National Center for PTSD
POSTTRAUMATIC STRESS DISORDER

FISCAL YEAR 2019 ANNUAL REPORT

PSYCHOTHERAPY FOR PTSD

This page intentionally left blank.

Table of Contents

Acronym List 2–3

From the Executive Director 4

Psychotherapy for PTSD: Enhancing Effectiveness, Efficiency, and Access 5–12

Advancing Knowledge about PTSD: Major Research Initiatives in Fiscal Year 2019 13–19

Promoting PTSD Education: Training, Dissemination, and Communication in Fiscal Year 2019 20–26

About the National Center for PTSD 27–29

Appendices

A. Acronyms Used in Appendix B 31

B. Research Narrative by Division 32

C. Funding 46

D. Publications 58

E. In-Press Publications and Advance Online Publications 75

F. Scientific Presentations 82

G. Educational Presentations 92

H. Editorial Board Activities 95

Acronyms List

Army STARRS
Army Study to Assess Risk and Resilience in Servicemembers

CAP
Consortium to Alleviate PTSD

CAPS
Clinician-Administered PTSD Scale

CAPS-5
Clinician-Administered PTSD Scale for *DSM-5*

COPE
Concurrent Treatment of PTSD and Substance Use Disorders Using Prolonged Exposure

CPT
Cognitive Processing Therapy

CSP
Cooperative Studies Program

DOD
Department of Defense

DSM-5
Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition

EEG
Electroencephalography

ENIGMA
Enhancing Neuroimaging Genetics through Meta-Analysis

fMRI
Functional Magnetic Resonance Imaging

GWAS
Genome-Wide Association Study

IPV
Intimate Partner Violence

JIF
Joint Incentive Fund

LIGHT
Longitudinal Investigation of Gender, Health, and Trauma

mGluR5
Metabotropic Glutamate Receptor Type 5

MBC
Measurement-Based Care

MDD
Major Depressive Disorder

MEG
Magnetoencephalography

MVP
Million Veteran Program

MST
Military Sexual Trauma

NEPEC
Northeast Program Evaluation Center

OMHSP
Office of Mental Health and Suicide Prevention

OPM
Office of Personnel Management

Acronyms List

PBI Network
Practice-Based Implementation Network

PC-PTSD-5
Primary Care Screen for PTSD for *DSM-5*

PCL-5
PTSD Checklist for *DSM-5*

PCT
Present-Centered Therapy

PE
Prolonged Exposure

PET
Positron-Emission Tomography

PGC
Psychiatric Genomics Consortium

PILOTS
Published International Literature on Traumatic Stress

PTSD
Posttraumatic Stress Disorder

SPR
Skills for Psychological Recovery

STAIR
Skills Training in Affective and Interpersonal Regulation

STRONG STAR
South Texas Research Organizational Network Guiding Studies on Trauma and Resilience

TACTICS
Targeted Assessment and Context-Tailored Implementation of Change Strategies

TMS
Transcranial Magnetic Stimulation

TRACTS
Translational Research Center for Traumatic Brain Injury and Stress Disorders

TRAIN
TrainingFinder Real-time Affiliate Integrated Network

TrIGR
Trauma-Informed Guilt Reduction

VA
Department of Veterans Affairs

VAMC
VA Medical Center

VHA
Veterans Health Administration

VISN
Veterans Integrated Service Network

webSTAIR
Web-Based Skills Training in Affective and Interpersonal Regulation

WET
Written Exposure Therapy

WoVeN
Women Veterans Network

From the Executive Director

August 2019 marked the 30th anniversary of the National Center for PTSD. The Center was founded in 1989 under the direction of Dr. Matthew Friedman, who served as Executive Director for 25 years and is currently Senior Advisor and head of VA's National PTSD Brain Bank. During the 30 years of our existence, our talented and devoted staff have worked to improve the health and well-being of Veterans through research and educational initiatives, and through consultation with clinicians, educators, and policymakers throughout the United States and around the world. We are very proud of this work and the impact we have been able to have on our nation's Veterans and others who are dealing with traumatic stress.

Another founding member, Dr. Steven Southwick, served as Deputy Director of the Clinical Neurosciences Division from 1989 until earlier this year, when he retired. To honor his legacy, Connecticut Senator Richard Blumenthal read a tribute to Dr. Southwick into the Congressional Record. As stated by Dr. John Krystal, Director of Clinical Neurosciences Division, "We wouldn't have been the same Center without Steve. While pursuing neuroscience aims, he brought a distinctive humanism to the work that made us better."

A key area of focus since our inception has been research on treatments for PTSD. Over our history, we and our collaborators have conducted groundbreaking research showing the effectiveness of psychotherapeutic interventions for PTSD. Now we are expanding our efforts to improve the effectiveness of these interventions and help providers implement them. The introductory section of this Annual Report summarizes our recent and ongoing research, aimed at improving the effectiveness, efficiency, and access to these valuable treatments.

In education and outreach, our efforts continue to benefit Veterans and the community at large. We added features to AboutFace, our online gallery of videos featuring Veterans, family members, and clinicians talking about PTSD and the value of treatment. We trained community providers in Prolonged Exposure. We developed two important new apps: Couples Coach and Beyond MST. We also redesigned our award-winning website — www.ptsd.va.gov — to make it easier for users to find the content they need.

PTSD was a new diagnosis when the National Center opened its doors in 1989. It had just been formalized as a distinct psychological disorder — separate from other mental health disorders — in 1980. Since then, the field has made incredible progress in understanding PTSD and how to treat it. I am proud that we have contributed to that progress during the past 30 years, and I look forward to continuing our efforts to help those who are affected by traumatic events.

Paula P. Schnurr, PhD
Executive Director

Paula P. Schnurr, PhD

PSYCHOTHERAPY FOR PTSD:

Enhancing Effectiveness, Efficiency, and Access

The National Center for PTSD was founded in 1989, just a few short years after PTSD was recognized as a distinct psychological disorder that can develop after exposure to a traumatic event. At the time, PTSD was generally considered to be a chronic condition, and treatments centered on teaching coping strategies to help a person deal with the symptoms — flashbacks, difficulty sleeping, problems managing anger — rather than getting to the root of the symptoms by helping the person process the traumatic event itself.

Among the early initiatives undertaken by the National Center during the 1990s were studies aimed at generating evidence of the effectiveness of trauma-focused psychotherapies. It was common then, and now, to treat PTSD using a group format, engaging Veterans in processing their traumatic experiences. These groups did not typically use cognitive-behavioral techniques that had proven effective in other disorders, and to a limited extent in PTSD.

A landmark multi-site Department of Veterans Affairs (VA) study launched by Dr. Matthew

Matthew Friedman, MD, PhD, former Executive Director and current Senior Advisor; Paula P. Schnurr, PhD, Executive Director

Friedman and Dr. Paula Schnurr in 1995 compared the effectiveness of cognitive-behavioral trauma-focused group therapy with Present-Centered Group Therapy in Vietnam Veterans. Although the study of 360 Veterans in 60 therapy groups — still one of the largest psychotherapy studies in PTSD — found no difference between the two treatments, it set the stage for a more rigorous and large-scale investigation by the Center and others.

In 2001, Dr. Schnurr and Dr. Friedman undertook another multi-site trial. This time they compared Prolonged Exposure (PE), in which patients acclimate to trauma-related memories and reminders through imaginal and real-word exposure, to Present-Centered Therapy (PCT), which focuses on current life problems that result from PTSD rather than focusing on the traumatic event directly. This was the first study of PTSD treatment for women Veterans and the first VA Cooperative Study to focus on women. PE was shown to be significantly more effective than PCT in reducing PTSD symptoms and leading to remission.

A smaller Center-led VA study added support for trauma-focused psychotherapies by showing that Cognitive Processing Therapy (CPT), which helps patients challenge and modify their beliefs about a traumatic event, was effective for the treatment of military-related PTSD. These, and later studies, showed definitively that trauma-focused psychotherapies work for treating PTSD.

Due in large part to this work by National Center investigators, VA published a handbook in 2008 that specified that PE or CPT must be available at all VA facilities. More recently, in 2017, National Center staff helped update the VA/Department of Defense (DOD) Clinical Practice Guideline for PTSD, which they had previously helped develop; for the first time, trauma-focused psychotherapies, including PE, CPT, and Eye Movement Desensitization and Reprocessing, were recommended over medications and non-trauma-focused interventions for PTSD.

More recently, in 2017, National Center staff helped update the VA/DOD Clinical Practice Guideline for PTSD, which they had previously helped develop; for the first time, trauma-focused psychotherapies, including PE, CPT, and Eye Movement Desensitization and Reprocessing, were recommended over medications and non-trauma-focused interventions for PTSD.

While these psychotherapies are highly effective, providers and patients have encountered challenges in delivering and participating in these protocols. Trauma-focused psychotherapies, like all treatments, do not work equally well for all patients. Some patients require longer courses of therapy than the typical 10-12 sessions, and some prefer shorter courses of therapy, so different treatment schedules might be more appropriate. Time and travel can be burdensome for some patients, particularly those who live at a distance from a clinical facility. Some Veterans have other mental health concerns that they may want to address in combination with, or instead of, PTSD. And some people simply prefer or respond better to one treatment or another. Today, researchers throughout the Center are focusing on modifying the treatments and delivery mechanisms of CPT and PE to make them more effective, efficient, and accessible.

Modifying Treatments to Improve Effectiveness

Dr. Tara Galovski, Director of the Women's Health Sciences Division, has been studying **variable length dosing**, in which patient progress is used to determine the number of sessions for a treatment course. Some patients might have significant symptom reduction in just six or eight sessions, while others might require more than the traditional 12 sessions. According to Dr. Galovski, "We should never give the message that a person needs more therapy when they have truly met their therapeutic goals. At the same time, other patients might actually benefit from more sessions." This approach also allows the therapist to devote sessions to other issues that arise, including emergency situations, and then return to the main focus of trauma work.

Researchers in the Women's Health Sciences

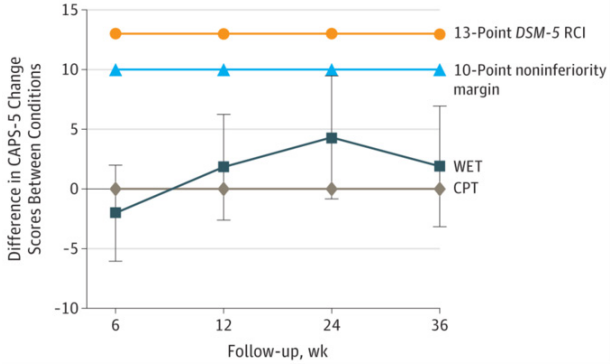
Tara Galovski, PhD, Director, Women's Health Sciences Division (second from left) and staff

Division have also been studying the effectiveness of **massed treatment**, or delivering treatment within a more compressed time frame than is typical of research studies or standard practice. Dr. Jennifer Wachen is currently conducting a study with active duty Servicemembers in which they receive 12 sessions of CPT in an intensive five-day period of time instead of the usual six weeks. Preliminary results from studies of other trauma-focused psychotherapies indicate that fitting all the sessions into one or two intensive weeks can be just as effective as the conventional weekly format, and may better serve the needs of people who find it difficult to complete a 12-week regimen.

"With PTSD, avoidance is inherent in the disorder — the last thing a person wants to talk about is the worst thing that ever happened to him or her. With a traditional once-a-week therapy schedule, patients may lose motivation between sessions and drop out prematurely," Dr. Galovski states. "But with massed treatment, a person commits to the five days, clears his or her schedule, and sees that the light at the end of the tunnel is within reach. From a clinical perspective, it is truly remarkable to watch recovery take place in just one week."

National Center investigators have also developed and evaluated new, shorter treatments that may be more amenable to some patient populations and settings. One exciting initiative is testing **Written Exposure Therapy** (WET), in which patients write about their traumatic event rather than describing it orally to a therapist, and then attend a short debriefing session. Dr. Denise Sloan of the National Center's Behavioral Science Division says the treatment is delivered in five sessions, with no between-session homework required, and has produced good outcomes. "The findings on dosing were surprising to us," she states. "And with the shorter timeframe, the drop-out rate is lower." WET has also been found to be non-inferior to CPT, and is now being tested in comparison to conventional PE.

Evidence suggests that PE and CPT are equally effective on average across a large group of patients, but it is possible that PE may work better for one patient, whereas CPT may work better for another. Unfortunately, evidence-based guidance for matching patients to treatments has been lacking. Dr. Schnurr's current research focuses on **comparative**



Evidence that 5-Session Written Exposure Therapy is as Effective as CPT

Noninferiority margins and 95% confidence intervals for Clinician-Administered PTSD Scale for *DSM-5* (CAPS-5) scores. The vertical axis represents differences between the CPT and WET conditions in CAPS-5 total score changes; negative values indicate greater improvement in the WET condition. RCI = reliable change index.

Sloan, D. M., Marx, B. P., Lee, D. J., & Resick, P. A. (2018). A brief exposure-based treatment vs cognitive processing therapy for posttraumatic stress disorder: A randomized noninferiority clinical trial. *JAMA Psychiatry*, 75, 233-239. doi:10.1001/jamapsychiatry.2017.4249

Erika Wolf, PhD, and Denise Sloan, PhD, Investigators, Behavioral Science Division

effectiveness, or determining which treatments work best for which patients. She and her colleagues recently completed data collection for the largest-ever study comparing PE and CPT. "Depending on a person's situation, one treatment might be better than the other." She noted, "We need huge samples to be able to create more refined classifications, and this is the trajectory of our current work." The team enrolled over 900 Veterans across 17 VA facilities across the country, and they plan to publish the findings in 2020.

Addressing Problems that Co-Exist with PTSD

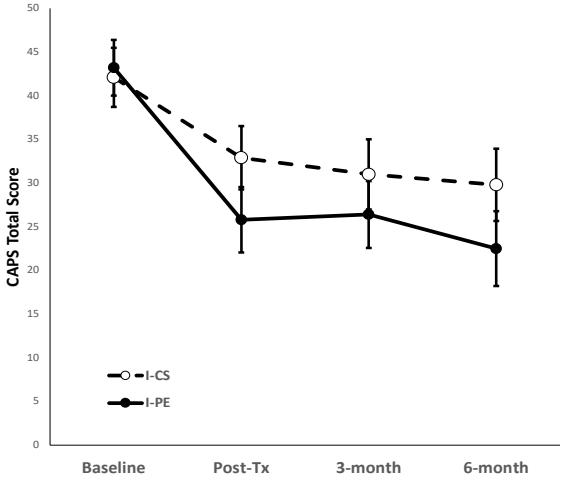
Many patients are affected by more than just PTSD. In addition to PTSD symptoms, many patients have trouble with drugs or alcohol, feelings of guilt and shame, suicidal thoughts and actions, or interpersonal problems with friends and family. Researchers at the Center are seeking to better understand how these various problems interact, and how to combine treatments for different issues rather than attempt to treat each one separately.

Dr. Sonya Norman, who is part of the National Center's Executive Division, directs the PTSD Consultation Program and has expertise in the treatment of PTSD and comorbid substance use problems. She has been testing a treatment called **COPE** (Concurrent Treatment of PTSD and Substance Use Disorders Using PE), which combines PE and relapse prevention treatment and is aimed at treating comorbid PTSD and alcohol use disorder. Results from this study were published in FY 2019.

Sonya Norman, PhD, Director, PTSD Consultation Program, Executive Division

According to Dr. Norman, "There is a common misconception that people with comorbidities are too fragile for PE — that they will relapse, or their symptoms will get worse. But we have done multiple studies and we have never found that to be the case. People actually reduce their alcohol use, and their PTSD symptoms improve." Dr. Norman and her colleagues showed that COPE was superior to another integrated treatment, Seeking Safety, for reducing PTSD symptoms. Alcohol use improved in both treatments, with no difference between them.

Dr. Norman has also led the development of an intervention called **Trauma-Informed Guilt Reduction**, or TrIGR. It is a four-module treatment that focuses on guilt and shame, which are frequently experienced in connection with a traumatic event. "Guilt and shame are related to more severe forms of PTSD, and they contribute to the severity of depression, substance use disorders, and a whole host of problems," she says. TrIGR involves working with patients to see their part in the traumatic event in the most accurate way and reduce feelings of guilt and shame. The protocol also includes a second phase, in which the therapist helps the patient set long-term goals and identify meaningful activities. Dr. Norman is completing a study in which she is testing TrIGR for reducing guilt among Veterans who served in Iraq and Afghanistan.



Evidence for integrated treatment for PTSD and alcohol use disorder: COPE (I-PE) vs. Seeking Safety (I-CS)
PTSD symptom severity estimated means by treatment condition at each time point. Error bars indicate 95% confidence intervals. CAPS-5 indicates Clinician Administered PTSD Scale for *DSM-5*. I-CS indicates integrated coping skills; I-PE, integrated prolonged exposure.

Norman, S. B., Trim, R., Haller, M., Davis, B. C., Myers, U. S., Colvonen, P. J., ... & Norman, G. J. (2019). Efficacy of integrated exposure therapy vs integrated coping skills therapy for comorbid posttraumatic stress disorder and alcohol use disorder: A randomized clinical trial. *JAMA Psychiatry*, 76, 791-799. doi:10.1001/jamapsychiatry.2019.0638

The relationship between **PTSD and suicide** has been the subject of research by many Center investigators. (This topic was discussed at length in the FY 2018 Annual Report.) Research by Dr. Brian Shiner at the Executive Division and others has shown that patients who are hospitalized due

to suicidal thoughts and behaviors are especially vulnerable to suicide in the days immediately following discharge from the hospital. National Center investigators are looking at reducing the risk for suicide among patients with PTSD, with both PE and CPT previously shown to reduce suicidal ideation. Dr. Brian Marx, Deputy Director at the Behavioral Science Division, recently began testing the effectiveness of WET for reducing the risk of suicide among Servicemembers after discharge from inpatient hospitalization. WET is well-suited for this purpose, as it can be completed within the five to seven day timeframe of the usual inpatient stay.

Marylène Cloitre, PhD, Associate Director for Research, Dissemination and Training Division

Other issues that often co-occur with PTSD are emotion dysregulation and interpersonal problems. Dr. Marylène Cloitre of the National Center's Dissemination and Training Division developed a treatment called **STAIR (Skills Training in Affective and Interpersonal Regulation)** to address these issues among people with PTSD. STAIR is a present-centered, skills-based therapy that targets a patient's current emotional and interpersonal situation and symptoms and helps them develop coping strategies.

STAIR was initially developed to be delivered in conjunction with trauma-focused exposure therapy. Used in this way, it can be a way to build a person's confidence and skills, making it easier for them to then fully participate in their psychotherapy. Dr. Cloitre suggests that it can also be introduced after completing trauma-focused therapy if the person needs help improving their interpersonal functioning, although it has not yet been tested in this way. An open question is whether STAIR alone can help improve PTSD symptoms, even without the addition of trauma-focused therapy. Results of a recent open trial suggest that it does, and research in this area is continuing.

Enhancing Psychotherapies with Novel Medications

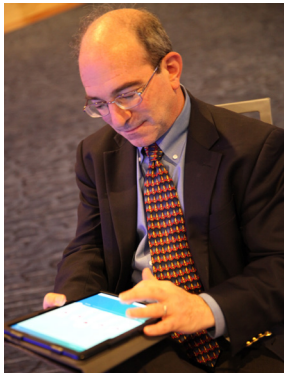
Certain medications target the processes that underlie the effectiveness of psychotherapies or address comorbidities that interfere with the effectiveness of psychotherapy. Researchers at the National Center are investigating which medications can be combined with psychotherapies — particularly PE — to enhance their effectiveness. This research is based on the understanding of how fear is learned, remembered, and "unlearned," which are the foundational aspects of how PTSD develops and how people can recover from it.

Dr. Norman is currently investigating **topiramate**, a medication typically used for epilepsy, in conjunction with PE. Topiramate has been shown to be effective in treating alcohol use disorders, but it has potential for treating PTSD as well, so the idea of combining the therapy and the medication seemed logical. According to Dr. Norman, "Topiramate might help with the patient's symptoms initially by helping to reduce their cravings, which might help them get through the first difficult weeks of psychotherapy and therefore have less likelihood of dropping out of treatment."

Dr. Mallory Loflin, who is affiliated with the Executive Division, is working with **cannabidiol** in combination with PE. Cannabidiol is an active component of cannabis that might hold therapeutic potential and does not produce intoxication or lead to dependence. Based on research in animals, cannabidiol is hypothesized to improve the "unlearning" of fear that occurs in PE, making it a good candidate for improving outcomes of that treatment. Dr. Loflin's study of PE enhanced with cannabidiol, the first cannabinoid study in VA, is currently underway.

Investigators at the Clinical Neurosciences Division have a long history of research with **ketamine**, a substance that has rapid-acting effects on depression and suicidality. The effects can be seen in as little as a few hours, in contrast to currently available antidepressant medications that can require weeks or even months to provide clinical benefit. One of ketamine's effects is to make the brain more open to new learning, including learning of safety — which is the key to PE's effectiveness. Dr. Ilan Harpaz-Rotem is currently conducting a study that combines PE therapy with ketamine to determine the potential benefits to patients with PTSD.

Expanding Access to Treatment



Craig Rosen, PhD, Acting Director, Dissemination and Training Division

Dr. Craig Rosen, Acting Director of the Dissemination & Training Division, is involved in the National Center's research on implementation science, which is the examination of the systems and structures that can serve as facilitators or barriers to the implementation of evidence-based treatments in actual clinical settings. "Other people in the National Center are looking at how to build better treatments," he says. "I'm trying to get them used. We have only so much professional mental health staff time. How do we get the most out of that?"

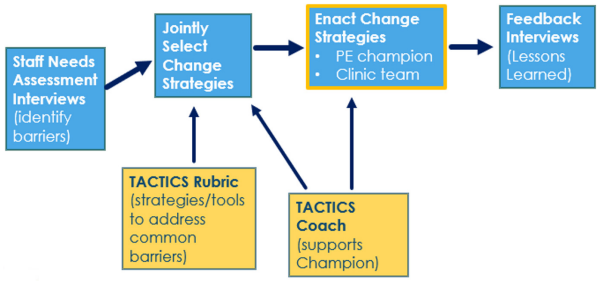
Barriers are many and varied, involving everything from limited staff time and lack of support from clinic leadership to scheduling systems that do not work well for managing regular therapy appointments. The Center has two field-based programs to improve the rate of implementation of evidence-based therapies. The **PTSD Mentoring Program**, established in 2008, promotes best practices in the clinical and administrative components of specialty care, including advancements in suicide risk assessment and prevention, through an extensive network of PTSD program directors.

The **PTSD Consultation Program**, established in 2011, provides information, resources, and consultations on PTSD assessment and treatment to health professionals both within and outside VA who are treating Veterans with PTSD.

Dr. Rosen, Dr. Carmen McLean, and researchers from several universities and the DOD are testing an implementation strategy entitled Targeted Assessment and Context-Tailored Implementation of Change Strategies, or **TACTICS**, to increase the use of PE in active duty military settings. They are working with eight medical facilities in three branches of the service. They have found that while there are many similarities to VA, the challenges to implementing high-quality care in DOD are also quite different and will likely require different solutions.

> "Other people in the National Center are looking at how to build better treatments. I'm trying to get them used. We have only so much professional mental health staff time. How do we get the most out of that?"
>
> **Craig Rosen, PhD**
> *Acting Director of the Dissemination & Training Division*

For example, military clinics often have leaner staffing than many VA clinics. Personnel in military clinics can rotate in and out after relatively short periods of time, requiring continual retraining of new providers and posing challenges in sustaining changes in practices over time. After identifying local barriers to implementation, the TACTICS team will help facilities develop and implement potential solutions that suit their specific needs.



Expanding implementation of PE in military settings using TACTICS
The four upper, blue boxes denote the intervention process in the Targeted Assessment and Context-Tailored Implementation of Change Strategies (TACTICS) study. The two lower, yellow boxes signify the role of the external facilitator, including context-tailored rubric that will be used to guide facilitation.

New technologies also offer possibilities for reducing barriers to treatment. Dr. Cloitre is currently delivering **STAIR via tele-mental-health** to women Veterans who have experienced military sexual trauma. "This population often finds that the atmosphere in VA clinics makes them uncomfortable. There is significant value in delivering treatment to these women in their homes." Telehealth approaches and mobile apps are also useful for increasing access to treatment among patients who live in rural areas far from a VA clinic.

Dr. Cloitre has also been involved in research on the web-based version of STAIR, or **webSTAIR**.

Achievement dashboard from webSTAIR, the web-based version of STAIR

"We know that web-based programs have a very high drop-out rate — most people don't get past session number two unless they have some kind of assistance." She is testing an approach in which therapists facilitate the patients' use of webSTAIR to help them through the process and keep them on track.

