Dear Colleagues,

No profession is more integral and essential within every level of the military health care system than nursing. Because nursing touches everyone at some point, TSNRP scientists and investigators are ideally positioned to examine acute and chronic illness, design and test preventive care and self-management strategies, and translate research findings into clinical and health practices. The knowledge advanced from military health care environments that promote research and the use of evidence-based best practices accelerates translational applications for our military and helps promote improved patient outcomes.

In our last newsletter, we spotlighted the research accomplishments of one TSNRP-funded scientist from each Service. Based on extremely positive feedback, we are excited to continue this feature. TSNRP scientists continue to lead the way in patient-centered, point-of-care, biobehavioral research focused on health promotion, symptom management, quality of care, and quality of life.

In this issue, we highlight CAPT(ret) Janet Pierce, NC, USNR, and her exceptional contribution to military nursing science with her work on the effects of ubiquinol with fluid resuscitation following hemorrhagic shock. Initial findings from CAPT(ret) Pierce’s experimental study suggest that ubiquinol, an antioxidant, could be used to reduce reperfusion injury following hemorrhagic shock. From the Army, we highlight LTC Betty Garner, AN, USA, and her randomized interventional study using auricular acupuncture as a nursing therapeutic for insomnia. From the Air Force, we highlight Lt Col Candy Wilson, USAF, NC, who provides incredible insight on her study “Military Women’s Health and Illness Behaviors in Deployed Settings” and how her continuing program of research has established a foundation of evidence supporting military women’s health in the deployed environment.

The demand to know what’s happening in the world of nursing research and evidence-based practice (EBP) at all levels of the military led to our Research and EBP Dissemination Course, held in September in San Antonio, Texas. More than 200 attendees gathered to discuss creative ideas, share interdisciplinary scientific approaches, and present the latest military nursing research and evidence from across all three military nursing services. Talk about a talented cohort of military investigators from all levels! Highlights included more than 100 posters and podium presentations and key lecturer presentations from senior military nursing leaders, such as MG Jimmie Keenan, AN, USA, Chief of the Army Nurse Corps; Col Rose Layman, USAF, NC, Director of Air Force Nursing Services; CAPT Lisa Osborne, NC, USN, Nursing Research Specialty Corps Leader for the Navy; and

Continued on next page
Dr. Elizabeth Norman, author of *We Band of Angels*. The course renewed attendees’ energy and collaborative enthusiasm—not to mention providing valuable networking opportunities. Be sure to read about the exceptional work that our Military Women’s Health Research Interest Group is doing and how the group capitalized on its strength and effectiveness at the course. All of us were challenged to find new ways to “create the science and advance our practice.”

As our military health care system evolves to focus on prevention as well as improved patient outcomes, TSNRP-funded nurse scientists and researchers will continue to play a vital part in shaping its success by translating discoveries into best practices and health benefits for our military.

It is my sentiment, and that of the TSNRP Executive Board of Directors, that with continued funding and commitment to support military nursing research and EBP, the possibilities for improved patient outcomes can be realized and will constitute a worthy investment of the military’s time and resources.

The key to realizing these accomplishments and our future goals rests with our collective ability to spark collaboration with our military leadership and stakeholders. Advancing strategy without synergy is a losing proposition. Together, through research and EBP, we can effect positive change that will benefit our military health care system for years to come.

LTC (P) Michael Schlicher, PhD, AN, USA

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**Research Spotlight**

Researchers Use Supplemental Ubiquinol to Decrease Injury from Hemorrhagic Shock

**CAPT(ret) Janet Pierce, NC, USNR**

Hemorrhagic shock (HS) is the most common cause of death among our warfighters. When rescuing injured fighters during Operation Enduring Freedom and Operation Iraqi Freedom, we first focused on stopping the patient’s bleeding and then provided treatment to prevent death. Treating a patient’s hemorrhage as quickly as possible by effectively restoring the patient’s body fluids is vital, because HS causes life-threatening complications. When the body loses more than 20% of its blood, the heart cannot pump sufficient blood to vital organs, and organs begin to fail. The reduction in blood volume results in decreased tissue perfusion with inadequate delivery of oxygen and nutrients to the body to maintain cellular function. Whenever cellular oxygen demand outweighs supply, the cells become hypoxic and reperfusion injury occurs, leading to oxidative stress and cellular death (i.e., apoptosis).

Oxidative stress is an imbalance between free radicals (i.e., reactive oxygen species [ROS]) and the body’s antioxidant system. HS causes increased production of ROS and a reduction in the various antioxidants within the body. An overabundance of ROS production and apoptosis cause damage to the lungs, diaphragm, heart, kidneys, and microcirculation. In addition, such side effects as reperfusion injury could lead to major organ failure and cellular damage. Increasing antioxidants to patients experiencing significant blood loss could mitigate the damage caused by free radicals.

Based on scientific assumptions about oxidative stress, our research team investigated one of the most powerful antioxidants in the body, ubiquinol, which is the active form of coenzyme Q10 (CoQ10). In the cell’s mitochondria, ubiquinone is reduced to ubiquinol. When HS causes an increase in free radicals, supplementing ubiquinol should provide additional antioxidants to scavenge ROS and maintain the cell’s energy (i.e., adenosine triphosphate).
For the past 3 years, our team has conducted a TSNRP-funded study titled “Coenzyme Q10: A New Treatment for Hemorrhagic Shock” to research ubiquinol in an HS animal model. The purpose of our randomized experimental study was to examine ubiquinol’s effects when administered intravascularly immediately after 60 minutes of controlled HS followed by blood and fluid resuscitation.

Our study has had two major aims. The first aim focused on measuring leukocyte mitochondrial superoxide production; diaphragm hydrogen peroxide (H₂O₂) production; and apoptosis in the lungs, diaphragm, heart, and kidney. For the study, we removed approximately 40% of the blood from the animal models to elicit HS and maintain a mean arterial pressure of approximately 50 mmHg for 60 minutes. We took arterial blood samples at various times to measure blood gas changes and leukocyte mitochondrial superoxide production. After 1 hour of HS, we re-infused the removed blood and added a volume of Lactated Ringers equal to twice the reperfused blood volume. We gave the treatment group an infusion of ubiquinol (1 mg/100 g of body weight) before we administered blood and Lactated Ringers. We then continued for another 2 hours and obtained our final blood and tissue samples. We examined each animal model’s lung, diaphragm, heart, and kidney for apoptosis using fluorescent microscopy. We also used part of each diaphragm to measure H₂O₂ with confocal microscopy. Our results indicated that ubiquinol decreased the amount of superoxide produced by HS and significantly reduced the amount of cell death in the lungs, diaphragm, heart, and kidney. More specific information related to this study is available in the July 2014 issue of Experimental Physiology (doi: 10.1113/expphysiol.2014.078600).

