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Continued commitment to OUR VETERANS
A Message from the WRIISC Directors...

The WAR RELATED ILLNESS AND INJURY STUDY CENTER (WRIISC) with sites in Palo Alto, CA, Washington, DC, and East Orange, NJ, continues to work to advance post-deployment health care of Veterans through clinical care, research, and education. Partnering with Department of Veterans Affairs’ (VA’s) primary care providers (PCPs), we ensure that optimal care is delivered and enhance the range of post-deployment health expertise available to all Veterans across the Veterans Health Administration (VHA).

The WRIISC is under the direction of VA’s Office of Public Health (OPH) and serves as a National VA resource. We work with OPH to identify emerging health concerns for deployed Veterans and share this information with a variety of different groups including VA clinicians, researchers, and public policy experts. We also partner with colleagues in the Department of Defense (DoD) to promote a better understanding of the health of Veterans throughout the entire deployment health cycle. Finally, we actively engage Veterans and Veterans Service Organizations to ensure that we meet the post-deployment needs and expectations of those who have given so much to serve our Country.

We take pride in our work and contributions that support VA’s overall mission. This edition of the WRIISC newsletter highlights some of our recent accomplishments showing our continued commitment to Veterans.

WRIISC Clinical Program Highlights

THE WRIISC continues to expand its services while striving to achieve optimal post-deployment health for Veterans nationwide. A patient-centered approach to care and a focus on collaboration and communication remain the foundation for our services. The WRIISC team consists of medical doctors with expertise in internal medicine and neurology, nurse practitioners, nurses, psychologists, neuropsychologists, social workers, experts in environmental exposure and occupational medicine, risk communication specialists, yoga teachers and acupuncture providers, and nutrition experts.

WRIISC comprehensive clinical evaluations are for deployed Veterans with complex health conditions with no known cause, a medical history that includes many tests and treatments with little to no symptom improvement, and/or possible deployment-related environmental exposures. The WRIISC also conducts environmental exposure-only assessments for Veterans with exposure concerns.

As part of the comprehensive evaluations, the WRIISC teams facilitate the completion of appropriate specialty consultations to inform the diagnosis and management of health issues. Once all of the information and consultations have been completed, the WRIISC team provides the Veteran and their PCP with treatment and management recommendations.

WRIISC expertise includes:

- Assessment and treatment of sleep disorders like insomnia
- Integrative health and wellness coaching
- Exercise assessment/prescription
- Nutritional wellness
- Evidence-based treatments for posttraumatic stress disorder (PTSD)
- Stress management
- Yoga
- Advanced diagnostic imaging
- Advanced vestibular assessment
- Exposure consultations
Since its inception, the WRIISC has provided over 3,500 comprehensive evaluations and over 2,500 environmental exposure evaluations for Veterans. Feedback over the years has been positive and illustrates that WRIISC efforts have paid off. Veterans seen at the WRIISC have expressed appreciation about our program:

“I left humbled and in awe. To have a team of such outstanding professionals in so many specialties, with cross-disciplinary knowledge, collaborating on my issues was unthinkable.”

“The caring attitude and affirmation provided by the WRIISC team caused me to come away in a different frame of mind because I was pointed in the right direction.”

More recently, the WRIISC has added two new clinical services referred to as E-Consults and E-Queries.

- For an E-Consult, the WRIISC reviews a Veteran’s referral from his/her provider and medical records, identifies issues of concern, speaks directly with the provider/patient as needed, and makes recommendations on how to proceed.

- E-Queries are electronic/phone inquiries from providers about any deployment-related health concerns. These are assigned to the best-qualified WRIISC expert for response.

Both services allow the WRIISC to share our expertise with Veterans and providers regardless of location and without the burden of travel.

If you are interested in being referred to the WRIISC or receiving one of these services, talk to your PCP and visit our website.

For more information, visit: [www.WarRelatedIllness.va.gov](http://www.WarRelatedIllness.va.gov)

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**WRIISC Research Accomplishments**

Research remains one of the core functions of the WRIISC. Investigators at all three sites are working together on several projects where findings are positively impacting the health of Veterans.

