

TSNRP ★ news

From the Director

SPRING/SUMMER 2014



LTC Michael Schlicher

Friends and Colleagues in Research,

Nursing research, both qualitative and quantitative, is critical for quality, cost-effective health care. Today more than ever, research-based practice has become the hallmark of professional nursing. We need nursing research to generate new knowledge;

evaluate existing practice and services; and provide evidence that will inform nursing education, practice, research, and management. Nursing research is a powerful means of answering questions about health care interventions and finding better ways of promoting health, preventing illness, and providing care and rehabilitation services to people of all ages and in different settings.

In this issue of *TSNRP News*, we are excited to highlight three randomly selected TSNRP-funded research studies being conducted by some of our military nurse scientists. MAJ (ret) Mary McCarthy, AN, USA, provides incredible insight into her study helping Soldiers to “stay fit and ready.” Col Karen Weis, USAF, NC, gives us a compelling view of her interventional M.O.M.S. study helping pregnant women cope with stress and anxiety, and CAPT(ret) Chuck Vacchiano, NC, USN, describes his pivotal interventional work managing patients with mild traumatic brain injury. After reading these special highlights, I think you’ll

agree on the power of research and the potential return on investment to be gained.

As is tradition with TSNRP, we continue to offer a breadth of supportive activities, workshops, and courses to military nurse scientists. We are very excited to announce our new Research and Evidence-Based Practice (EBP) Dissemination Course, combining two historical research venues (the Karen A. Rieder Research/Federal Nursing Poster Session and the Phyllis J. Verhonick Nursing Research Course), which were discontinued due to travel cuts and budgetary restrictions, under one umbrella. This new triservice course will allow nursing scientists, researchers, and other clinical experts the opportunity to continue to disseminate their research and EBP projects in a professional military networking venue. This year’s theme is “Creating the Science, Advancing the Practice,” and the course will be held in San Antonio, Texas, on 15–18 September. Key nursing speakers/instructors and senior military nursing leaders are on the agenda, so please mark your calendars now, and check our Web site frequently for information about the call for abstracts, course registration, and other relevant updates.

In the era of EBP and knowledge-driven health care, all of us should be challenged to discover new and better ways of delivering care that is grounded in new knowledge and evidence derived through research. And all of us have a professional obligation to society to provide care that is constantly reviewed, researched, and validated.

LTC Michael Schlicher, PhD, AN, USA



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In This Issue:

Research Spotlight.....	2
Special Topics.....	8
Publications and Presentations.....	11
Educational Programs.....	12
Awards and Honors.....	14



Research Aims to Help Soldiers Stay Fit, Stay Ready...Stay Army!

MAJ (ret) Mary McCarthy, AN, USA

Remaining in the Army for a 20-year career is tougher today than it was just a few years ago. When the Army is supporting a global war that demands large troop concentrations in diverse environments with highly technological vehicles and equipment, attention is easily diverted from meeting unit wellness goals with stringent weight and body fat standards. Such standards only become high priority again when a lengthy war results in Department of Defense (DoD) fiscal constraints that necessitate an Army drawdown—and *that time is now*. Unfortunately, Soldiers have a new battle on their hands: the battle of the bulge. Deployments with large portions of calorie-dense, high-fat comfort food and a lack of gyms in many austere locations have not helped the situation. Now, in addition to regaining their physical and mental health after deployments, Soldiers are working to secure their future in the Army. By fiscal year 2014, the Army drawdown is expected to affect at least 15,000 Service members who do not meet conduct or physical fitness standards.

In 2008, more than 60% of U.S. military personnel were overweight and 13% were obese. This issue concerns the DoD because of the long-term health issues, job-related injuries, and burden to the military health care system associated with obesity. The *Army Times* and other publications have detailed the problems posed by overweight and obesity: The higher the body mass index, the greater the possibility of exercise-related injuries and the risk for musculoskeletal and connective tissue disorders, which mean degradation in performance



MAJ (ret) Mary McCarthy

and physical training profiles, duty time lost to lengthy medical evaluations, and substandard unit readiness. The challenges for nurse researchers, who must be innovative yet patient, are to overcome inflexible training schedules, deployments, and high study attrition to assist Soldiers in their efforts to meet short-term weight loss goals. Simply losing 5% to 10% of body weight can reduce the risk of significant morbidity and premature mortality, yet few people can accomplish or sustain this weight loss, and researchers have yet to determine how best to help Soldiers do this.

My current TSNRP-funded study, “A randomized, controlled trial of nurse coaching vs. herbal CAM for Soldier weight reduction,” is aimed at helping to solve this problem. The study’s premise is underscored by its motto: “Stay fit, stay ready...stay Army!” With the staunch support of Joint

Base Lewis-McChord (JBLM) commanders and a stable, talented, and creative research team, we are making a difference in the garrison war on overweight Soldiers. These young men and women represent the young adult population at large, which faces the same challenges with weight loss.

The increased awareness of the Army weight problem and the mandate to address it aggressively are evident in the revised Army Regulation 600-9, titled “The Army Body Composition Program” (ABCP, released 28 June 2013). The regulation empowers Soldiers with unhealthy weight status to seek nutrition counseling or enroll in a reputable community or online program. Progress can be measured in pounds or percentage of body fat lost; satisfactory progress is defined as losing either 3 to 8 pounds or 1% of body fat each month. Program failures are individuals who demonstrate



less than satisfactory progress in meeting goals over 3 nonconsecutive months after 6 months in the program. The high rate of program failures attending the existing MOVE! weight management curriculum led the research team to augment this program, building in evidence-based interventions of nurse coaching and herbal complementary and alternative medicine (CAM). Nurse coaching is an underused strategy that has demonstrated significant success in studies of health promotion behaviors. In addition, a calcium-containing herbal supplement (*Garcinia cambogia*) that promotes weight loss and may improve lipid metabolism and bone density presents a safe therapeutic option to meet short-term weight reduction goals and, perhaps, save an Army career.