Our second aim in this study was to investigate the effects of ubiquinol following HS to reduce reperfusion injury to microcirculation. In these experiments, we examined leukocyte adherence, mast cell degranulation, vascular permeability, and the presence of ROS with and without ubiquinol following HS. We used the same experimental methods as in the first aim, but we also used mesenteric venules to examine real-time changes in microcirculation. We assessed and recorded the adherent leukocytes for 1 minute every 10 minutes throughout the experiment. To evaluate the degree of mast cell degranulation, we used ruthenium red that was superfused on the mesentery every 15 minutes. To measure vascular permeability of the mesenteric venule, we used fluorescein isothiocyanate–labeled bovine albumin and calculated the ratio of extravascular to intravascular fluorescence intensities. For our last measurement, we examined the microvascular ROS using dihydrorhodamine, an oxidant-sensitive probe. We collected the average fluorescence intensity at baseline, following HS, and every 30 minutes after fluid resuscitation. All of these measurements differed significantly when we administered ubiquinol following HS and before fluid resuscitation. Within the ubiquinol group, leukocyte adherence was less, superoxide production declined significantly, vascular permeability was decreased, and ROS production was reduced. The American Journal of Physiology: Heart and Circulation is currently reviewing the results of this study.

These experiments demonstrated that ubiquinol is a beneficial antioxidant that military health care professionals can use following HS to reduce superoxide production and decrease apoptosis, which can affect multiple organ function. Maintaining microcirculation after HS and before fluid resuscitation is extremely important because nurses administer blood and crystalloids after a hemorrhagic event. These findings suggest that ubiquinol protects the vital organs and microvascular circulation from reperfusion injury occurring after HS and fluid resuscitation. Ubiquinol could be used as a potential concurrent supplemental treatment for HS, possibly increasing survival rates and preventing organ damage in our wounded warriors. ★
Col (ret) Arthur Don Johnson, USAFR, NC

Col (ret) Arthur Don Johnson, USAFR, NC, is the director of research for the U.S. Army Graduate Program in Anesthesia Nursing (USAGPAN) and a professor at Northeastern University, the degree-granting institution for the USAGPAN. He has more than 30 years of research experience and has been awarded numerous federally funded grants. He earned his PhD in multidisciplinary studies with concentrations in physiology and pathophysiology from the University of Texas at Austin in 1984.

Col (ret) Johnson is without question one of the primary reasons that the USAGPAN is ranked #1 in the nation among 114 nurse anesthesia programs and produces more than 90% of the Army’s certified registered nurse anesthetists. The amount of research conducted under his direction and mentorship is impressive.

Drawing on more than 15 years of experience using animal models, Col (ret) Johnson currently is an associate investigator of a study evaluating hemostatic agents, “The Effects of Celox and TraumaDEX on Hemorrhage Control in a Porcine Model.” This research is funded by the American Association of Nurse Anesthetists Foundation. Col (ret) Johnson also is co-PI of another hemostatic study, “The Effects of BleedArrest on Hemorrhage Control in a Porcine Model,” funded by Hemostasis, LLC. He has the experience and education that make an ideal mentor and PI. In recognition of his experience in hypothermia and hemostatic research, Col (ret) Johnson was selected as a subject matter expert speaker for a Food and Drug Administration-sponsored conference related to hemostatic agents.

Col (ret) Johnson has recently obtained more than $500,000 in research funds from TSNRP to investigate the effects of different routes of administration of vasopressin. In fiscal year 2014 alone, he has published 15 articles in peer-reviewed journals, authored a book chapter, and co-authored 5 national presentations and 18 abstracts. His poster was selected as the Outstanding Research Poster at the 2013 U.S. Army Medical Department Center and School (AMEDDC&S) Graduate School Research Day event.

Along with developing and facilitating basic science research projects for the USAGPAN, Col (ret) Johnson teaches doctoral-level courses in informatics, epidemiology, research, and physiology and participates in the monthly Army Nurse Corps research teleconference. He is a dedicated faculty member whose contributions make a difference to the students, the program, and the AMEDDC&S mission year after year.

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Col (ret) Johnson continues to advance the science of nursing anesthesia with renowned scholarly works while mentoring Army, Air Force, and Department of Veterans Affairs nurses. It is with tremendous pride and appreciation that TSNRP supports and collaborates with him as he works to advance the science of nursing and military medicine. ★
Attacking the Problem of Inadequate Sleep: A Report from a Researcher in the Field

LTC Betty Garner, AN, USA

Sleep has become a hot topic in the United States in the past 5 years. Every day, researchers and sleep experts are finding that sleep plays a critical role in various aspects of our mental, physical, emotional, and spiritual health across the life span. For example, research indicates that getting less than 6 hours of sleep per night for a week equates to being legally drunk with a blood alcohol level of 0.08%. In addition, in such a state of deprivation, cognitive performance is decreased 20%. Being bothered by poor or insufficient sleep crosses all barriers, including age, socioeconomic status, and race or ethnicity. Sleeping is something that everyone does, something we all need, and a subject that we all talk about.

In the civilian population, insomnia is one of the most common types of sleep disturbance; estimates of its prevalence range from 10% to 40%. Moreover, poor or insufficient sleep is linked to cognitive and immune deficits, a decreased quality of life, and an increased rate of accidents. In addition, insomnia can both result from and occur alongside psychiatric or medical disorders. The costs of sleep disturbance for the U.S. population are in the billions of dollars for both direct expenditures (e.g., payments for evaluation, diagnosis, and increased health care services) and indirect costs (e.g., from fatigue, loss of productivity due to work absenteeism, sleepiness, and vehicle crashes).

The National Sleep Foundation’s 2005 Sleep in America poll, which had 1,506 adult participants, found that 40% of adults slept less than 7 hours per night on weekdays, and 23% slept less than 7 hours per night on weekends. In the 2012 Sleep in America poll (1,500 adults), these estimates were substantially higher, at 46% and 29%, respectively.

Not surprisingly, the situation is even worse in the active duty population. The most recent (2011) Department of Defense Health Related Behaviors Survey, which included approximately 25,000 active duty personnel across all Services, found that 55% slept less than 7 hours per night. Clearly, this is a potential problem in the military, especially with millions of Service members deployed overseas or mobilized to support the Global War on Terrorism. In addition, frequent deployments, personal or family stressors, or problems with obtaining adequate sleep can precipitate acute insomnia and eventually lead to chronic insomnia. Other risk factors for inadequate sleep in this population include certain sociodemographic variables, mental health issues, poor sleep hygiene practices, and certain lifestyle behaviors.

Because of the critical role that sleep plays in maintaining health, the Army Surgeon General, as a part of her Army Medicine 2020 Campaign Plan, initiated the Performance Triad as a way of promoting health behaviors to optimize performance. The three pillars of the Triad are sleep, activity, and nutrition—focusing on the synergistic effects of sleeping well, being active, and eating better—with sleep being the main focus.

My journey into the realm of sleep research started in 2006, when I was a PhD student at the University of Washington in Seattle. I needed a topic for my dissertation, and because of a personal experience, I chose sleep as my main scholarly interest. Since then, I have continued to use the topic of sleep as my foundation, but my program of research has evolved from survey-based study to interventional complementary and alternative medicine (CAM) studies to target sleep and pain.