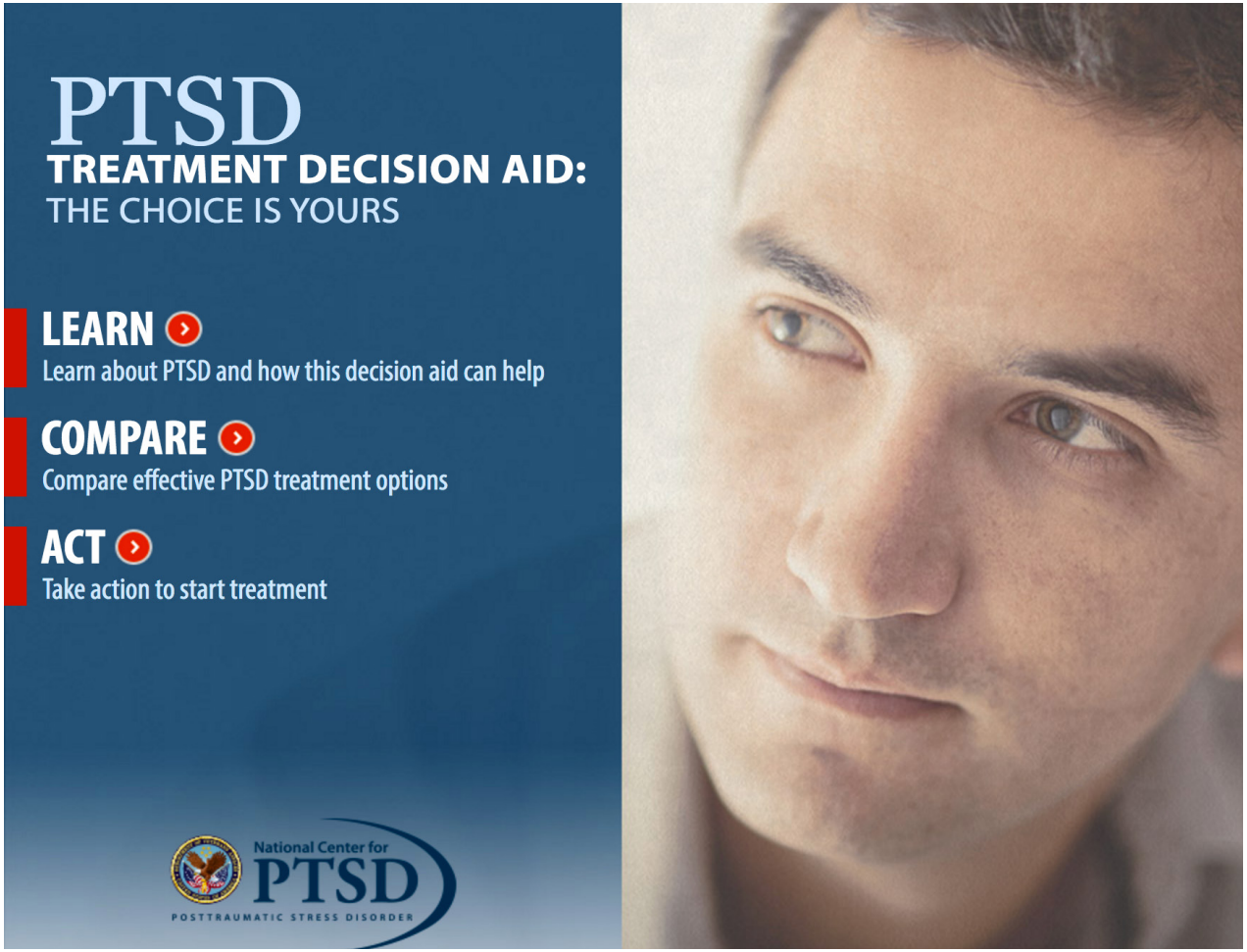
Some patients with PTSD prefer to receive mental health care within primary care rather than in a specialty mental health clinic, but conventional CPT and PE are not well-suited to this setting. Studies are underway to examine the use of WET in primary care settings. Dr. Sloan notes, "Because of the brevity of the treatment, we think it could be very useful in **primary care settings**." Dr. Sheila Rauch, a National Center collaborator, is piloting a shortened version of PE for use by primary care practitioners. Dr. Cloitre has also been developing a five-session version of STAIR for use in primary care, and initial results are positive.

For the Future: Options and Choices

Future research will continue to focus on understanding the most effective ways to tailor the proven psychotherapies to the particular circumstances of individual patients and clinical settings. Dr. Schnurr is enthusiastic about the possibility for more effective treatment matching. "Psychosocial markers might be as important as biomarkers in identifying the most effective treatment for a particular person," she says. "For instance, what treatments are best if the person has a personality disorder, anger issues, lower intelligence, or dissociative disorders?" The best treatment, or combination of treatments, will likely vary by individual.

Dr. Galovski concurs. "Manualized therapy provides a structure, and we certainly can't leave our clinical wisdom at the door. But my goal is to empirically develop the manuals in a way that can accommodate more diverse clinical situations. Therapists might be asking why a therapy that works so well for so many people isn't working for his or her particular patient. We need to understand when it is okay to diverge from the standard protocol to accommodate different clinical presentations."

As the number of treatment options multiplies, shared decision-making becomes an important part of the therapeutic approach. Patients and providers can use resources like the Center's **PTSD Treatment Decision Aid** to choose an approach that works best for a particular patient's values and preferences. According to Dr. Cloitre, "Longer term, we need to be more patient-centered and patient-driven in our treatment. We need to work with patients to match interventions to their presenting needs and to sequence



Decision Aid
The PTSD Decision Aid is an online tool that helps patients learn about and compare effective treatments for PTSD.

those interventions, based on a collaborative evaluation."

For example, some patients might prefer PE, where they repeat an intense recollection of an experience, while others might prefer the CPT approach, which focuses on examining the way the trauma affected a person's beliefs about themselves, other people, and the world. Some may be more willing to complete a treatment regimen if it is delivered in a compressed timeframe. Others might be unable to travel to a VA clinic and therefore will prefer to receive treatment through telehealth, a mobile app, or their primary care provider. According to Dr. Schnurr, "Full shared decision-making allows the patient to participate more actively in the process, and leads to better engagement with treatment, less dropout, more positive outcomes, and higher satisfaction."

Dr. Schnurr sums up the hopes for the future. "We're not likely to find a single silver bullet that 'cures' PTSD for everyone, so we need to find all the pieces that collectively maximize the benefits for the most people."

ADVANCING KNOWLEDGE ABOUT PTSD:

Major Research Initiatives in Fiscal Year 2019

For 30 years, the National Center for PTSD has been on the cutting edge of research aimed at understanding and treating PTSD. During FY 2019, researchers at the National Center participated in 133 funded studies, many in collaboration with partner organizations in the government, academic institutions, and agencies outside the United States. They published 307 peer-reviewed journal articles, book chapters, and books, and prepared an additional 110 in-press and advance online publications. A comprehensive list of funded and published work can be found in Appendices C, D, and E.

Center investigators continue to support innovative clinical trials and biological studies through the **Consortium to Alleviate PTSD** (CAP), a seven-year, $42 million award to fund research in PTSD diagnosis, prevention, and treatment for Servicemembers and Veterans. The consortium is led by the National Center and the STRONG STAR (South Texas Research Organizational Network Guiding Studies on Trauma and Resilience) network at the University of Texas Health Science Center at San Antonio. CAP has finished its sixth year, and eight of nine funded studies have completed recruitment.

Several projects under the Cooperative Studies Program (CSP) also take advantage of the

Operational priorities that guide National Center for PTSD initiatives

Center's broad reach and robust partnerships. A multi-site CSP study to examine three commonly prescribed medications for PTSD-related insomnia (trazodone, eszopiclone, and gabapentin) will launch in early FY 2020. CSP #591, a comparative effectiveness study of more than 900 Veterans engaged in PE and CPT at 17 VA facilities across the country, was completed in FY 2019; results are expected by the second quarter of FY 2020.

The size and scope of the National Center makes it well-positioned to undertake major studies with large samples and long timeframes. In one study, Center researchers are examining the influence of community violence on the longitudinal course of PTSD and health outcomes, including reproductive health in women Veterans, via the Longitudinal Investigation of Gender, Health, and Trauma (LIGHT) study. This study, which launched in FY 2018, includes data from over 3,500 Veterans, about half of whom are women. The investigators have collected data at an initial time point and are in the process of completing a second wave of assessments.

Research activities in the National Center's seven Divisions are driven by six **operational priorities**. The first five were established in 2013: Biomarkers, Treatment, Care Delivery, Implementation, and initiatives aimed at updating the Diagnostic and Statistical Manual of Mental Disorders–Fifth Edition (*DSM-5*). A sixth priority — PTSD and Suicide — was added in FY 2017. The following sections highlight some of the research initiatives undertaken during FY 2019 to address these six operational priorities. Appendix B contains descriptions of research projects that took place at each of the Center's seven Divisions.

Biomarkers

The National Center is dedicated to research aimed at identifying measurable biological factors that inform the diagnosis, assessment, prevention, and treatment of PTSD. Biomarker identification may lend insight into early detection of at-risk individuals and enable the development of personalized or new therapeutic approaches for PTSD. National Center researchers consistently make advances in the areas of genetics, neuroinflammation, neuroendocrinology, and brain imaging.

The LIGHT study, an examination of the influence of community violence on the longitudinal course of PTSD and health outcomes, includes data from over 3,500 Veterans, about half of whom are women. The investigators have collected data at an initial time point and are in the process of completing a second wave of assessments.

Biomarker work benefits from collaborations among Center investigators and several other organizations, including the Translational Research Center for Traumatic Brain Injury and Stress Disorders (TRACTS), the Psychiatric Genomics Consortium (PGC), the PTSD Working Group of the ENIGMA (Enhancing Neuroimaging Genetics through Meta-Analysis) Consortium, the **Million Veteran Program** (MVP), and the Army STARRS (Army Study to Assess Risk and Resilience in Servicemembers) consortium. VA's **National PTSD Brain Bank** has continued to expand under the direction of Dr. Matthew Friedman, Senior Advisor to the National Center. This is the only brain bank in the world devoted specifically to studying the biological bases of PTSD. It currently has an inventory of approximately 250 brains and has enrolled over 100 individuals who have agreed to donate their brains after death. PTSD Brain Bank data are currently being used to answer questions about the expression of specific genes in brain regions involved in PTSD, such as the amygdala, hippocampus, and prefrontal cortex. This work may help identify new treatment targets for PTSD.

The Consortium to Alleviate PTSD funds research in PTSD diagnosis, prevention, and treatment for Servicemembers and Veterans.

In the area of genetics, Center investigators are using genome-wide association studies (GWAS) to screen for genetic variations across large

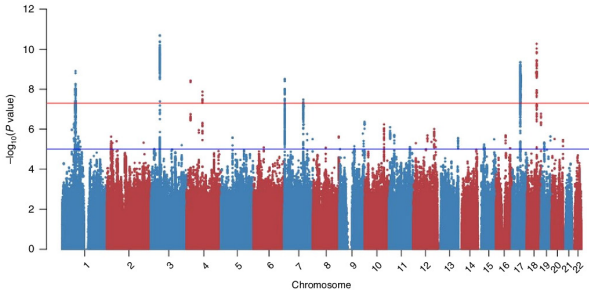
numbers of research participants. GWAS data from 165,000 U.S. military Veterans participating in **MVP** provided the first evidence of genetic vulnerability to reexperiencing traumatic events, which is one of the hallmark symptoms of PTSD.

In neuroendocrinology, recently published results reveal that deficient activity among enzymes converting progesterone to its anxiolytic metabolites is related to PTSD severity for both men and women. Interestingly, the process of conversion is different between men and women, suggesting that sex-specific treatments for correction of the deficiency may be needed.

The biomarkers portfolio also includes studies of treatment response. In a new study, researchers are testing whether a specific pattern of electrophysiological response to a series of loud tones is predictive of clinical responses to selective serotonin reuptake inhibitors, a commonly prescribed category of medications. Another project involves transcranial magnetic stimulation (TMS), a device-based intervention for depression that is being tested as a treatment for PTSD. Investigators are currently examining electroencephalography (EEG) and functional magnetic resonance imaging (fMRI) biomarkers of response to TMS among Veterans with treatment-resistant depression and PTSD.

In FY 2019 the Clinical Neurosciences Division contracted to acquire the first magnetoencephalography (MEG) unit within the VA health care system. MEG is a cutting-edge technology with greater sensitivity than EEG. It is capable of high-temporal resolution of electrical activity in deep brain structures and is an important investigative tool for next-generation PTSD research. Studies using the MEG will provide unique information of how different brain regions function in people with PTSD. These data will help guide novel treatment development, especially for medications and brain stimulation interventions, such as TMS.

Million Veteran Program (MVP)
The Million Veteran Program is a national research program to learn how genes, lifestyle, and military exposures affect health and illness.



Manhattan plot showing genetic variants associated with reexperiencing PTSD symptoms in European American Veterans (*N* = 146,660)
The y axis shows the negative logarithm of the association two-sided P value (from a linear regression model). The lower blue horizontal line indicates suggested statistical significance and the upper red horizontal line indicates rigorous statistical significance testing accounting for multiple comparisons (Bonferroni). Findings indicate that three genome-wide significance regions of chromosomes 3, 17, and 18 are associated with PTSD reexperiencing symptoms in European American Veterans. (Note: These findings were not replicated in a smaller cohort of African American Veterans (*N* = 19,983), data not shown.)

Gelernter, J., Sun, N., Polimanti, R., Pietrzak, R., Levey, D. F., Bryois, J., ... & Aslan, M. (2019). Genome-wide association study of post-traumatic stress disorder reexperiencing symptoms in > 165,000 US veterans. Nature Neuroscience, 22, 1394-1401. doi: 10.1038/s41593-019-0447-7

Treatment Engagement, Efficiency, and Effectiveness

Increasing engagement in evidence-based psychotherapies, delivering effective care more efficiently, and reducing dropout from PTSD treatments continue to be key goals of the National Center. A summary of work in this area during FY 2019 is highlighted in the introductory section of this Annual Report.

Care Delivery, Models of Care, and System Factors

A number of initiatives aimed at assessing models of care, improving evidence-based practices, and improving access to PTSD treatments across settings are taking place in the National Center.

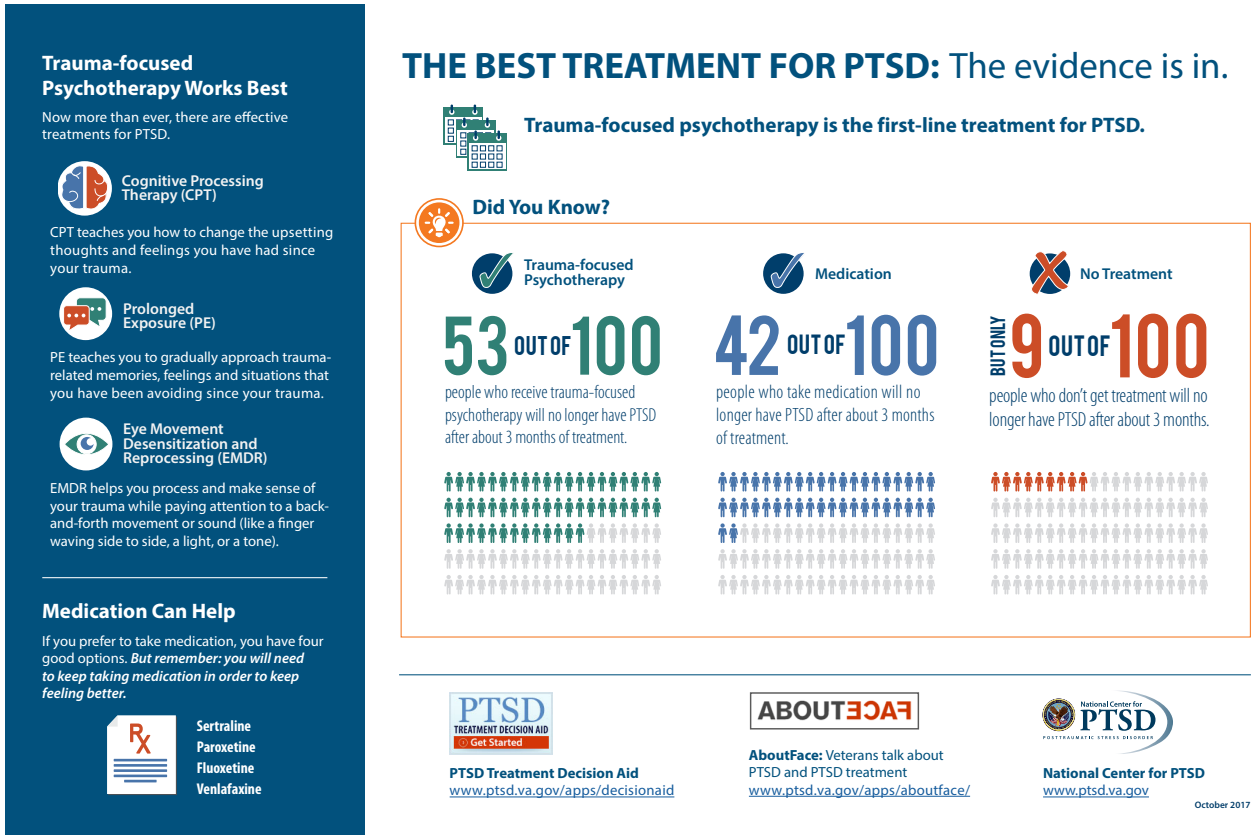
VA began screening all Veterans for military sexual trauma (MST) in 2002. During the past year, researchers published findings from a study of Veterans' experiences with and preferences for communication with Veterans Health Administration (VHA) providers about MST. Veterans reported generally high satisfaction with MST-related communication, although men, as a group, reported a much larger range of

satisfaction ratings than women.

National Center staff are supporting VA's efforts to implement measurement-based care (MBC). Investigators performed in-depth interviews with MBC project directors, frontline provider-Veteran pairs, and individual providers to better understand their experiences. In recently published findings, staff members reported overall satisfaction with MBC, noted the importance of training and staff buy-in when preparing to use the approach, and expressed the need for better technologies to streamline data collection and display for patients.

Researchers are exploring strategies to increase the use of evidence-based treatments using academic detailing and facilitation. In the National Center's academic detailing initiative, a pharmacist and psychologist reach out directly to VA clinicians at rural clinics and share recommended practices for PTSD. The facilitation program involves the use of an outside expert to work with site clinicians to identify factors that both help and hinder their ability to provide effective care. The expert shares solutions while developing a collaborative relationship and an environment that encourages transformation. Current efforts are primarily focused on sites where reach of evidence-based treatments is low.

A new initiative will identify providers who are planning to treat Veterans through the MISSION Act, which allows Veterans to access care in the community rather than only through VA. Center staff will work with providers to enhance their knowledge of VA/DOD PTSD Clinical Practice Guideline treatment recommendations and share current best practices regarding suicide risk assessments. Investigators also continue to examine delivery of care using technologies such as telehealth, web-based interventions, and mobile apps.



The Best Treatment for PTSD infographic
Infographic developed by the National Center for PTSD that is being used to educate VA providers through the use of facilitation and the VA Academic Detailing initiative.

Implementation

Research in the area of implementation is aimed at ensuring that best practices are implemented throughout the health care system and testing strategies for improvement. In one key study undertaken in collaboration with the Minneapolis VAMC, researchers at the Dissemination and Training and the Executive Divisions are testing an implementation toolkit and facilitation to increase use of evidence-based practices in VA PTSD clinics. This work is being extended to DOD clinics in a multi-site trial involving collaborators

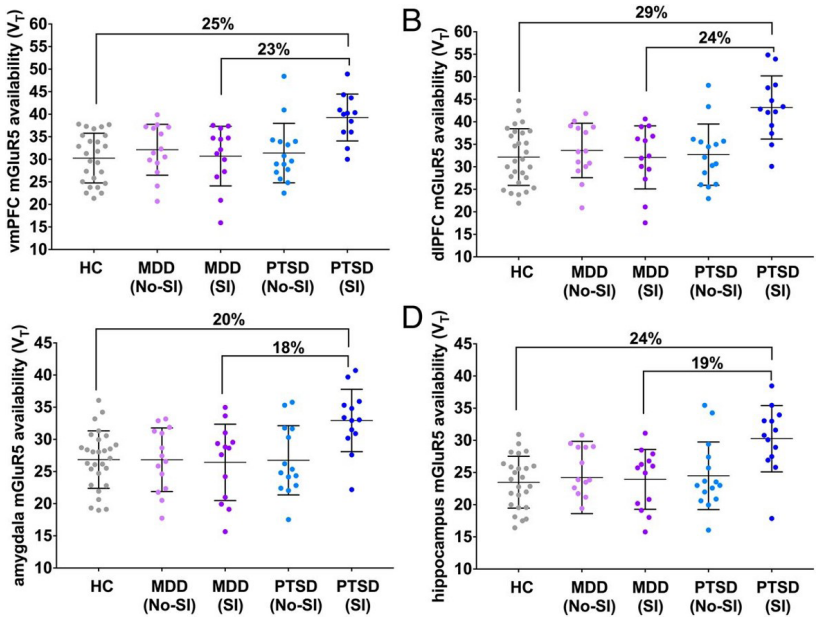
from five universities and eight military bases studying the use of PE; this project is discussed in the introductory section of this Annual Report.

Other implementation initiatives include efforts to identify and disseminate best practices for intimate partner violence (IPV) identification, assessment, and treatment while targeting health services within VHA. Researchers are involved in planning and evaluating a national rollout of IPV screening programs within primary care clinics. Investigators also recently began a multi-site effectiveness-implementation clinical trial of a brief counseling intervention for women who are experiencing violence in their intimate relationships.

DSM-5

The National Center continued its leadership in the development and validation of assessment instruments for the fifth edition of the American Psychiatric Association's *DSM-5*. *DSM-5* is a classification and diagnostic tool that outlines the diagnostic criteria for all currently recognized psychological disorders. The Clinician-Administered PTSD Scale (CAPS), the gold-standard diagnostic instrument for diagnosing PTSD, was developed at the Center more than 20 years ago and has been updated to reflect the new criteria in *DSM-5*. The National Center also updated other measures, including the PTSD Checklist (PCL-5) and the Primary Care Screen for PTSD (PC-PTSD-5).

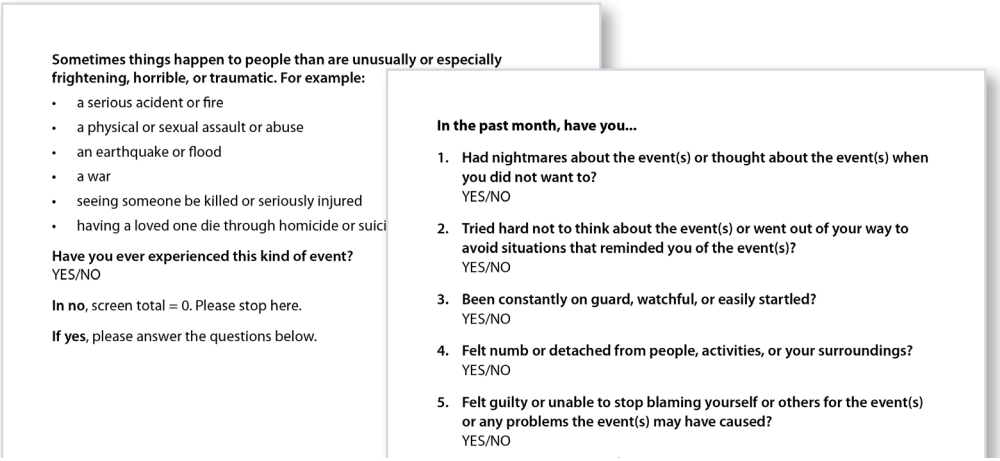
Because so much of this work has been completed, the Center is retiring *DSM-5* as an operational priority after this year, although efforts to continue validating these measures will continue. For example, in FY 2019, investigators completed data collection for a study validating a cutoff score for PTSD status based on **PC-PTSD-5, compared against the Clinician-Administered PTSD Scale for *DSM-5* (CAPS-5)**. Results are



Evidence for a biomarker of PTSD-related suicidal ideation: mGluR5

mGluR5 availability in key brain regions among individuals with PTSD (with and without SI), MDD (with and without SI), and matched healthy controls. (A) hippocampus; (B) amygdala; (C) dorsolateral prefrontal cortex; (D) ventromedial prefrontal cortex. Percentages indicate difference in availability between specific groups. Error bars represent SD.

Davis, M. T., Hillmer, A., Holmes, S. E., Pietrzak, R. H., DellaGioia, N., Nabulsi, N., ... & Esterlis, I. (2019). In vivo evidence for dysregulation of mGluR5 as a biomarker of suicidal ideation. *Proceedings of the National Academy of Sciences*, 116(23), 11490-11495. doi: 10.1073/pnas.1818871116



Sometimes things happen to people than are unusually or especially frightening, horrible, or traumatic. For example:

- a serious acident or fire
- a physical or sexual assault or abuse
- an earthquake or flood
- a war
- seeing someone be killed or seriously injured
- having a loved one die through homicide or suici

Have you ever experienced this kind of event?
YES/NO

In no, screen total = 0. Please stop here.