The purpose of my study is to test a nurse coaching intervention and an herbal supplement for Soldier weight reduction over the course of a 12-week program to see if the coaching intervention works independently or if a synergistic effect exists when the supplement is added. The study is investigating the treatments' effects on the primary outcome of weight loss and the secondary outcomes of body fat, waist circumference, lipid profile, vitamin D status, adherence, and bone density.

The study is a prospective, double-blind, randomized, placebo-controlled design with repeated measures in Soldiers with unhealthy weight. The study team is currently using social media and other outlets to recruit a convenience sample of 500 male and female Soldiers from JBLM units who have been referred to attend MOVE! for failure to meet the ABCP standards. To determine whether the nurse coaching or the herbal supplement leads

to greater success in weight reduction, the study requires a four-arm design that includes three nurse coaching groups—one with the supplement, one with a placebo, and one with no additional intervention—and one group with usual care (no nurse coach). The arm using nurse coaching alone will test the assumption that coaching may independently influence bone density or lipid levels if the participant follows physical fitness and diet recommendations. Soon after initiating the study, we added a fifth group ($n = 100$) to allow Soldiers who are near (within 3%–5%), but do not exceed, the Army body fat standard to self-refer for weight management strategies. This group uses a less formalized curriculum but still employs a nurse coaching intervention. JBLM leaders requested that this group be added for Soldiers who always worry they hover uncomfortably close to the upper limit of the body fat standards at the time of the Army Physical Fitness Test. Soldiers receive coaching from a nurse each week by phone or email or both, based on their preference. During the coaching sessions, nurses reinforce MOVE! didactic material and personal goals, remind participants of data collection time points, give feedback on lab values, and discuss prescriptions for vitamin D or the next supplement pickup. Soldiers receive a \$20 Army and Air Force Exchange Service gift card following each of three blood draws.

The study has been under way for 12 months, and 18 months remain. It has met recruiting targets each month, enrolling 252 Soldiers so far. To date, the team has completed baseline measures in 88.5% of participants, midpoint (6 weeks) measures in 70.6%, and final (12 weeks) measures in 62%. Recruiting for subsequent sessions appears to

be facilitated by satisfied Soldiers who encourage their peers to participate. The team has noticed that the most successful cohorts are those in which several Soldiers are from the same unit and share common goals of losing weight and remaining in the Army to serve their country.

Our research team has designed a study that augments the existing Army solution to weight management in order to retain highly motivated Soldiers facing unplanned discharge. Our creative program encompasses social media; technology-based coaching; immediate feedback from biometric devices, such as resting energy expenditure, body fat, and bone density testing; and CAM approaches to health, all widely used in this population. These tools can be implemented by brigade medical and nursing assets and embedded in the Soldier Action Plan for weight management, both of which strategically align with the Soldier-Centered Medical Home.

The links between obesity and increased risk for conditions such as diabetes mellitus, cardiovascular disease, hypertension, and certain cancers pose a real threat to the strength of our fighting force of the future. As nurse scientists, we have a moral and professional imperative to find the best ways to promote health and prevent disease in our military communities.

If you have questions regarding this program of research, feel free to contact Mary McCarthy, PhD, RN, at mary.s.mccarthy1.civ@mail.mil.

The views expressed in the article are those of the author and do not reflect the official policy of the Department of the Army, the Department of Defense, or the U.S. Government. ★



TSNRP-Funded Study Examines Potential for Cognitive Stress Test

CAPT(ret) Charles Vacchiano, NC, USN

Traumatic brain injury is a leading cause of death and disability, with an estimated annual cost of more than \$60 billion in the United States alone. Mild traumatic brain injuries (mTBIs) constitute 70% to 90% of all brain injuries and remain a significant source of morbidity and mortality. More than 1 million patients per year present for emergent evaluation. During peacetime, starting in 1996, Department of Defense and Department of Veterans Affairs hospitals had more than 7,000 TBI admissions each year, and approximately 20% of combat personnel returning from the Afghanistan and Iraq conflicts have experienced a TBI in theater.

Approximately 85% of mTBI cases appear to resolve within 1 to 3 months without sequelae, while the remaining 15% may have persistent symptoms. Few studies have specifically addressed the pattern of neurobehavioral pathology in individuals with persistent behavioral abnormalities following an mTBI; however, evidence increasingly shows that neurocognitive abnormalities are common after brain trauma in patients with mTBI. These neurocognitive abnormalities may include deficits in several cognitive domains, including attention, concentration, memory, executive function, and processing speed. Moreover, persistent post-concussive symptoms, including headache, irritability, photophobia, and sleep disturbance, also are common. Although these deficits are often subtle, they may seriously impair cognitive function and quality of life.



CAPT(ret) Charles Vacchiano

One of the fundamental challenges associated with diagnosing and treating patients with mTBI is identifying those who have prolonged post-concussive symptoms to ensure appropriate follow-up care. Despite wide acceptance that mTBI may affect a number of cognitive domains, the use of a specific battery of neurocognitive tests that can detect immediate or delayed deficits remains controversial. Nevertheless, cognitive testing is commonly used to evaluate individuals who have suffered a brain injury as an aid in establishing the degree of injury and determining changes in cognitive performance over time and with treatment. These tests are typically administered with the individual in a resting state without intentionally imposing any physiological stressors. Although convenient to the examiner and the subject, this testing methodology may fail to fully demonstrate some deficits due to significant, normally unused cognitive ability, referred to as cognitive reserve, which is present in many individuals. This cognitive reserve

may mask residual cognitive deficits and reduce the sensitivity of cognitive tests when administered in the traditional manner. Therefore, reducing or eliminating cognitive reserve could increase the sensitivity of available cognitive tests.

