

WRIISC *Advantage*

Fall/Winter 2020

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CURRENT RESEARCH STUDIES

FOR VETERANS

This edition of WRIISC Advantage focuses on our ongoing efforts to conduct research related to deployment health concerns facing Veterans. Read on to find out about some of our latest key research findings, information about research studies that are currently enrolling eligible Veterans, and more...

The Directors' Corner

AS A NATIONAL PROGRAM and Study Center, the heart of the WRIISC is to conduct research related to Veteran's health and then to disseminate those findings both as best practices and importantly, how they support the care of Veterans. Transforming clinical care through emerging science and using new knowledge gained to better equip health care providers who care for Veterans is one goal of all VA research and especially so at the WRIISC. Over the years, the three WRIISC locations have continued to work on research related to our Veterans top health concerns resulting from deployment. From understanding these health concerns better to discovering more effective treatments, research efforts at the WRIISC have varied greatly, however, the focus remains on making a world of difference in Veterans health through advancement.

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"We thank all Veterans who continue to serve by volunteering to participate in our research studies and support us by engaging others and spreading the word about the WRIISC!"

Spotlight: Tri- WRIISC Research for Gulf War Veterans

The three WRIISC locations often collaborate or work together on multi- site studies. This means that all three WRIISCs are involved in both collecting the study data and evaluating the study outcomes. One recent study "Predictors of Response to Insomnia Treatments for Gulf War Veterans" is still currently enrolling participants at all three WRIISC locations. Insomnia remains one of the top health concerns for Gulf War Veterans (GWV) and is defined as the inability to get a good night's sleep by having trouble sleeping or having limited sleep or disrupted sleep. This low-quality sleep can affect the way the body functions, lead to daytime sleepiness, and cause fatigue and many other cognitive problems.

The WRIISCs' current insomnia study evaluates different insomnia treatments offered by the VA. Specifically, this study compares the effectiveness of Cognitive Behavioral Therapy for Insomnia (CBT-I) and Sleep Restriction Therapy offered at the VA. CBT-I is a structured program that helps you identify and replace thoughts and behaviors

that cause or worsen sleep problems with habits promoting sound sleep. Sleep restriction therapy helps create a sleep schedule based on a patient's history and current sleep patterns. Once a new sleep schedule is designed, restricting sleep ultimately helps one to sleep better. Insight into the effectiveness of these two types of treatment for Veterans with insomnia will ultimately lead to better solutions for this health concern.

Another study that the three WRIISC locations worked on that is currently in the analysis phase (no longer accepting participants) is "WRIISC as a Model of Care for Chronic Multi-Symptom Illness". Researchers were interested in learning if a shared understanding of Gulf War Illness (GWI) between Veterans and their providers will result in better satisfaction and treatment recommendations.

Stay tuned for updates about findings for both of these WRIISC studies in future editions of this newsletter!

DC WRIISC Closer Look: Cognitive Therapy Insomnia

Cognitive behavioral therapy for insomnia or CBT-I has shown promise for Veterans, but CBT-I may not address nocturnal vigilance (alertness at night) resulting from threatening environments (or perceived threat causing fear/ anxiety). Researchers at the DC WRIISC and Howard University developed and evaluated a brief behavioral intervention including cognitive exercises to reduce nighttime vigilance. Forty formerly deployed Veterans were assigned to receive the intervention or an education only group (control group). Improved sleep, state of being rested, and reduced insomnia were reported in the group of Veterans who received the intervention. Those who received education only did not report any improvements. Our intervention improved symptoms, but further research is needed on whether pre-sleep cognitive exercises can reduce the impact of nighttime vigilance.



A Focus on Military Culture

Research and education efforts are expanding at the WRIISC in the field of military culture. Military culture is defined by multiple factors, to include military structure (such as branches and ranks), ideals, language and behavior norms, and core values. All components of military culture can impact a Veteran's life in a variety of ways such as determining values, views, desires, and fears. In addition, belonging to a military culture provides people with a sense of identity, purpose and belonging. Many Veterans will continue to identify with their military culture after their service.

Some Veterans who return from service decide to go to college to continue their education. A recent NJ WRIISC research publication "Cultural congruity of student Veterans" appeared in the Journal of Counseling Psychology. Findings were that feelings of not belonging or feeling misunderstood, what psychologists call cultural incongruity, predicts student Veterans' adjustment to college. This finding gives insight into just how important of a role military culture has in a Veteran's life after discharge.

The study found that when Veterans felt there was a mismatch between military culture and culture at the university-that is, when Veterans felt they didn't belong or were misunderstood because of their military culture, they did worse at school.

Knowledge and understanding of military culture remain vital for providers caring for Veterans.

The CA WRIISC team recently educated providers about military culture at a VISN conference hosted in Las Vegas, Nevada, in the Spring 2019. This event informed providers about how military culture can impact the way that healthcare is received. For instance, a direct and precise communication style is a part of military culture. A provider must consider the Veteran's preferred communication style to make sure important treatment information is understood by the Veteran. Treatment may be less effective if this and other cultural factors are not considered. The WRIISC looks forward to helping add to the growing body of research about military culture!