Data obtained from my 2009 TSNRP-funded dissertation, “Sleep Disturbances in U.S. Soldiers After Deployment to Afghanistan and Iraq,” showed an extremely high prevalence of sleep disturbances in Soldiers (M = 32 years, SD = 8 years; range = 18–60 years) returning from wartime deployment. At the initial post-deployment (PD1, n = 278) and the 1½-month follow-up (PD2, n = 158) assessments, Soldiers generally
LTC Betty Garner indicated a long latency of sleep onset (> 30 minutes), and an estimated 50% of Soldiers had sleep efficiency of less than 85%; both of these parameters are indicative of insomnia. In addition, the participants generally had short sleep duration (< 6 hours) and poor sleep quality. Furthermore, the mean Pittsburgh Sleep Quality Index global score was high, with 76% of participants reporting a score higher than 5 (indicative of poor sleep) at both PD1 and PD2. Given this high prevalence of poor sleep quality and quantity, interventions to improve sleep are needed in this population.

In the United States, approximately 1.6 million people with or without comorbidities use CAM therapy for insomnia. In surveys of approximately 2,000 active duty personnel, military retirees, and family members, the use of CAM for insomnia is popular, ranging from 37% to 81%. Judging from my comprehensive and rigorous review, the efficacy and effectiveness of cognitive-based therapy for insomnia has been well established, but other CAM approaches are needed. Although pharmacotherapy is available for Service members experiencing insomnia, the drugs available are not ideal and may be contraindicated in a fast-paced environment with unpredictable sleep conditions. With a literature review completed on the use of CAM in military beneficiaries and the anecdotal evidence of Service members not wanting to take pills or be on multiple medications, my next research study focused on the use of CAM for insomnia.

In the emerging field of electromagnetic-based, microcurrent CAM therapies, cranial electrotherapy stimulation (CES)—specifically, Alpha-Stim® 100, a battery-operated device approved by the Food and Drug Administration—has been shown to have potential for the treatment of insomnia. It has been employed in the United States since the 1970s in the treatment of fibromyalgia, headaches, depression, anxiety, and insomnia in various populations. Its relatively small size, portability, ease of administration, and few side effects are attractive features. Thus, the primary aim of my TSNRP-funded pilot study is to test the feasibility and acceptability of CES, and the secondary aim is to evaluate the extent of change in pretreatment and posttreatment sleep measures with the use of CES in comparison with sham therapy. This study uses a double-blind, randomized controlled, parallel design with assessments in three phases: baseline assessment before the 2-week intervention, a second assessment after the intervention, and a third assessment 1 month after the completion of the intervention. It uses a convenience sample of 50 military beneficiaries with insomnia in a non-deployed environment. As of July 2014, 207 potential participants had been screened. Of these, 27 (13%) met the inclusion/exclusion criteria and were randomized. Of that group, 22 participants (81%) have completed the 1-month assessment.

The five most important lessons learned to date have been the following:

- Insomnia is often a comorbidity within the study population, and thus, true “insomniacs” might be hard to recruit.
- Understanding the optimal timing and method of advertising the study (e.g., summer vs. winter cycle) is important.
- Reimbursement for participants may be helpful for retaining them in the study.
- Accessibility and the method of communication (e.g., texting versus email) are important issues.
- In Germany, there are unique barriers to conducting the study (e.g., hiring the research coordinator and obtaining a cell phone provider).

Data for the secondary aim will be analyzed when the study is completed. If feasible and effective in improving sleep, this therapy can be further studied in Service members with insomnia in deployed settings and those with comorbid conditions (e.g., post-traumatic stress disorder, depression, traumatic brain injury, and various medical conditions), ensuring fit and ready military personnel.

Based on the CES study, the study team concluded that there are no true insomniacs and that this problem is often comorbid with either acute or chronic pain issues. This led to my next TSNRP-funded study, “Auricular Acupuncture for Sleep and Pain: A Feasibility Study.”
Numerous studies have revealed that acupuncture, the oldest healing practice within traditional Chinese medicine, is an effective CAM for sleep or pain. However, few studies have tested the use of auricular acupuncture (AA), a safe, portable, easy-to-administer modality, using a standard protocol in patients as administered by advanced practice nurses (APNs) for improvement in both sleep and chronic pain. In the military setting, AA, termed “battlefield acupuncture” by Dr. Richard Niemtzow (Col [ret], USAF) due to the ability to administer AA when access to scalp or torso in a battlefield situation may not be ideal, has been used effectively in acute patient populations, but few studies have tested its use in chronic pain patients. Thus, the purpose of this randomized controlled trial pilot study is to determine the feasibility of administration of AA by APNs and to evaluate the extent of change in sleep parameters and chronic pain from baseline to posttreatment over an 8-day period. A convenience sample of 64 military beneficiaries with insomnia and chronic pain will be randomized to either the AA group (treatment group) or the current-level-of-care group (comparison group). If AA is feasible, and if the results show that it improves sleep and pain, this study will be used to inform a larger randomized controlled trial to test effectiveness in military beneficiaries with sleep and chronic pain problems. The study has received approval from an institutional review board and will begin in November 2014.

I am excited to continue my research on sleep disturbances, as I feel that sleep is very important to everyone’s mental, physical, emotional, and spiritual health. Throughout my program of research, I have been privileged to have a great mentor and research team, and I am thankful for funding that I have received from TSNRP. My journey has been a learning experience, building from lessons learned to ensure sound research methodologies for future studies. I hope that findings from my research will further the state of science and translate to evidence-based practice for positive outcomes. I thank each participant who volunteers in these studies. ★

TSNRP Unveils the Anesthesia RIG

Megan Foradori, RN, MSN

TSNRP’s newest research interest group (RIG), the Anesthesia RIG, held its first meeting at the TSNRP Research and Evidence-Based Practice (EBP) Dissemination Course this fall. Currently led by CAPT Lisa Osborne, NC, USN, of the Uniformed Services University of the Health Sciences and CAPT(ret) Chuck Vacchiano, NC, USN, of Duke University, the group has already gathered 25 interested anesthesia researchers spanning all levels of practice.

The group has the opportunity to strengthen research grants submitted to TSNRP and elsewhere by offering a support network of anesthesia researchers to help review grant paperwork and offer collaboration and coaching during the research process. RIG members mentioned during the meeting that the big topics in anesthesia often require research from many angles, including animal models and clinical projects, which necessitates collaboration between many different parties to move the science forward.

Because the RIG is new, it is in the process of setting team priorities. The group is committed to working on projects that are of the most use to its members. RIG members have expressed interest in Web-based educational offerings, possibly in conjunction with the National Institutes of Health (NIH), and in arranging for collaborators in conducting multisite research projects and writing articles. Impressed by NIH’s one-page bio sheets on a recent visit, CAPT Osborne also is interested in helping the RIG’s members work on their own “personal scholarship.” The RIG plans to host relevant subgroups; ideas for these include chronic and acute pain (including acupuncture), education/simulation/training, and perioperative outcomes and processes (including sleep apnea). Because both military and veterans’ hospitals are represented already, they both will have a voice within each of the future subcommittees, and RIG projects will involve patients on both sides of the Service.