If yes, please answer the questions below.

In the past month, have you...

1. **Had nightmares about the event(s) or thought about the event(s) when you did not want to?**
   YES/NO
2. **Tried hard not to think about the event(s) or went out of your way to avoid situations that reminded you of the event(s)?**
   YES/NO
3. **Been constantly on guard, watchful, or easily startled?**
   YES/NO
4. **Felt numb or detached from people, activities, or your surroundings?**
   YES/NO
5. **Felt guilty or unable to stop blaming yourself or others for the event(s) or any problems the event(s) may have caused?**
   YES/NO

Primary Care Screen for PTSD for *DSM-5* (PC-PTSD-5)

Prins, A., Bovin, M. J., Kimerling, R., Kaloupek, D. G., Marx, B. P., Pless Kaiser, A., & Schnurr, P. P. (2015). The Primary Care PTSD Screen for DSM-5 (PC-PTSD-5). [Assessment instrument].

expected in FY 2020.

PTSD and Suicide

National Center work on PTSD and suicide covers a broad spectrum, from the identification of brain-based biomarkers of suicidality to the examination of system-level tools for improving suicide prevention among Veterans. A summary of work in this area was highlighted in the introductory section of last year's Annual Report.

In one exciting biomarkers study completed in FY 2019, researchers used positron-emission tomography (PET) imaging to identify glutamatergic metabotropic receptor (mGluR5) as a biomarker linked to PTSD-related suicidal ideation. An investigation of risk factors for suicide included a study using data from the National Health and Resilience in Veterans project, and revealed that Veterans with both PTSD and major depressive disorder (MDD) are significantly more likely to contemplate suicide and attempt suicide than Veterans with either PTSD or MDD alone.

Ongoing studies are testing interventions to prevent suicide among Veterans and Servicemembers who are at greater risk. One project is testing brief cognitive-behavioral therapy for suicide prevention in a sample of Veterans hospitalized for suicide risk. Another is using a version of WET with a sample of Army soldiers and Veterans with PTSD symptoms who have been hospitalized for suicide risk. Center staff are also expanding tools that clinic teams can use to optimize and allocate staff resources to suicide management, with the goal of helping teams ensure effective management of Veteran patients at high risk for suicide without compromising overall access to or quality of care.

Honors and Awards Received by National Center Staff in FY 2019

John H. Krystal, MD
Clinical Neurosciences Division
Colvin Award for Mood Disorders Research, Brain and Behavior Research Foundation

Edward H. Ahrens Distinguished Investigator Award, Association for Clinical and Translational Science

Mark W. Logue, PhD
Behavioral Science Division
2019 Spivack Excellence in Neuroscience Awards: Emerging Leader, Boston University School of Medicine

Carmen P. McLean, PhD
Dissemination and Training Division
Outstanding Service to Association for Behavioral & Cognitive Therapies

Karen S. Mitchell, PhD
Women's Health Sciences Division
Fellow, Academy for Eating Disorders

Kile M. Ortigo, PhD
Dissemination and Training Division
VA LGBT Health Care Leadership Award, LGBT Health Care Program, Office of Patient Care Services

Jillian C. Shipherd, PhD
Women's Health Sciences Division
Laura Brown Award for outstanding contributions in advancing lesbian, bisexual, and transgender women's psychology through research, teaching, practice, and/or activism, APA Division 35, Section 4

Dawne Vogt, PhD[1]
Brian N. Smith, PhD[1]
Annie B. Fox, PhD[1]
Timothy Amoroso, BS[1]
Emily Taverna, MS[1]
Paula P. Schnurr, PhD[2]
[1]*Women's Health Sciences Division*
[2]*Executive Division*
Military Family Research Institute Excellence in Research on Military and Veteran Families, Honorable Mention, Purdue University for "Consequences of PTSD for the work and family quality of life of female and male U.S. Afghanistan and Iraq War veterans" (doi:10.1007/s00127-016-1321-5)

TEAM AWARD
Principals:
Victoria Bippart, BA,
Cybele Merrick, MA, MS
Jessica Hamblen, PhD
Team Members:
Rebecca Matteo, PhD
Margaret Willoughby, BA
Executive Division
VHA Communications Award: Publications; First Place for Understanding PTSD Series

TEAM AWARD
Principals:
Margaret Willoughby, BA[2]
Jessica Hamblen, PhD[2]
Team Members:
Heather Balch, BA[2]
Victoria Bippart, BA[2]
Katherine Juhasz, MS[3]
Kevin Lai, MA[3]
Rebecca Matteo, PhD[2]
Carol Sevick, MS[2]
Jeremy Tevis, BFA[2]
[2]*Executive Division*
[3]*Dissemination and Training Division*
VHA Communications Award: Integrated Communications Plan; First Place for PTSD Treatment Works

TEAM AWARD
Jessica Hamblen, PhD
Rebecca Matteo, PhD
Cybele Merrick, MA, MS
Carol Sevick, MS
Jeremy Tevis, BFA
Margaret Willoughby, BA
Executive Division
VHA Communications Award: Website; Second Place for redesign of PTSD.va.gov website

Fellowships and Travel Awards

Lynnette Averill, PhD | *Clinical Neurosciences Division*
Early Career Investigator Travel Award, National Institute of Aging Research Centers Collaborative Network

Teddy Akiki, MD | *Clinical Neurosciences Division*
Kim Arditte-Hall, PhD | *Women's Health Sciences Division*
Daniel Lee, PhD | *Behavioral Science Division*
Alies Muskin Career Development Leadership Program, Anxiety and Depression Association of America

Christopher Averill, BS | *Clinical Neurosciences Division*
Lynnette Averill, PhD | *Clinical Neurosciences Division*
Travel Award, Veterans Integrated Service Networks (VISN) 1 Strategic Initiative for Suicide Prevention

PROMOTING PTSD EDUCATION:

Training, Dissemination, and Communication in Fiscal Year 2019

As the leading authority on psychological trauma and its consequences, the National Center seeks to serve all those whose lives are affected by trauma: Veterans and their loved ones; researchers and clinicians; frontline providers and clinic administrators; students; policymakers; and the media. These efforts bring to bear diverse methods and communication channels, from traditional print materials to the latest and most user-friendly technologies.

The Center pioneered the development of **mobile apps** and web-based tools to disseminate information about PTSD. For example, **VetChange**, an online self-help tool for Veterans and Servicemembers who are concerned about their drinking and PTSD symptoms, is one of the few websites within VA that permits users to save their data, allowing them to track their progress over time. Alternatively, for people who are uncomfortable with technology and just want something they can hold in their hands, the Center launched a service for providers and the public that allows them to **order print materials free of charge**.

One-on-one contact with PTSD specialists is another important way to bring information and expertise to those who need it. For instance, the PTSD Mentoring Program has developed and sustained a network of leadership and frontline providers. Working through regular teleconferences, direct contacts, and periodic meetings, the program brings together PTSD specialty program leadership with PTSD specialists, MST coordinators, and other frontline clinic staff.

Sometimes a combination of technological resources and personal contact works best. One key initiative is **WoVeN: The Women Veterans Network**, which does its work with female Veterans in a hybrid fashion by combining in-person events on both the local and national level with web-based resources.

The sections that follow highlight these and other initiatives throughout the Center that are aimed at bringing the latest and best knowledge about PTSD to Veterans and Servicemembers, the clinicians who serve them, and the general public.

PTSD Awareness

AboutFace is an online gallery of videos featuring Veterans, family members, and clinicians talking

In a new AboutFace "Up Close" story, Yvonne Grissett, an MST survivor, describes how PTSD treatment helped her reclaim her self-esteem and may have even saved her life.

The Understanding PTSD and Aging booklet will be available in FY2020.

about PTSD and the value of treatment. The site is designed to raise awareness of PTSD, reduce the stigma that is sometimes associated with mental health issues, and encourage Veterans to seek care. Through its use of multimedia storytelling, the site helps Veterans and family members engage with the stories of other Veterans, ranging from brief interviews that target a key issue —"What treatment was like for me," for example — to in-depth profiles. This year, a Veteran's **Up Close** story of treatment for PTSD stemming from MST serves as the inception of a new section featuring both male and female survivors of MST that will debut 2021.

The National Center expanded the Understanding PTSD series of booklets with *Understanding PTSD and Aging* to address the concerns of older Veterans and their families. As with other booklets in the series, *Understanding PTSD and Aging* includes quotes from AboutFace Veterans and is available in both English and Spanish.

Every June, the Center conducts a robust campaign during **PTSD Awareness Month** to increase the visibility of PTSD and evidence-based treatments. A mini-site on the larger website provides educational and promotional materials for organizations and individuals who want to participate in the campaign. This year's offering includes a calendar with suggested actions for every day of the month — from taking a course on PTSD treatment or learning about treatment options to sharing videos and subscribing to the **YouTube channel**.

Support for Providers in the Field

The **PTSD Consultation Program**, launched in 2011, is an important means of support for VA and community providers. Providers can simply phone or email the program, and a skilled consultant with research and clinical expertise will answer their questions, typically within 24 hours. In FY 2019, the program provided 2,180 consultations, a quarter of which were to community-based clinicians. The program also hosts a **popular monthly lecture series** that offers free continuing education credits to both VA and community providers.

During FY 2019, the Consultation Program conducted free in-person trainings in PE for licensed community mental health providers who are treating Veterans in rural areas. The training included continuing education credits, training materials, and follow-up phone consultations. A total of 66 providers were trained in 2019.

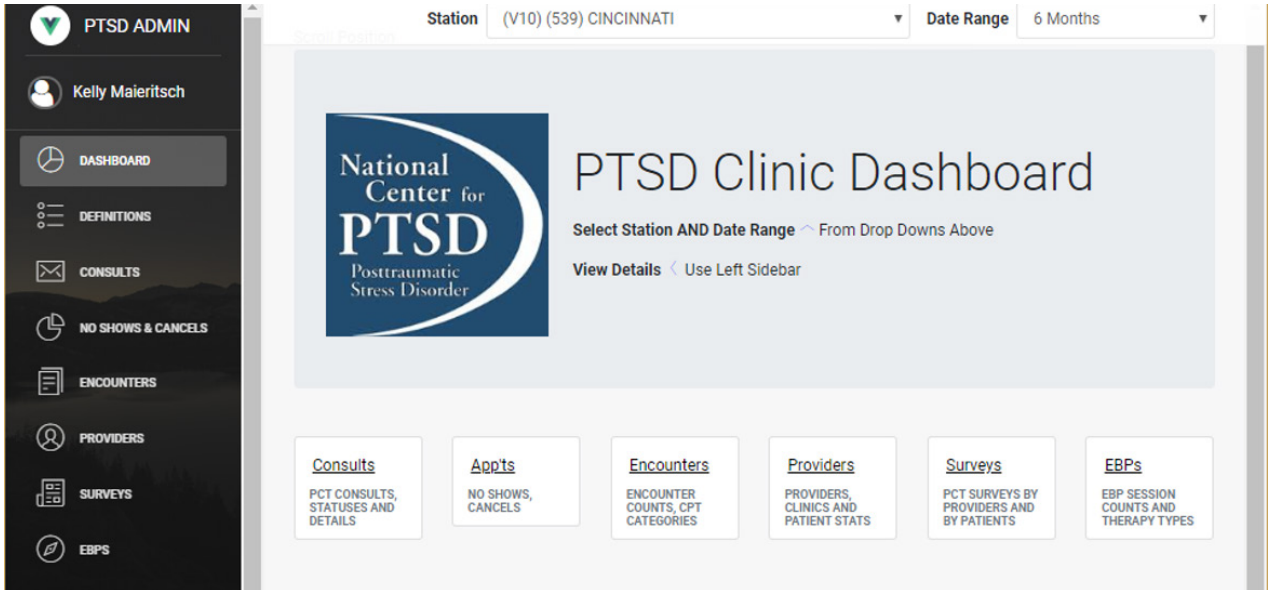
The PTSD Mentoring Program, established in 2008, promotes best practices in the clinical and administrative components of specialty care. In FY 2019, the program held a face-to-face conference with mentors that focused on their

role in disseminating information to the field and collaborations with Veterans Integrated Service Networks (VISN) Chief Mental Health Officers. On the technology front, the program created an electronic dashboard that summarizes data tailored to the administrative needs of PTSD Mentoring participants. The dashboard was rolled out in August 2019 and enhancements are ongoing.

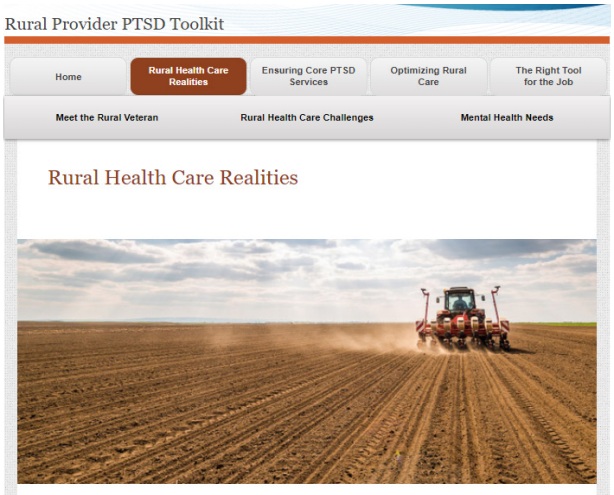
Center staff have been piloting a learning collaborative approach to training VA providers in WET, an evidence-based treatment for PTSD. Through the use of a "Plan-Do-Study-Act" problem-solving process, the learning collaborative model engages stakeholders across an organization in order to better foster the implementation of new practices. A total of 24 therapists have completed training and consultation, and the program leaders from their clinics have participated in the learning collaborative. Program evaluation data from 70 patients suggest that Veterans who receive WET from these trained providers experience clinically significant improvement. Retention rates were very high, with 79 percent of Veterans completing the full five-session treatment protocol.

The National Center's Executive Division continued its work — in conjunction with the Office of Rural Health — to improve the treatment of rural Veterans through academic detailing, facilitation, and education. This year, the program identified two locations for intervention: Roseburg, Oregon, and Muskogee, Oklahoma. Thanks to the targeted support provided to them, both locations increased their delivery of evidence-based treatments by at least 20 percent; made clinical and administrative changes to support the VA/DOD Clinical Practice Guideline on consistent care for PTSD; and decreased the prescribing of medications outside of the guidelines. The program also debuted its online **Rural Provider PTSD Toolkit**, which was designed to help rural PTSD providers address the unique challenges of providing care in a rural mental health care setting.

The Practice-Based Implementation (PBI) Network has grown to over 1,000 VA interdisciplinary providers, researchers, and leaders. In FY 2019, the PBI Network continued to expand its technology focus through its monthly Tech Into



The PTSD Mentoring Program developed the PTSD Clinic Dashboard that summarizes data tailored to the administrative needs of PTSD Mentoring participants.



The Rural Provider PTSD Toolkit helps providers in rural settings to address the unique challenges they encounter in their settings.

Care Community of Practice, which provides VA staff with a forum to learn about the latest mobile apps and online programs directly from their developers. The PBI Network lecture series, launched at the start of FY 2019, features materials on technology research and practices relevant to Veteran mental health care. The lecture series welcomes both VA staff and community providers and offers free continuing education credits to participants.

The expansion of the Tech Into Care Initiative was made possible by a two-year Joint Incentive Fund (JIF) grant to a project aimed at expanding the reach of mobile apps to improve coping and reduce suicide risk. In collaboration with partners from the Office of Mental Health and Suicide Prevention and DOD — plus VA's Office of Connected Care and Veterans Crisis Line — the JIF team is building a Veteran-focused suicide safety planning app module that will be integrated into existing apps. JIF facilitators will train staff at facilities in each VISN on the safety planning app module and how to integrate mobile mental health apps along the continuum of care.

The Community Provider Toolkit has undergone a redesign and evaluation with the help of human-centered design experts at The Lab at OPM, which is part of the Office of Personnel Management. Changes to the site are ongoing and should make this online resource more streamlined and user-friendly for providers in the community who care for Veterans.

The PTSD Clinician's Exchange, the National Center's practitioner registry, has been combined with Project OUTFIT into a joint project called CORE Exchange. The project's website is the information hub for both entities and provides curated information on evidence-informed practices along with self-care content designed to help providers avoid burnout. CORE Exchange's sophisticated content management system allows the site to be easily modified to address specific practices that are of interest to members.

The Center is developing two new apps: Couples Coach and Beyond MST.

Self-Help and Treatment Companion Resources

The Center's Dissemination and Training Division continues to pursue innovations in mobile apps that have a global reach and human impact. As of FY 2019, the apps team has released a total of 16 apps that address issues as varied as parenting, self-help for PTSD symptoms, smoking cessation, and anger management.

During the past year, developers put the final touches on two new apps: Couples Coach and Beyond MST. Couples Coach is a self-help app designed to facilitate communication and problem-solving and to break down stigma around couples and family therapy. The app implements a training plan that progresses through five levels: observation and awareness of emotions and relationship patterns; increasing positive interactions between partners; increasing positive communication; working through conflict; and connecting with friends, family, and community. Beyond MST, developed in collaboration with the Women's Health Sciences Division, targets male and female survivors of MST and aims to promote more adaptive coping and, if appropriate, engagement in mental health care.

The Center continues its effort to enhance the web-based version of VetChange. Users of this site can track their progress toward abstinence or drinking reduction goals and manage PTSD symptoms that affect their drinking. In the near future, the site will also allow providers to create their own accounts, connect with Veterans via the website, and assign specific modules to Veterans in their care. This effort is a collaboration among Behavioral Science Division investigators and colleagues at VA Boston Healthcare System and Boston University. VetChange will be piloted with two groups of Veterans: participants in a research project at VA PTSD outpatient clinics, and detoxification patients with alcohol use disorder

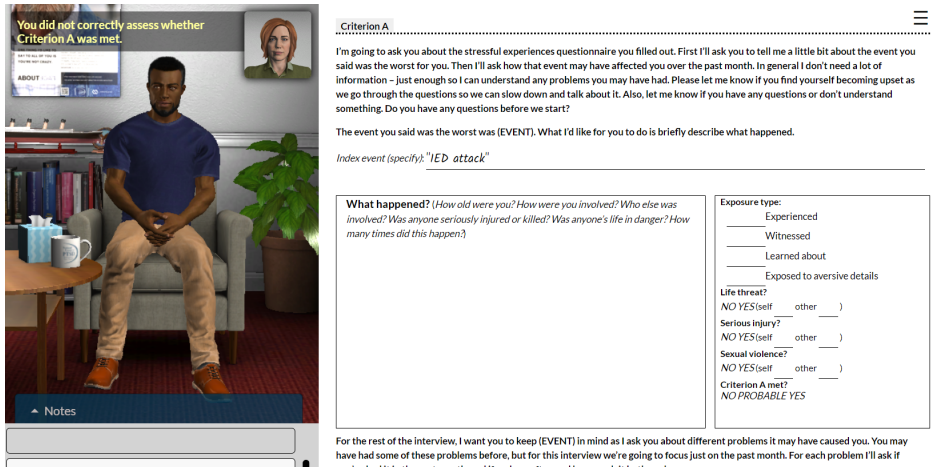
and PTSD symptoms following detoxification.

At the same time, National Center staff continued the integration of the VetChange app with the web-based version. The Behavioral Science Division is working with the Dissemination and Training Division to improve the functionality of the VetChange app for iOS devices and to develop an Android version. The updated app will integrate with the VetChange website and include access to coping and action plans completed on the website; substance use tracking capabilities; real-time mood tracking; and coping skill suggestions to help Veterans manage urges to drink and general distress in real time.

The Women's Health Sciences Division has received additional funding to support its national peer support network **WoVeN**. WoVeN fosters personal connections, improves well-being, and provides information to support the readjustment of female Veterans after they separate from service. In the spring of 2019, national trainers from eight cities and an additional 34 peer leaders from 17 cities attended a train-the-trainer workshop that has further expanded the initiative's reach. Given the success of this first training, there are plans to expand this program in 2020 with three new workshops. This initiative will substantially increase the number of WoVeN support group leaders, helping to meet the significant demand for these groups from women Veterans across the country.

In FY2019 the reach of the Women Veterans' Network was expanded via a train-the-trainers workshop.

The Cards for Connection program was continued during FY 2019. This program, originally created for Veterans experiencing homelessness, involves decks of standard playing cards with helpful information on them, such as the number for the Veterans Crisis Line or easy-to-implement coping skills. Thanks to input from users, this year the cards were enhanced to include waterproof cases, a permanent marker to allow for note-taking, and the phone number for the Women Veterans Call Center. The new decks will be distributed to 13,000 Veterans through a variety of VA, nonprofit, and justice-based programs, and will be available on the new VHA Diffusion Marketplace in FY 2020.



The National Center is developing a CAPS-5 training program that utilizes a responsive virtual patient. The training will be available in FY2020.

Educational Resources for Professionals

The Center is developing a state-of-the-art online training program to teach the proper administration and scoring of CAPS-5. Utilizing a responsive virtual patient, voice recognition technology, and artificial intelligence, the CAPS-5 Training Simulator will give learners an immersive experience that will simulate live, in-person training. The course will launch early in FY 2020, and staff will gather data about its performance that will inform improvements in later years.

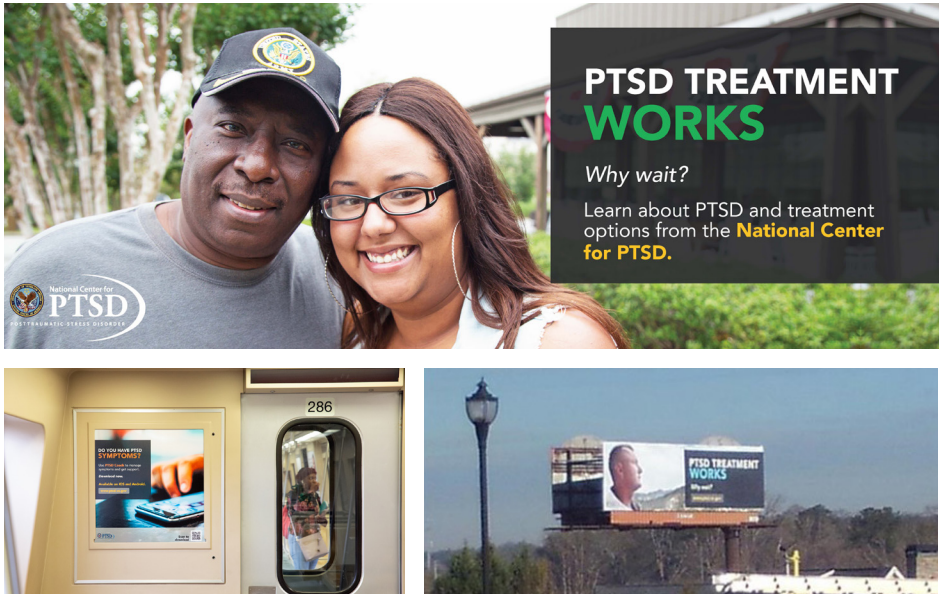
Skills for Psychological Recovery (SPR) is also slated to launch in FY 2020. This course is designed both for mental health staff and peer specialists who provide services to people in the aftermath of natural disasters, attacks, and other traumatic events. Because SPR takes a

problem-solving approach to tackling challenges, providers can also use it with Veterans who want to work on difficulties they are facing. The course features video vignettes, expert tips, and handouts for clients.

The Center's flagship **PTSD 101 series** of one-hour courses added six new titles in FY 2019, including courses in treating comorbid PTSD and substance use disorder; assessing and reducing risk of violence in Veterans with PTSD; and the use of telehealth in PTSD treatment. Available through the website and through **TRAIN** (Training Finder Real-time Affiliate Integrated Network), PTSD 101 courses offer free continuing education credits to learners. Learners who successfully complete longer courses on the website can also earn free continuing education credits in a variety of mental health and medical disciplines.

In collaboration with the CPT Team, which is responsible for CPT training throughout VA, Center staff have contributed to the development of a number of educational products. One project involved leading the development of a new CPT web course, Cognitive Processing Therapy for PTSD Enhanced Practice, which is now available online to both VA and non-VA providers. National Center staff also coordinated and co-led a CPT train-the-trainer workshop during the summer of 2019 and is planning another for 2020.

A course that will train providers in Skills for Psychological Recovery will launch in FY2020.



In FY2019, the Center launched a marketing campaign intended to increase use of the National Center for PTSD website and resources.

Online Communication Resources

The National Center's redesigned website was launched in FY 2019. The result of a three-year planning effort, the website provides a more rewarding and streamlined experience for both long-time users and new visitors. An extensive marketing campaign was undertaken in connection with the site relaunch, including online ads, signage on public transportation, billboards in urban areas, and ads in print magazines with large Veteran and Servicemember readerships. A public service announcement was also distributed via radio and television. The advertising directed viewers to the overall site as well as to three key resources: **AboutFace**, the **PTSD Treatment Decision Aid**, and the **PTSD Coach** mobile app.