Airborne Hazards and Burn Pits Center of Excellence Research

Designated as the Airborne Hazards and Burn Pits Center of Excellence (AHBPCE) in May 2019, the Center conducts clinical and translational research related to airborne hazards and burn pits.

The Center is focused on a number of initiatives including developing a network of affiliated academic and VA locations both to conduct research and identify individuals to study clinically. For information about current research projects at the AHBPCE visit: [WRIISC Advantage Summer 2019](#) and our [website](#).



Volunteer for Research at the WRIISC

WRIISC RESEARCH CURRENTLY ACCEPTING VOLUNTEERS

JOINT SITE STUDIES- NJ, DC, & CA WRIISC

For Gulf War Veterans

- **Predictors of Response to Insomnia Treatments for Gulf War Veterans**
POPULATION: Veterans who have had difficulty sleeping, or have experienced insomnia, for at least 3 months
PURPOSE: Compare how well cognitive and sleep restriction therapies work for treating insomnia

NJ WRIISC

For Gulf War Veterans

- **Mitochondrial Dysfunction and GWI**
POPULATION: GWV (both deployed and non-deployed)
PURPOSE: Utilize blood samples to study part of the body's cells that helps produce energy (called mitochondria)
- **Examining Mechanisms of Post-Exertion Symptom Exacerbation in Gulf War Illness**
POPULATION: GWV with GWI
PURPOSE: Use neuroimaging (MRI) and ultrasound techniques to examine different aspects of a Veteran's nervous system/immune function and exercise
- **Pulmonary Vascular Dysfunction after Deployment-Related Exposure**
POPULATION: OEF/OIF/OND Veterans
PURPOSE: Understand what contributes to difficulties breathing and exercising, even if traditional breathing tests are found to be normal

For Veterans of All Eras

- **Evaluating Health Coaching for Chronic Pain**
POPULATION: Veterans with chronic pain
PURPOSE: Determine satisfaction/adherence to a health coaching intervention delivered over the telephone. Assess effectiveness.

DC WRIISC

For Gulf War Veterans

- **Complementary and Alternative Medicine (CAM) for Sleep, Health Functioning, and Quality of Life in Veterans with Gulf War Veterans' Illnesses**
POPULATION: GWV with GWI
PURPOSE: Explore the effectiveness of iRest Yoga Nidra/Auricular (ear) Acupuncture and Gulf War Health Education

For Veterans of All Eras

- **Recruitment Protocol for Effect of Exercise Training on Physical, Cognitive and Behavioral Function in Patients with Traumatic Brain Injury (TBI)**
POPULATION: Veterans of all eras with a diagnosed non-penetrating TBI. Injury occurred at least 12 months prior to enrollment. Ages 18-79
PURPOSE: Examine the effects of moderate and more intense aerobic exercise on cognitive performance, physical functioning, and health-related quality of life
- **Clinical Bio-Behavioral Assessment of Inhibitory Control in PTSD: A Pilot Study of the Anti-Saccade Paradigm**
POPULATION: Veterans ages of 18-60 with Traumatic Brain Injury (TBI) OR past traumatic stress disorder (PTSD) diagnosis
PURPOSE: Explore relationship between eye tracking performance and neuropsychology measures. Examine the cognitive assessment of PTSD and (mild traumatic brain injury) mTBI

CONTACT your local WRIISC for more information or to participate!

- **Enhancing executive function and self-regulation success through the promotion of brain health behaviors: a telehealth pilot study for Veterans with chronic multi-symptom illness**
POPULATION: Patients evaluated at DC WRIISC with symptoms of chronic multisymptom illness (CMI)
PURPOSE: Examine the effectiveness of a physical activity and mindfulness meditation telehealth intervention
- **WRIISC TBI Neuroimaging Inventory (TBINII): Identifying functional and structural differences in the neuronal substrate of war related TBI in veterans using neuroimaging inventory**
POPULATION: Veterans evaluated at the DC WRIISC with no previous TBI or mTBI diagnosis
PURPOSE: To examine Veterans with a history of TBI using neuroimaging techniques/other biomarkers to gain knowledge of how to improve treatment for TBI exposure

CA WRIISC

For Veterans of All Eras

- **Sleepless Warrior Study: Improving Sleep in Veterans with a History of Concussion**
POPULATION: Veterans with history of a concussion
PURPOSE: Compare two kinds of non-drug therapy treatments for insomnia in Veterans with a lifetime history of concussion or mTBI
- **Feasibility of At-Home Telehealth Yoga for Treating Chronic Pain**
POPULATION: Veterans with chronic musculoskeletal pain
PURPOSE: To develop internet-based yoga as a suitable treatment for chronic pain



RESEARCH MATTERS

WRIISC involvement in research that relates to Veterans' health is continuous. Below is a study recently submitted for publication by the NJ WRIISC.

PUBLICATION TITLE: Helpful ways providers can communicate about persistent medically unexplained physical symptoms

QUESTION: What do Veterans with Gulf War Illness (GWI) perceive as the most helpful communication from their providers?