This idea suggests the possibility of modifying the way in which cognitive testing is performed by adding an intentional physiological stressor, with the goal of limiting the influence of cognitive reserve on the test results and discovering the true extent of potential deficits. To test this possibility, TSNRP funded a study in which researchers applied a mild hypoxic stress. Integrating the concept of cognitive reserve with cognitive function measurement in a mild hypoxic environment creates the potential for a “cognitive stress test.” This test is based on a similar assumption to that of the well-known cardiac stress test: Imposing a controlled stressor may expose subtle deficits that are not apparent under conditions of physiologic homeostasis. In the case of the cardiac stress test, the stressor is



aerobic- or pharmacologic-induced cardiac work combined with electrocardiography with the goal of exposing latent coronary artery disease. In the cognitive stress test, the stressor is exposure to a mild hypoxic environment combined with cognitive performance testing with the goal of exposing subtle cognitive deficits.

The study methodology consists of comparing cognitive test scores between two groups of individuals in

a randomized cross-over design: one group with no history of brain injury and the other group with a history of mTBI but not currently exhibiting any residual symptoms. Each group is tested in both a room air environment and a mildly hypoxic environment. The researchers anticipate that the two groups will perform similarly when tested in the room air environment but that the group with a history of brain injury will perform more poorly than the group without a

history of brain injury when tested in a mildly hypoxic environment.

The ultimate goal of this research is to lay the groundwork for developing a practical clinical test to measure subtle deficits in cognition in brain-injured individuals that cannot be detected with current methods. In so doing, the researchers hope to promote early intervention and treatment as well as maximum preservation of functional brain mass. ★

M.O.M.S.: An Intervention for Military Mothers

Col Karen Weis, USAF, NC

The continued military combat operations in Iraq and Afghanistan over the last 10+ years have taken their toll on military families. Deployments have been frequent and often extended. This means that the spouses and families of deployed Service members have experienced repeated bouts of separation and anxiety, leading to increased dissatisfaction, divorce, depression, acute stress, sleep disorders, and illness.

Yet evidence suggests that family strength, affection, and cohesion, along with the ability to adapt, are effective in combating stress and influencing unit performance among military members. The President has made the well-being of military families a top national security priority. A program that could strengthen the military family not only fits with this priority, it is also in accord with today's new military paradigm, which emphasizes total force fitness—including environmental, social, behavioral, spiritual, psychological, and nutritional well-being.



The research team, from left to right: Katherine C. Walker, Col Karen Weis, Julie Farhat, and KC Zamora

Mentors Offering Maternal Support

Because the birth of a child is such a crucial time in the life of a military family, especially if the husband is deployed during the pregnancy, Col Karen Weis, USAF, NC, and her research team developed a program called Mentors Offering Maternal Support (M.O.M.S.), intended to supplement regular prenatal care. M.O.M.S. has grown out of 10 years

of nursing research data on prenatal maternal adaptation, stress, and anxiety and the resulting birth outcomes. In a TSNRP-funded study, Col Weis and her team followed more than 500 women, both military wives and active duty Service members, throughout their pregnancies. The data showed that women who experienced more anxiety during their pregnancies had more early-gestational-age and low-birth-weight infants.



The M.O.M.S. intervention was based on those findings and is designed to increase women's self-esteem and coping skills and to develop family cohesion and adaptability. M.O.M.S. consists of facilitated group discussions led by mentors trained in concepts related to prenatal maternal adaptation. A pilot study involving 65 women, primarily wives of special operators at Eglin Air Force Base in Florida, found M.O.M.S. to be effective.

The Current Study

In her current TSNRP-sponsored study, Col Weis and her team have recruited more than 300 women from Joint Base San Antonio, Texas, who are randomized into either the M.O.M.S. program or regular prenatal care without M.O.M.S. The women assigned to M.O.M.S. attend a 1-hour support class every other week for 8 weeks, beginning in the first trimester of their pregnancy. In addition, the investigators ask each husband who is deployed during his wife's participation in M.O.M.S. to take part in an

interview while he is deployed or separated from his spouse. The purpose of this interview is to explore how contact with his wife during deployment affects the husband's ability to contribute to his unit's mission.

Preliminary results show increased self-esteem, decreased depression, and decreased anxiety for women in the M.O.M.S. group. Analysis of group comparisons of birth outcomes is not complete.

The Research Moves into a New Phase

In the next phase of the study, which began in January 2014, Col Weis and her research team are collecting maternal serum from M.O.M.S. participants. The researchers plan to monitor stress-related physiological changes in these women by measuring serum levels of biomarkers that indicate stress. These physiological data will allow Col Weis and her team to measure whether the women's serum biomarker levels track changes in their self-esteem, depression, and anxiety as measured by the study instruments.

This nursing-focused intervention has also led to the development of a team of experts who will assess prenatal adaptation, placental physiology, and stress biomarkers and evaluate maternal-fetal physiologic effects related to maternal anxiety and the women's participation in M.O.M.S.

Col Weis spoke about her research at the October 2013 International Health Congress in China, and the Society of Behavioral Medicine has accepted her poster presentation at its annual conference in April 2014. Col Weis also will be presenting as a member of a triservice military panel at the American Psychiatric Association's annual convention in May 2014.