The “Markers for the Identification, Norming, and Differentiation of TBI and PTSD” or MIND study is a study that involves all three WRIISC sites and is designed to address the need to accurately differentiate between the diagnoses of traumatic brain injury (TBI) and posttraumatic stress disorder (PTSD). Veterans frequently present with symptoms that are consistent with both of these diagnoses. By integrating the results of various testing approaches, such as advanced imaging, cognitive function testing, behavioral measures and physiological measurements, the WRIISC hopes to identify a reliable way for health care providers to distinguish between these two distinct conditions. Findings from this study are essential to optimize treatment and management of Veterans. This study is currently in the data analysis phase, and several publications are in process.

Investigators at all WRIISC sites are also working on the study “Predictors of Medically Unexplained Symptoms in Veterans Clinically Evaluated at the WRIISC.” This study seeks to determine factors that may be associated with symptom and functional improvement over time. Veterans seen at the WRIISC are invited to participate in this study after a WRIISC evaluation. Veterans are then contacted every 6 months to obtain measures of symptoms and functioning. Results from the Predictors Study have been published in several journals and have contributed to funded grants.

The WRIISC continues to work closely with Veterans Service Organizations (VSOs) to highlight their research and obtain input from VSOs on areas of greatest importance to Veterans. On May 13th, the WRIISC held their 3rd annual VSO research briefing, hosted by Bob Wallace, Executive Director of Veterans of Foreign Wars in Washington, DC. Researchers from each site presented their latest findings. In attendance were 11 VSO representatives as well as key members of OPH and the Office of Research and Development (ORD) within VA. In close communication with VSOs, the WRIISC plans to continue to work to ensure that Veterans are aware of the important research being conducted at the WRIISC.
Specific WRIISC research highlights of the past year include:

**DC WRIISC**

**New Funding**

**Complementary and Alternative Medicine (CAM) for Veterans with Gulf War Illnesses**
Principal Investigator—Matthew J. Reinhard, PsyD

This study is a randomized controlled clinical trial to determine whether combined acupuncture and iRest® Yoga Nidra will lead to improved health-related physical functioning, fatigue, cognitive deficits and pain, as well as sleep in Gulf War-deployed Veterans with chronic multisymptom illness (CMI). This project is funded by the VA Clinical Science Research and Development Service (CSRD).

New funding also has been obtained to improve care for lesbian, gay, bisexual and transgender (LGBT) Veterans. Detailed information on this study is highlighted in “Around the WRIISC News” on page 6.

**CA WRIISC**

**New Funding**

**Identifying Immune Drivers of Gulf War Illness Using a Novel Daily Sampling Approach**
Principal Investigator—Jared Younger, PhD
Site Principal Investigator- Maheen Adamson, PhD

This is a study of immune system factors in Veterans with Gulf War Illness and will develop a model of immune system dysfunction and symptom severity. This might ultimately lead to effective screening, diagnosis, and treatments for Gulf War Illness. This project is being done in collaboration with investigators at Stanford University and is funded by the DoD Congressionally Funded Medical Research Program.

**Improving ß2 Adrenergic Signaling in Alzheimer’s Disease**
Principal Investigator—Ahmad Salehi, PhD

This 2-year grant is the first time formoterol, a medication that enhances function of a specific neurotransmitter receptor— the beta2-adrenergic receptor— is being tested to improve brain function in human subjects. Animal models have shown that drugs to activate beta2-adrenergic receptors in the brain can improve brain function. This study is important because of its potential application to Veterans with traumatic brain injury who are at greater risk for cognitive problems as they age. This research is funded by the Alzheimer’s Association.

**Continued Funding**

**Repetitive Transcranial Magnetic Stimulation (rTMS) to Treat Pain in the Veterans of the First Gulf War**
Principal Investigator—Wes Ashford, MD, PhD

This project studies the effectiveness of rTMS on treating pain in Veterans of the Persian Gulf War. rTMS provides a non-invasive way to provide pain relief by stimulating pain pathways in the brain. This study was funded by the VA Rehabilitation Research and Development Service (RRD).