STUDY: We asked over 200 Veterans with GWI what is the most helpful thing their provider told them. We then coded the responses.

FINDINGS: Patients felt it was most helpful when their provider offered acknowledgment and validation (N=70). Specific recommendations for managing GWI or its symptoms (N=48) were also commonly reported to be helpful. In contrast, about a third of the Veterans indicated that nothing their provider said was helpful (N=63).

ADDITIONAL INFORMATION: Researchers include Dr. Lisa M. McAndrew, NJ WRIISC Research Director, and her team. It was published in in BMC Family Practice in December 2019.

There were not differences in severity of symptoms, disability or healthcare utilization between patients who found acknowledgement and validation, specific recommendations or nothing helpful.

MEANING: This study suggests that most Veterans with GWI are able to identify something helpful a provider has said. Veterans thought acknowledgement and validation and specific treatment recommendations were particularly helpful. The findings also highlight missed communication opportunities with a third of Veterans not finding anything helpful.

IMPLICATIONS: We have provided education to providers across the VA teaching them to acknowledge, validate and provide specific treatment recommendations when treating Veterans with GWI.

Around the WRIISC News



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DC WRIISC

Clinical Recommendation Highlight: Fish Oil

Fish oil is often recommended for its great anti-inflammatory properties. It is a rich source of two essential omega-3 fatty acids, EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid), found in the fatty tissues of cold water, oily fish such as salmon, sardines or herring, or in supplement form. Research indicates these omega-3's can reduce inflammation at the root of many diseases including heart disease, stroke, and some types of cancers and autoimmune diseases. They have also been shown to lower cholesterol levels and boost mood.

The typical American diet is low in omega-3's, so levels can be boosted by eating oily fish 2-3 times a week or taking a supplement. Check the label to see that you're getting 2-4 grams of total omega 3's (EPA + DHA), not just grams of the oil. You may need to take three or more capsules twice a day to get the recommended dosage. You do not need products with omega-6 or -9, as these forms are widely available in foods. Diet changes to lower inflammation levels can be a simple but important step in improving your overall health!

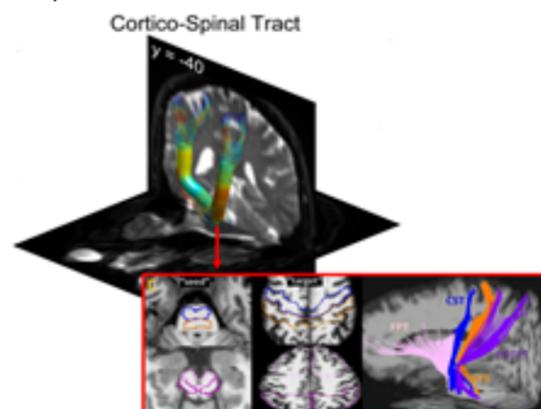


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CA WRIISC

Brain Imaging/Pain Assessments

Veterans suffer from a wide range of physical problems related to deployment. In addition, several Veterans clinically evaluated at the CA WRIISC suffer from neuropsychiatric issues (mental disorders attributed to diseases that result from the nervous system).



These result from medical histories including head trauma, pain, sleep disturbances, and fatigue. Veterans visiting the CA WRIISC have a choice of undergoing magnetic resonance imaging scans (MRIs) of their brains so that clinicians and researchers can learn more about how damage in the white matter pathways in the brain may relate to neuropsychiatric issues.

Using the results of scans, large white matter pathways that connect broad, distant regions of the brain can be detected. They are then able to examine how these large pathways feed into the much smaller deep-brain connections that are found in the brainstem, which regulates many fundamental functions that can impact symptoms from breath control to pain perception. By identifying the locations and extents of disruptions in brain connectivity, the CA WRIISC team can develop and refine treatments for neuropsychiatric conditions.

NJ WRIISC

AHBPCE: Outstanding Academic Accomplishments

NJ WRIISC's Airborne Hazards and Burn Pits Center of Excellence (AHBPCE) team members are recognized leaders in achieving academic excellence.

Most recently Dr. Michael Falvo, Scientific Director of the AHBPCE, contributed to an official American Thoracic Society Workshop report summarizing the respiratory health of Veterans who served in Asia and Afghanistan. This workshop report critically summarized and assessed the published literature on respiratory health after deployment to Southwest Asia, provided an update on emerging research and identified knowledge gaps for future research, clinical and public health efforts.

Dr. Falvo was also recently invited to speak at the National Academy of Medicine (NAM) for a workshop titled "Gulf Respiratory Health Committee Workshop". NAM is a private non-profit institution that advises on the global research agenda for medicine. Being asked to speak at the NAM is considered an honor and a strong indicator of the importance of the work being done by the AHBPCE.

A Center of Excellence is defined as "an area of health care specialization in a medical center that is recognized by the medical community as providing the most expert and highest level of care".

Dr. Falvo's recent work certainly helps the AHBPCE live up to its name!



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