According to Col Weis, "The women who have participated in the program are its biggest proponents." With the help of their M.O.M.S. mentors, they have struggled through numerous crises in their pregnancies and have triumphed over the fears and isolation that can result from separation from family members at a critical time in their lives. ★

Applying Lessons Learned from TSNRP to the Defense Medical Research and Development Program

Lt Col Jennifer Hatzfeld, USAF, NC



Lt Col Jennifer Hatzfeld

This past summer, I was honored to start a new position as the portfolio manager for Joint En Route Care Research within the Defense Medical

Research and Development Program (DMRDP). Until I arrived, I had no idea that in 2008, Secretary Robert Gates had

requested the allocation of additional funds from Congress to conduct medical research on topics important to military medicine, including post-traumatic stress disorder, traumatic brain injury, prosthetics, and restoration of eyesight and advancing eye care. Since then, Congress has allocated millions of dollars each year to the Department of Health Affairs, which is managed by the DMRDP, to fund research in these areas.

Within the DMRDP, Joint Program Committees, consisting of medical and

military technical experts, focus on six major military medicine programs: Clinical and Rehabilitative Medicine, Military Infectious Diseases, Military Operational Medicine, Medical Training and Health Information Sciences, Radiation Health Effects, and Combat Casualty Care.

The Joint En Route Care portfolio is one of several in the Combat Casualty Care Research Program, which also includes Neurotrauma, Hemorrhage and Resuscitation, and Forward Surgical/Intensive Critical Care. Each



portfolio has a dedicated manager who chairs the portfolio's steering committee, makes sure that the appropriate research is funded, and ensures that the research projects stay on track. One of the largest challenges is to disseminate the findings to the field and ensure they are ultimately transitioned into new equipment, new clinical guidelines, or new policies.

As a nurse scientist, both my clinical experiences and my research training have been valuable assets in my new position. Although I don't have the opportunity to practice these skills every day, having the background and understanding of both specialties makes it much easier for me to evaluate proposed studies and progress reports to quickly identify potential problems or gaps in the projects. In particular, my clinical experiences in the deployed environment have given me a unique perspective (and passion!) to make sure that the funds are applied to research that can be directly used by the clinicians in the field.

However, I also have found that my past experience managing a TSNRP research grant has been especially helpful as I actively monitor ongoing research. Before moving to this new position, I completed a TSNRP-funded grant titled "Understanding and Improving Modifiable Cardiovascular Risks Within the Air Force." This was

a qualitative study to understand the factors that influence the lifestyle health behaviors among active duty members and to identify important elements of a lifestyle behavioral intervention. Originally intended as an 18-month project, it stretched into a 3-year study (through no-cost extensions) due to two 6-month deployments during that time period. Thanks to the dedication of my team members—Dr. Catherine Waters at the University of California, San Francisco; Dr. Bonnie Jennings, who is now at Emory University; and Dr. Mary Nelson, who is the director of the Health and Wellness Center at Travis Air Force Base—we finished the project just before I moved to my new assignment.

Reflecting on the experience of completing that research study has given me a number of valuable insights that have made me a better portfolio manager. First, I realize the difficulty of completing research on schedule in the military environment. My experience taught me not only to be proactive with any anticipated scheduling delays and to challenge ambitious timelines but also to understand when unanticipated delays occur.

I also learned of the importance of maintaining clear communication between the study team and the granting agency (e.g., TSNRP, the

DMRDP) *before* significant problems develop. As a portfolio manager, I am now much more willing to reach out and contact the primary investigator when I identify potential delays or problems. Lastly, all of the information I learned through the TSNRP Grant Management Workshop was not only invaluable for successfully completing the study but also has been extremely useful in my new role. Having that background and knowledge before I arrived in my new position has been a lifesaver, enabling me to focus on learning all about the DMRDP.

This is an exciting time to be a part of military medical research—first as a researcher and now as a portfolio manager. Although current combat operations are coming to a close, the research and evidence-based practice opportunities for military nursing continue to expand. Not only do we, as military nurse researchers, have a responsibility to focus on physical and mental rehabilitation, but we also have an obligation to learn the lessons from this past conflict and to be prepared for the next one—wherever and whenever it happens.

Learn more about the DMRDP and its Joint Program Committees at the DMRDP Web site: <http://dmrdp.dbbq.health.mil>. ★



LTC (ret) Janice Agazio Elected to Sigma Theta Tau Leadership

TSNRP congratulates LTC (ret) Janice Agazio, AN, USA—a TSNRP-funded principal investigator and associate professor at the Catholic University of America School of Nursing in Washington, D.C.—on her election as the Region 12 coordinator for Sigma Theta Tau International, the Honor Society of Nursing. LTC (ret) Agazio was elected in November 2013 and will serve as the Region 12 coordinator for 2 years. Region 12 has 37 chapters and covers Maryland, Delaware, the District of Columbia, northern Virginia, and central Pennsylvania.

LTC (ret) Agazio's role as the Region 12 coordinator involves mentoring, educating, and supporting chapter leaders; strategic planning; membership recruitment and retention; financial oversight; and other key responsibilities.

LTC (ret) Agazio has several research TSNRP studies to her credit, and she frequently serves as a Scientific Merit Review Panel member and mentor to junior scientists. Sigma Theta Tau is fortunate to have LTC (ret) Agazio bring her many talents and abilities to this leadership role. TSNRP wishes her all the best.



Dream Job: Reflections from a Novice Nurse Scientist

CDR Chris Reddin, NC, USN

CDR Chris Reddin, NC, USN, is one of the Navy's newest military nurse scientists. TSNRP News asked CDR Reddin to talk about some of his experiences and thoughts as a novice scientist.