At the meeting, the new members also talked about developing a way to keep abreast of what other military anesthesia researchers are doing. The Anesthesia RIG will work on how best to accomplish this objective with current research and EBP/quality improvement work.

The group invites anyone interested in this work to join the RIG. Please contact TSNRP RIG coordinator Megan Foradori, RN, MSN, at megan.foradori@gmail.com to get involved. ★
Exploring the Health Care Needs of Deployed Women

Lt Col Candy Wilson, USAF, NC

Genitourinary (GU) disease is a leading problem in deployment settings, underscoring the need for more research on gender and sex differences. Women comprise 15% of the active duty military population and 10% of the deployed population. Beginning in 2016, women will be formally assigned to serve in combat roles, placing them in the most austere conditions but with no lowering of physical or performance standards. Assignment to austere military locations will test women’s ability to manage some routine health issues.

In 2002, while assigned as a nurse practitioner, I learned from my female active duty patients that they delayed seeking health care for their GU symptoms while deployed. Only after returning home did these women seek health care. The impact of the deployed military culture appeared to influence women’s ability or willingness to seek health care. This recurrent theme of delay in seeking care during deployment inspired me to search the literature, but I found very little information that could guide deployed women or health care providers in managing this problem. There was a CD titled *Operational Gynecology* available to assist Navy general practitioners and enlisted medics that offered limited information for diagnosis and treatments, but this CD was not necessarily applicable for providing care and guiding women serving in hot, dirty, austere land settings. Thus, the health care of deployed women became a topic of great personal interest and inspired me to seek a PhD.

During my PhD program, I met LTC (ret) Nancy Ryan-Wenger, AN, USAR, director of nursing research at Nationwide Children’s Hospital in Ohio, who shared her data from the Women in the Military Self-Diagnosis (WMSD) kit, which was funded by TSNRP. The WMSD study compared the accuracy of women’s self-diagnoses with diagnoses made by nurse practitioners. Using the WMSD study data for a secondary analysis allowed me to explore women’s illness behaviors when managing GU symptoms in a deployed setting and their theoretical underpinnings.

In accordance with the literature, illness behaviors were defined as the perception of bodily changes and the interpretation of these symptoms as illness or variations in wellness. Additionally, the illness behavior theory includes seeking of advice and validation from others that can lead to either self-care or professional treatments. An illness behavior model is useful because it provides greater insight into the coping responses of women as they function within the military culture. Among other outcomes, the study for my dissertation found that for GU symptoms, women sought health care more often while they were deployed than when they were at home, a finding that was at odds with reports in the literature as well as my personal experience that women delayed seeking health care while deployed. This inconsistency prompted me to continue to study the illness behaviors of women in deployed settings.

After I completed my dissertation, TSNRP generously funded two additional studies that I carried out to understand women’s illness behaviors, not only from the women’s perspective but also from the perspective of the enlisted military medic. The first study explored the influence of the deployed culture on women’s illness behaviors. This topic is important to the military because if women delay seeking needed care, it can put their health at risk and thus place the entire mission at risk. On the other hand, seeking health care more often for symptoms could have a negative effect on health care resources. The first study was carried out as an ethnographic analysis to explore the illness behaviors of military women who managed GU symptoms while deployed.

The research team found three main themes in our review: Life in the Deployed Setting, Dynamics of Trust, and Sphere of Control. We used “Life in the Deployed Setting” to describe the deployed environment and its culture; among other key points, we found that the environment promoted gossip, which deterred women from seeking health care. The “Dynamics of Trust” theme involved the people...
or sources whom women trusted to share their health concerns. It was most applicable to military leaders and health care providers, because it is expected that women consult medical personnel to gather health information or receive health care. We found that women trusted their friends and family more than their health care providers to garner GU health information and receive supplies. Finally, “Sphere of Control” was used to describe the actions that women took before and during deployment to manage their GU health.

We found that examining our findings using the three themes was useful in explaining many of the patterns and practices of illness behaviors during deployment, which accounted for the differences between the studies in the literature and the dissertation study described above. The fact that women did not trust health care providers as a source of health information was an interesting phenomenon, which led me to the follow-on study funded by TSNRP.

Historically, there has been little research on the delivery of health care by the enlisted medic, even though military medics are often our first-line providers in the most austere settings. We defined the enlisted medic as the Navy Independent Duty Corpsman, the Air Force Independent Medical Technician, and the Army Combat Medic 68W. The educational preparation of these three medics differs, but in forward or austere settings, they can be expected to provide care while consulting with their health care preceptor at an often remote location. Military medics are well trained in trauma care, but they have little training in primary care.

We found three themes in this study: Training Fidelity, Patient Care in Austere Setting, and Advocate Leaders. “Training Fidelity” referred to the medics’ initial education and maintenance of skills through sustainment training; often this training occurred just before or during the deployment. This theme was central to the analysis of the study, given that all their education and experience should have prepared medics for patient care in austere settings, including gynecologic care. Not surprisingly, medics who practiced in a clinic while in garrison were confident in their ability to manage female patients while deployed.

The “Patient Care in Austere Setting” theme was used to describe the women’s health care symptoms and the diagnoses that medics treated. Care for women challenged the medics to plan for the health care of their population, which involved such concerns as supplies, equipment, and medications. Often, medics were expected to refill prescriptions for contraception or dispense gynecologic medications. With regard to contraception, this expectation was an issue for women with uncommon contraceptive prescriptions because of the medic's limited supplies.

Finally, as "Advocate Leaders," medics saw themselves as protecting their patients' privacy, particularly with regard to gender-sensitive diagnoses. For example, if a woman needed to be transferred to a higher echelon of care and taken away from the unit, medics described an impenetrable role to protect sensitive health information with leadership to maintain the woman's privacy. Of note, this protective role described was in contrast to the perception women reported from the previous study, in which women felt medics were involved in the unit gossip. In this leadership role, medics implemented health messages in various forms as a source of health care information. Medics wanted more education regarding women’s health care needs, yet they wanted it correctly balanced and not at the expense of important information on treating trauma.

In conclusion, the research described was available to enhance support provided to military women as they embark on new opportunities and roles. However, more evidence is needed to help military leaders and health care professionals understand and prepare for the influence of the deployed culture on women’s illness behaviors. This understanding will help improve women’s ability to perform at their best physical condition by preparing women and medics to mutually assess and skillfully address women’s health needs in the context and influence of the deployed culture. Furthermore, these studies, along with others reviewed by the Military Women’s Health Research Interest Group, inform lawmakers of the health care needs of military women both in garrison and in deployed settings as we press forward with the full integration of women into the military. ★
The TSNRP Research and EBP Dissemination Course Highlights Exemplary Projects

LTC Terri L. Yost, AN, USA, and Linda Bell

On 15–18 September, TSNRP kicked off the fall season with its Research and Evidence-Based Practice (EBP) Dissemination Course in San Antonio, Texas. This 3.5-day course combined the two previously long-standing dissemination events for military nursing: the Army’s Phyllis J. Verhonick Nursing Research Course and the AMSUS-associated Karen A. Rieder Research/Federal Nursing Poster Session. The theme for the TSNRP course, “Creating the Science, Advancing the Practice,” articulated the importance of both research and EBP in improving the delivery of health care services.

