Director’s Update

In the last newsletter, I began highlighting some of the cutting-edge research projects in our foundational areas (PTSD, TBI, and Substance Use), as well as emerging areas of post-deployment mental health (suicide, violence, pain, and special subpopulation needs of women Veterans, families, and the First Personal Gulf War). Last time, I highlighted our work in substance use. For this issue, I’d like to focus on our work examining brain changes in Veterans with PTSD and/or TBI.

Dr. Rajendra Morey is using neuroimaging to evaluate brain response to different PTSD symptoms to better understand the connection between symptoms and brain changes. He is also investigating how genetics may affect brain structure where childhood trauma is a major risk factor in PTSD and how that may affect treatment. Finally, he is also using neuroimaging to look at how white matter in the brain might be different for people who have experienced subconcussive blast exposure.

Drs. Katherine Taber, Robin Hurley and Jared Rowland are further investigating these white matter changes in Veterans exposed only to primary blast with or without symptoms of mild TBI compared to Veterans with deployment acquired mild TBI due to other or mixed mechanisms. They are using a variety of techniques including multimodal structural and functional neuroimaging and cognitive testing.

Dr. Jared Rowland is utilizing this dataset to compare Veterans with deployment acquired mild TBI who did and did not go on to develop PTSD to identify aspects of events and/or individuals that are important circumstances through which deployment acquired TBI increases risk of developing PTSD. His goal is to improve functional outcomes by identifying targets for development of interventions and to inform tailoring of PTSD treatment approaches to address the unique neurobiological changes that may be present when PTSD develops following deployment acquired TBI.

John A. Fairbank, Ph.D.
Director, Mid-Atlantic (VISN 6) MIRECC
MIRECC Fellowship Program Helps Train New Neuropsychologists

The MIRECC fellowship program at our Salisbury site has a unique training focus. They are helping to address the VA's identified critical need for more neuropsychologists. The training program for their MIRECC Fellows includes two bi-weekly 90-minute seminars. Dr. Taber (MIRECC Education Assistant Director) leads the functional neuroanatomy series. Drs. Miskey and Shura (MIRECC Psychology Fellowship Co-Directors, Salisbury site) lead the advanced neuropsychology seminars. This two-year series is based on the Houston Conference Guidelines for advanced neuropsychology training. The program more generally is designed to prepare postdoctoral trainees for specialty certification in clinical neuropsychology (ABPP-CN).

Trainees from many different specialties (clinical psychology, pharmacology, neurology, and psychiatry) also attend. These seminars have become very popular. In response to requests, VTEL was added late last year so that trainees across the country could attend. VAMCs in Denver, Salem, Columbia, Lebanon and Battle Creek now participate each week. This growth has led the Salisbury site to be nationally known, and reflects the MIRECC’s goal of providing advanced clinical education.

For more information, email Dr. Shura: robert.shura2@va.gov

National Service

Dr. Robin A. Hurley (MIRECC Associate Director, Education) recently served on a Department of Defense Congressionally Directed Medical Research Programs (CDMRP) grant review panel in November.

New Leadership Activities

Dr. Holly Miskey (MIRECC Faculty & Fellowship Co-Director, Salisbury site) was elevated to Chair of the Science Task Force Committee of the International Neuropsychological Society (INS) in August and in November accepted an invitation to serve on INS’s Program Committee.

Invited Lectures

Drs. Mira Brancu (MIRECC Deputy Director), Megan Shepherd-Banigan and John Williams co-presented “Evidence-based Synthesis: Interventions to Support Caregivers or Families of Patients with TBI, PTSD, or Polytrauma” as part of the HSR&D cyberseminar series on December 13, with an estimated 165 attendees!

Dr. Jennifer Strauss (MIRECC faculty, Durham site) co-presented “Women’s Primary Care Mental Health Integration (PC-MHI)” with Drs. Oishi, Mariano, Jain and Miller as part of the Women’s Mental Health Monthly Clinical Training Teleconference on December 14.
Welcome to our new MIRECC Fellows

**Kirsten Dillon, PhD** is the new Psychology Fellow at our Durham site. Kirsten completed her PhD at Florida State University and her pre-doctoral internship at the Durham VA Medical Center. For the past two years, she has been working at Duke University Medical Center with Dr. Patricia Resick, the developer of Cognitive Processing Therapy (CPT), on projects focused on implementing evidenced based interventions for PTSD. Dr. Dillon’s research interests include the relationship between anger and PTSD and developing novel treatments to target anger in this population. She has conducted research developing a computerized intervention to reduce anger and is looking forward to expanding upon this research and developing an mHealth intervention to reduce anger in Veterans with PTSD and problematic anger.

**Erica Epstein, Psy.D.** is a new Psychology Fellow at our Salisbury site. She completed her doctorate at Albizu University and her pre-doctoral internship at the Salisbury VAMC.