PTSDpubs is the new name for the Center's online database of research on psychological trauma and its consequences. Formerly known as Published International Literature on Traumatic Stress (PILOTS), PTSDpubs gives users around the world free access to the international interdisciplinary literature on PTSD and other mental health consequences of exposure to traumatic events. At the end of the fiscal year, the database contained more than 62,500 items.

FY 2019 Communication Resources at a Glance

Website (www.ptsd.va.gov)
8.2 million views

Mobile Apps
488,865 downloads of 16 apps

PTSD Monthly Update Newsletter
340,929 subscribers

Facebook
154,336 likes

PTSD Research Quarterly
57,140 subscribers

Clinician's Trauma Update Online
47,712 subscribers

Twitter
38,691 followers

Assessment Instruments
516,313 downloads

Professional Articles
329,928 unique views

Printed Items Distributed for Free in the U.S.
289,675

About the National Center for PTSD

History

The National Center for PTSD was created in 1989 within VA in response to a Congressional mandate (PL 98-528) to address the needs of Veterans and other trauma survivors with PTSD. The National Center was developed with the ultimate purpose of improving the well-being, status, and understanding of Veterans in American society. The mandate called for a Center of Excellence that would set the agenda for research and education on PTSD without direct responsibility for patient care. Convinced that no single VA site could adequately serve this unique mission, VA initially established the Center as a consortium of five Divisions.

Organization

The National Center now consists of seven VA academic Centers of Excellence across the United States, with headquarters in White River Junction, Vermont. Two Divisions are in Boston, Massachusetts; two in West Haven, Connecticut; one in Palo Alto, California; and one in Honolulu, Hawaii. Each contributes to the overall Center mission through specific areas of focus.

The National Center for PTSD is an integral and valued component of VA's Office of Mental Health and Suicide Prevention (OMHSP), which is part of VHA. OMHSP and the Center receive budget support from VA, although the Center also leverages this support through successful competition for extramural research funding.

National Center for PTSD Quick Facts

1989

The National Center for PTSD was formed in 1989

The Center has seven Divisions across the U.S., each with a distinct area of focus

The National Center for PTSD manages the largest PTSD brain bank in the world

Leadership in Fiscal Year 2019

Paula P. Schnurr, PhD

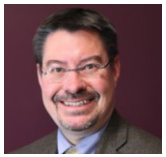
Executive Director, Executive Division, White River Junction, VT
Professor of Psychiatry,
Geisel School of Medicine at Dartmouth

Matthew J. Friedman, MD, PhD

Senior Advisor and founding Executive Director, Executive Division, White River Junction, VT
Professor of Psychiatry and of Pharmacology and Toxicology,
Geisel School of Medicine at Dartmouth

Jessica L. Hamblen, PhD

Deputy for Education, Executive Division, White River Junction, VT
Associate Professor of Psychiatry,
Geisel School of Medicine at Dartmouth



Paul E. Holtzheimer, MD

Deputy for Research, Executive Division, White River Junction, VT
Associate Professor of Psychiatry,
Geisel School of Medicine at Dartmouth

Terence M. Keane, PhD

Division Director, Behavioral Science Division, Boston, MA
Professor of Psychiatry and Assistant Dean for Research,
Boston University School of Medicine

John H. Krystal, MD

Division Director, Clinical Neurosciences Division, West Haven, CT
Robert L. McNeil, Jr. Professor of Translational Research and Chairman of the Department of Psychiatry, Yale University School of Medicine

Craig S. Rosen, PhD

Acting Division Director, Dissemination and Training Division, Menlo Park, CA
Associate Professor of Psychiatry and Behavioral Sciences,
Stanford University School of Medicine

Rani A. Hoff, PhD, MPH

Division Director, Evaluation Division, West Haven, CT
Director of the Northeast Program Evaluation Center, West Haven, CT
Professor of Psychiatry, Yale University School of Medicine

Tara E. Galovski, PhD

Division Director, Women's Health Sciences Division, Boston, MA
Associate Professor of Psychiatry,
Boston University School of Medicine

Fiscal Year 2019 Expert Panels

EXPERT SCIENTIFIC PANEL

Chair: Thomas C. Neylan, MD
San Francisco VA Medical Center; University of San Francisco School of Medicine

Col. David Benedek, MD, LTC, MC, USA
Uniformed Services University of the Health Sciences

Susan E. Borja, PhD
National Institute of Mental Health

John Fairbank, PhD
National Center for Child Traumatic Stress, Duke University Medical Center

Sandro Galea, MD, DrPH
Boston University School of Health

JoAnn Kirchner, MD
VA Mental Health Quality Enhancement Research Initiative, Central Arkansas Veterans Healthcare System; University of Arkansas for Medical Sciences

Brett Rusch, MD
White River Junction VA Medical Center
Geisel School of Medicine at Dartmouth

Alan L. Peterson, PhD, ABPP
University of Texas Health Science Center

Kerry Ressler, MD, PhD
McLean Hospital, Harvard Medical School

Barbara O. Rothbaum, PhD, ABPP
Emory University School of Medicine

Elizabeth Yano, PhD, MSPH
VA Greater LA Healthcare System, UCLA Fielding School of Public Health

Ex-Officio: Theresa Gleason, PhD
VA Clinical Science Research & Development

EXPERT EDUCATIONAL PANEL

Chair: Dean Kilpatrick, PhD
National Crime Victims Research & Treatment Center, Medical University of South Carolina

Craig Bryan, PsyD, ABPP
National Center for Veterans Studies, The University of Utah

Ann Feder, LCSW
Department of Veterans Affairs, VISN 2

Michael Fisher, MSW
Readjustment Counseling Services, Department of Veterans Affairs

Michael R. Kauth, PhD
VA South Central Mental Illness Research Education Clinical (MIRECC)

Kacie Kelly, MS
George W. Bush Presidential Center

Jackie Maffucci, PhD
Iraq and Afghanistan Veterans of America

Lisa A. Marsch, PhD
Center for Technology and Behavioral Health, Dartmouth Psychiatric Research Center, Geisel School of Medicine at Dartmouth

David S. Riggs, PhD
Center for Deployment Psychology, Uniformed Services University of the Health Sciences

EXECUTIVE DIVISION
VA Medical Center (116D)
215 North Main Street
White River Junction, VT 05009

BEHAVIORAL SCIENCE DIVISION
VA Boston Healthcare System (116B-2)
150 South Huntington Avenue
Boston, MA 02130

CLINICAL NEUROSCIENCES DIVISION
Psychiatry Service (116A)
VA Medical Center
950 Campbell Avenue
West Haven, CT 06516

DISSEMINATION AND TRAINING DIVISION
VA Palo Alto Health Care System
Building 334-PTSD
795 Willow Road
Menlo Park, CA 94025

EVALUATION DIVISION (NEPEC)
VA Connecticut Healthcare System (182)
950 Campbell Avenue
West Haven, CT 06516

PACIFIC ISLANDS DIVISION
VA Pacific Islands Healthcare System
459 Patterson Road
Honolulu, HI 96819

WOMEN'S HEALTH SCIENCES DIVISION
VA Boston Healthcare System (116B-3)
150 South Huntington Street
Boston, MA 02130

National Center for PTSD
POSTTRAUMATIC STRESS DISORDER

APPENDIX A

Acronyms Used in Appendix B

APOE
Apolipoprotein E

AUD
Alcohol Use Disorder

BDNF
Brain-Derived Neurotrophic Factor

CAPS-5
Clinician-Administered PTSD Scale for *DSM-5*

CBCT
Cognitive-Behavioral Conjoint Therapy

CBT
Cognitive-Behavioral Therapy

COE
Center of Excellence

CPT
Cognitive Processing Therapy

CSP
Cooperative Studies Program

DOD
Department of Defense

DSM-5
Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition

EBA
Evidence-Based Antidepressant

EBP
Evidence-Based Psychotherapy

EEG
Electroencephalogram

EMA
Ecological Momentary Assessment

ENIGMA
Enhancing Neuroimaging Genetics through Meta-Analysis

fMRI
Functional Magnetic Resonance Imaging

FY
Fiscal Year

GWAS
Genome-Wide Association Studies

IPV
Intimate Partner Violence

LATR
Later-Adulthood Trauma Reengagement

LGBT
Lesbian, Gay, Bisexual, and Transgender

LIGHT
Longitudinal Investigation of Gender, Health, and Trauma

MBC
Measurement-Based Care

MDD
Major Depressive Disorder

MDMA
3,4-methylenedioxy-methamphetamine

MEG
Magnetoencephalography

mGluR5
Metabotropic Glutamate Receptor Type 5

MRI
Magnetic Resonance Imaging

MST
Military Sexual Trauma

MVP
Million Veteran Program

NCPS
National Center for Patient Safety

NDHS
Neurocognition Deployment Health Study

NEPEC
Northeast Program Evaluation Center

NHRVS
National Health and Resilience in Veterans Study

OMHSP
Office of Mental Health and Suicide Prevention

PC-PTSD-5
Primary Care Screen for PTSD for *DSM-5*

PCT
Present-Centered Therapy

PE
Prolonged Exposure

PET
Positron Emission Tomography

PGC
Psychiatric Genomics Consortium

PTSD
Posttraumatic Stress Disorder

REACH VET
Recovery Engagement and Coordination for Health – Veterans Enhanced Treatment

RRTP
Residential Rehabilitation Treatment Program

SERV
Survey of Returning Veterans

SSRI
Selective Serotonin Reuptake Inhibitor

STAIR
Skills Training in Affective and Interpersonal Regulation

STRONG STAR
South Texas Research Organizational Network Guiding Studies on Trauma and Resilience

TBI
Traumatic Brain Injury

TMS
Transcranial Magnetic Stimulation

TRACTS
Translational Research Center for Traumatic Brain Injury and Stress Disorders

TSPO
Translocator Protein

VA
Department of Veterans Affairs

Project VALOR
Veterans After-Discharge Longitudinal Registry

VHA
Veterans Health Administration

Web-PE
Web Version of Prolonged Exposure

WET
Written Exposure Therapy

WoVeN
Women Veterans Network

APPENDIX B

Fiscal Year 2019 Research Narrative by Division

Behavioral Science Division

The Behavioral Science Division (BSD) in Boston, Massachusetts, conducts research on life adjustment after military deployment and other traumatic stressors, methods to assess trauma and posttraumatic stress disorder (PTSD), innovative approaches to clinical intervention and treatment delivery, and the potential neurobiological and genomic basis of PTSD and its comorbidities.

Biomarkers

The Division has an active portfolio of genetic and neuroimaging studies involving collaborations with investigators in the Translational Research Center for Traumatic Brain Injury and Stress Disorders (TRACTS), the Department of Veterans Affairs (VA) National PTSD Brain Bank, the Psychiatric Genomics Consortium (PGC), and the PTSD Working Group of the ENIGMA (Enhancing Neuroimaging Genetics through Meta-Analysis) Consortium. During FY 2019, Division investigators focused on the roles of inflammation and oxidative stress in the biology of PTSD, and on the role of PTSD and other trauma-associated symptoms in accelerated aging.

Ongoing studies that examine PTSD and blast-related traumatic brain injury (TBI) in Veterans of Iraq and Afghanistan war zones aim to clarify the relative contribution of mild TBI and psychiatric conditions to deficits in current functioning and health outcomes. Investigators are now expanding this work to an older longitudinal cohort to study how stress, genetic risk, and peripheral biomarkers of inflammation are associated with subsequent health decline and neurodegeneration.

Biomarkers examined by the Division include brain features measured by neuroimaging, peripheral markers of inflammation and metabolic pathology, and specific genes and polygenic risk scores. Also under investigation are epigenetic markers drawn from blood and postmortem brain tissue, including epigenome-wide DNA methylation levels and transcriptome-wide mRNA (i.e., gene expression).

Division researchers continued to use functional and structural magnetic resonance imaging (MRI) to identify neural circuitry involved in PTSD. They also used magnetic resonance spectroscopy to examine neurodegeneration and neuroinflammation.

Treatment Efficiency, Effectiveness, and Engagement

The Division's pioneering research on treatments for PTSD is focused on overcoming barriers to seeking care, reducing dropout, and increasing the efficiency of care delivery. One example is the internet-based treatment VetChange, which was originally designed for Iraq and Afghanistan combat Veterans who report both risky use of alcohol and PTSD-related distress. The initial clinical trial produced evidence that VetChange was effective in reducing both drinking and PTSD symptoms. VetChange was subsequently modified to include mobile-friendly features and was disseminated nationally; this later version, which is applicable to Veterans of all eras, has been shown to be effective as well.

A VetChange mobile app that has key VetChange features was developed recently, in conjunction with the Dissemination and Training Division, and efforts are currently underway to integrate the mobile app and web versions to increase mobile access for real-time intervention support. In addition, a major extension of the VetChange web intervention is underway to directly integrate with clinical care delivered by VA providers and to evaluate its effectiveness in VA PTSD clinics as well as inpatient detoxification

(Behavioral Science Division, continued)

settings.

Other Division efforts include developing and testing efficient, therapist-delivered interventions or treatment extenders, with the goals of finding approaches that require less professional staff time and that are easier for patients to complete. A prime example is Written Exposure Therapy (WET), a five-session exposure-based treatment for PTSD that has been shown to be highly effective with non-Veteran patients. A current VA-funded study is being conducted to examine the efficacy of WET in comparison to Prolonged Exposure (PE) with Veterans. An implementation study is also being conducted in which VA mental health providers are being trained to deliver WET.

Research on factors that link PTSD with aggression toward intimate partners has led to the development and evaluation of interventions that reduce or prevent aggression within at-risk military and Veteran families. Positive clinical trials have been published, and the interventions continue to be implemented across the VA health care system and on one military installation. An ongoing pilot study also is testing one of these programs in an underserved urban civilian setting. Data collection is nearing completion, with preliminary analyses showing large effects in reducing intimate partner violence (IPV).

Division investigators have also been studying how clinicians make decisions around family involvement in PTSD treatment, conducting qualitative interviews with staff and administrators to identify their decision-making process and various barriers or facilitators for family involvement. Efforts are also underway to examine how to harness social support from Veterans' family members to aid treatment effectiveness. A small, randomized, controlled trial is being conducted to examine the impact of a two-session family intervention to complement the delivery of Cognitive Processing Therapy (CPT) or PE. The goals of the intervention are to increase family members' support for and understanding of trauma-focused treatment, and also to reduce levels of family accommodation around PTSD symptoms.

In the area of complementary interventions, a continuing five-year study is examining the impact of two 12-week group treatments on chronic pain in Gulf War Illness. A one-year pilot study is examining the same interventions for older, sedentary, trauma-exposed Veterans. In both studies, tai chi, a mind-body exercise that has been associated with physical and mental health benefits, is compared with a wellness promotion intervention that is based on an existing VA model of care entitled Whole Health.

Division investigators also are examining a developmental phenomenon termed later-adulthood trauma reengagement (LATR). It involves efforts by older combat Veterans to actively re-engage with wartime memories with the aim of building coherence and finding meaning in past experience. It is theorized that the LATR process has the potential to lead to either positive outcomes such as personal growth or negative outcomes such as increased PTSD symptoms. An ongoing study is examining the impact of a 10-week psychosocial discussion group for older combat Veterans who report experiences consistent with the LATR process.

Division investigators are partnering with researchers in the Women's Health Sciences Division to examine the effects of trauma and other high-impact stressors on PTSD and related sequalae such as substance use disorders among lesbian, gay, bisexual, and transgender (LGBT) Veterans. This research aims to develop and refine conceptual models of trauma, PTSD, and related impairments to inform research, treatment development, and treatment planning for LGBT Veterans.

Care Delivery, Models of Care, and System Factors

The main example of work related to this National Center priority is a project that examines how evidence-based psychotherapy (EBP) is delivered by clinicians affiliated with the VA Boston Healthcare System Outpatient PTSD Clinic. Findings indicate that strategic changes in clinic intake procedures, such as distributing materials describing treatment options and adding a second intake session focused on collaborative treatment planning, were associated with increased rates of retention in treatment for PTSD.

DSM-5

Data collection is complete for a study validating a cutoff score for PTSD status according to *Diagnostic and Statistical Manual of Mental Disorders–Fifth Edition* (*DSM-5*) criteria based on the most recent version of the Primary Care Screen for PTSD for *DSM-5* (PC-PTSD-5). The study is part of a larger effort to validate *DSM-5* versions of measures that have been developed by National Center investigators. The ongoing project recruits Veterans from VA primary care

(Behavioral Science Division, continued)

locations and compares the screening measure to the gold-standard interview, the Clinician-Administered PTSD Scale for *DSM-5* (CAPS-5). The study also examines the extent to which the optimal PC-PTSD-5 cutoff score varies across subgroups of Veterans. Data analyses have been completed and a manuscript is being prepared to submit for publication. A separate study co-led by a Division investigator aims to provide validation of CAPS-5 performance with a military sample.

PTSD and Suicide

Division researchers are actively contributing to knowledge about PTSD and suicide, particularly in the domain of identifying risk factors. For one project, investigators used machine learning to identify the interactions among risk factors that predict future suicide attempts, using data from the Veterans After-Discharge Longitudinal Registry (Project VALOR) partitioned by gender. Results revealed that almost 8 percent of the sample made a suicide attempt over a five-year period. Machine learning portioned by gender identified important similarities and differences in risk pathways.

Two other projects are testing interventions to prevent suicide among Veterans and Servicemembers who are at risk for suicide. One project will examine feasibility and acceptability of Brief Cognitive-Behavioral Therapy for suicide prevention in a sample of Veterans hospitalized for suicide risk. In addition, experience sampling will be used to explore granular fluctuations in suicide risk and related risk factors (e.g., hopelessness) during and after treatment.

In another project that was recently launched, in collaboration with the STRONG STAR (South Texas Research Organizational Network Guiding Studies on Trauma and Resilience) Consortium, Division investigators are testing a modified version of WET for Suicide with a sample of Army soldiers and Veterans with PTSD symptoms who have been hospitalized for suicide risk. The study seeks to determine whether treating PTSD symptoms reduces the likelihood of future suicidal behavior.

Other Important Research

The Division has a great deal of expertise in longitudinal, observational studies that inform the understanding of the course of PTSD and associated conditions over time. Division researchers are working on two large prospective cohort studies that collect information from strategically selected Veteran and Servicemember groups. The first, Project VALOR (Veterans After-Discharge Longitudinal Registry), is working with a registry of 1,649 male and female combat Veterans who became users of VA services after 2002. The project collects data about health outcomes associated with PTSD, supplemented by clinical information from VA electronic medical records. Data collection for the fifth sampling wave is now complete, with over 1,000 participants providing saliva samples for future genomic analyses; examination of PTSD symptom trajectories and predictors of those trajectories are now complete.

The second large investigation, the Neurocognition Deployment Health Study (NDHS), began data collection at the outset of the Iraq War in 2003. Military personnel were assessed before deployment and at several intervals afterward, making this the first prospective longitudinal study to address the psychological impact of war zone stress. The study design allows examination of long-term emotional and neuropsychological outcomes, as well as health-related quality of life and occupational functioning. Initial papers have described PTSD outcomes; longitudinal neuropsychological outcomes; and relationships among PTSD, TBI, and neuropsychological outcomes. Data preparation and analysis are underway for an associated study that examines the adjustment of both partners and children of the Servicemembers and Veterans in the cohort.

Using data from the Nurses' Health Study and VA Normative Aging Study, during which nurses and Veterans were followed for 10 and 30 years respectively, researchers found that higher initial levels of optimism were associated with 11 percent -15 percent longer life span and 50 percent - 70 percent greater odds of achieving exceptional longevity, defined as reaching age 85.

In a related study examining psychosocial factors which underlie the associations of early experiences to longevity, investigators also found that greater optimism in midlife helped to explain the benefits of higher childhood socioeconomic status on greater longevity, whereas greater exposure to stressful life events in midlife accounted for some of the negative influence of childhood psychosocial stressors on reduced life span.

Division assessment research includes work with teams from the MITRE Corporation, a not-for-profit organization based in Bedford, Massachusetts, that manages federally funded

(Behavioral Science Division, continued)

research and development centers. The current project is aimed at developing a nonintrusive method of PTSD detection based on voice analysis applied to interview recordings. This work identifies vocal markers related to timing and coordination of speech to determine the presence and severity of PTSD. The nonintrusive nature of this approach increases its potential for real-world application; a patent application has been filed.

Clinical Neurosciences Division

The Clinical Neurosciences Division in West Haven, Connecticut, focuses on research to establish novel treatments and uncover biomarkers of disease mechanisms related to traumatic stress, and investigates paradigms of risk and resilience. By leveraging an interdisciplinary approach that includes genetics, neuroimaging, treatment interventions, and epidemiological studies, the Division maximizes efforts to translate discoveries into therapeutic targets for PTSD and associated comorbid conditions

Biomarkers

Neurogenomics and neuroimaging drive biomarker development, including molecular, biochemical, structural, and functional approaches to investigate stress-related phenotypes and to better understand the sequence of pathological events associated with posttraumatic stress. The cross-cutting nature of this work provides a foundation to research methods for the early detection of at-risk individuals, genetic and environmental interactions underlying symptoms, and treatment response.

Division researchers use genome-wide association studies (GWAS) to screen for genetic variations across large numbers of research participants. GWAS data from 165,000 U.S. military Veterans participating in the Million Veteran Program (MVP) provided the first evidence of genetic vulnerability to one of the hallmark symptoms of PTSD, re-experiencing traumatic events. A report published in Nature Neuroscience describes eight distinct genetic regions associated with PTSD and stress response: markers for genes that influence corticosteroid function (CRHR1 and HSD17B11), immune and inflammatory response (RAB27B), and associations with schizophrenia and bipolar disorder (TCF4 and MAD1L1). Genetic overlap between PTSD and schizophrenia may be due to shared biochemical pathways between hallucinations, dissociation, nightmares, and flashbacks, and may identify which PTSD patients are appropriate candidates for antipsychotic pharmacotherapy. Cell-type analyses revealed that medium spiny neurons may implicate striatal dysfunction in PTSD. Data further revealed that re-experiencing symptoms share genetic risk factors with hypertension.

The VA National PTSD Brain Bank studies postmortem brain tissue of PTSD and major depressive disorder (MDD) donors to characterize gene expression associated with stress and suicide, which may lead to blood-based biomarkers that could be used to diagnose and monitor treatment response. RNAseq analysis, involving more than 1,900 tissue samples of cortical and limbic brain regions revealed patterns of gene co-expression, and sex-specific transcriptional changes in four regions of the prefrontal cortex.

Bioinformatic data suggest that endothelial cells, important in the transit of white blood cells; microglial cells responsible for activating inflammation; and neurons are co-regulated across PTSD. Consistent with GWAS data, transcriptomic signatures for PTSD closely resemble those of schizophrenia and bipolar disorder, suggesting a convergent pathology. Finally, transcriptomic studies of amygdala brain regions implicate microglial cells and astrocytes (i.e., glial cells which regulate transmission of electrical impulses in the brain) in the pathophysiology of PTSD.

Using data from the National Health and Resilience in Veterans Study (NHRVS), investigators examined genetic and epigenetic factors implicated in PTSD with an emphasis on how protective factors such as physical exercise and social support may moderate the deleterious effects of genes associated with PTSD. Data including the brain-derived neurotrophic factor (BDNF) Val66Met polymorphism revealed that, among highly trauma-exposed "risk allele" carriers, those who engaged in physical

(Clinical Neurosciences Division, continued)

exercise had substantially reduced risk of PTSD. Additionally, a study involving more than 1,135 U.S. Veterans looked at molecular DNA methylation factors associated with biological aging, and revealed that greater lifetime trauma exposure and childhood sexual trauma were associated with accelerated DNA aging.

Division researchers use multimodal neuroimaging, such as positron emission tomography (PET), MRI, and spectroscopy, to investigate functional activation patterns, concentrations of neurotransmitters, the structure and shape of brain regions, and energy demands throughout the brain. This work also includes large-scale mapping of the PTSD brain connectome, a brain circuitry map. Efforts continue to build a large neuroimaging data repository in order to develop machine learning and artificial intelligence methods.

Investigators also use electroencephalogram (EEG) to evaluate changes in electrical activity in the brain both before and after pharmacotherapy treatment. This year, the Division also acquired the first magnetoencephalography (MEG) unit within the VA health care system. MEG is a cutting-edge, highly sensitive technology with greater sensitivity than EEG. It is capable of high temporal resolution of electrical activity in deep brain structures and is an important investigative tool for next-generation PTSD research.

Building on postmortem and genetic data, PET researchers studied transcription levels of translocator protein (TSPO), a marker of microglial and inflammatory immune response, to determine the relationship between TSPO, peripheral immune markers, and PTSD symptoms. TSPO was significantly lower in PTSD subjects compared to subjects without PTSD in the insula, ventromedial prefrontal cortex, and prefrontal-limbic regions. The latter region was also associated with lower IFN-gamma, a proinflammatory cytokine implicated in autoimmune disease, and with greater PTSD symptom severity. This study provided the first known in vivo evidence of neuroimmune dysregulation in PTSD.