More than 200 nurse attendees representing active, retired, reserve, and National Guard from all three major branches of service—Army, Navy, and Air Force—as well as Department of Defense civilian nurses heard stimulating lectures on research and EBP projects within our military nursing communities and education presentations from military nursing leaders and nationally known clinical experts.

Keynote lecturers included Joan Walter, JD, PA, from Samueli Institute in Alexandria, Virginia; COL (ret) Bonnie Jennings, AN, USA, a professor at Emory University in Atlanta, Georgia; LCDR Eric Bopp, NC, USN, Clinical Research Director of the Nurse Anesthesia Program at Uniformed Services in San Diego, California; Lt Col Lorirose Hindman, USAF, NC, a clinical nurse specialist at San Antonio Military Medical Center at Fort Sam Houston in San Antonio, Texas; Roxana Delgado, PhD, a senior research associate at Samueli Institute; and author and lecturer Elizabeth Norman, PhD, RN, a professor of humanities at New York University’s Steinhardt School of Culture, Education, and Human Development in New York City.

In addition to the academic offerings, attendees participated in a panel discussion led by the specialty leaders/consultants for research of the three Service Corps: former TSNRP Executive Director Col Marla De Jong of the Air Force, COL Sara Breckenridge-Sproat of the Army, and CAPT Lisa Osborne of the Navy. In addition to gaining historical perspectives from each of the Corps’ research representatives, participants engaged in strategic-level discussions of health care planning into the future of military nursing.

On the second day of the course, attendees were honored to welcome MG Jimmie O. Keenan, AN, USA, Commanding General of the Southern Regional Medical Command and Chief of the U.S. Army Nurse Corps. She invigorated the afternoon with her insightful keynote address and, in return, was herself enlivened...

by the scope, impact, and thoughtful hard work put forth by presenters at the Karen A. Rieder Poster Session. During this session, more than 100 attendees showcased new and innovative research to help improve the health care provided to our active duty and military beneficiaries. MG Keenan was so impressed by the session and the novel nursing initiatives presented within that she stayed late into the evening to view every poster.

The final day of the program culminated in a memorable lecture by renowned researcher and author of We Band of Angels, Dr. Norman. Attendees were captivated by Dr. Norman’s account of American military nurses who, while serving in the Philippines at the outset of World War II, cared for military Service members under unimaginable conditions during the battles of Bataan and Corregidor before being taken prisoner by Japanese military forces at the Santo Tomas Internment Camp. At the completion of Dr. Norman’s lecture, the emotionally charged and tearful audience gave her a heartfelt and enthusiastic standing ovation—a fitting conclusion to the TSNRP course.

The TSNRP Research and EBP Dissemination Course provided an invaluable opportunity for military and civilian nurses representing military health care to network, share ideas, and plant the seeds for future research and collaborative partnerships. Because of the course’s overwhelming success, TSNRP will seek support from the Executive Board to continue offering this course on an annual basis. This is one step toward becoming the exemplar for the entire professional nursing community on implementing best nursing practices based on scientific research findings.

Attendee comment:
“The TSNRP EBP course was a priceless opportunity to unite with our sister Services and learn about the research projects being conducted in each Service, the Service-specific priorities, and the methodological approaches being undertaken. The networking opportunities alone made the event worthwhile. It was humbling to see the expertise and invigorating to have the young hearts and minds of the junior officers so invested in translating research into practice. I believe we can exceed expectations by jointly tackling our common military science and practice challenges!”

—Maj Laurie Migliore, USAF, NC, Uniformed Services University of the Health Sciences Graduate School of Nursing PhD student ★

Abstracts for all of the TSNRP Research and EBP Dissemination Course presentations can be found on the TSNRP Web site (www.usuhs.edu/tsnrp/Resources/workshops.php).

Research and EBP Dissemination Course attendees: Left to right: CPT Sabrena Wells, MAJ Laureen Otto, CPT Patricia Schmidt, LTC Genera Miller, Lt Col Susan Dukes, CPT Allison Ferro, LTC Kristal Melvin, LTC Leilani Siaki, LTC (P) Michael Schlicher, MAJ Richard Clark, Dr. Elizabeth Norman, and LTC Angelo Moore
TSNRP’s MWHRIG Continues to Be a Strong Force for Change

Megan Foradori, RN, MSN

The Military Women’s Health Research Interest Group (MWHRIG) had a productive meeting at the TSNRP Research and Evidence-Based Practice (EBP) Dissemination Course in San Antonio, Texas, this fall. Making the most of a rare chance to connect in person, the team leaders and RIG members made new connections, planned collaborations, and shared their successes and challenges. The MWHRIG welcomed eight new members! Its core leaders—COL Lori Trego, AN, USA; CAPT Jacqueline Rychnovsky, NC, USN; Lt Col Candy Wilson, USAF, NC; and LTC (ret) Nancy Steele, AN, USA—updated the group on the RIG’s progress.

The team is continuing its systematic review of the military women’s health literature. A total of 1,395 articles have been considered thus far, and more than 350 articles are under closer review for inclusion in a searchable Web-based repository. The Web site, now in beta testing, will post a brief summary of findings as well as a grade for the strength and quality of accepted articles. The core leaders and a group of more than 50 subject matter experts who assemble virtually provide the reviews. The MWHRIG is collaborating with the Defense Health Agency to prepare a report for Congress outlining the progress of the database’s development and identifying any research gaps in military women’s health.

A first for the MWHRIG (and the military women’s health community), an “MWH Research Update” quarterly conference call was held on 9 October. Thirteen researchers representing multiple agencies and services called in to offer information on their research projects and make connections with others for collaboration, funding, and mentoring purposes. Efforts at multidisciplinary, multiagency collaboration were enhanced by military and civilian participants who were sociologists, epidemiologists, nurses, and physicians working in various agencies such as the Naval Health Research Center, the U.S. Naval Academy, the U.S. Marine Corps Commandant’s Office, and the Uniformed Services University of the Health Sciences. The core leaders look forward to hosting future calls in 2015 (set for the second Thursday of every quarter) and hope to have even more participation as others spread the word to their colleagues in the field.

The MWHRIG continues to receive positive feedback about its Women’s Health Researcher Guide, which was recently printed in its sixth iteration and is available in both paper and electronic formats; email RIG coordinator Megan Foradori, RN, MSN, at megan.foradori@gmail.com to request a book. If you haven’t done so already, you are welcome to join the group’s Facebook page—search for “Military Women’s Health Research Interest Group”—for team updates, educational program invites, and media reports on military women’s health. The core leader team is pleased to continue its support of novice researchers and doctoral students in women’s health as well as experienced military nurse researchers.