**NJ WRIISC**

**New Funding**

**Treatment of Vestibular Dysfunction Using a Portable Stimulator**
Principal Investigator—Jorge Serrador, PhD

Loss of balance function is a common, but under-appreciated and often unrecognized condition in Veterans. In addition, motor vehicle accidents are unexpectedly high among deployed Veterans. The reasons for this are not currently understood, although vestibular dysfunction may play a role. This project will develop a new specialized portable stimulator about the size of a hearing aid that will be used to improve balance in Veterans as well as possibly driving performance. The project is funded by the Defense Medical Research and Development Program of DoD.

**Cognitive Rehabilitation for Gulf War Illness (GWI)**
Principal Investigator—Lisa McAndrew, PhD

Impairment in problem-solving ability is linked to disability in Veterans. This study will address the problem-solving difficulties experienced with GWI using an evidence-based approach to cognitive rehabilitation called Problem-Solving Therapy. Because Problem-Solving Therapy teaches patients strategies to address real-life problems, it has been shown to lead to reductions in disability in other groups of people. This is the first trial of cognitive rehabilitation therapy for GWI and is funded by the VA CSRD.
Diagnostic Utility of mtDNA Content and Exercise Challenge in Veterans with GWI
Principal Investigator—Michael Falvo, PhD
At present, there are no reliable blood tests capable of differentiating those with and without GWI. Mitochondria are the “power plants” of cells and the mitochondrial DNA techniques used in this project might result in a new diagnostic test for GWI which could help refine treatments for this syndrome. This study is funded by the VA CSRD.

Examination of Cognitive Fatigue in Gulf War Illness Using Functional Magnetic Resonance Imaging (fMRI)
Principal Investigator—Glenn Wylie, DPhil
This study will examine how the brain functions in Veterans during fatiguing cognitive challenges. Using advanced imaging techniques, this study will examine neural pathways that may be affected by GWI. This is a first step towards establishing the set of brain regions that are critical to fatigue. Once this set of areas is determined, treatments can be devised that act on these areas, and the effectiveness of treatments can be assessed by studying the activity in these regions. This study is funded by the VA CSRD.

The STAR Well-Kit Phase 3-Program Evaluation of Multi Site Dissemination
Principal Investigator—Susan Santos, PhD
This is an evaluation of the best methods for wider-spread dissemination of the STAR Well-Kit. This educational DVD introduces Veterans to the concept of integrative health and wellness as well as several specific practices, including yoga, meditation, and qigong. It was developed specifically for Veterans and features many Veterans speaking about their personal experiences. This effort is funded by the VA Office of Patient-Centered Care and Cultural Transformation.

For more information on which of these WRIISC research projects are currently recruiting participants, visit: www.WarRelatedIllness.va.gov/research/research-volunteer.asp.

Education Remains Essential at the WRIISC
The WRIISC educates Veterans’ providers on special health concerns Veterans may face after deployment.

IN JUNE, WRIISC hosted a two-day workshop in East Orange, NJ entitled, “Post Deployment Health (PDH) Champions—Train-the-Trainer.” A team of WRIISC clinicians along with VHA’s Post-Deployment Integrated Care Initiative (PDICI) directors Stephen Hunt, MD, MPH and Lucille Burgo, MD reviewed advancements in post-deployment health care. PDH Champions from across the country were selected to attend because of their roles in moving their local VA Patient-Aligned Care Teams (PACTs) forward. Coined a train-the-trainer program, the goal of this workshop was for participants to take home what they learned, become experts in the content, and then share it with other VA providers in their facilities and networks.

Workshop evaluation results showed that participants felt competent to apply what they learned to their own work and would be able to train their PACT team members more effectively. Importantly, the reach of the program has also extended to non-attendees as some of the PDH champions have started to train and share what they learned with others providers. Plans are in place for all three WRIISC locations to repeat this course for other PDH Champions throughout the country in an effort to ensure that PACT providers have the critical information they need to provide the best care for Veterans.
Airborne Hazards Symposium
In August, VA’s OPH and the DoD US Army Public Health Command sponsored the 2nd Annual Joint Symposium to address airborne hazard exposure concerns of Veterans and service members returning from Iraq and Afghanistan. Several WRIISC faculty members participated as planning committee members and/or speakers. Veteran advocates were featured in a panel discussion about communication challenges and opportunities about airborne hazards exposures and possible health implications.