PET researchers also examined synaptic density in PTSD and MDD using a new radioligand that quantifies synaptic vesicle protein (SV2A). This research demonstrated that severity of depressive symptoms is associated with lower synaptic density, as well as with disrupted connectivity. This finding was the first in vivo confirmation that depression is associated with altered synaptic density.

Five separate studies used MRI and computational modeling to examine PTSD-related brain dysfunction.

- A study using fractional anisotropy in PTSD subjects found altered white matter in the cingulum angular bundle, a brain region implicated in executive function and neurodegeneration.
- Researchers studied Veterans who are both apolipoprotein E (APOE) e4 allele carriers and have a diagnosis of PTSD, and demonstrated that they have significantly greater cognitive difficulties than e4 carriers without PTSD.
- An investigation of associative learning in combat Veterans with severe PTSD found that two brain regions, the amygdala and striatum, are less able to track changes in threat level and demonstrated impaired learning, suggesting more difficulty in unlearning fear upon return to civilian life.
- An evaluation of a newly developed pupillary biomarker examined stress arousal via neuron firing in the locus coeruleus, a brain region that also controls changes in the pupil of the eye.
- A study using a novel calibrated functional MRI (fMRI) technique investigated trauma and mood symptoms under drug challenge with ketamine and perampanel.

Treatment Efficiency, Effectiveness, and Engagement

NHRVS data was used to conduct the first known nationally representative study comparing Veterans use of VA as their primary source of health care. The study provides a comprehensive and up-to-date sociodemographic, military, and clinical profile of U.S. Veterans who do and do not utilize VA services.

Relative to non-VA users, VA users are more likely to be younger, female, Black, unmarried, less educated, and to have lower household incomes; they were also more likely to have served longer in the military and in combat roles. Looking at factors related to health, VA users were more likely to have lifetime psychiatric disorders, endorse current suicidality, report more trauma in their lifetimes, report more medical conditions, endorse a disability, and score lower on measures of functioning. The most important factor that differentiated VA health care users was

(Clinical Neurosciences Division, continued)

the presence of a lifetime psychiatric disorder. The study suggests that Veterans who use VA health care have an elevated health burden; these findings may help inform outreach and engagement initiatives.

Division researchers are also conducting a number of treatment-based trials:

- A clinical trial of repeated doses of ketamine for treatment-resistant PTSD, with an added emphasis on durability of treatment response.
- A seven-day trial of PE enhanced with a single infusion of ketamine.
- A study of combined PE and CPT in VA PTSD residential treatment programs.
- A project examining Mindfulness-Based Stress Reduction for anger and aggression in Veterans with PTSD.
- An examination of chronic pain, anger, and aggression in PTSD using ecological momentary assessment (EMA).
- A trial of transcranial direct current stimulation on learning, memory, and brain circuitry.
- A trial of buprenorphine and CPT for patients diagnosed with PTSD and opiate use disorder; opiate use disorder is more common in diagnoses of PTSD.
- A study that examines the effect of WET in Veterans diagnosed with PTSD and comorbid substance use disorder.
- A study to examine the effect of sirolimus and ketamine on neuroinflammation; this project expands upon previous work demonstrating prolonged remission with the combined treatments.
- A study of the neural and behavioral effects of serotonin-releasing agent 3,4-methylenedioxy-methamphetamine (MDMA) in PTSD.

The Division will also lead VA Cooperative Studies Program (CSP) #2016, targeting 1,224 patients at 34 VA Medical Centers. This study compares three commonly prescribed pharmacotherapies for insomnia: trazodone, gabapentin, and eszopiclone. Insomnia is among the most common persisting symptom of PTSD, with more than 80 percent of patients who are actively engaged in other behavioral and pharmacologic treatments reporting this symptom. At present, there are no medications approved for the treatment of PTSD-related insomnia.

DSM-5

The Division has been involved in the National Center's efforts in development and validation of assessment instruments for *DSM-5*. NHRVS data was used to examine predominant typologies of *DSM-5* PTSD symptoms in the U.S. Veteran population. Results revealed three typologies of PTSD, differentiated by both the nature and severity of symptoms: Dysphoric (i.e., negative affect and anhedonic symptoms); High Symptom (i.e., high probabilities of all symptom clusters); and Threat (i.e., intrusive and avoidance symptoms).

These typologies differed in their clinical features. The Dysphoric group had higher rates of depression and substance use disorders than the Threat typology. The High Symptom typology had higher rates across all disorders, including suicidality, relative to the Dysphoric and Threat typologies. These results underscore the importance of a personalized approach to the assessment, monitoring, and treatment of *DSM-5* PTSD, as well as the clinical burden of the High Symptom typology, in U.S. Veterans.

PTSD and Suicide

Division researchers are investigating the use of pharmacological agents that have an acute antidepressant effect as a strategy to prevent suicide among individuals with PTSD. This work includes several projects that evaluate the anti-suicidal properties of ketamine in both treatment-resistant PTSD and depression, and how neural alterations and changes in synaptic connectivity both before and after ketamine treatment may underlie these behavioral changes.

Researchers are also developing a database of longitudinal factors related to suicidality, PTSD, depression, neuroimaging, and behavioral data to study symptom trajectory and outcomes over time. Other work includes a study examining PTSD, suicidality, and brain-based biomarkers in caregivers of Veterans with PTSD, using connectome-based predictive modeling to identify critical nodes and circuits that may predict the severity of suicidal behavior.

New findings involving the glutamatergic metabotropic receptor (mGluR5) were also uncovered. Using PET, researchers measured mGluR5 levels in individuals with PTSD and MDD who reported suicidal thinking at the time of scanning and found high levels of mGluR5 in the PTSD group with current suicidal thoughts.

(Clinical Neurosciences Division, continued)

There were no elevated levels observed in the PTSD group without suicidal thoughts or in the MDD group, either with or without current suicidal thoughts. This work supports mGluR5 as a biomarker linked to PTSD-related suicidal ideation.

NHRVS data revealed a wealth of conclusions related to suicidality. Veterans with both PTSD and MDD are significantly more likely to have attempted suicide and to be currently contemplating suicide, compared to Veterans with PTSD or MDD alone. Anhedonic and externalizing symptoms of PTSD are most strongly linked to suicidal thinking. Veterans who use VA as their primary source of health care have significantly higher rates of suicide attempts and suicidal thinking than those who do not. Factors such as greater purpose in life, curiosity, and optimism may help buffer the probability of suicidality in high-risk Veterans with histories of PTSD and depression. Finally, a greater sense of meaning in life moderates the relationship between suicidal ideation and experiences that violate the person's moral or ethical standards.

Published NHRVS study findings documented the effect of homelessness on suicidality, showing that Veterans with a history of homelessness are five times more likely to attempt suicide than those with no such history. These findings made an immediate translational impact on policy, as directives were issued on roles and responsibilities of VA homeless programs in suicide prevention.

Dissemination and Training Division

The Dissemination and Training Division in Palo Alto, California, conducts research on patient needs and preferences, implementation science, the development of novel and adapted treatments that attend to patient preferences, and the development and testing of technology-based delivery of treatment.

Treatment Efficiency, Effectiveness, and Engagement

A key focus of Division researchers is increasing patient engagement into care. One study is developing a brief measure of patient characteristics associated with effective engagement in care, which will guide identification of the type and amount of service resources needed to engage Veterans. A second study is focusing on racial and ethnic minority patients who have been found to experience disparities in trauma exposure and mental health care. The project will develop a screening tool that identifies patients at risk for subsequent mental health problems and identify resources tailored to particular patient problems and needs to increase engagement into care.

Several ongoing studies are assessing the ability of web-based and mobile technologies to increase Veteran access to mental health care and to enhance outcomes. Telemental health services in the home are expected to increase patient engagement and access, but to date this type of service has rarely been implemented. A hybrid effectiveness and implementation study will compare two treatments delivered to women Veterans in their homes via video teleconference: Skills Training in Affective and Interpersonal Regulation (STAIR) and Present-Centered Therapy (PCT). The goals of the study are to assess the relative effectiveness of these treatments and to identify barriers and facilitators for using video for home delivery treatment.

The efficacy of web-PE, a web version of PE, in reducing symptoms of PTSD in military personnel and Veterans is being tested. Web-PE is delivered online with therapist oversight and facilitation, and could have significant potential to increase the reach of PE to those who cannot otherwise access traditional face-to-face care. A new study will test whether the addition of peer support increases adherence to and completion of online treatment. This trial will compare patient engagement and outcomes from using Moving Forward, a VA online version of Problem Solving

(Dissemination and Training Division, continued)

Therapy, with and without peer support.

A two-site study is underway to assess the efficacy of PTSD Coach compared with traditional treatment for reducing PTSD symptoms in Veterans utilizing primary care services. Several pilot studies of mobile phone apps are near completion, including a pilot study of app-based personalized and semiautomated coaching integrated into PTSD Coach; a pilot study of a couples-based intervention using mobile apps; and two ongoing trials of the Mindfulness Coach app in Veterans with PTSD and as an adjunct for Veterans receiving other types of medical care.

A mobile cognitive control training for the treatment of alcohol use disorder (AUD) and PTSD will determine the efficacy of a novel neurocognitive intervention for improving recovery outcomes. The National Center and the VA Palo Alto Health Care System received funding for a Center for mHealth Applications Research, Resources, and Services to aid mobile health research by National Center and other VA investigators.

In collaboration with researchers from the Minneapolis VA Health Care System, the Division is conducting a study to test a web-based intervention to help National Guard families encourage their loved ones to seek mental health care. Key questions concerning the methods and the extent to which social networks can be utilized to increase treatment engagement, and to improve mental and physical health outcomes, are being investigated in a study of cancer survivors, another highly stressed population.

Care Delivery, Models of Care, and System Factors

New efforts are underway to improve patient access to care by using participatory systems dynamics modeling, a collaborative quality improvement approach in which stakeholders identify specific system problems, use computer modeling to compare the likely outcomes of different potential solutions, and then select an optimal solution to implement. Preliminary pilot data indicate substantially improved access to evidence-based psychotherapy (EBP) at two facilities using this method.

Technical Assistance Specialists in the VA Office of Mental Health and Suicide Prevention have been trained in this approach and are partnering with the National Center in two studies. These randomized controlled trials will test the effects of participatory systems dynamics modeling on increasing provision of evidence-based treatments, its mechanisms of action, and its cost-effectiveness relative to usual VA quality improvement.

Implementation

A study evaluating how to simplify assessment of the quality of delivery of cognitive-behavioral therapy (CBT) for PTSD, depression, and anxiety disorders is underway. A second ongoing study is evaluating competing strategies intended to enhance and sustain the delivery of CPT; one strategy emphasizes fidelity to the protocol through expert consultation and online resources, and the other focuses on using continuous quality improvement strategies to improve fit and to address barriers to treatment delivery.

Investigators involved in the evaluation of the national rollout for PE are studying the effectiveness of different training models on trainee delivery of PE. Another study compares methods of assessing treatment quality and fidelity, two important implementation outcomes for CBTs, including CPT. National Center staff are also supporting VA's efforts to implement measurement-based care (MBC), and recently published results of three qualitative studies on implementation of MBC.

In collaboration with the Minneapolis VA Health Care System, investigators at two National Center Divisions are testing an implementation toolkit and facilitation to increase use of EBPs in VA PTSD clinics. This project leverages findings from a prior study on organizational factors that contribute to wider use of EBPs, and is now being extended to Department of Defense (DOD) clinics in a multi-site trial involving collaborators from five universities and eight military bases. The study will assess whether a tailored approach combining an implementation toolkit, a rubric for matching solutions to local barriers, and support from an external facilitator increases the use of PE more than standard provider training alone.

PTSD and Suicide

Division staff are working on developing participatory system dynamics modeling tools that clinic teams can use to optimize and allocate staff resources to different clinical activities. These tools are now being expanded to suicide management to help teams ensure effective management of Veteran patients at high risk for suicide, without compromising overall access to or quality of care.

Evaluation Division

The Evaluation Division in West Haven, Connecticut, supports the National Center's mission through a programmatic link with VA's Northeast Program Evaluation Center (NEPEC). NEPEC has broad responsibilities within the VA Office of Mental Health and Suicide Prevention (OMHSP) to evaluate their treatment programs, including those for specialized treatment of PTSD. Although researchers are primarily engaged in evaluation research, they also work on independent research projects related to the treatment of PTSD.

Biomarkers

Dr. Matthew Friedman, Senior Advisor to the National Center, continues to coordinate the operations of VA's first National PTSD Brain Bank. The PTSD Brain Bank supports the Presidential Executive Order of August 2012 on deployment health by enabling VA to lead the nation in unique research that will facilitate deeper understanding of the causes and consequences of PTSD, as well as advancing assessment and treatment techniques.

The PTSD Brain Bank has seven parts, with facilities at five VA Medical Centers (Durham, North Carolina; Boston, Massachusetts; Waco, Texas; West Haven, Connecticut; and White River Junction, Vermont), the University of Miami, and the Uniformed Services University of the Health Sciences. The Clinical Neurosciences Division in West Haven is the primary data analysis site; ongoing research endeavors utilizing PTSD Brain Bank tissue are described in the Clinical Neurosciences Division narrative.

As of the end of FY 2019, the PTSD Brain Bank had 260 PTSD and comparison frozen hemispheres (roughly one-third each from donors with PTSD, donors with major depression, and healthy controls). In addition, the PTSD Brain Bank has 22 fixed hemispheres. An additional 100 prospective tissue donors have volunteered to be followed over their lifetimes. There has been considerable progress on major projects regarding bulk and single cell RNA sequencing and DNA methylation from key brain areas, including a collaboration with the Lieber Institute for Brain Development that will obtain transcriptomic data from eight brain regions from over 300 brains, divided between PTSD, major depressive disorder (MDD), and healthy controls.

The biomarkers portfolio also includes examinations of biomarkers of treatment response and neuroimaging research. Transcranial magnetic stimulation (TMS) is a device-based, FDA-cleared intervention for depression that is being tested as a treatment for PTSD. Executive Division investigators are currently examining EEG and fMRI biomarkers of response to TMS among Veterans with treatment-resistant depression.

The first study of the neural correlates of social working memory in PTSD completed recruitment. Interim analyses suggest that individuals with PTSD have more difficulty than trauma-exposed comparison participants with maintaining and manipulating social information on a moment-to-moment basis. An ongoing study is using EEG, eye tracking, and behavioral measures to examine the interaction between emotional processing and attentional functioning in healthy adult participants and trauma-exposed individuals with and without PTSD.

Treatment Efficiency, Effectiveness, and Engagement

The Executive Division has a long history of participation in VA's CSP. During FY 2019, CSP #591, a groundbreaking study comparing PE and CPT at 17 VA facilities across the country, was completed. The investigators enrolled 916 participants, more than the 900 that were anticipated, and data analysis is projected to be completed by the second quarter of FY 2020. Findings will help VA leadership, clinicians, and Veterans make informed choices about the delivery of PTSD care in VA, and will also be broadly relevant to the scientific and clinical communities outside VA.

The National Center previously developed AboutFace, a public awareness campaign to help Veterans recognize PTSD and motivate them to seek treatment. Recruitment for a project in which investigators are examining the impact of AboutFace on engagement in and completion of evidence-based treatment among Veterans with PTSD is ongoing. They will also examine the impact of AboutFace on stigma and attitudes toward mental health services.

Investigators continue to focus on treatments for conditions that frequently co-occur with PTSD and to examine novel treatments for PTSD.

(Evaluation Division, continued)

The primary outcomes for a trial comparing two psychotherapies for comorbid AUD and PTSD (PE and Seeking Safety) were published in JAMA Psychiatry in FY 2019. Recruitment for a trial that is evaluating the combination of topiramate and PE for co-occurring PTSD and AUD is ongoing.

Results from a pilot study investigating the safety and efficacy of a novel form of synchronized TMS for PTSD with comorbid depression were published. The first study of cannabidiol-enhanced PE in Veterans launched in FY 2019, with the first participant enrolled in May 2019. Lastly, a trial to evaluate a brief protocol to reduce guilt and shame related to a traumatic event among Veterans of Iraq and Afghanistan will be finishing recruitment in early 2020.

During FY 2019 the National Center partnered with the Agency for Healthcare Research and Quality to create the PTSD Trials Standardized Database Repository (PTSD-Repository), a large database of PTSD clinical trials. The data were generated from a systematic review of 318 published trials of PTSD interventions. Data are freely available to researchers, clinicians, and other stakeholders. This online repository will inform future study design and conduct and will aid researchers and policymakers in identifying important gaps in the research.

Care Delivery, Models of Care, and System Factors

The Executive Division is working on several initiatives aimed at assessing models of care and improving evidence-based practices. Investigators continue to analyze data from a national survey that assessed the treatment needs and preferences of Veterans and non-Veterans with PTSD symptoms and informed the development of the PTSD Treatment Decision Aid. This is the first publicly available online treatment decision aid for PTSD, and it has received more than 250,000 views since its release in 2017.

Most recently, investigators published results of a qualitative investigation of PTSD treatment preferences among adults with PTSD symptoms. The study found that preferences were shaped by factors such as perceived treatment effectiveness, familiarity with the treatment, and delivery format. By highlighting which pieces of information may be most important to detail when presenting different treatment options, these results can help guide treatment planning conversations, as well as the development of decision-support tools.

Executive Division investigators continue to examine the impact of facilitation and academic detailing, in which a pharmacist and psychologist reach out directly to VA clinicians in rural clinics to improve PTSD treatment practices. An ongoing initiative is focused on sharing guideline-recommended practices for PTSD with rural facilities outside New England. Innovative natural language processing methods were used to identify rural sites across the country that were low in delivery of evidence-based treatments.

Two new projects will begin in FY 2020. The first aims to improve access to evidence-based treatments for Veterans with PTSD at rural facilities utilizing facilitation, academic detailing, and collaboration with the National Center's Mentoring Program. Expansion will include measuring the sustainability of the implementation work done in FY 2019. The second initiative will create a collaboration with the team's local Office of Community Care to identify providers in the area who are planning to treat Veterans through the MISSION Act, which allows Veterans to access care in the community. The project will also create a streamlined network with local community providers to enhance their knowledge of the 2017 VA/DOD PTSD Clinical Practice Guideline (CPG) treatment recommendations and share current best practices regarding suicide risk assessment.

In addition to projects aimed at improving clinical practices, investigators are continuing to assess the state of care for PTSD in VA using novel informatics and operational methods. In FY 2019, investigators completed work to derive outcome-based quality standards for use of EBPs and evidence-based antidepressants (EBAs, including fluoxetine, sertraline, paroxetine, and venlafaxine) over a 10-year period of observation using VA medical records data. There was a steady increase in the use of PE and CPT but little change in the use of EBAs. However, when the most rigorous quality standards were applied, the team identified significant opportunities for improvement of both EBPs and EBAs. Proposals in development will seek to address these gaps in a targeted data-driven manner. Ongoing work in this area includes funded work to compare the effectiveness of EBAs in routine practice.

DSM-5

In collaboration with the Behavioral Science Division, the Executive Division is leading a study

(Evaluation Division, continued)

to provide further validation of the PC-PTSD-5, which is currently used across VA for mandatory PTSD screening. Although initial validation has been completed, the ongoing study, which uses the CAPS-5 as the criterion index, will provide more definitive information regarding the most appropriate cutoff scores and will allow investigation of the screen's ability to detect PTSD in key subgroups such as women. Data analyses have been completed and a manuscript is being prepared to submit for publication.

PTSD and Suicide

Executive Division researchers continue to advance the priority area of PTSD and suicide through collaborations with the National Center for Patient Safety (NCPS), OMHSP, and the Center of Excellence (COE) for Prevention of Suicide.

Recently completed work with this COE shows potential misclassification in suicide outcomes across data sources available to VA operations and researchers. A separate study using semantic analysis of clinical note text to evaluate ruptures in therapeutic alliance preceding death by suicide in a VA PTSD treatment population is nearing completion. A new study that will launch in FY 2020 will leverage an existing 10-year national longitudinal cohort of VA users to answer important questions about rural-urban differences in death by suicide. Finally, based on previous work showing elevated risk of suicide during high-risk care transitions, investigators will develop and implement an effective suicide prevention intervention for rural VA facilities to decrease suicide risk in Veterans living in rural settings.

Pacific Islands Division

The Pacific Islands Division in Honolulu, Hawaii, was created to advance PTSD work in the Pacific Rim; to focus on improving access to care by increasing understanding of cultural attitudes and the bases of racial and ethnic disparities in treatment; and to evaluate the use of advanced technology, such as telemedicine, to reach out to Veterans who are otherwise unable to access adequate care.

Treatment Efficiency, Effectiveness, and Engagement

Three major projects are aimed at evaluating different methods of delivering PTSD treatment. Investigators are in the final phase of a large trial that examined Veterans' preferences for and the clinical efficacy of three modalities for the provision of PE: two involving technology and one involving in-home visits to Veterans. A second trial is comparing different treatments for in-home delivery of a couples-based intervention for PTSD; this study examines the clinical efficacy of brief Cognitive-Behavioral Conjoint Therapy (CBCT) and compares home-based care to traditional office-based care. A new trial in collaboration with the Dissemination and Training Division is looking at home-based STAIR treatment for women Veterans who have experienced MST. The third study, a collaboration with investigators at the Minneapolis VA Health Care System, is a multi-site trial comparing standard PE with PE incorporating a partner.

Other Important Research

Several ongoing studies examine the prevalence of PTSD, response to treatment, and presence of related mental health comorbidities in ethnic minority populations. These studies identify unique risk and resilience correlates of PTSD among ethnically and racially diverse Veterans, and the effects of those correlates on Veterans' response to evidence-based PTSD treatments.

Researchers are continuing a study initiated in FY 2017 that uses data from the Honolulu Asian-Aging project to look at the effects of military service combat exposure in particular on late-life dementia, as well as on marital and family structures, mental health, and physical health among Japanese-American men.

An ongoing project conducted in conjunction with the Military Family Research Institute at Purdue University examines sociocultural and community influences on mental health decision-making among male and female African-American, Asian-American, Latino, and non-Latino white Veterans who are starting PTSD care in a VA mental health clinic. This mixed-methods study uses qualitative phone interviews, follow-up surveys, and census information. Part one of the interview examines who in their social networks Veterans talk to about mental health

(Pacific Islands Division, continued)

problems and treatment, how much they value that input, and why. Other parts of the interview and the follow-up survey examine experiences with and conceptualization of PTSD, treatment, and treatment providers.

The Division is also working on a national qualitative study examining dropout from evidence-based treatments, in collaboration with investigators from the Women's Health Sciences Division and Minneapolis Health Services Research & Development Center of Innovation. Finally, a statistical methodology project is underway to develop an estimation method to delineate individual factor contributions in observational studies, where models include functional data as either an outcome or as one of a large number of covariates.

Women's Health Sciences Division

The Women's Health Sciences Division in Boston, Massachusetts, specializes in the study of women Veterans and non-Veterans, with a particular focus on understanding gender differences in trauma exposure and posttrauma psychopathology.

Biomarkers

Research on biomarkers includes studies aimed at explaining the basic biological processes underlying PTSD with particular relevance to women. One study is examining the role of neurobiological and psychosocial factors that affect negative pregnancy outcomes among women with PTSD. Another is performing data analysis on a study of sex hormones and derivatives associated with decreased retention of extinction learning across the menstrual cycle in women with PTSD. A third is a study of GABA-ergic neuroprotective steroids in men and in women across the menstrual cycle. Recently published results reveal that deficient activity among enzymes converting progesterone to its anxiolytic metabolites is related to PTSD severity for both men and women, but that the site of this deficiency is different among women. This suggests that sex-specific treatments for correction of the deficiency may be needed.

Studies examining the role of biomarkers in intervention efforts include the initiation of a new study investigating whether a specific electrophysiological response pattern to a series of loud tones is predictive of clinical responses to selective serotonin reuptake inhibitors (SSRIs). Investigators are also working on a series of studies looking into the role of progressive exercise training to reduce chronic pain and PTSD symptoms, perhaps by improving participants' capacity to release stress and pain-reducing neurohormones.

Division researchers are also seeking to pioneer scientific inquiry in the area of head injury in women suffering from PTSD secondary to IPV. The aim is to understand the interactive biological and psychological mechanisms that underlie comorbid PTSD and TBI. One key objective is to begin to develop multimodal treatments for comorbid PTSD and TBI that would be more effective than current, single-modal strategies. Investigators will be able to examine sex differences across domains of measurement (psychiatric, psychosocial, neuropsychological, blood-based biomarkers, and imaging) by comparing this sample with comparable male samples.

Treatment Efficiency, Effectiveness, and Engagement

Several intervention studies are examining more efficient and effective treatment modalities for delivering CPT. With support from the STRONG STAR Consortium, investigators are continuing to analyze data from a study comparing the relative effectiveness of CPT delivered in an individual format with that delivered in a group format.