It’s truly an exciting time to be involved with the MWHRIG. If you’re interested in this area and would like to join the team for any part of this RIG’s work, please email core team lead COL Trego at lori.l.trego.mil@mail.mil or RIG coordinator Ms. Foradori at megan.foradori@gmail.com.
The TSNRP Resource Center continues to offer courses that address the TSNRP mission: “To facilitate nursing research to optimize the health of military members and their beneficiaries.” In light of this mission, the TSNRP Resource Center hosted its annual Research and Evidence-Based Practice (EBP) Grant Camp on 14–18 July at the Naval Air Station North Island in San Diego, California. Twenty-one students, equally representing the Army, Navy, and Air Force, attended and were guided by seasoned researchers and educators who had experience reviewing funded grant applications; teaching at universities; and functioning as team members (i.e., principal investigators, associate investigators, or consultants) on large, substantially funded research teams.

The initial goal of the Grant Camp remains unchanged from previous years—that is, each student produces and submits a scientifically sound research grant application in response to a TSNRP Call for Proposals on a topic that aligns with one of TSNRP’s research priorities: Force Health Protection; Nursing Competencies and Practice; or Leadership, Ethics, and Mentoring.

Following a revised program of instruction, students received a modest amount of didactic content about grantsmanship and spent a substantial amount of time applying the content while continuing to write their applications on the appropriate grant application forms. The most significant feedback received from this year’s faculty and students was that they appreciated the amount of time spent working one on one within small groups throughout the week on the grant applications and the submissions process.

Because of the emphasis on grantsmanship, attendees received instruction and direction on (1) their chosen topic, (2) the research process, (3) research design, (4) methods, (5) relevant variables, (6) measures, and (7) data analysis. The proposed research topics aligned with at least two of the three TSNRP research priorities.

At the conclusion of the course, the instructors asked the students to reflect upon and share their experiences over the course of the week with the other participants. Some of the comments were as follows:

“Practical improvements that made tangible differences in how I attack the grant revise and resubmit process.”
—CPT Paul Howie, AN, USA

“This was a fantastic course. Knowing how busy the faculty is, it was a real treat to have so much of their undivided attention. I am so enthusiastic about completing my proposal and submitting it—your encouragement if I have a question that needs to be answered and a good idea for how to do so is thrilling! One suggestion:
a brief on ‘tips and tricks’ for making the transition into the military scientist role. There was a good deal of discussion about what a small cadre of military nurse scientists exists; it would have been nice to hear from those of you who are/were successful in this role. Suggested concepts to address: how to talk to military superiors about what we (as doctorally prepared PhD researchers) bring to the command, how to balance maintaining clinical competence with research work, how to block out time for writing/thinking in a military environment where ‘open doors’ are an expectation, and ‘war stories’ of how you dealt with these challenges and responses you encountered (successfully or unsuccessfully) to help us to be more prepared and equipped to face them. Overall, this was an excellent course. Grant Camp provided

The TSRNP team has already started planning for next year’s Grant Camp. Based on the suggestions made at this year’s course, TSNRP will offer more EBP and qualitative content for the 2015 Grant Camp.

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Research 101: A Quick Review of Type Errors

### Type I Error

A Type I error is analogous to a false-positive result during diagnostic testing: *A difference is shown when in truth there is none.*

Researchers have long been concerned about making this mistake and have conventionally demanded that the probability of a Type I error be less than 5%.

This convention is operationalized in the familiar critical threshold for *p* values: *p* must be less than 0.05 before we conclude that a study is positive (that is, its results show a significant difference).

This means we are willing to accept that in 100 positive studies, results in no more than 5 will be due to chance alone. The probability that a Type I error has occurred in a positive study is the exact *p* value reported. For example, if the *p* value is 0.001, then the probability that the study has yielded false-positive results is 1 in 1,000.

### Type II Error

A Type II error is analogous to a false-negative result during diagnostic testing: *No difference is shown when in truth there is one.*

Traditionally, this type of error has received less attention from researchers than Type I errors and, consequently, it may occur more often.

Type II errors are generally the result of a researcher’s studying too few participants. To avoid the error, some researchers perform a sample size calculation before beginning a study and, as part of the calculation, assert what a “true difference” is and accept that they will miss it 10%-20% of the time (i.e., a Type II error rate of 0.1 or 0.2). Regardless of how a study was planned, when faced with a negative study, readers must be aware of the possibility of a Type II error. Determining the likelihood of such an error is not a simple calculation but a judgment.

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TSNRP EBP Course Emphasizes the Application of Evidence to Improve Patient Outcomes

LTC Angelo D. Moore, AN, USA

Since I arrived at Womack Army Medical Center (WAMC), one of my major objectives has been to establish a sustainable evidence-based practice (EBP) program. On 8–9 May 2014, TSNRP visited WAMC and hosted an EBP course. The training objectives were to familiarize attendees with EBP; engage leadership; use an evidence hierarchy and grading schema to review, analyze, and synthesize clinical evidence; and develop a PICO (clinical problem) question applicable to an EBP approach and problem. The overall goal was to help attendees understand principles and strategies for implementing an EBP process.

TSNRP provided two options for those who wanted to learn about EBP: a 2-hour “All Hands” session and a full 2-day course. Although the course was held at WAMC, the Center for Nursing Science and Clinical Inquiry coordinated a video teleconference (VTC) of the 2-hour All Hands portion, allowing staff at other medical treatment facilities in the Northern Regional Medical Command (NRMC) to participate in the training. This portion of the training emphasized the importance of using evidence to validate or refute current nursing practices and encouraged leaders and other staff nurses to engage in EBP projects.

The EBP course was taught by CAPT (ret) Maggie Richard, NC, USN, and LTC (ret) Deborah Kenny, AN, USA. A total of 85 active duty and reserve Army members and Department of the Army civilians attended the course, and 44 staff members from 10 military treatment facilities within NRMC attended the All Hands portion via VTC. In addition, 41 nurses from WAMC participated in the All Hands portion in person, and of those, 25 were pre-selected to attend the full course. WAMC selected these nurses based on work areas and topics of interest to their nursing leadership. The main goal was to have representation from all patient care and flow areas, including all inpatient areas; the emergency department; perioperative and postoperative areas; all six patient-centered medical homes in the Fayetteville, North Carolina, area; case management; health education and staff development; the Clinical Nurse Training Program director; and several other outpatient clinic areas. In addition, the course aimed to provide an environment in which departments could collaborate to create synergy and ultimately improve patient care experiences.

WAMC would like to thank TSNRP for providing this needed and timely training, which was instrumental in helping to establish an EBP program at WAMC.
Research and EBP Podcasts Now Available Through TSNRP

CDR Dennis Spence, NC, USN

I have some exciting news to share! TSNRP has posted training videos on evidence-based practice (EBP) and research on its Web site. These videos are the product of a fiscal year 2013 Navy Nurse Corps Strategic Goal Team whose mission was to “collaborate with the service branches and the TSNRP organization to develop multimedia evidence-based practice & research resources.” Army, Navy, and Air Force nurse researchers and TSNRP have provided these resources to help promote EBP and research by nurses, physicians, and other allied health professionals in the U.S. Department of Defense.