CDR Chris Reddin with his daughter

Ahoy ship and shore mates,

When I was asked to write a brief synopsis of my experience as a new military nurse researcher 1 year post-doc, I struggled a little, because so much has transpired. I'm not particularly disposed to the concept of destiny, but after 11 months in my "dream job," I'm pretty sure I've finally figured out what I want to be when I grow up. As nurse researchers, we truly have the potential to change the world. Being a scientist is all about creatively answering, describing, or identifying real-world problems through rigorous investigation.

Naval Medical Center San Diego has proven to be a great place to get

started—with its extraordinary infrastructure, leadership, and command support for scholarly endeavors. My supervisor and mentor, CDR Dennis Spence, NC, USN, had prepared for me, prior to my arrival, not only an office and resources but also a duty and two collaterals. Kidding aside, the added responsibility got me out of the office quickly and onto the floors and units and into the field, enabling me to engage with staff and forge new relationships to help jump-start my research program.

As a team member of a very large, 5-year, prospective, NIH-funded study examining outcomes in traumatic brain injury (TBI) rehabilitation, carried over from my dissertation, I've been given the opportunity to co-author manuscripts exploring pain and orientation as well as identifying best practices in occupational therapy and agitation interventions. The study is so compelling that the *Archives of Physical Medicine and Rehabilitation* is devoting an entire supplement to our project.

During this past summer, our TBI research team here in San Diego, in partnership with the Defense Advanced Research Projects Agency (DARPA), an agency of the U.S. Department of Defense, traveled to Twentynine Palms in San Bernardino, California, to gather environmental

blast data during live fire exercises with two United States Marine Corps (USMC) regiments. The data acquired have been used to improve force protection and have enabled our TBI research team to move beyond environmental data collection into observational research with Navy SEALs and Explosive Ordnance Disposal units. Although I did not particularly care for the 120-degree days or sleeping on the ground (I was designed for winter survival), I have a renewed respect for people who are working under these conditions on a regular basis. Go USMC!

Finally, probably most rewarding have been the opportunities to assist our bright and energetic young navy nurses with graduate school and evidence-based practice projects. These young nurses make me feel young and old at the same time. Best of all, I have a ground floor office with a window. You know you've arrived when not only can you make a hasty exit should the need arise, but you also can rely on a sunset instead of an alarm clock to know when it's time to go home!

Most nautically yours,
CDR C. Reddin, NC, USN ★





Program Update from TSNRP's Informatics Research Fellow

MAJ Richard Clark, AN, USA

Before arriving at TSNRP last September, I served at the Brooke Army Medical Center in San Antonio, Texas, as the chief medical information officer. At that time, I was unaware of the scope and magnitude of TSNRP's mission. After only a few short weeks on board, I realized the overarching impact that TSNRP has on triservice nursing research and military nursing communities. As the sole program that funds and supports rigorous scientific research in the field of military nursing, TSNRP is the leading agent for advancing military nursing research. Consequently, the program must be able to effectively leverage available information management/information technology (IM/IT) tools and processes for all its stakeholders across the triservice nursing continuum. My role as the TSNRP Informatics Research Fellow is to facilitate this action.

During the first few months in my new position, I had the opportunity to discuss TSNRP's role and requirements with multiple stakeholder groups. These groups varied in composition, comprising TSNRP staff members, graduate and doctoral students/faculty, nursing scientists, clinical nurse specialists, IM/IT support personnel, and contract partners. During these discussions, I underscored my role as a nursing informatician to facilitate management and communication of data, information, and knowledge through nursing science, computer science, and information science integration and how I could make the greatest impact in those respective areas. The information gathered has been an invaluable tool as I further define my role at TSNRP.

After merging the comments, concerns, and requirements gleaned from these discussions with existing TSNRP workflow and business process observations, I compiled a needs assessment, highlighting short- and long-term TSNRP informatics requirements. I then reviewed and discussed these findings with TSNRP's Executive Director, LTC Michael Schlicher, AN, USA, resulting in three defined informatics focus areas:

- Direct/indirect informatics support to TSNRP cadre, principal investigators, and students/faculty
- Awareness and promotion of informatics resources and tools availability for TSNRP stakeholders
- Identifying and implementing informatics and IM/IT solutions for TSNRP operational and strategic goals and requirements

Some of the informatics initiatives that we currently are working on are as follows:

- Social media (TSNRP on Facebook, Twitter, and YouTube)
- Women's Health Research Interest Group database development
- Online grant submission system deployment
- Existing TSNRP Web site content update
- New TSNRP Web site development
- Electronic health record data mining

If you have any informatics questions or requirements, please contact me at richard.clark@usuhs.edu. I look forward to hearing from you! ★

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.

- LTC Jennifer Coyner, AN, USA. *Encoding of Fear Memory in High and Low Fear Mice*, TSNRP study N11-C19, NTIS accession #PB2014-101400.
- Lt Col Jennifer Hatzfeld, USAF, NC. *Understanding and Improving Modifiable Cardiovascular Risks*, TSNRP study N10-P14, NTIS accession #PB2014-100579.
- LTC Felecia Rivers, AN, USA. *U.S. Military Nurses' Experience of Coming Home after Iraq and Afghanistan*, TSNRP study N10-C03, NTIS accession #PB2014-101772.

TSNRP Resource Center Undergoes Change in Program Manager

TSNRP Bids Dawn Lea a Fond Farewell



Dawn Lea

Dawn Lea, who served as program manager of the TSNRP Resource Center since 2010, recently announced her departure from TSNRP.

