species composition most probably due to natural storm causes of the category 5 hurricane. Significant coral destruction could hinder future lifesaving medical discoveries. The comparison of the discrepancies in the inventory collected will be discussed. There will also be a discussion of the possible medical of chemicals found in some species of soft coral and sponges and the importance of the preservation of the coral reefs to future discoveries.

references

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders*. (4th ed.). Washington, DC: American Psychiatric Association.

Centers for Disease Control. (2007). QuickStats: Percentage Distribution of Blood Pressure Categories Among Adults Aged > 18 years, by Race/Ethnicity- National Health and Nutrition Examination Survey, United States, 1999-2004. Retrieved September 2, 2008, from <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5624a6.htm>.

Cutler, C. (2003). Assessing patients' perception of self-care agency in psychiatric care. *Issues in Mental Health Nursing*, 24, 199-211. Retrieved October 10, 2008, from CINAHL with Full Text database.

Edelman, C. L., & Mantle, C. L. (2006). *Health promotion throughout the life span*. (6th Ed.) St. Louis, MO: Elsevier Mosby.

Kozuki, Y., Poupore, E., & Schepp, K. (2005). Visual feedback therapy to enhance medication nonadherence in psychosis. *Archives of Psychiatric Nursing*, 19(2), 70-80. Retrieved October 10, 2008, from CINAHL with Full Text database.

Laposa, J., Alden, L., & Fullerton, L. (2003). Work stress and posttraumatic stress disorder in ED nurses/personnel. *Journal of Emergency Nursing*, 29, 23-28.

Lecomte, T., Spidel, A., Leclerc, C., MacEwan, G. W., Greaves, C., & Bentall, R. P. (2008). Predictors and profiles of treatment non-adherence and engagement in services problems in early psychosis. *Schizophrenia Research*, 102(1-3), 295-302. Retrieved November 13, 2008, from PsycINFO database.

Lunsford, S., Shilling, L., Chavin, K., Martin, M., Miles, L., Norman M., et al. (2007). Racial differences in the living kidney donation experience and implications for education. *Progress in Transplantation*, 17(3), 234-40. Retrieved March 21, 2008, from PubMed.

The Organ Procurement and Transplantation Network (2008). *Transplants in the U.S. by Recipient Ethnicity*. Retrieved March 21, 2008, from <http://www.optn.org/latestData/rptData.asp>.

U.S. Department of Healthy and Human Services, Public Health Service. (2000). *Healthy People 2010* (conference edition, in two volumes). Washington, DC: U.S. Government Printing Office.