These videos are posted on YouTube and milSuite (https://www.milsuite.mil/book/groups/navy-nurse-researcher-strategic-goal-2-team); however, YouTube is blocked at many commands during working hours, and milSuite requires a Common Access Card to access the resources. With the help of MAJ Richard Clark, AN, USA, an informatics research fellow at TSRNP, the videos are now available on TSNRP’s Web site under the tab “Training/Education” (www.usuhs.edu/tsnrp/Training/opportunities.php). Anyone can access the videos on the TSNRP Web site.

The videos cover the following topics and sections:

**EBP**
- EBP Part 1: Introduction to EBP
- EBP Part 2: Overview of Processes and Models
- EBP Part 3: Searching and Reviewing the Scientific Literature
- EBP Part 4a: Research Article Critique
- EBP Part 4b: Research Article Critique—Statistics Overview
- EBP Part 5: Appraising and Synthesizing the Evidence
- EBP Part 6: Implementation
- EBP Part 7: Dissemination
- EBP Part 8: IRB Issues

**Research**
- Formulating a Research Question
- Research Design: Experimental and Quasi-Experimental Design

**Medical Writing**
- Scientific Writing Tips
- How to Write an Abstract
- How to Make a Poster
- Writing a Scientific Paper
- How to Write a Case Report

Recent Retirements

Please join us in wishing the very best to CAPT John Maye, NC, USN; Col Elizabeth Bridges, USAF, NC; and Col Susan Perry, USAF, NC, who have joined the ranks of the recently retired!

TSNRP Bids Farewell to Donna Gentry

Donna Gentry, who has served as TSNRP’s Grants Manager since 2010, recently announced her departure from TSNRP. During her time here, Ms. Gentry has embodied the TSNRP approach to balanced grants management, acting as an engaged consultant to the research teams in her grant portfolio while always being mindful of U.S. Department of Defense regulations and guidelines. Her attention to detail and insight were great assets as we ushered in new processes, such as the online grants application system and the virtual Post-Award Grants Management Course. Ms. Gentry met every challenge of her multifaceted position with wisdom and a calm reserve. We will miss her, and we wish her great success in every endeavor.
Navy Nurse Corps Scientist Reflects During Nurses Week

CAPT Jacqueline Rychnovsky, NC, USN

When I was a little girl, science was my favorite subject. My mom always said my constant questioning made me “nosy,” but I reminded her that I’m just curious.

Fast forward to years later, and my curiosity has helped lead me into a career as a Navy Nurse Corps officer and scientific researcher. In light of the Navy Nurse Corps’ 106th birthday celebration on 13 May 2014, I’d like to share how the nearly 4,000 Navy nurses are “doing a world of good” not only in the medical field but also in the field of scientific research. We are integrated throughout Navy Medicine worldwide, whether caring for patients in need in dynamic, challenging, and exciting environments or performing scientific research that serves as the foundation for medicine around the world.

As a nurse researcher and the first Navy Nurse Corps officer to lead a Navy Research and Development command, I am often asked how nursing research differs from other medical or scientific research. The question never offends me but always gives me pause. It is asked in the civilian and academic communities, too, mainly by those wondering how nursing research differs from quality improvement studies or how nursing research and evidence-based nursing practice projects differ.

In general, nursing research is a rigorous scientific process that provides knowledge to influence or shape health policy, prevent disease or disability, and build a scientific foundation for clinical nursing practice. The process focuses on understanding and relieving disease symptoms and finding solutions to achieve and sustain health. This differs from evidence-based practice, which is the use of the best available evidence to make decisions about patient care, or quality improvement, a continuous process used to strengthen health care outcomes.

Ideally, instead of focusing on how nursing research differs from “regular” research, I would rather talk about how they are the same. Whether research is performed at the bench, on human subjects, or through systematic reviews, the end result is the same. I would argue that we are all attempting to improve care, reduce suffering, and affect quality of life. Our tools are diverse: microscopes, stethoscopes, questionnaires, lasers, medication, observation, computer software, even conversation! We document, discover, interpret, and develop concepts, thoughts, and ideas to advance knowledge.

I believe that we get the most “bang for our buck” when studies are multidisciplinary and approach a patient-focused problem through the eyes of the individual. We need to actually feel what real people go through to truly understand their experience. This is why we at Naval Health Research Center are excited to be submitting our first TSNRP grant application to evaluate gender differences in the experiences of military sexual assault victims. If funded, we propose to use a variety of research methods to describe differences and patterns in male and female experiences, identify better ways to ask questions to help victims describe their sexual assault, and find out what helps victims cope and move on. We’ve built a team of nurses, doctors, and research psychologists from the Army, Navy, and Air Force to make sure we will fully understand what happens and how it makes people feel. Team diversity equals meaningful outcomes in my book.

I appreciate the confidence that Navy Medicine leadership has shown in me and am grateful each day to have the opportunity to get paid to do what I enjoy most. After all, curiosity is a good trait for all researchers!

See the original article in Navy Medicine Live at http://navymedicine.navylive.dodlive.mil/archives/6263. ★
Published Articles and Presentations by TSNRP Nurse Scientists

Published Articles

Army


Navy


Air Force


**Podium Presentations**

**Army**


**Navy**


Rychnovsky, J. (10 May 2014). Guest speaker, Southern California All Nurses Ball, San Diego, California.

Rychnovsky, J. (23 May 2014). Graduation Convocation Ceremony Opening Address, University of San Diego Hahn School of Nursing, San Diego, California.


Lt Col Susan Dukes and Lt Col Jennifer Hatzfeld presented their programs of research at the Asia Pacific Military Nursing Exchange in Korea.

Poster Presentations

Army


effects of QuikClot Combat Gauze on hemorrhage control in the presence of hemodilution and hypothermia.” University of Texas at San Antonio College of Sciences Research Conference: Excellence in Basic and Translational Science Research, San Antonio, Texas.


Navy


Air Force


Grants

Army

Burgert, J., Johnson, D., & Gegel, B. “Effects of intraosseous epinephrine on resuscitation and survival in a swine model of cardiac arrest.” AANA Foundation Fellowship Grant, $40,000.

Navy

Osborne, L. Simulation and education project. AANA Foundation grant, $18,000.

Air Force

Dukes, S., De Jong, M., & Serres, M. “Building a program of research for simulation in the strategic Aeromedical Evacuation/Critical Care Air Transport Team system.” 711th Human Performance Wing grant.


Publications and Presentations, continued

Newly Published Final Reports

Congratulations to the following military nurse researchers for completing the Final Report process. Their TSNRP Final Reports were assigned NTIS accession numbers and entered into the NTIS and CINAHL databases, with links on TSNRP’s Web site.