During her tenure, Ms. Lea helped to provide the highest quality of educational courses to hundreds of military nurses. She worked tirelessly to ensure that continuing education credits were offered at nearly all TSNRP education events and helped to update and improve the program's educational curriculum, which was a significant undertaking. In addition, Ms. Lea coordinated efforts of the research interest groups, served on the planning committees for numerous TSNRP-supported military nursing conferences, and was instrumental in disseminating research-related resources (e.g., Distiller, SPSS, and the *Battlefield*

and *Disaster Nursing Pocket Guide*) to countless military nurses.

Given her logistical approach and selfless service, Ms. Lea contributed tremendously to developing and promoting TSNRP's mission. She will be greatly missed. TSNRP sincerely appreciates the years of service and dedication Ms. Lea provided. We wish her all the best and "safe journeys" in her new career.

TSNRP Welcomes Linda Bell



Linda Bell

With that said, TSNRP welcomes our new Resource Center program manager, Linda Bell, MA.

Ms. Bell comes to us from the Henry Jackson Foundation,

where she was the lead program manager for the Defense and Veterans Brain Injury Center in Silver Spring, Maryland. She brings a wealth of educational experience and programmatic experience to TSNRP. She has

served as an educator, child development administrator, and school liaison officer at various military installations. In 2007, while serving as the Fort Meade Youth Education support director and school liaison officer, Ms. Bell was the first Fort Meade civilian recipient of the Stalwart Award, which recognizes exemplary and innovative leadership in education.

Ms. Bell holds a master's degree in educational administration and supervision from Fayetteville State University in Fayetteville, North Carolina, and a BS in education from Norfolk State University in Norfolk, Virginia. She also is a graduate of the Army Management Staff College in Fort Belvoir, Virginia.

When asked about her new role at TSNRP, Ms. Bell responded, "My passion is education, and serving in a military-focused environment such as TSNRP is a dream. It is an honor to be a part of the TSNRP team."

Ms. Bell's vast education experience, people skills, and passion to support others while providing excellence in service make her a great addition to the TSNRP "unit." ★

Calendar

May 2014

Evidence-Based Practice Seminar

8–9 May
Womack Army Medical Center
Fort Bragg, North Carolina

July 2014

Research Grant Camp

14–18 July
North Island Naval Air Station
San Diego, California

September 2014

Nursing Research and Evidence-Based Practice Dissemination Course

15–18 September
La Quinta Inn and Suites,
San Antonio Riverwalk
San Antonio, Texas



Published Articles and Presentations by TSNRP Nurse Scientists

Published Articles

2013

Agazio, J., Hillier, S. L., Throop, M., Goodman, P., Padden, D., Greiner, S., & Turner, A. (2013). Mothers going to war: The role of nurse practitioners in the care of military mothers and families during deployment. *J Am Assoc Nurse Pract* 25(5), 253–262.

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Presentations

2013

Agazio, J. (27 February–2 March 2013). "Deployment of military mothers: Model for interventions." Southern Nursing Research Society, Little Rock, Arkansas.

Buonora, J. (29–30 April 2013). "Peroxiredoxin 6: A novel candidate for a TBI biomarker signature." National Capital Area TBI Research Symposium, Washington, D.C.

Buonora, J. (11 December 2013). "Development of a traumatic brain injury assessment score using novel biomarker discovered through autoimmune profiling." 3rd Annual Academy of Health Sciences Graduate School Research Day, Uniformed Services University of the Health Sciences, Bethesda, Maryland.

Ceremuga, T., Bentley, M., Anderson, R., Frye, P., Duvall, C., Maan, J., Manjarres, C., Petsche, J., & Ceremuga, G. (10–13 August 2013). "Effects of tetrahydropalmatine (THP) on PTSD-induced changes in rat neurobehavior." American Association of Nurse Anesthetists Annual Meeting, Las Vegas, Nevada.

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Hyatt, K., Davis, L., Vacchiano, C., Silva, S., Lewis, P., & Barroso, J. (29–30 April 2013). "Family reintegration experiences of soldiers with combat-related mild traumatic brain injury." National Capital Area TBI Research Symposium, Washington, D.C.

Hyatt, K. (8 November 2013). "Family reintegration experience of soldiers with combat-related mild traumatic brain injury." AMSUS Annual Meeting, Seattle, Washington.

Pierce, P. (3–5 November 2013). "Convoys of support among deployed military personnel." Society for the Study of Human Development Annual Conference, Fort Lauderdale, Florida.

Phillips, S., Hayes, E., Mann-Salinas, E., & Mittelsteadt, P. (**Robbins, J., study**). (7–9 March 2013). "Expert practitioner as change agent: Translating and implementing evidence into practice." National Association of Clinical Nurse Specialists Annual Conference, San Antonio, Texas.

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2014

Moore, A. (12–15 February 2014). "Communication predicts patient satisfaction, physical health status, and mental health status for active duty army soldiers and their family members: Important considerations when implementing the Patient-Centered Medical Home." Southern Nursing Research Society Annual Conference, San Antonio, Texas.

Media

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MAMC CNSCI Hosts TSNRP Evidence-Based Practice Course



Evidence-Based Practice Course participants

On 30–31 January 2014, Madigan Army Medical Center's (MAMC's) Center for Nursing Science & Clinical Inquiry (CNSCI), located at Joint Base Lewis-McChord, Washington, hosted a 2-day TSNRP course on evidence-based practice (EBP). CAPT(ret) Maggie Richard, NC, USN, and Chuck Biddle, PhD, CRNA, taught the course, which was attended by 30 active duty Army, Air Force, Navy, and civilian nurses.