Her clinical training at Salisbury focused on neuropsychology, geropsychology, and as a health psychology track intern she also rotated with home-based primary care and PMCHI. She is pursuing specialized post-doctoral training in clinical neuropsychology. Prior research has focused on traumatic brain injury (TBI), and she is currently expanding her research interests to include sex differences in TBI and post-deployment conditions. In her free time, she enjoys hiking, playing guitar, and creative writing.
Kurtz ED, Kelley ML, Montano HG, VA Mid-Atlantic MIRECC Workgroup. Adding military sexual assault to an integrated model of risk and protective factors for posttraumatic stress symptomatology in OEF/OIF/OND women veterans. Oral presentation
**Publications**

**Journal Articles**


Compelling evidence suggests that epigenetic mechanisms such as DNA methylation play a role in stress regulation and in the etiologic basis of stress related disorders such as Post traumatic Stress Disorder (PTSD). Here we describe the purpose and methods of an international consortium that was developed to study the role of epigenetics in PTSD. Inspired by the approach used in the Psychiatric Genomics Consortium, we brought together investigators representing seven cohorts with a collective sample size of N = 1147 that included detailed information on traumareexposure, PTSD symptoms, and genome-wide DNA methylation data. The objective of this consortium is to increase the analytical sample size by pooling data and combining expertise so that DNA methylation patterns associated with PTSD can be identified. Several quality control and analytical pipelines were evaluated for their control of genomic inflation and technical artifacts with a joint analysis procedure established to derive comparable data over the cohorts for meta-analysis. We propose methods to deal with ancestry population stratification and type I error inflation and discuss the advantages and disadvantages of applying robust error estimates. To evaluate our pipeline, we report results from an epigenome-wide association study (EWAS) of age, which is a well-characterized phenotype with unknown epigenetic associations. Overall, while EWAS are highly complex and subject to similar challenges as genome-wide association studies (GWAS), we demonstrate that an epigenetic meta-analysis with a relatively modest sample size can be well-powered to identify epigenetic associations. Our pipeline can be used as a framework for consortium efforts for EWAS.


Resources for Veterans & Families

http://www.mentalhealth.va.gov/self_help.asp

Resources to Empower Veterans Mental Health

Self-help materials can provide valuable education and support for Veterans who may be facing mental health challenges, their friends, and family members. There are a wide variety of self-help materials available and it can sometimes be difficult to select the most useful. VA has assembled a list of reviewer-recommended materials that may be helpful in finding the right option for you. For help in finding these materials, please click the “How to Use” tab.

Online Life Skills Training for Veterans

There are several free and anonymous on-line education and life coaching programs that use interactive exercises and video demonstrations to teach skills for overcoming life challenges. http://www.veterantraining.va.gov/

Anger Management
This online course is based on training that was developed specifically for Veterans and has been successfully used by Veterans and Service Members around the world. This course offers a wide range of practical skills and tools to manage your anger and develop self-control over your thoughts and actions.

Moving Forward
This online course teaches skills to help you overcome stressful problems and meet your goals. Moving Forward is designed for Veterans and Service Members who are facing challenges including:
• Managing Stress
• Balancing school & family
• Relationship problems
• Coping with physical injuries
• Financial difficulties

Veteran Parenting
This course provides parents with tools that strengthen parenting skills and helps them reconnect with their children. The course:
• Helps parents deal with both everyday problems and family issues that are unique to the military lifestyle.
• Features stories from actual Veteran/military families, interactive activities, and practical parenting tips.

http://www.nc4vets.com/blog/resource-guide

The NC4VETS Resource Guide is produced and published by the North Carolina Department of Military and Veterans Affairs to assist and educate veterans in learning about state and federal veteran benefits. The 2017 edition is now available.
CBOC Mental Health Rounds

Each CBOC MH Rounds presentation is now offered twice a month:
Wednesday Jan 10 from 9-10 am ET & Thursday Jan 11 from 12-1 pm ET

Cannabis Use & PTSD: A Review of Current Findings and Clinical Considerations

Remember to register in TMS in advance to attend and receive credit.
https://www.mirecc.va.gov/visn16/cboc-mental-health- rounds.asp

If you require assistance contact:
EES Program Manager - Tim.Walsh2@va.gov or Education Tech - Jessica.Denno@va.gov

Provider Education

Dementia and Delirium
TMS ID 29817

Dementia is a major public health concern, affecting over 5 million Americans, of whom over 560,000 are Veterans. The incidence of dementia increases with age, with more than 90% of those affected aged over 60 years. It is one of the most costly chronic conditions that the VA treats and its financial impact is expected to grow with the increasing number of aging Veterans. This course will describe two of the most common neurocognitive disorders that occur among elderly.

Dementia and Driving
TMS ID 28776

One of the most challenging issues clinicians must address when working with Veterans with dementia is declines in driving skills. Approximately 30-45% of persons with dementia continue to drive, placing them at risk for becoming lost, crashing, and other adverse events. Clinicians have recognized a gap in knowledge regarding how to address diminished driving skills and decision-making for drivers with dementia. This training module will provide practical information that clinicians and health care teams can use in their work with older drivers with dementia and their families.

PACERS is pleased to announce a new “Dementia and Delirium” education module in our curriculum on cognitive disorders. Each module is accredited for 1 hour of CE and is available to VA providers in the VA Talent Management System.

This workshop series was developed by MIRECC faculty in collaboration with Citizen Soldier Support Program (CSSP) and North Carolina Area Health Education Center (NC AHEC). The web-based versions of the courses are all free at: http://www.ahecconnect.com/citizensoldier

1 - Treating the Invisible Wounds of War (TTIWW)
english & spanish editions
2 - TTIWW - A Primary Care Approach
3 - TTIWW - Employee Assistance in the Civilian Workforce
4 - TTIWW - Issues of Women Returning from Combat
5 - TTIWW - Recognizing the Signs of mTBI during Routine Eye Examinations
6 - TTIWW - Understanding Military Family Issues
7 - TTIWW - Taking a Military History: Four Critical Questions

Military Culture: Core Competencies for Healthcare Professionals
http://deploymentpsych.org/military-culture

Module 1: Self-Assessment & Introduction to Military Ethos
Module 2: Military Organization & Roles
Module 3: Stressors & Resources
Module 4: Treatment, Resources & Tools
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