- Lt Col Nicole Armitage, USAF, NC. *Experience of Postpartum Active Duty Women in Training for the Fitness Assessment*, TSNRP study N12-P02, NTIS accession #PB2015-100607.
- CAPT (ret) Sandra Bibb, NC, USN. *Using BRFSS Data to Study the Relationship Between Access and Total Force Fitness*, TSNRP study N12-P11, NTIS accession #PB2014-106366.
- COL (ret) Thomas Ceremuga, AN, USA. *Effects of Herbal Supplements on PTSD-Induced Changes in Rat Behavior & Brain Gene Expression*, TSNRP study N10-P12, NTIS accession #PB2014-106365.
- LTC Leilani Siaki, AN, USA. *Evaluation of a Professional Practice Model in the Ambulatory Care Setting*, TSNRP study N10-C04, NTIS accession # pending.
- COL Lori Trego is the Chief, Center for Nursing Science and Clinical Inquiry, Brooke Army Medical Center.
- LTC Terri Yost is a nurse scientist at the Center for Nursing Science and Clinical Inquiry at Walter Reed National Military Medical Center.
- COL Denise Hopkins-Chadwick is the Dean, Academy of Health Sciences, U.S. Army Medical Department Center and School.
- LTC (P) Constance Jenkins is the Dean, Academy of Health Sciences, U.S. Army Medical Department Center and School.
- CDR Robert Hawkins is a regional researcher for Navy Medicine East.
- CDR Carl Goforth successfully defended his dissertation this summer at the Uniformed Services University of the Health Sciences (USU) and is stationed at U.S. Marine Corps Headquarters in Quantico, Virginia.
- CAPT (sel) Michele Kane is the Executive Assistant to the Defense Health Agency Director.
- CDR Jason McGuire is the Chief, Center for Nursing Science and Clinical Inquiry, Walter Reed National Military Medical Center.
- CDR Pamela Wall successfully defended her dissertation at Penn State University and is stationed in Cherry Point, North Carolina.
- Air Force
- Col Marla De Jong is the senior Air Force faculty in USU’s Graduate School of Nursing.
Awards and Recognition

TSNRP congratulates the following military nurse scientists, who recently received awards or other honors.

Army

**LTC Constance Jenkins** and **COL Maddie Dunnahoo** received the 9A Proficiency Designator for professional excellence in the Army Medical Department (AMEDD). This honor indicates that they are eminently qualified to chair a department, division, or service or have attained full professional status and national prominence in their field, nursing anesthesia.

**Col (ret) Arthur Don Johnson, USAFR, NC**, director of research for the U.S. Army Graduate Program in Anesthesia Nursing, received the prestigious AMEDD Center & School Dean's Special Act or Service Award for his excellence in scientific investigation. He also was recognized as a featured researcher in the Geneva Annual Report for 20 years of service with the Geneva Foundation.

**MAJ Ann Ketz** received the Tiina Karu Basic Photomedicine Award for her presentation “Establishment of an effective photobiomodulation treatment protocol in an animal model of persistent neuropathic pain” at the recent North American Association of Laser Therapy/World Association of Laser Therapy meeting.

**MAJ (ret) Mary McCarthy**’s abstract “The challenges of tele-health coaching to promote bone health in deployed Soldiers,” based on her TSNRP-funded research, was selected as an Abstract of Distinction at the Council for the Advancement of Nursing Science 2014 State of the Science Congress on Nursing Research. Hers was one of 10 Abstracts of Distinction chosen from the more than 650 abstracts submitted for the Congress.

Navy

**LCDR Jane Abanes** received the Admiral Betsy Niemeyer Award for Evidence-Based Practice for her article “Using a web-based patient-provider messaging system to enhance patient satisfaction among active duty Sailors and Marines seen in the psychiatric outpatient clinic: A pilot study,” published in *Nursing Clinics of North America*.

**CDR Eric Bopp** was awarded first place in the resident category of the Navy-Wide Academic Research Competition for his research project “Is combat exposure predictive of higher preoperative stress in military members?” CDR Bopp also received the American Society of PeriAnesthesia Nurses’ 2014 Mary Hanna Memorial Journalism Award for his article “A preoperative stress inquiry and a vulnerable US military population,” published in the *Journal of PeriAnesthesia Nursing*.

**CDR Carl Goforth** received the Rear Admiral Mary Hall Award for his article “The physiological impact of body armor cooling devices in hot environments: A systematic review,” published in *Military Medicine*.

**LCDR John Litchfield** was named a Uniformed Services University of the Health Sciences Jonas Scholar. Through the Jonas Nursing Scholars Program for Veterans Health, LCDR Litchfield will receive funding for research focused on veterans’ health care needs.

**CAPT(ret) John Maye** and **CAPT Lisa Osborne** were named to the Editorial Committee of the *AANA Journal*.

**CAPT Jacqueline Rychnovsky** was named a Fellow in the American Association of Nurse Practitioners (AANP). She also joined the Board of Directors for the AANP Foundation Scholarship and Grant Program and became a member of the AANP Network for Research.

**LCDR Jennifer Zicko** and **CDR Dennis Spence** were the EBP winners at the 2014 Naval Medical Center San Diego PI Fair for “Behavioral emergency response team.”

Air Force

**Col Marla De Jong** received the University of Maryland School of Nursing Distinguished Alumni Award and the Grand View University Distinguished Alumni Award.

Promotion Selections

The following military nurse scientists have been selected for promotions in military rank. Please join us in extending congratulations to these exceptional military nurses.

**Constance Jenkins** to COL (Army)
**Michael Schlicher** to COL (Army)
**Robert Long** to LTC (Army)
**Gordon West** to LTC (Army)
**Robert Hawkins** to CAPT (Navy)
**Michele Kane** to CAPT (Navy)
**William Danchanko** to CDR (Navy)
**Lalon Kasuske** to CDR (Navy)
**Kenneth Wofford** to CDR (Navy)
**Brenda J. Morgan** to Col (Air Force)
Events and Deadlines

Calendar

**November 2014**

**Research Development Course**
3–5 November
Fort Bragg, North Carolina

The Research Development Course introduces the research process to military nurses who are interested in research but need education and mentoring on identifying a research question or planning a research study.

**July 2015**

**Research and Evidence-Based Practice (EBP) Grant Camp**
20–24 July
San Diego, California

Research and EBP Grant Camp is designed for novice nurse scientists and graduate (master’s and doctoral) nursing students who plan to submit a research or EBP grant application in response to a TSNRP Call for Proposals. It includes a modest amount of didactic content about grantsmanship and substantial time during which attendees apply the didactic content to continue writing their applications on the appropriate grant application forms.

**September 2015**

**Research and EBP Dissemination Course**
Date and location TBD

The Research and EBP Dissemination Course will include presentations by military nursing leaders and other experts, a poster session, research methodology and education sessions, and a variety of networking opportunities. The course is open to active duty, Reserve, and National Guard military Nurse Corps officers.

Know Your Research Specialty Leaders

Your research specialty leaders are a valuable resource for current research requirements and initiatives throughout the military, the U.S. Department of Defense, and the Federal Nursing Services.

**U.S. Army**

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Fostering excellence in military nursing through science

Page 24