The objective of the EBP course is to provide nurse researchers with an understanding of the importance of evidence for advancing nursing practice, improving varied outcomes, and advancing the discipline of nursing. The two-part seminar focuses on the current urgency of evidence application to practice and provides hands-on demonstrations of how to appraise, summarize, and translate evidence to support recommendations for quality clinical practice.

Part One includes a 2-hour, all-hands session to address the EBP paradigm of leadership: why EBP should be important to leaders and the organization; what is needed from leaders to facilitate EBP; advocacy for nurses engaged in EBP; and the barriers in implementing, supporting, or sustaining EBP.

At the conclusion of Part One, 25 pre-selected students, who have been identified and vetted through a competitive application process based on materials submitted during the registration process, remain with the faculty to attend Part Two. Part Two provides a more in-depth review of EBP in which faculty engage students in small group lectures, activities, and EBP article critiques. Faculty address such topics as using an evidence hierarchy and grading schema to review, analyze, and synthesize clinical evidence; developing or refining a PICO (i.e., clinical problem) statement; and exploring EBP models to determine which model may be most appropriate to an identified problem. TSNRP wishes to extend a special “thank you” to the host command for its support of military nursing EBP and another successful TSNRP EBP course!

Steps in the Research Process

- Formulate a research question or problem
- Define the purpose of the study
- Review relevant literature
- Develop a conceptual framework (structure that links global concepts together to form a unified whole)
- Develop research objectives, questions, and hypotheses
- Define research variables
- Select a research design (overall plan used to conduct the research)
- Define the population, sample, and setting
- Conduct a pilot study
- Collect data
- Analyze data
- Communicate and disseminate research findings, their implications, and the limitations of the study



TSNRP Research Development Course 2013

On 21–23 October 2013, Walter Reed National Military Medical Center hosted the TSNRP Research Development Course (RDC), a TSNRP Resource Center educational offering that aimed to stimulate nurses' interest in research and assist them in developing a sound research design and methodology. Faculty for the course included CAPT(ret) Elizabeth R. Barker, NC, USN; LTC (ret) Nancy A. Ryan-Wenger, AN, USA; and Victoria von Sadowsky, PhD, RN.

The RDC 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 and to novice nurse scientists who have some experience but have not yet submitted a grant application. The course also attracts some nurses who have submitted a grant application but require further research or grant development.

The 20 nurses who attended the October RDC were encouraged to bring a research idea/topic to develop over the duration of the course.

During the 3-day program, faculty

worked with the attendees to refine their research questions, determine the type of design best suited for their research questions, and begin formulating plans for methodology and analysis.

TSNRP hopes that extending the reach of the RDC will allow more nurses to submit draft proposals for Research Grant Camp, a more rigorous TSNRP research course.

TSNRP wishes to extend a special “thank you” to the host command in support of military nursing research!

2014 Educational Opportunities

TSNRP is gearing up for this year's Research Grant Camp and Nursing Research and Evidence-Based Practice (EBP) Dissemination Course. Join us to prepare for submitting a research grant application or enhance your EBP research and dissemination skills.

Research Grant Camp

Research Grant Camp will be held on 14–18 July at North Island Naval Air Station in San Diego, California. Led by a faculty of seasoned nurse scientists and educators, the camp aims to help military nurses with limited research experience advance their skills in developing fundable grant proposals. Its target audience is novice nurse scientists and graduate nursing students who plan to submit a research grant application in response to a TSNRP Call for Proposals.

The Grant Camp faculty will lecture on grantsmanship, but the bulk of the camp will focus on attendees' own grant applications. Attendees will have substantial time to apply lessons

learned to write and revise their applications, and faculty will provide feedback on the applications throughout the camp. The low faculty-student ratio ensures that each student will receive a great deal of personal attention.

To apply to attend Research Grant Camp, visit <http://hjfcvent.com/TSNRPGrantCamp2014>. Military nurses from all three components—active duty, Reserves, and National Guard—may apply to attend the camp. The application deadline is 28 April.

Nursing Research and EBP Dissemination Course

TSNRP is excited to hold its first Nursing Research and EBP Dissemination Course on 15–18 September 2014 in San Antonio, Texas. The course is dedicated to the dissemination of scientific nursing research and EBP findings, dissemination of professional nursing knowledge, and improving the

delivery of health care services.

The theme of this year's course is “Creating the Science, Advancing the Practice.” This course will include presentations by military nursing leaders; nationally known clinical experts; and triservice active, Reserve, Guard, and retired military nurse scientists and researchers. It also will feature poster abstracts, research/EBP presentations, and a variety of networking opportunities. Clinical innovations in research and EBP projects will be showcased to stimulate research questions and effective interventions. Research methodology and education sessions will round out the program, providing CEUs for participants.

The Nursing Research and EBP Dissemination Course is open to active duty, Reserve, and National Guard military Nurse Corps officers. Civilian nurses are welcome to attend on a space-available basis. Visit TSNRP's Web site at <http://www.usuhs.edu> to find more information as it becomes available.

Awards and Honors

Nurse Scientist Named Among the White House's 10 "Women Veteran Leader Champions of Change"



COL (ret) Stacey Young-McCaughan

The White House recently named COL (ret) Stacey Young-McCaughan, AN, USA, as one of 10 "Women Veteran Leader Champions of Change." A White House event on

25 March honored the 10 women veteran industry leaders, highlighting their incredible contributions to our nation's business, public, and community service sectors.