Also through STRONG STAR, staff are investigating a variable-length CPT protocol, testing the efficacy of the intervention when treatment end is determined by patient progress. Another trial is testing the efficacy of CPT delivered in an intensive outpatient format with active-duty Servicemembers. This one-week version of CPT is also being piloted in female survivors of IPV with PTSD and traumatic brain injuries (TBIs).

In the area of treatment effectiveness, investigators are working to improve adherence to existing PTSD treatments. A recently

(Women's Health Sciences Division, continued)

completed study explored Veteran and provider perspectives on reasons for dropout from both CPT and PE in order to develop an intervention aimed at increasing rates of completion for these treatments. Another recent study focused on improving the assessment of sleep impairment in the context of PTSD via objective measures, self-report global measures, and daily symptom monitoring diaries; researchers hope that therapy might better target trauma-related insomnia, the most-often reported symptom of PTSD and, arguably, the most resistant to treatment. Other intervention studies on traumatized populations include an open trial to test the effectiveness of a therapist-assisted self-management intervention intended to increase self-efficacy and facilitate greater community engagement following a successful course of PTSD treatment.

The Division is also focused on intervention research among those who have not necessarily been diagnosed with PTSD. Researchers are looking into the effectiveness of a national network of peer-facilitated support groups for women Veterans, titled WoVeN: The Women Veterans Network, which is intended to increase social connections and support and to improve well-being. In addition to ongoing effectiveness evaluations, recent efforts have focused on the implementation of a train-the-trainer model to facilitate the dissemination of these peer-facilitated support groups.

Treatment engagement research includes studies of subpopulations of interest. Division researchers recently published findings about the experience of seeking PTSD treatment in a sample of discrimination-based-trauma-exposed lesbian, gay, bisexual, and transgender (LGBT) Veterans. This work led to a new model for conceptualizing trauma recovery among sexual and gender minority people that considers their unique minority context and ongoing exposures. Current work is further refining this new model for conceptualizing the sequelae of discrimination, minority stress, and microaggressions among transgender trauma survivors.

Care Delivery, Models of Care and System Factors

The Division's focus on care delivery emphasizes care for conditions with particular relevance to women Veterans. One mixed-methods study is looking at Veterans' experiences with and preferences for communication with Veterans Health Administration (VHA) providers about MST. Investigators interviewed male and female Veterans, including Veterans who had experienced MST and those who had not, to ask about their experiences. Veterans from all groups reported generally high satisfaction with MST-related communication, although men, as a group, reported a much larger range of satisfaction ratings than women.

Two studies are investigating VHA health care use related to eating disorders, in a nationally representative sample of male and female Veterans and a large cohort of post-9/11 male and female Veterans. These investigations will also look to identify barriers to mental health care use, both in general and specifically related to eating disorders.

Other studies have focused on understanding patterns of service use among post-9/11 Veterans. The Veterans Metric Initiative is a large-scale longitudinal study investigating newly separated Servicemembers' reintegration experiences and use of transition programs, services, and supports. Comparisons between female and male Veterans at the time of separation suggest that female Veterans experience unique areas of risk and resilience. Risk factors include greater likelihood of experiencing depression and anxiety, as well as slightly lower resilience, reflected in the ability to bounce back from adversity. Resilience factors include better parental functioning, less tobacco use, and greater likelihood of seeking needed care.

Investigators also continue to analyze data from a study of the effects of deployment stressors and resulting mental health conditions on Veterans' quality of life and health care use. A key focus of recent analyses was the relationship between Veterans' functioning and their service use; findings suggest that functional impairments may serve as a facilitator of treatment seeking for women, whereas it may impede treatment seeking for men. Recent findings also highlight the importance of attending to the role of family stressors experienced during deployment on Veterans' longer-term mental health and corresponding needs for clinical services.

The health of older women Veterans is another area of focus. One study is examining the impact of military and other lifetime stress exposures and mental health results, with a focus on PTSD, later-life health and related quality of life in Vietnam-era women Veterans. Recent findings highlight the lasting impact of wartime stress exposures — including mission-related stressors and sexual discrimination and harassment — as

(Women's Health Sciences Division, continued)

well as the roles of PTSD, depression, and anxiety on later-life functioning and disability. A second study, in collaboration with investigators from the Behavioral Science Division, is examining predictors of mortality, as well as changes in physical and mental health-related well-being over time, among female and male Vietnam-era Veterans.

Implementation

Division investigators are conducting a range of implementation studies focused on identifying and disseminating best practices for IPV identification, assessment, treatment, and the targeting of health services within the VHA context. Division investigators are involved in planning and evaluating a national rollout of IPV screening programs within primary care clinics. As many as 20 VA Medical Centers will participate in an implementation-effectiveness randomized program evaluation that will determine the impact of the Office of Women's Health Services efforts on implementation outcomes (i.e., adoption, penetration, implementation fidelity, and sustainability) and the clinical effectiveness of IPV screening programs on disclosures and post-screening psychosocial service use.

In the area of implementation of interventions associated with IPV, researchers recently began a multi-site effectiveness-implementation clinical trial of a brief counseling intervention for women who are experiencing violence in their intimate relationships. This study incorporates a hybrid methodology to inform both the effectiveness of the intervention and expansion of the intervention throughout VA.

Investigators are applying implementation science to other issues of relevance to the National Center. One effort is examining Written Exposure Therapy (WET), a brief PTSD treatment, for pregnant women with comorbid PTSD and substance use disorder who are engaged in prenatal care within a high-risk obstetrical and addiction recovery program; the project is using a hybrid effectiveness-implementation design. Additionally, investigators are initiating a qualitative study to assess practices, attitudes, and strategies for increasing use of evidence-based psychotherapies for mental health conditions in community-based outpatient clinics.

PTSD and Suicide

The Longitudinal Investigation of Gender, Health, and Trauma (LIGHT) study is a national survey of Veterans living in high-crime neighborhoods, focusing on more clearly delineating the impact of trauma and community violence on mental, physical, and reproductive health and suicidal behavior among both women and men. To date, investigators have gathered data from over 3,500 Veterans, about half of whom are women, at an initial time point and are in the process of completing a second wave of assessments. With two more intervals of follow-up surveys planned, the complete study will include a total of four assessments over 18 months.

APPENDIX C

Fiscal Year 2019 Funding

VA Cooperative Studies Program (CSP)

Principal Investigator	Research Title	Years	FY2019 Funding	Total Funding
Krystal	CSP #2016: Adaptive Clinical Trial for Insomnia in Veterans with PTSD (ACTIVe-PTSD)	2018-2023	$1,339,933	$24,467,860
Schnurr, Chard, & Ruzek	CSP #591: Comparative Effectiveness Research in Veterans with PTSD (CERV-PTSD)	2013-2020	$916,257	$9,048,760

Other VA Sources

Principal Investigator	Research Title	Funding Source	Years	FY2019 Funding	Total Funding
Averill	Structural and Functional Correlates of Suicidality in Veterans with PTSD	CSR&D (CDA)	2019-2023	$209,772	$1,680,000
Bernardy	Expanding Rural Access to Effective PTSD Care through Outreach	ORH	2020-2022	$0	$760,000
Bernardy	Identifying Rural Areas of Low Evidence-Based PTSD Care Delivery and Exploring the Feasibility of Intervening with Virtual Facilitation and e-Detailing	ORH	2019-2020	$416,932	$416,932
Bernardy	PTSD Facilitation to Vermont & New Hampshire Community Providers	ORH	2020-2022	$0	$83,000
Bovin	From Screening to Treatment: Mapping Access to Care Pathways for Veterans who Screen Positive for PTSD	HSR&D	2019-2020	$98,767	$98,767
Bovin & Schnurr (**Kimerling,** Site PI)	Validation of the PTSD Primary Care Screen	HSR&D	2017-2019	$53,399	$471,788
Carlson	Pilot Study of Standalone and Peer Supported Online Problem Solving Program in Veterans with Untreated Mental Health Problems	HSR&D	2018-2019	$100,000	$100,000
Cloitre	webSTAIR Enterprise-Wide Initiative & Program Evaluation	ORH	2017-2022	$3,209,603	$11,984,020
Cloitre	Connecting Women to Care: Home-based Psychotherapy for Women with MST Living in Rural Areas	HSR&D	2018-2022	$241,497	$1,095,979
Colvonen	The Impact of Integrated CBT-I and PE on Sleep and PTSD Outcomes	RR&D (CDA)	2017-2021	$180,000	$950,687

Other VA Sources, continued

Principal Investigator	Research Title	Funding Source	Years	FY2019 Funding	Total Funding
Girgenti	Single Cell Molecular Mechanisms in PTSD and Suicide	VISN 1 (CDA)	2019-2021	$128,475	$263,886
Grubaugh & **Hamblen**	A Randomized Controlled Trial of AboutFace: A Novel Video Storytelling Resource to Improve Access, Engagement, and Utilization of Mental Health Treatment among Veterans with PTSD	HSR&D	2018-2022	$209,875	$1,001,900
Hamilton & **Kimerling**	Enhancing the Mental and Physical Health of Women through Engagement and Retention (EMPOWER)	QUERI	2015-2020	$830,000	$4,150,000
Harpaz-Rotem & Pietrzak	Fear Reversal Learning in Combat-Related PTSD: A Multi-Model fMRI-PET Approach	CSR&D	2019-2023	$27,515	$1,100,602
Heinz	Cognitive Remediation for Alcohol Use Disorder and PTSD	RR&D (CDA)	2014-2019	$191,703	$986,195
Holtzheimer & Etkin	Assessing an Electroencephalography (EEG) Biomarker of Response to Transcranial Magnetic Stimulation for Major Depression	CSR&D	2020-2025	$0	$5,429,619
Iverson	Increasing Reach of Evidence-Based Psychotherapies in CBOCs: Identifying Needs and Strategies for Scale Out	HSR&D	2020-2020	$0	$98,534
Iverson	Presidential Early Career Award for Scientists and Engineers	HSR&D	2014-2019	$25,000	$125,000
Iverson	Recovering from Intimate Partner Violence Through Strengths and Empowerment (RISE): Tailoring and Evaluating a Patient-Centered Counseling Intervention for Women Veterans	HSR&D	2018-2021	$278,047	$975,643
Iverson & Miller	Addressing Intimate Partner Violence Among Women Veterans: Evaluating the Impact and Effectiveness of VHA's Response	HSR&D	2020-2023	$0	$1,099,580
Kachadourian	Mindfulness Treatment for Anger in Veterans with PTSD	CSR&D (CDA)	2017-2021	$129,304	$732,428
Keane	CAP Coordinating Center*	VA/DoD	2016-2020	$202,194	VA: $21,000,000
Kehle-Forbes	Pilot Test of a Self-Management Program for Completers of Trauma-Focused Therapy	RR&D	2018-2020	$94,233	$196,495
Kimerling	Development of a Patient-Reported Measure to Assess Healthcare Engagement	HSR&D	2018-2022	$200,453	$960,248
Krystal & Abdallah	CAP-Ketamine for Antidepressant-Resistant PTSD: A Translational Neuroscience, Biomarker-Informed Clinical Trial*	VA/DoD	2016-2020	$488,000	$1,588,594
Kuhn & Owen	Mobile Apps Research Resources and Services	HSR&D	2018-2020	$238,000	$350,000
Kuhn & Possemato	An RCT of a Primary Care-Based PTSD Intervention: Clinician-Supported PTSD Coach	HSR&D	2017-2020	$275,000	$1,100,000
Landes (**Rosen,** Site PI)	Risk Stratified Enhancements to Clinical Care: Targeting Care for Patients Identified through Predictive Modeling as being at High Risk for Suicide	HSR&D	2016-2020	$247,895**	$1,222,926

Other VA Sources, continued

Principal Investigator	Research Title	Funding Source	Years	FY2019 Funding	Total Funding
Loflin	Cannabidiol as an Adjunctive to Prolonged Exposure for the Treatment of PTSD	CSR&D (CDA)	2019-2024	$231,902	$1,310,332
Logue	Early Cognitive Impairment as a Function of Alzheimer's Disease and Trauma	BLR&D	2019-2021	$147,368	$296,877
Logue	Genetic and Epigenetic Biomarkers of PTSD	BLR&D	2017-2020	$143,601	$610,600
McClendon	Talking about Racism: Evaluation of a Group Intervention to Reduce Race-based Stress among Veterans of Color	VISN 1 (CDA)	2020-2022	$0	$237,970
McGlinchey & Milberg (**Rasmusson,** Site PI)	VA Center of Excellence: Translational Research Center for TBI and Stress Disorders	RR&D	2014-2019	$1,000,000**	$5,000,000
McKee & **Huber**	ShEEP Request for Nikon N-Storm Super-resolution Microscope	BLR&D	2019-2019	$399,219	$399,219
Miller	Magnetic Resonance Spectroscopy and Genetic Analysis of Oxidative Stress in OEF/OIF Veterans with PTSD and TBI	CSR&D	2018-2021	$150,000	$600,000
Mitchell	Eating Disorders among Veterans: Risk, Resilience, and Service Use	HSR&D	2019-2021	$213,891	$543,819
Morland	An Integrative Technology Approach to Home-based Conjoint Therapy for PTSD	RR&D	2016-2020	$259,500	$1,038,000
Moye & **Pless Kaiser**	Late Life PTSD Educational Program for VHA and non-VHA Rural Health Providers	ORH	2020-2020	$0	$300,000
Niles & Mori	Novel Interventions for Gulf War Veterans' Illnesses	CSR&D	2016-2021	$340,812	$1,664,578
Norman	Topiramate and Prolonged Exposure for Alcohol Use Disorder and PTSD	RR&D	2018-2022	$149,648	$927,733
Oslin (**Gelernter,** Site PI)	PRIME Care (PRecision medicine in MEntal health Care)	HSR&D	2017-2022	$2,458,591**	$11,306,320
Peterson & **Keane**	Consortium to Alleviate PTSD	VA/DoD	2013-2020	$3,694,152	VA: $21,000,000
Petrakis	Optimal Treatment of Veterans with PTSD and Comorbid Opiate Use Disorder (OUD)	CSR&D	2018-2023	$150,000	$750,000
Pietrzak & Tsai	Veterans Study of Knowledge and Attitudes of VA Healthcare	VISN 1 Strategic Initiative to Expand Education and Research	2018-2019	$26,298	$50,000
Pineles	An Electrophysiological Predictor of SSRI Response in Veterans with PTSD	CSR&D	2019-2023	$74,796	$599,531
Pless Kaiser	Improving Psychosocial Functioning in Older Veterans with PTSD	RR&D (CDA)	2017-2022	$186,287	$809,149
Sayer & **Wiltsey Stirman**	Shared Contributions to Outcomes and Retention in EBPs for PTSD (SCORE PTSD)	HSR&D	2017-2020	$331,723	$1,020,028

Other VA Sources, continued

Principal Investigator	Research Title	Funding Source	Years	FY2019 Funding	Total Funding
Scioli	Neurobiological and Psychological Benefits of Exercise in Chronic Pain and PTSD	RR&D (CDA)	2013-2020	$0	$953,342
Scioli	Neurobiological and Psychological Benefits of Exercise in Fibromyalgia and PTSD	RR&D	2017-2019	$161,216	$199,904
Shiner	Improving Care for PTSD	HSR&D (CDA)	2014-2019	$172,218	$1,292,446
Shiner	An Ecological Approach To Understanding Rural Veteran Suicide	ORH	2020-2021	$0	$516,716
Shiner	Patient Safety Center of Inquiry: Prevention of Suicide (Renewal)	NCPS	2018-2021	$246,163	$526,809
Shiner	Suicide Prevention in Rural Veterans During High-Risk Care Transition Scenarios	ORH	2020-2023	$0	$2,215,257
Sloan	An Efficient Exposure-Based Treatment for PTSD Compared to Prolonged Exposure: A Noninferiority Trial	CSR&D	2019-2023	$414,987	$1,762,404
Sullivan	Neural Metabolic Stress in mTBI and PTSD	CSR&D (CDA)	2018-2023	$170,127	$877,915
Thompson-Hollands	An Adjunctive Family Intervention for Individual PTSD Treatment	CSR&D (CDA)	2017-2021	$181,373	$743,010
Vogt	Risk and Resilience Factors related to Suicidal Ideation during Transition from Military to Civilian Life: Secondary Analyses of the TVMI Cohort Study	HSR&D	2020-2022	$0	$344,688
Vogt	Development and Validation of Well-Being Indicators for use in Evaluating VA Whole Health Care	Center for Evaluating Patient Centered Care in VA/QUERI Partnered Evaluation Initiative	2020-2021	$0	$178,693
Wiltsey Stirman & Rosen	Leadership and Organizational Change for Implementation: Adapting for VA Training	QUERI	2018-2019	$25,000	$25,000
Wolf	Presidential Early Career Awards for Scientists and Engineers Funding	CSR&D	2016-2021	$25,000	$125,000
Wolf	PTSD-Related Accelerated Aging in DNA Methylation and Risk for Metabolic Syndrome	CSR&D	2016-2020	$150,000	$600,000
Zimmerman	Participatory System Dynamics vs Usual Quality Improvement: Is Staff Use of Simulation an Effective, Scalable and Affordable Way to Improve Timely Veteran Access to High-quality Mental Health Care?	HSR&D	2020-2023	$0	$1,198,168
Zulman (**Kimerling**, Site PI)	Making Connections: Tablet-Enabled Telehealth to Enhance Veterans' Access and Care	QUERI	2016-2019	$115,178**	$550,669

BLR&D Biomedical Laboratory Research & Development Service; CAP Consortium to Alleviate PTSD; CDA Career Development Award; CSR&D Clinical Science Research and Development Service; DoD Department of Defense; HSR&D Health Services Research and Development Service; NCPS National Center for Patient Safety; ORH Office of Rural Health; QUERI Quality Enhancement Research Initiative; RR&D Rehabilitation Research and Development Service; VISN Veterans Integrated Service Network

**Sub-award within the total $21 million CAP award to VA; total CAPS award including DoD funds = $42,000,000.*

***Indicates FY2019 funds allocated to funded site PI.*

National Institutes of Health (NIH)

Principal Investigator	Research Title	Funding Source	Years	FY2019 Funding	Total Funding
Abdallah	Examining the Effect of Ketamine On Glutamate/Glutamine Cycling	NIMH	2013-2019	$168,080	$912,630
Abdallah	Glial and Synaptic Functions in Major Depression	NIMH	2017-2022	$311,527	$2,493,229
Adams	Enhancement of Extinction Learning Using Transcranial Direct Current Stimulation	NIMH (K)	2017-2022	$159,730	$940,801
Agarwal (**Gelernter,** Site PI)	Psychiatric Genomics Consortium: Find Actionable Variation	PGC via NIH et al.	2016-2021	$184,653**	$932,488
Carlson	Development of a Risk Factor Screen for Mental Health Problems after Sudden Illness or Injury	NIMHD	2018-2022	$636,599	$2,566,642
Clouston & **Pietrzak**	A Life Course Approach to Integrating Trauma and Cognitive Aging: A Cohort of 9/11 Responders	NIAAA	2015-2020	$573,065	$2,865,325
Cosgrove	Imaging Molecular Mechanisms of Tobacco Smoking Withdrawal	NIDA	2016-2020	$447,737	$2,238,685
Cosgrove & Pietrzak	Imaging Microglial Activation in PTSD using PET	NIMH	2017-2022	$499,999	$825,495
Davis	Dysregulation in mGluR5 as a Marker of BPD and Suicide Related Endophenotypes	NIMH (K)	2018-2023	$196,278	$983,483
Driesen & Krystal	Assessing the Relationship Between Cortical Oxidative Metabolism and Working Deficits Under NMDA Receptor Blockade	NIMH	2017-2019	$153,125	$251,125
Duman	Role of GABA Interneurons in Rapid Antidepressant Actions of NMDA Receptor Blockade	NIMH	2017-2022	$510,206	$2,340,351
Duman	Synaptic Mechanisms Underlying the Rapid Antidepressant Actions of Scopolamine	NIMH	2014-2019	$431,989	$2,164,744
Esterlis	Glutamate Neurotransmission in Bipolar Depression and Mania	NIMH	2017-2019	$150,000	$460,625
Esterlis	PET-fMRI Study of Glutamate and Frontal Function in Bi- and Uni-polar Depression	NIMH	2015-2020	$496,729	$2,146,470
Esterlis	Role of Neuroinflammation in the Pathophysiology of Bipolar Depression	NIMH	2017-2019	$149,866	$460,625
Esterlis	In Vivo Imaging of a Neural Marker of Suicidal Behavior in Bipolar Disorder	NIMH	2018-2023	$494,016	$3,935,570
Esterlis & Pietrzak	Depression and Accelerated Brain Aging: A PET Imaging Study	NIMH	2018-2023	$658,949	$4,051,532
Feder & **Pietrzak**	Neuroimaging of Resilience in World Trade Center Responders: A Focus on Emotional Processing, Reward and Social Cognition	CDC/NIOSH	2017-2021	$599,086	$2,398,856
Fichtenholtz (**Sippel,** Collaborator)	Neural Mechanisms of Emotional Vigilance in Posttraumatic Stress Disorder (PTSD)	NIH/NH-INBRE	2018-2020	$3,600**	$84,501

National Institutes of Health (NIH), continued

Principal Investigator	Research Title	Funding Source	Years	FY2019 Funding	Total Funding
Gradus	Characterizing Trauma Outcomes: From Pre-Trauma Risk to Post-Trauma Sequelae	NIMH	2017-2021	$319,091	$1,303,518
Gradus	Risk Profiles for Suicidal Behavior in the General Population	NIMH	2016-2020	$321,827	$1,375,793
Gutner	Effectiveness of a Unified Transdiagnostic Treatment in Routine Clinical Care	NIMH (K)	2014-2019	$180,992	$889,721
Harpaz-Rotem & Hampson	Neurofeedback of Amygdala Activity for PTSD	NIMH	2018-2020	$344,563	$1,154,286
Harpaz-Rotem & Schiller	Fear Learning and Reconsolidation After Trauma Exposure: A Computational Approach	NIMH	2014-2019	$429,080	$1,830,328
Hayes (**Miller**, Site PI)	Neuroimaging and Molecular Markers of AD and Neurodegenerative Disease after Concussion	NIA	2019-2024	$150,765**	$1,309,214
Keane	Postdoctoral Training in PTSD	NIMH	2016-2020	$250,000	$1,021,231
Lee, L.	Lifespan Effects of Biologically Embedded Stress on Health	NIA (K)	2015-2020	$129,363	$644,743
Lee, L. & Mroczek	Boston Early Adversity and Mortality Study (BEAMS): Linking administrative data to long-term longitudinal studies	NIA	2019-2024	$752,220	$3,528,185
Levy	Individual Differences in Decision Making Under Uncertainty	NIMH	2019-2024	$729,930	$3,337,954
Malison & **Gelernter**	Identifying Methamphetamine Risk Variants by Extreme Phenotype Exome Sequencing	NIDA	2015-2020	$600,000	$2,595,844
Morey (**Logue**, Site PI)	Trauma and Genomics Modulate Brain Structure across Common Psychiatric Disorders	NIMH	2017-2021	$520,253**	$2,096,864
Morris & **Cosgrove**	Imaging Sex Differences in Smoking-Induced Dopamine Release via Novel PET Methods	NIDA	2015-2020	$439,638	$2,198,190
Nillni	PTSD-Related Neurobiological Mediators of Negative Pregnancy Outcomes	NICHD K	2017-2021	$153,933	$615,735
Pless Kaiser & Niles	A Randomized Pilot Trial of Tai Chi Compared to Wellness Education for Older Veterans	NIA/Boston Roybal Center	2018-2019	$26,985	$26,985
Ralevski	Effects of Allopregnanolone on Stress-Induced Craving	NIAAA	2017-2019	$155,444	$343,613
Rosen & Martino (**Holtzheimer**, Site PI)	Engaging Veterans Seeking Service-Connection Payments in Pain Treatment	NCCIH/NIDA	2017-2019	$66,000**	$544,589
Scioli	Neurobiological Mediators of Self-Regulatory and Reward-Based Motivational Predictors of Exercise Maintenance in Chronic Pain and PTSD	NCCIH	2018-2021	$171,257	$346,500
Sippel	Neurocognitive Mechanisms of Poor Social Connection in PTSD	NIH/CTSI	2018-2019	$25,927	$44,447