Env. Health Clinician and Coordinator Train-the-Trainer
In keeping with the trend to maximize reach of educational offerings, VA’s OPH sponsored two train-the-trainer educational workshops for environmental health clinicians and coordinators in August and September. Terra Irons, PhD, a post-deployment health toxicologist at OPH, led this effort. Due to WRIISC’s expertise in deployment-related exposure concerns, a number of WRIISC faculty members were integral in developing and delivering content for these programs.

WRIISC Database
The WRIISC deployment health database helps scientists look for patterns in symptoms and conditions that may suggest their underlying causes as well as ways to improve treatment. These data also help the WRIISC with quality improvement and program evaluation activities. The WRIISC follows the very rigorous VA privacy, ethical, and data security rules to maintain the security of the database. The WRIISC vision is that this data repository will continue to grow as well as become a highly used resource for other VA researchers and providers.

NJ WRIISC
New Nurse Health Educator
In an effort to expand our expertise, NJ WRIISC welcomes Ms. Stephanie Grier, RN, MSN, a Nurse Health Educator (pictured right) as part of our staff. Hired in March, she is responsible for one-on-one Veteran heath education and group classes, provider education, and related clinical responsibilities.

Ms. Grier is a Registered Professional Nurse with over 18 years of home care, case management, emergency department, tele-health, and psychiatric nursing experience. At the James J. Peters Bronx VA, she performed direct clinical care for Home-Based Primary Care patients and worked as an assessment nurse for Operation Enduring Freedom and Operation Iraqi Freedom (OEF/OIF) Veterans in the Care Giver Program. Ms. Grier earned her Bachelor of Science in Nursing and her Bachelor of Arts in Sociology at Wagner College. She then received a Master of Science (MS) in Nursing in Education at Mercy College and an MS in Nursing at Hunter College as a Clinical Nurse Leader.

The WRIISC looks forward to Ms. Grier’s commitment to helping Veterans and contributions to the team!

DC WRIISC
Study of Military Experiences of Lesbian, Gay, Bisexual and Transgender (LGBT) Veterans
VA has made a lot of changes in recent years to welcome Veterans who identify as LGBT. Veterans in this community face numerous challenges and have unique health care needs. Many of these Veterans may not seek VA care and therefore do not know about the services available for deployment-related health concerns. There is also evidence to suggest that LGBT Veterans experience stress from discrimination and prejudice that can impact their health and well-being.
To help providers improve work with this group of Veterans, Katharine Bloeser, MSW, LICSW (Principal Investigator) applied for funding from the Georgetown Howard University Consortium for Clinical and Translational Science (GHUCCTS), an institution funded by the National Institutes of Health (NIH). Researchers from the DC WRIISC and academic institutions were given funding to help answer important questions about this community.

CA WRIISC

Focusing on Pain

Interest in yoga as a therapeutic treatment has grown tremendously among health care systems including the VA. In response, the CA WRIISC continues to develop its popular clinical yoga program for Veterans. Clinical evaluation results from the yoga program were recently presented at a conference organized by the International Association of Yoga Therapists held in Boston, MA.

▶ One presentation demonstrated that Veterans with a variety of stress-related disorders are willing and able to practice yoga as an additional recommendation to conventional medical care.

▶ A second presentation showed that yoga classes can be given safely and effectively to rural and community clinics through the Clinical Video Telehealth Program using VA secure video conferencing equipment. This work has the potential to open the practice of yoga to a new group of Veterans.

Yoga research at the WRIISC has been augmented by the addition of a postdoctoral fellow who will begin this fall and develop projects studying the physiological and psychological effects of Yoga and meditation on stress-related disorders and obesity.
Do you want to learn more about our GW1 research projects now recruiting volunteers?

Your participation benefits the health and future of our Veterans and the Nation.

For more information about our Gulf War I Studies and others, visit:
www.WarRelatedIllness.gov/research/research-volunteer.asp