COL (ret) Young-McCaughan serves as director of research for the South Texas Research Organizational Network Guiding Studies on Trauma and Resilience (STRONG STAR) Consortium and as a professor in the

School of Medicine at the University of Texas Health Science Center at San Antonio. STRONG STAR is a multidisciplinary, multi-institutional research consortium designed to understand, prevent, and treat combat-related posttraumatic stress disorder (PTSD) and comorbid conditions among military Service members and recently discharged veterans who have deployed in support of the wars in Iraq and Afghanistan. It uses a highly effective research infrastructure to support 24 ongoing projects; more than 20 collaborating civilian, military, and Department of Veterans Affairs institutions; and more than 100 partnering investigators. To date, the consortium has recruited more than 1,000 Service members and veterans into clinical trials testing evidence-based treatments to determine the

most effective approach to treat combat-related PTSD.

A registered nurse with a doctoral degree in physiological nursing, COL (ret) Young-McCaughan also leads her own research program, which tests exercise interventions in recovery from PTSD and other conditions. With expertise she acquired during her 29 years as an officer with the U.S. Army Nurse Corps, including key leadership appointments within the Defense Department related to research and evidence-based practices, COL (ret) Young-McCaughan plays a critical role in all STRONG STAR research projects as she helps direct academic and military investigators in the conduct of scientifically sound, military-relevant, and ethical research.

TSNRP congratulates COL (ret) Young-McCaughan! ★

TSNRP-Funded Nurse Scientist Inducted Into Order of Military Medical Merit



LTC Felecia Rivers is inducted into the Order of Military Medical Merit.

TSNRP proudly congratulates LTC Felecia Rivers, AN, USA, Chief of the Center for Nursing Science & Clinical Inquiry (CNSCI) at Womack Army

Medical Center in Fort Bragg, North Carolina, on her induction into the Order of Military Medical Merit. In the words of the U.S. Army Medical Department (AMEDD), membership in the Order is bestowed on those who "through dedicated application of talent, effort, and spirit, [have] made significant exemplary contributions" to the AMEDD.

The Order of Military Medical Merit is a unique, private organization founded by the Commanding General of the U.S. Army Health Services Command in 1982 "to recognize

excellence and promote fellowship and esprit de corps among Army Medical Department (AMEDD) personnel." Membership in the Order emphasizes distinguished service, as recognized by the senior leadership of the AMEDD, by individuals who have clearly demonstrated the highest standards of integrity and moral character, displayed an outstanding degree of professional competence, served in the AMEDD (for at least 10 years) with selflessness, and made a sustained contribution to the betterment of Army medicine. ★



TSNRP Nurse Scientist Receives 9A Proficiency Designator Award



COL Laura Feider

Congratulations to COL Laura Feider, AN, USA, for being one of the recipients awarded the 9A Proficiency Designator. COL Feider is currently Chief of the

Center for Nursing Science & Clinical Inquiry (CNSCI) at Brooke Army Medical Center at Joint Base San Antonio, Texas.

The 9A Proficiency Designator award recognizes the highest level of professional achievement within each U.S. Army Medical Department Corps' specialty or subspecialty. Officers selected for this honor are leaders in

their specialties and have contributed significantly to the advancement and knowledge of nursing.

Please join TSNRP in congratulating COL Feider on her recent achievement. ★



Recent Retirement

Please join us in wishing the very best to **LTC Nancy Steele, AN, USA**, an outstanding military nurse scientist who has joined the ranks of the recently retired!

New Assignments

COL Kathleen A. Malone, AN, USA, was recently selected as the Individual Mobilization Augmentee to the Deputy Corps Chief, Army Nurse Corps.

CDR Michele Kane, NC, USN, is now serving as Executive Assistant to Lt Gen Douglas Robb, USAF, Director of the Defense Health Agency.

TSNRP wishes COL Malone and CDR Kane the best in their new assignments!

Triservice Nurse Corps Anniversaries

2 February 2014: 113th Army Nurse Corps anniversary

13 May 2014: 106th Navy Nurse Corps anniversary

1 July 2014: 65th Air Force Nurse Corps anniversary



Nursing Professor Elected to AANA Education Committee

Sharon Holland



Col Susan Perry

Col Susan Perry, USAF, NC, an assistant professor in the Daniel K. Inouye Graduate School of Nursing at the Uniformed Services University, was recently elected as a Delegate for the

Education Committee at the American Association of Nurse Anesthetists (AANA).

The election took place during the AANA's annual Assembly of School Faculty, held in San Diego on 18–20 February.

Perry is one of only two elected members of the seven-person committee. She was elected by the AANA's program directors and faculty to serve the

nearly 47,000 certified registered nurse anesthetists and student registered nurse anesthetists worldwide.

"I ran because I know that the future of CRNAs resides in the best education and a full scope of practice," Perry said. "This is the exact model at USU and in our independent scope of practice within the Air Force. We have the model to emulate, and I want to assist our members by implementing best education practices to all of our programs."

As a member of the AANA Education Committee, Perry will provide direction for programs associated with educating future nurse anesthetists and will expand and improve educational opportunities for interested anesthesia clinical and didactic educators. In addition, her responsibilities as delegate include reviewing and

recommending changes in the standards and guidelines for educational programs and schools to the Council on Accreditation of Nurse Anesthesia Educational Programs, and maintaining lines of communication with all nurse anesthesia professionals, anesthesia students, allied health professionals, non-medical organizations, and governmental agencies.

"Our nurse anesthesia program is consistently ranked nationally in the top 10 because of the contributions and expertise of our faculty. The recent appointment of Col Perry to the AANA Education Committee brings added national visibility and credibility to the GSN and the University," said Carol Romano, PhD, RN, FAAN, professor and associate dean of the Daniel K. Inouye Graduate School of Nursing.

Sharon Holland is the managing editor of The Pulse, a USU publication. ★

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.

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