National Institutes of Health (NIH), continued

Principal Investigator	Research Title	Funding Source	Years	FY2019 Funding	Total Funding
Sloan	Written Exposure Therapy for PTSD: A Randomized Noninferiority Trial	NIMH	2012-2019	$0	$1,149,000
Smith	Health Mechanisms and Outcomes in an Epidemiological Cohort of Vietnam Era Women Veterans	NIA	2016-2019	$12,145	$137,381
Smith & **Krystal**	Yale Clinical and Translational Science Award (CTSA)	NIMH	2016-2021	$8,657,777	$44,547,832
Smith & **Logue**	The Impact of Traumatic Stress on the Methylome: Implications for PTSD	NIMH	2016-2020	$559,082	$2,479,996
Taft	Trauma-Focused Partner Violence Intervention	NIMH	2017-2019	$20,000	$20,000
Williams (**Holtzheimer**, Site PI)	Mechanistic Circuit Markers of Transcranial Magnetic Stimulation Outcomes in Pharmacoresistant Depression	NIMH	2020-2024	$0	$1,996,000
Wiltsey Stirman & Monson	Improving and Sustaining CPT for PTSD in Mental Health Systems	NIMH	2016-2020	$433,423	$1,615,257
Wiltsey Stirman (**Gutner**, Site PI)	Leveraging Routine Clinical Materials and Mobile Technology to Assess CBT Quality	NIMH	2017-2021	$632,907	$2,607,817
Wolf	Neurobiological Correlates of Accelerated Cellular Aging	NIA	2019-2021	$189,000	$346,500
Zimmerman	Participatory System Dynamics vs Audit and Feedback: A Cluster Randomized Trial of Mechanisms of Implementation Change to Expand Reach of Evidence-based Addiction and Mental Health Care	NIDA	2019-2023	$577,049	$2,864,531
Zimmerman	Participatory System Dynamics for Evidence-based Addiction and Mental Healthcare	NIDA	2016-2020	$0	$398,960

CDC Centers for Disease Control and Prevention; CTSI Clinical and Translational Science Institute; K Career Development Award; NCCIH National Center for Complementary and Integrative Health; NH-INBRE New Hampshire IDeA Network of Biomedical Research Excellence; NIA National Institute on Aging; NIAAA National Institute on Alcohol Abuse and Alcoholism; NICHD National Institute of Child Health and Human Development; NIDA National Institute on Drug Abuse; NIH National Institutes of Health; NIMH National Institute of Mental Health; NIMHD National Institute on Minority Health and Health Disparities; NIOSH National Institute for Occupational Safety and Health; PGC Psychiatric Genomics Consortium
***Indicates FY2019 funds allocated to funded site PI or collaborator.*

Department of Defense (DOD)

Principal Investigator	Research Title	Years	FY2019 Funding	Total Funding
Chard & **Marx**	Psychometric Evaluation of the Clinician Administered PTSD Scale for DSM-5 (CAPS-5) and the PTSD Symptom Scale Interview for DSM-5 (PSSI-5) in an Active Duty and Military Veteran Sample	2018-2020	$1,067,635	$3,235,388
Keane & Marx	Project VALOR: Trajectories of Change in PTSD in Combat-Exposed Veterans	2012-2019	$0	$3,450,000
Marx	Decreasing Suicide Risk among Service Members with Posttraumatic Stress	2019-2021	$635,195	$1,269,741
McLean & Rosen	Targeted Strategies to Accelerate Evidence-Based Psychotherapies Implementation in Military Settings	2017-2021	$1,834,162	$8,265,060
Mitchell & Cooper	Eating Disorders in Veterans: Prevalence, Comorbidity, Risk, and Healthcare Use	2018-2021	$529,281	$1,463,890
Norman	Trauma Informed Guilt Reduction (TrIGR) Intervention	2015-2019	$467,692	$1,989,870
Shiner	Comparative Effectiveness of Psychotropic Medications for PTSD in Clinical Practice	2017-2020	$343,956	$1,160,375
Sloan	Brief Treatment for PTSD: Enhancing Treatment Engagement and Retention	2015-2020	$65,000	$2,226,872
Taft	Strength at Home Couples Program to Prevent Military Partner Violence	2015-2019	$140,480	$708,905
Wachen	Massed Cognitive Processing Therapy for Combat-related PTSD	2017-2021	$903,277	$3,282,395

Other Non-VA Sources

Averill	Brain Connectivity Networks and Predictors of Rapid Improvement in Suicidal Ideation Among Veterans	American Foundation for Suicide Prevention	2018-2020	$40,000	$90,000
Averill	Connectivity Networks Underlying Ketamine-Induced Improvements in Suicidal Ideation	Robert E. Leet and Clara Guthrie Patterson Trust for Mentored Clinical Research Award	2017-2019	$45,000	$45,000
Duman	Identification and Characterization of Novel Drug Targets for Depression	Tashio Pharmaceuticals	2016-2019	$200,000	$600,000
Esterlis	Evaluation of a Novel Target for the Treatment of Chronic Pain in Women	Women's Health Research Yale School of Medicine	2019-2020	$49,700	$49,700
Esterlis	Evaluation of Glutamatergic System in Adolescent Depression	Nancy Taylor Foundation	2018-2020	$108,000	$216,000
Feder & **Pietrzak**	A Randomized Controlled Trial of Internet CBT for PTSD in WTC Responders	CDC/NIOSH	2016-2019	$499,912	$1,499,736

Other Non-VA Sources, continued

Principal Investigator	Research Title	Funding Source	Years	FY2019 Funding	Total Funding
Galovski & Street	Women Veterans Network (WoVeN) - Phase 2	Walmart Foundation	2018-2020	$62,011	$250,782
Galovski & Street	Women Veterans Network (WoVeN) Training Peer Trainers to Increase Reach, Sustainability	Oak Foundation	2019-2020	$37,500	$50,000
Girgenti	Sex-specific Molecular Mechanisms in PTSD	Brain and Behavior Research Foundation	2020-2022	$0	$70,000
Holtzheimer	Neural Markers of Antidepressant Response to Dorsolateral versus Medial Prefrontal Transcranial Magnetic Stimulation	Brain and Behavior Research Foundation	2016-2019	$50,000	$100,000
Hu & **Marx**	Mining Audio Cues from PTSD Interviews	MITRE Innovation Award	2016-2019	$100,000	$100,000
Kaye	Circuit of Mechanisms of a Pupillary Biomarker for Stress-Induced Hyperarousal	Brain and Behavior Research Foundation	2019-2021	$35,000	$70,000
Kelmendi	Role of MDMA on Amygdala and Prefrontal Cortex on PTSD	Brain and Behavior Research Foundation	2016-2019	$35,000	$70,000
Krystal & Abdallah	Examining the Impact of Rapamycin on Ketamine's Antidepressant Effects	Pfeiffer Foundation	2015-2019	$167,000	$500,000
Levy	Decision Making Under Uncertainty Across The Lifespan: Cognitive, Motivational and Neural Bases	National Science Foundation	2018-2020	$224,771	$696,038
McCaslin	A Pilot Study of Digital Cognitive Behavioral Therapy for Veterans with Insomnia and Comorbid Psychopathology	Big Health, Inc	2017-2019	$26,959	$26,959
McGovern & **Heinz**	Evaluating the Sonoma Wildfire Mental Health Collaborative: A study of direct care and technology partnerships to support mental health among disaster survivors	Healthcare Foundation of Northern Sonoma County	2019-2020	$99,981	$99,981
Nillni & Valentine	A Pragmatic Effectiveness Trial of a Brief Exposure Therapy for PTSD on Substance Use and Mental Health Morbidity and Mortality During the Perinatal Period	Grayken Center for Addiction	2019-2021	$75,000	$150,000
Petrakis	Kappa Opioid Receptor Antagonist for the Treatment of Alcohol Use Disorder and Comorbid PTSD - Planning Grant	Pharmacotherapies for Alcohol and Substance Use Disorders Consortium	2018-2020	$189,794	$576,152
Sareen (**Pietrzak**, Site PI)	Defining the Longitudinal Course, Outcomes, and Treatment Needs of Vulnerable Canadians with Posttraumatic Stress Disorder	Canadian Institutes of Health Research	2015-2022	$340,868	$2,386,073
Sippel	Social Approach and Avoidance in PTSD: Implications for Social Functioning	Geisel School of Medicine Gary Tucker Junior Investigator Research Award	2019-2020	$19,961	$39,922

Other Non-VA Sources, continued

Principal Investigator	Research Title	Funding Source	Years	FY2019 Funding	Total Funding
Taft	Implementation of VA Rollout of Strength at Home	Bob Woodruff Foundation	2019-2020	$189,673	$642,118
Vogt	The Veterans Metrics Initiative: Linking Program Components to Post-Military Well-Being	Consortium of Public and Private Funding, including VA HSR&D	2015-2020	$1,341,242	$5,914,960
Wolf	The Utility of MMPI-2 RF in Informing VA Pain Clinic Care	University of Minnesota Press, Test Division	2016-2022	$0	$24,000

CDC Centers for Disease Control; NIOSH National Institute for Occupational Safety and Health; HSR&D Health Services Research and Development

Projects Pending Funding

Principal Investigator	Research Title	Funding Source	Years	Total Funding
Arditte Hall	Neurocognitive and Physiological Markers of Trauma-Related Rumination in PTSD	NIMH (K)	2019-2023	$752,353
Bean & **Scioli**	The VA REAP Center for Rehabilitative Care: Optimizing Mobility, the Mind, and Motivation	VA RR&D	2020-2025	$1,570,721
Cerezo & **Livingston**	Drinking to Cope, Drinking to Fit In: Examining the Impact of Stigma-Related Stress and Social Norms on Drinking Patterns in sexual minority women	NIAAA	2020-2022	$315,336
Daskalakis (**Miller,** Site PI)	Brain Transcriptional Dissection of PTSD at Single-Cell Resolution	NIMH	2019-2024	$945,425
Galovski & Kehle-Forbes	Personalizing Cognitive Processing Therapy with a Case Formulation Approach to Intentionally Target Impairment in Psychosocial Functioning	VA RR&D	2020-2024	$1,424,656
Gelernter	PTSD Genome-wide: Genetics, Expression, and Epigenetics	NIMH	2019-2024	$3,349,678
Gradus & **Shiner**	Identification of Novel Agents to Treat PTSD using Clinical Data	NIMH	2019-2023	$3,634,570
Gutner	Going Direct to the Consumer: Utilizing Technology and Partnerships to Increase Reach of Mental Health Treatment Options	VA HSR&D	2019-2020	$139,330
Harpaz-Rotem	Comparing the Long Term Effectiveness of Evidence-Based Treatment for PTSD	PCORI	2020-2024	$860,000
Huber	Role of TBI initiated Glymphatic Impairment in the Pathophysiology of CTE and PTSD	VA RR&D	2019-2024	$1,100,000
Kaye	Determining the role of noradrenergic heterogeneity in innate threat response	NIMH (K)	2020-2025	$974,700
Kaye	Identifying Noradrenergic Circuit Mechanisms in Innate Threat and PTSD	VA BLR&D (CDA)	2020-2025	$1,273,490
Kehle-Forbes	Evaluation of a Self-Management Program for Completers of Trauma-Focused Therapy	NIMH	2019-2022	$450,000
Kehle-Forbes & Hagedorn (**Norman,** Site PI)	Comparative Effectiveness of Trauma-Focused and Non-trauma-focused Treatment Strategies for PTSD Among Those with Co-occurring SUD (COMPASS)	PCORI	2020-2023	$5,000,000

Projects Pending Funding, continued

Principal Investigator	Research Title	Funding Source	Years	Total Funding
Kelmendi	The Neural Correlates of the Effects of Psilocybin in OCD: A Randomized Controlled Trial	NIMH (K)	2020-2024	$778,392
Kraus (**Pietrzak,** Site PI)	Recovery Capital in Gambling Disorder: A Mixed-Methods Comparative Study in Israel and the United States	Binational Science Foundation	2019-2021	$229,883
Kuhn & Sayers	A Randomized Controlled Trial of Coaching Into Care with VA-CRAFT to Promote Veteran Engagement in PTSD Care	VA HSR&D	2020-2024	$1,199,120
Meredith & **Sloan**	Embedding Written Exposure Therapy into Collaborative Care for PTSD in Primary Care	NIMH	2019-2023	$3,717,747
Livingston	Brief Technology-Based Intervention to Reduce Alcohol Use, Relapse Risk, and PTSD Symptoms Following Discharge from Inpatient Detoxification	NIAAA	2020-2025	$915,375
Maguen (**Shiner,** Site PI)	Does Evidence-Based PTS Treatment Improve Physical Health Outcomes?	DoD	2020-2022	$55,500
McInnes & **Livingston**	Capturing the Interrelationships of Homelessness and Alcohol Use Disorders among Veterans through Smartphone Data Collection	Hubert and Richard Hanlon Trust	2020-2022	$199,762
Neylan & **Woodward**	Maladaptive Myelination in PTSD: An In Vivo MRI and PTSD Brain Bank Study	NIMH	2020-2025	$2,954,845
Niles & Mori	Evaluation of Tai Chi for Posttraumatic Stress Disorder	VA RR&D	2020-2025	$1,101,211
Otto & **Scioli**	Progressive Exercise Training as a Multisystem Therapeutic Approach to Treating Chronic Low Back Pain: Examination of Underlying and Sex-Specific Mechanisms and Moderators	NIH HEAL Initiative Back Pain Consortium	2020-2025	$5,193,364
Rasmusson	Facilitation of Reconsolidation Blockade and Extinction Retention in PTSD by Intravenous Allopregnanolone	NIMH	2020-2025	$4,050,378
Scioli & Rasmusson	Potential Neurohumoral Biomarkers Underlying Exercise Augmentation of Cognitive Processing Therapy in a Chronic Pain and PTSD Veteran Population	VA CSR&D	2020-2023	$1,643,235
Shiner	Assessing the Relationship Between Chronic Hypoxia and Suicide	VA HSR&D	2020-2022	$575,023
Shiner	Evaluating the Effect of PTSD and Evidence-Based PTSD Treatment on Death by Suicide	DoD	2019-2021	$2,202,020
Smith	Long-Term Health Impact of Vietnam Era Service: Examining Gender Differences in Risk of Mortality and Chronic Disease	VA CSR&D	2020-2022	$375,286
Taft	Social Information Processing and Intimate Partner Violence	Israel Binational Science Foundation	2019-2022	$230,000
Vogt & Meyer	Veterans' Well-Being following Transition from Military Service: Effects of Military Stress Exposure, Comparison with Civilians, and Evaluation of Assessment Feedback as a Strategy to Improve Outcomes	VA RR&D	2019-2021	$894,779
Wiltsey Stirman & Rosen	Leadership and Organizational Change for Implementation in VA Mental Health	VA HSR&D	2019-2023	$1,199,616

Projects Pending Funding, continued

Principal Investigator	Research Title	Funding Source	Years	Total Funding
Wylie & **Holtzheimer**	Understanding the Relationship between Depression and Fatigue in TBI	NINDS	2020-2024	$2,433,163

BLR&D Biomedical Laboratory Research and Development Service; CDA Career Development Award; CDC Centers for Disease Control; CSR&D Clinical Science Research and Development Service; DoD Department of Defense; HSR&D Health Services Research and Development Service; HEAL Helping to End Addiction Long-term Initiative; NIAAA National Institute on Alcohol Abuse and Alcoholism; NIH National Institutes of Health; NIMH National Institute of Mental Health; NINDS National Institute of Neurological Disorders and Stroke; NIOSH National Institute for Occupational Safety and Health; PCORI Patient-Centered Outcomes Research Institute; RR&D Rehabilitation Research and Development Service; VA Veterans Affairs

APPENDIX D

Fiscal Year 2019 Publications

1. **Abdallah, C. G.**, **Averill, C. L.**, Ramage, A., **Averill, L. A.**, Alkin, E., Nemati, S., **Krystal, J. H.**, Roache, J. D., A. Resick, P., Young-McCaughan, S., Peterson, A., & Fox, P. (2019). Reduced salience and enhanced central executive connectivity following PTSD treatment. *Chronic Stress*. doi:10.1177/2470547019838971

2. **Abdallah, C.**, **Averill, C. L.**, Ramage, A., **Averill, L.**, **Goktas, S.**, **Nemati, S.**, **Krystal, J. H.**, Roache, J., Resick, P., Young-McCaughan, S., Peterson, A., & Fox, P. (2019). Salience network disruption in U.S. Army soldiers with posttraumatic stress disorder. *Chronic Stress*. doi:10.1177/2470547019850467

3. **Abdallah, C.**, **Averill, L.**, **Akiki, T.**, Raza, M., **Averill, C. L.**, Gomma, H., Adikey, A., & **Krystal, J. H.** (2019). The neurobiology and pharmacotherapy of posttraumatic stress disorder. *Annual Review of Pharmacology and Toxicology, 59*, 171-189. doi:10.1146/annurev-pharmtox-010818-021701

4. **Abdallah, C.**, Roache, J., **Averill, L.**, Young-McCaughan, S., **Martini, B.**, Gueorguieva, R., **Amoroso, T.**, **Southwick, S. M.**, Guthmiller, K., López-Roca, A., Lautenschlager, K., Mintz, J., Litz, B., Williamson, D., **Keane, T. M.**, Peterson, A., & **Krystal, J. H.** (2019). Repeated ketamine infusions for antidepressant-resistant PTSD: Methods of a multicenter, randomized, placebo-controlled clinical trial. *Contemporary Clinical Trials, 81*, 11-18. doi:10.1016/j.cct.2019.04.009

5. **Abdallah, C.**, **Sanacora, G.**, **Duman, R.**, & **Krystal, J. H.** (2018). The neurobiology of depression, ketamine and rapid-acting antidepressants: Is it glutamate inhibition or activation?. *Pharmacology & Therapeutics*. doi:10.1016/j.pharmthera.2018.05.010

6. Ackland, P., Greer, N., Sayer, N., **Spoont, M.**, Taylor, B., MacDonald, R., McKenzie, L., Rosebush, C., & Wilt, T. (2019). Effectiveness and harms of mental health treatments in service members and veterans with deployment-related mild traumatic brain injury. *Journal of Affective Disorders, 252*, 493-501. doi:10.1016/j.jad.2019.04.066

7. Ahern, T. P., Farkas, D. K., Jiang, T., Lash, T. L., Veres, K., Sørensen, H. T., & **Gradus, J. L.** (2018). Adjustment disorder and type-specific cancer incidence: A Danish cohort study. *Acta Oncologica, 57*, 1367-1372. doi:10.1080/0284186X.2018.1465586

8. **Akiki, T.**, **Averill, C. L.**, **Wrocklage, K. M.**, **Scott, J. C.**, **Averill, L.**, **Schweinsburg, B.**, & **Abdallah, C.** (2018). Topology of brain functional connectivity networks in posttraumatic stress disorder. *Data in Brief, 20*, 1658-1675. doi:10.1016/j.dib.2018.08.198

9. **Akiki, T.**, **Averill, L.**, & **Abdallah, C.** (2018). Neurobiological studies of trauma-related psychopathology: A public health perspective. *European Journal of Psychotraumatology*. doi:10.1080/20008198.2018.1556554

10. Amara, J., Stolzmann, K., **Iverson, K. M.**, & Pogoda, T. K. (2019). Predictors of employment status in male and female post-9/11 veterans evaluated for traumatic brain injury. *Journal of Head Trauma and Rehabilitation, 34*, 11-20. doi:10.1097/HTR.0000000000000404

11. **Arditte Hall, K.**, **Davison, E.**, **Galovski, T. E.**, **Vasterling, J. J.**, & **Pineles, S. L.** (2019). Relations between trauma-related rumination and symptoms of posttraumatic stress and depression in treatment-seeking female veterans. *Journal of Traumatic Stress, 32*, 260-268. doi:10.1002/jts.22385

12. Armstrong, C. M., **Ortigo, K. M.**, Avery-Leaf, S., & Hoyt, T. (2019). Cultural considerations in using mobile health in clinical care with military and veteran populations. *Psychological Services, 16*, 276-280. doi:10.1037/ser0000252

13. Aronson, K. R., Perkins, D. F., Morgan, N., Bleser, J., Davenport, K. J., **Vogt, D.**, Copeland, L. A., Finley, E. P., & Gilman, C. L. (2018). Going it alone: Post-9/11 veteran nonuse of healthcare and social service programs during their early transition to civilian life. *Journal of Social Service Research, 45*, 634-647. doi:10.1080/01488376.2018.1493410

14. **Averill, L.**, **Abdallah, C.**, Levey, D. F., Han, S., **Harpaz-Rotem, I.**, Kranzler, H. R., **Southwick, S. M.**, **Krystal, J. H.**, **Gelernter, J.**, & **Pietrzak, R. H.** (2019). Apolipoprotein E gene polymorphism, posttraumatic stress disorder, and cognitive function in older U.S. veterans: Results from the National Health and Resilience in Veterans Study. *Depression and Anxiety, 36*, 834-845. doi:10.1002/da.22912

15. Avery, T., Blasey, C., **Rosen, C. S.**, & Bayley, P. (2018). Psychological flexibility and set-shifting among veterans participating in a yoga program: A pilot study. *Military Medicine, 183*, e359-e363. doi:10.1093/milmed/usy045

16. Balon, R., Chouinard, G., Cosci, F., Dubovsky, S., Fava, G., Freire, R., Greenblatt, D., **Krystal, J. H.**, Nardi, A., Rickels, K., Roth, T., Salzman, C., Shader, R., Silberman, E., Sonino, N., Starcevic, V., & Weintraub, S. (2018). International task force on benzodiazepines. *Psychotherapy and Psychosomatics, 87*, 193-194. doi:10.1159/000489538

17. **Banducci, A. N.**, Bonn-Miller, M., Timko, C., & **Rosen, C. S.** (2018). Associations between residential treatment length, PTSD, and outpatient healthcare utilization among veterans. *Psychological Services, 15*, 529-535. doi:10.1037/ser0000204

18. **Banducci, A. N.**, **McCaughey, V.**, **Gradus, J. L.**, & **Street, A. E.** (2019). The associations between deployment experiences, PTSD, and alcohol use among male and female veterans. *Addictive Behaviors, 98*, 106032. doi:10.1016/j.addbeh.2019.106032

19. Barnes, J. B., Presseau, C., Jordan, A. H., Kline, N. K., Young-McCaughan, S., **Keane, T. M.**, Peterson, A. L., Litz, B. T., Consortium to Alleviate PTSD, **Abdallah, C.**, **Averill, L.**, Bryan, C. J., Cigrang, J. A., Fox, P. T., Fredman, S. J., **Krystal, J. H.**, McGeary, D. C., McDevitt-Murphy, M. E., Pruiksma, K. E., Resick, P. A., Roache, J. D., & Taylor, D. J. (2019). Common data elements in the assessment of military-related PTSD research applied in the consortium to alleviate PTSD. *Military Medicine, 184*, e218-e226. doi:10.1093/milmed/usy226

20. Bassir Nia, A., Bender, R., & **Harpaz-Rotem, I.** (2019). Endocannabinoid system alterations in posttraumatic stress disorder: A review of developmental and accumulative effects of trauma. *Chronic Stress*. doi:10.1177/2470547019864096

21. Berke, D. S., Kline, N., Grimm, K., Resick, P. A., Foa, E. B., **Wachen, J. S.**, **McLean, C. P.**, Dondanville, K. A., Borah, A. M., Roache, J. D., Young-McCaughan, S., Yarvis, J. S., Mintz, J., Peterson, A. L., & STRONG STAR Consortium (2019). Patterns and predictors of change in trauma-focused treatments for war-related posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology, 87*, 1019-1029. doi:10.1037/ccp0000426

22. Berke, D., Kline, N., **Wachen, J. S.**, **McLean, C. P.**, Yarvis, J., Mintz, J., Young-McCaughan, S., Peterson, A., Foa, E., Resick, P., & Litz, B. (2019). Predictors of attendance and dropout in three randomized controlled trials of PTSD treatment for active duty service members. *Behaviour Research and Therapy, 118*, 7-17. doi:10.1016/j.brat.2019.03.003

23. Bisson, J., Berliner, L., **Cloitre, M.**, Forbes, D., Jensen, T., Lewis, C., Monson, C., Olff, M., Pilling, S., Riggs, D., Roberts, N., & Shapiro, F. (2019). The International Society for Traumatic Stress Studies new guidelines for the prevention and treatment of posttraumatic stress disorder: Methodology and development process. *Journal of Traumatic Stress, 32*, 475-483. doi:10.1002/jts.22421

24. Blonigen, D. M., Harris-Olenak, B., Haber, J. R., **Kuhn, E. R.**, Timko, C., Humphreys, K., & Dulin, P. (2019). Customizing a clinical app to reduce hazardous drinking among veterans in primary care. *Psychological Services, 16*, 250-254. doi:10.1037/ser0000300

25. **Bovin, M. J.**, **Black, S. K.**, **Kleiman, S.**, **Brown, M.**, Brown, L. G., **Street, A. E.**, Rosen, R. C., **Keane, T. M.**, & **Marx, B. P.** (2019). The impact of assessment modality and demographic characteristics on endorsement of military sexual trauma. *Women's Health Issues, 29*, S67-S73. doi:10.1016/j.whi.2019.03.005

26. **Bovin, M. J.**, Meyer, E. C., Kimbrel, N. A., **Kleiman, S.**, **Green, J. D.**, Morissette, S., & **Marx, B. P.** (2019). Using the World Health Organization Disability Assessment Schedule 2.0 to assess disability in veterans with posttraumatic stress disorder. *PLOS ONE, 14*, e0220806. doi:10.1371/journal.pone.0220806

27. **Brady, C. B.**, **Pless Kaiser, A.**, **Spiro, A.**, **Davison, E.**, King, D., & **King, L. A.** (2019). Late-Onset stress symptomatology (LOSS) scale – short form: Development and validation. *Aging & Mental Health, 23*, 952-960. doi:10.1080/13607863.2018.1450831

28. Brake, A. C., **Adams, T.**, Hood, C. O., & Badour, C. L. (2019). Posttraumatic mental contamination and the interpersonal psychological theory of suicide: Effects via DSM-5 PTSD symptom clusters. *Cognitive Therapy and Research, 43*, 259-271. doi:10.1007/s10608-018-9959-9

29. Brennan, P. L., **Greenbaum, M. A.**, Lemke, S., & Schutte, K. K. (2019). Mental health disorder, pain, and pain treatment among long-term care residents: Evidence from the Minimum Data Set 3.0. *Aging & Mental Health, 23*, 1146-1155. doi:10.1080/13607863.2018.1481922

30. Brown, L., **McLean, C. P.**, Zang, Y., Zandberg, L., Mintz, J., Yarvis, J., Litz, B., Peterson, A., Bryan, C., Fina, B., Petersen, J., Dondanville, K., Roache, J., Young-McCaughan, S., & Foa, E. (2019). Does Prolonged Exposure increase suicide risk? Results from an active duty military sample. *Behaviour Research and Therapy, 118*, 87-93. doi:10.1016/j.brat.2019.04.003

31. Bublitz, M., **Nillni, Y. I.**, Livingston, Z., Carpenter, M., & Salmoirago-Blotcher, E. (2019). Phone-Delivered mindfulness training for pregnant women at risk for preterm birth. *The Journal of Alternative and Complementary Medicine*. doi:10.1089/acm.2018.0331

32. Bullman, T., Schneiderman, A., & **Gradus, J. L.** (2019). Relative importance of posttraumatic stress disorder and depression in predicting risk of suicide among a cohort of Vietnam veterans. *Suicide and Life-Threatening Behavior, 49*, 838-845. doi:10.1111/sltb.12482

33. Byrne, S., **Harpaz-Rotem, I.**, Tsai, J., **Southwick, S. M.**, & **Pietrzak, R. H.** (2019). Latent typologies of DSM-5 PTSD symptoms in U.S. military veterans. *Psychiatry Research, 273*, 266-273. doi:10.1016/j.psychres.2018.12.094

34. Cahana-Amitay, D., **Lee, L. O.**, **Spiro, A.**, & Albert, M. (2018). Breathe easy, speak easy: Pulmonary function and language performance in aging. *Experimental Aging Research, 44*, 351-368. doi:10.1080/0361073X.2018.1521374

35. Capone, C., Presseau, C., Saunders, E., Eaton, E., **Hamblen, J. L.**, & McGovern, M. (2018). Is integrated CBT effective in reducing PTSD symptoms and substance use in Iraq and Afghanistan veterans? Results from a randomized clinical trial. *Cognitive Therapy and Research, 42*, 735-746. doi:10.1007/s10608-018-9931-8

36. Carleton, R. N., Afifi, T. O., Turner, S., Taillieu, T., LeBouthillier, D. M., Duranceau, S., Sareen, J., Ricciardelli, R., MacPhee, R. S., Groll, D., Hozempa, K., Brunet, A., Weekes, J. R., Griffiths, C. T., Abrams, K. J., Jones, N. A., Beshai, S., Cramm, H. A., Dobson, K. S., Hatcher, S., **Keane, T. M.**, & Stewart, S. H. (2018). Suicidal ideation, plans, and attempts among public safety personnel in Canada. *Canadian Psychology, 59*, 220-231. doi:10.1037/cap0000136

37. Carter, S., Allred, K., Tucker, R., Simpson, T. L., **Shipherd, J. C.**, & Lehavot, K. (2019). Discrimination and suicidal ideation among transgender veterans: The role of social support and connection. *LGBT Health, 6*, 43-50. doi:10.1089/lgbt.2018.0239

38. Chen, M., Cheng, C., Gueorguieva, R., Lin, W., Li, C., Hong, C., Tu, P., Bai, Y., Tsai, S., **Krystal, J. H.**, & Su, T. (2019). Maintenance of antidepressant and antisuicidal effects by D-cycloserine among patients with treatment-resistant depression who responded to low-dose ketamine infusion: A double-blind randomized placebo–control study. *Neuropsychopharmacology*. doi:10.1038/s41386-019-0480-y

39. Cheng, Z., Zhou, H., Sherva, R., Farrer, L., Kranzler, H. R., & **Gelernter, J.** (2018). Genome-Wide association study identifies a regulatory variant of RGMA associated with opioid dependence in European Americans. *Biological Psychiatry, 84*, 762-770. doi:10.1016/j.biopsych.2017.12.016

40. Ciccolo, J. T., **Whitworth, J.**, & Nosrat, S. (2019). Psychological benefits of exercise. In M. H. Anshel, E. E. Labbé, T. A. Petrie, S. J. Petruzzello, & J. A. Steinfeldt (Eds.), *APA handbook of sport and exercise psychology: vol. 1: Sports psychology; vol. 2: Exercise psychology (APA handbooks in psychology)* (pp. 93-108). Washington, DC: American Psychological Association.

41. Clapp, J. D., **Sloan, D. M.**, Unger, W., **Lee, D. J.**, **Jun, J. J.**, Litwack, S., & Beck, J. G. (2019). Problematic driving in former service members: An evaluation of the Driving Behavior Survey in veterans with posttraumatic stress disorder. *Journal of Anxiety Disorders, 67*, 102-134. doi:10.1016/j.janxdis.2019.102134

42. **Cloitre, M.**, **Khan, C. T.**, **Mackintosh, M.**, **Garvert, D.**, Henn-Haase, C. M., Falvey, E., & Saito, J. (2019). Emotion regulation mediates the relationship between ACES and physical and mental health. *Psychological Trauma: Theory, Research, Practice, and Policy, 11*, 82-89. doi:10.1037/tra0000374

43. **Cloitre, M.**, Shevlin, M., Brewin, C. R., Bisson, J. I., Roberts, N. P., Maercker, A., Karatzias, T., & Hyland, P. (2018). The International Trauma Questionnaire: Development of a self-report measure of ICD-11 PTSD and complex PTSD. *Acta Psychiatrica Scandinavica, 138*, 536-546. doi:10.1111/acps.12956

44. Clouston, S., Diminich, E., Kotov, R., **Pietrzak, R. H.**, Richards, M., **Spiro, A.**, Deri, Y., Carr, M., Yang, X., Gandy, S., Sano, M., Bromet, E., & Luft, B. (2019). Incidence of mild cognitive impairment in World Trade Center responders: Long-term consequences of re-experiencing the events on 9/11/2001. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring, 11*, 628-636. doi:10.1016/j.dadm.2019.07.006

45. Colvonen, P., Drummond, S. P., Angkaw, A., & **Norman, S. B.** (2019). Piloting cognitive–behavioral therapy for insomnia integrated with Prolonged Exposure. *Psychological Trauma: Theory, Research, Practice, and Policy, 11*, 107-113. doi:10.1037/tra0000402

46. Connolly, S., **Stoop, T.**, **Logue, M. W.**, Orr, E. H., De Vivo, I., **Miller, M. W.**, & **Wolf, E. J.** (2018). Posttraumatic stress disorder symptoms, temperament, and the pathway to cellular senescence. *Journal of Traumatic Stress, 31*, 676-686. doi:10.1002/jts.22325

47. **Cook, J.**, & Simiola, V. (2018). Trauma and aging. *Current Psychiatry Reports, 20*, 93. doi:10.1007/s11920-018-0943-6

48. **Cook, J.**, **Schnurr, P. P.**, Simiola, V., Thompson, R., **Hoff, R.**, & **Harpaz-Rotem, I.** (2019). Adoption by VA residential programs of two evidence-based psychotherapies for PTSD: Effect on patient outcomes. *Psychiatric Services, 70*, 553-560. doi:10.1176/appi.ps.201800338

49. Corona, C. D., Van Orden, K., Wisco, B., & **Pietrzak, R. H.** (2019). Meaning in life moderates the association between morally injurious experiences and suicide ideation among U.S. combat veterans: Results from the National Health and Resilience in Veterans Study. *Psychological Trauma: Theory, Research, Practice, and Policy, 11*, 614-620. doi:10.1037/tra0000475

50. Crocker, L. D., Jurick, S. M., Thomas, K., Keller, A., Sanderson-Cimino, M., Hoffman, S., Boyd, B., Rodgers, C., **Norman, S. B.**, Lang, A. J., Twamley, E. W., & Jak, A. J. (2019). Mild traumatic brain injury characteristics do not negatively influence Cognitive Processing Therapy attendance or outcomes. *Journal of Psychiatric Research, 116*, 7-13. doi:10.1016/j.jpsychires.2019.05.022

51. Curry, I., Malaktaris, A., Lyons, R., Herbert, M., & **Norman, S. B.** (2019). The association between negative trauma-related cognitions and pain-related functional status among veterans with posttraumatic stress disorder and alcohol use disorder. *Journal of Traumatic Stress, 32*, 317-322. doi:10.1002/jts.22394

52. Dardis, C., Reinhardt, K. M., **Foynes, M. M.**, Medoff, N. E., & **Street, A. E.** (2018). "Who are you going to tell? Who's going to believe you?": Women's experiences disclosing military sexual trauma. *Psychology of Women Quarterly, 42*, 414-429. doi:10.1177/0361684318796783

53. Davis, L., Resnick, S. G., Erbes, C. R., Weber, K., **Maieritsch, K. P.**, Strom, T. Q., McCall, K., & Kyriakides, T. (2019). Employment outcomes from VA vocational services involving transitional work for veterans with a diagnosis of posttraumatic stress disorder. *Psychiatric Rehabilitation Journal, 42*, 257-267. doi:10.1037/prj0000357

54. **Davis, M.**, Hillmer, A., **Holmes, S.**, **Pietrzak, R. H.**, **DellaGioia, N.**, Nabulsi, N., Matuskey, D., Angarita-Africano, G., **Southwick, S. M.**, Carson, R. E., **Krystal, J. H.**, & **Esterlis, I.** (2019). In vivo evidence for dysregulation of mGluR5 as a biomarker of suicidal ideation. *Proceedings of the National Academy of Sciences, 116*, 11490-11495. doi:10.1073/pnas.1818871116

55. Decker, S. E., Adams, L., **Watkins, L. E.**, **Sippel, L. M.**, Presnall-Shvorin, J., Sofuoglu, M., & Martino, S. (2019). Feasibility and preliminary efficacy of dialectical behaviour therapy skills groups for veterans with suicidal ideation: Pilot. *Behavioural and Cognitive Psychotherapy, 47*, 616-621. doi:10.1017/S1352465819000122

56. DeCou, C., **Mahoney, C. T.**, Kaplan, S., & Lynch, S. (2019). Coping self-efficacy and trauma-related shame mediate the association between negative social reactions to sexual assault and PTSD symptoms. *Psychological Trauma: Theory, Research, Practice, and Policy, 11*, 51-54. doi:10.1037/tra0000379

57. DeViva, J. C., **McCarthy, E.**, Bieu, R. K., Santoro, G. M., Rinaldi, A., Gehrman, P., & Kulas, J. (2018). Group cognitive-behavioral therapy for insomnia delivered to veterans with posttraumatic stress disorder receiving residential treatment is associated with improvements in sleep independent of changes in posttraumatic stress disorder. *Traumatology, 24*, 293-300. doi:10.1037/trm0000152

58. Deyama, S., Bang, E., Wohleb, E. S., Li, X. Y., Kato, T., Gerhard, D. M., Dutheil, S., Dwyer, J. M., Taylor, S. R., Picciotto, M. R., & **Duman, R.** (2019). Role of neuronal VEGF signaling in the prefrontal cortex in the rapid antidepressant effects of ketamine. *American Journal of Psychiatry, 176*, 388-400. doi:10.1176/appi.ajp.2018.17121368

59. Dondanville, K., **Wachen, J. S.**, Hale, W., Mintz, J., Roache, J., Carson, C., Litz, B., Yarvis, J., Young-McCaughan, S., Peterson, A., & Resick, P. (2019). Examination of treatment effects on hazardous drinking among service members with posttraumatic stress disorder. *Journal of Traumatic Stress, 32*, 310-316. doi:10.1002/jts.22393

60. **Doran, J.**, O'Shea, M., & **Harpaz-Rotem, I.** (2019). In their own words: Clinician experiences and challenges in administering evidence-based treatments for PTSD in the Veterans Health Administration. *Psychiatric Quarterly, 90*, 11-27. doi:10.1007/s11126-018-9604-5

61. Duek, O., **Kelmendi, B.**, **Pietrzak, R. H.**, & **Harpaz-Rotem, I.** (2019). Augmenting the treatment of PTSD with ketamine—A review. *Current Treatment Options in Psychiatry, 6*, 143-153. doi:10.1007/s40501-019-00172-0

62. Duggan, E., Piccinin, A., Clouston, S., Koval, A., Robitaille, A., Zammit, A., Wu, C., Brown, C., **Lee, L. O.**, Finkel, D., Beasley, W., Kaye, J., Terrera, G., Katz, M., Lipton, R., Deeg, D., Bennett, D., Praetorius Björk, M., Johansson, B., **Spiro, A.**, Weuve, J., & Hofer, S. (2019). A multi-study coordinated meta-analysis of pulmonary function and cognition in aging. *The Journals of Gerontology: Series A, 74*, 1793-1804. doi:10.1093/gerona/glz057

63. **Duman, R.**, **Sanacora, G.**, & **Krystal, J. H.** (2019). Altered connectivity in depression: GABA and glutamate neurotransmitter deficits and reversal by novel treatments. *Neuron, 102*, 75-90. doi:10.1016/j.neuron.2019.03.013

64. **Dutra, S. J.**, & **Marx, B. P.** (2019). Assessment of PTSD in context of substance use disorders individuals. In A. A. Vujanovic & S. Back (Eds.), *Posttraumatic stress and substance use disorders: A comprehensive clinical handbook* (pp. 116-138). London, UK: Routledge Press.

65. **Dutra, S.**, **Marx, B. P.**, McGlinchey, R., DeGutis, J., & Esterman, M. (2018). Reward ameliorates posttraumatic stress disorder-related impairment in sustained attention. *Chronic Stress*. doi:10.1177/2470547018812400

66. El-Gabalawy, R., Sommer, J., **Pietrzak, R. H.**, Edmondson, D., Sareen, J., Avidan, M., & Jacobsohn, E. (2019). Post-Traumatic stress in the postoperative period: Current status and future directions. *Canadian Journal of Anesthesia, 66*, 1385-1395. doi:10.1007/s12630-019-01418-4

67. Ellison, J. E., Colvonen, P., **Haller, M.**, Angkaw, A., & **Norman, S. B.** (2019). Examining the relation between PTSD and insomnia on aggression. *Military Psychology, 31*, 241-250. doi:10.1080/08995605.2019.1598220

68. Farnsworth, J., Borges, L. M., & **Walser, R. D.** (2019). Moving moral injury into the future with functional contextualism: A response to Nash's "Unpacking two models for understanding moral injury" (2019). *Journal of Traumatic Stress, 32*, 633-638. doi:10.1002/jts.22429

69. Finley, E. P., Mader, M., Haro, E. K., Noël, P. H., **Bernardy, N. C.**, **Rosen, C. S.**, Bollinger, M. J., Garcia, H. A., **Sherrieb, K.**, & Pugh, M. J. (2019). Use of guideline-recommended treatments for PTSD among community-based providers in Texas and Vermont: Implications for the Veterans Choice Program. *The Journal of Behavioral Health Services & Research, 46*, 217-233. doi:10.1007/s11414-018-9613-z

70. Finley, E. P., Noël, P. H., Lee, S., Haro, E., Garcia, H., **Rosen, C. S.**, **Bernardy, N. C.**, Pugh, M. J., & Pugh, J. A. (2018). Psychotherapy practices for veterans with PTSD among community-based providers in Texas. *Psychological Services, 15*, 442-452. doi:10.1037/ser0000143

71. Flanagan, J., **Sippel, L. M.**, Santa Maria, M., Hartwell, K., Brady, K., & Joseph, J. (2019). Impact of oxytocin on the neural correlates of fearful face processing in PTSD related to childhood trauma. *European Journal of Psychotraumatology*. doi:10.1080/20008198.2019.1606626

72. Fleming, L., Javitt, D., Carter, C., Kantrowitz, J., Girgis, R., Kegeles, L., Ragland, J., Maddock, R., Lesh, T., Tanase, C., Robinson, J., Potter, W., Carlson, M., Wall, M., Choo, T., Grinband, J., Lieberman, J., **Krystal, J. H.**, & **Corlett, P.** (2019). A multicenter study of ketamine effects on functional connectivity: Large scale network relationships, hubs and symptom mechanisms. *NeuroImage: Clinical, 22*, 101739. doi:10.1016/j.nicl.2019.101739

73. Foa, E. B., Zandberg, L., **McLean, C. P.**, Rosenfield, D., Fitzgerald, H., Tuerk, P. W., Wangelin, B. C., Young-McCaughan, S., & Peterson, A. L. (2019). The efficacy of 90-minute versus 60-minute sessions of Prolonged Exposure for posttraumatic stress disorder: Design of a randomized controlled trial in active duty military personnel. *Psychological Trauma: Theory, Research, Practice, and Policy, 11*, 307-313. doi:10.1037/tra0000351

74. Fonda, J., Gregor, K., Fortier, C., **Scioli, E. R.**, McGlinchey, R., & **Rasmusson, A. M.** (2019). Tobacco dependence is associated with increased risk for multi-morbid clustering of posttraumatic stress disorder, depressive disorder, and pain among post-9/11 deployed veterans. *Psychopharmacology, 236*, 1729-1739. doi:10.1007/s00213-018-5155-6

75. Forbes, D., Pedlar, D., Adler, A., Bennett, C., Bryant, R., Busuttil, W., Cooper, J., Creamer, M., Fear, N., Greenberg, N., Heber, A., Hinton, M., Hopwood, M., Jetly, R., Lawrence-Wood, E., McFarlane, A., Metcalf, O., O'Donnell, M., Phelps, A., Richardson, J., Sadler, N., **Schnurr, P. P.**, Sharp, M., Thompson, J., Ursano, R., Hooff, M., Wade, D., & Wessely, S. (2019). Treatment of military-related post-traumatic stress disorder: Challenges, innovations, and the way forward. *International Review of Psychiatry, 31*, 95-110. doi:10.1080/09540261.2019.1595545

76. Forehand, J., Peltzman, T., Westgate, C., Riblet, N., Watts, B., & **Shiner, B.** (2019). Causes of excess mortality in veterans treated for posttraumatic stress disorder. *American Journal of Preventive Medicine, 57*, 145-152. doi:10.1016/j.amepre.2019.03.014

77. Fortney, J. C., Veith, R. C., **Bauer, A.**, Pfeiffer, P. N., Valenstein, M., Pyne, J. M., Dalack, G. W., Kramer, T. L., Ferro, L. J., Metzger, K., Short, J. H., Carlo, A. D., Coates, S., Ward-Jones, S., Larkins, E., Hafer, E., Shushan, S., & Unutzer, J. (2019). Developing telemental health partnerships between state medical schools and federally qualified health centers: Navigating the regulatory landscape and policy recommendations. *The Journal of Rural Health, 35*, 287-297. doi:10.1111/jrh.12323

78. **Fox, A. B.**, Earnshaw, V. A., **Taverna, E.**, & **Vogt, D.** (2018). Conceptualizing and measuring mental illness stigma: The mental illness stigma framework and critical review of measures. *Stigma and Health, 3*, 348-376. doi:10.1037/sah0000104

79. Frankfurt, S., DeBeer, B., Morissette, S., Kimbrel, N. A., **La Bash, H.**, & Meyer, E. C. (2018). Mechanisms of moral injury following military sexual trauma and combat in post-9/11 U.S. war veterans. *Frontiers in Psychiatry – Mood and Anxiety Disorders, 9*, 520-530. doi:10.3389/fpsyt.2018.00520

80. **Friedman, M. J.** (2018). Posttraumatic stress disorder in primary care practice. *JAMA Internal Medicine, 178*, 1445. doi:10.1001/jamainternmed.2018.3108

81. **Friedman, M. J.** (2019). Physical exercise as a potentially useful component of posttraumatic stress disorder treatment. In D. L. Noordsy (Ed.), *Lifestyle psychiatry* (pp. 79-91). Washington, DC: American Psychiatric Publishing.

82. Fukumoto, K., Fogaça, M. V., Liu, R. J., Duman, C., Kato, T., Li, X. Y., & **Duman, R.** (2019). Activity-Dependent brain-derived neurotrophic factor signaling is required for the antidepressant actions of (2R,6R)-hydroxynorketamine. *Proceedings of the National Academy of Sciences of the United States of America, 116*, 297-302. doi:10.1073/pnas.1814709116

83. **Gelernter, J.**, Sun, N., Polimanti, R., **Pietrzak, R. H.**, Levey, D. F., Bryois, J., Lu, Q., Hu, Y., Li, B., Radhakrishnan, K., Aslan, M., Cheung, K. H., Li, Y., Rajeevan, N., Sayward, F., Harrington, K., Chen, Q., Cho, K., Pyarajan, S., Sullivan, P. F., Quaden, R., Shi, Y., Hunter-Zinck, H., Gaziano, J. M., Concato, J., & Zhao, H. (2019). Genome-Wide association study of post-traumatic stress disorder reexperiencing symptoms in >165,000 US veterans. *Nature Neuroscience, 22*, 1394-1401. doi:10.1038/s41593-019-0447-7

84. **Gelernter, J.**, Sun, N., Polimanti, R., **Pietrzak, R. H.**, Levey, D., Lu, Q., Hu, Y., Li, B., Radhakrishnan, K., Aslan, M., Cheung, K., Li, Y., Rajeevan, N., Sayward, F., Harrington, K., Chen, Q., Cho, K., Honerlaw, J., Pyarajan, S., Lencz, T., Quaden, R., Shi, Y., Hunter-Zinck, H., Gaziano, M., Kranzler, H., Concato, J., Zhao, H., & Stein, M. (2019). Genome-Wide association study of maximum habitual alcohol intake in >140,000 U.S. European and African American veterans yields novel risk loci. *Biological Psychiatry, 86*, 365-376. doi:10.1016/j.biopsych.2019.03.984

85. Gelkopf, M., Greene, T., Lapid Pickman, L., & **Carlson, E. B.** (2019). The dynamic relations among peritraumatic posttraumatic stress symptoms: An experience sampling study during wartime. *Journal of Traumatic Stress, 32*, 119-129. doi:10.1002/jts.22374

86. Gerber, M. R., **Bogdan, K.**, Haskell, S. G., & **Scioli, E. R.** (2018). Experience of childhood abuse and military sexual trauma among women veterans with fibromyalgia. *Journal of General Internal Medicine, 33*, 2030-2031. doi:10.1007/s11606-018-4594-4

87. Gilbar, O., Dekel, R., Hyland, P., & **Cloitre, M.** (2019). The role of complex posttraumatic stress symptoms in the association between exposure to traumatic events and severity of intimate partner violence. *Child Abuse & Neglect, 98*, 104174. doi:10.1016/j.chiabu.2019.104174

88. Glassman, L. H., **Mackintosh, M.**, Talkovsky, A., Wells, S. Y., Walter, K. H., Wickramasinghe, I., & **Morland, L. A.** (2019). Quality of life following treatment for PTSD: Comparison of videoconferencing and in-person modalities. *Journal of Telemedicine and Telecare, 25*, 123-127. doi:10.1177/1357633X17740610

89. Gobin, R., Strauss, J., Golshan, S., Allard, C. B., Bomyea, J., **Schnurr, P. P.**, & Lang, A. J. (2019). Gender differences in response to Acceptance and Commitment Therapy among Operation Enduring Freedom/Operation Iraqi Freedom/Operation New Dawn veterans. *Women's Health Issues, 29*, 267-273. doi:10.1016/j.whi.2019.03.003

90. Godleski, S., Eiden, R., & **Kachadourian, L.** (2019). Etiological pathways to rejection sensitivity in a high-risk sample. *Personality and Social Psychology Bulletin, 45*, 715-727. doi:10.1177/0146167218795486

91. Goldberg, S., Simpson, T. L., Lehavot, K., Katon, J., Cheng, J., Glass, J., **Schnurr, P. P.**, Sayer, N., & Fortney, J. (2019). Mental health treatment delay: A comparison among civilians and veterans of different service eras. *Psychiatric Services, 70*, 358-366. doi:10.1176/appi.ps.201800444

92. Gorrell, S., **Mahoney, C. T.**, Lent, M., Campbell, L. K., Still, C., & Wood, C. (2019). Interpersonal abuse and long-term outcomes following bariatric surgery. *Obesity Surgery, 29*, 1528-1533. doi:10.1007/s11695-018-03696-1

93. Gould, C. E., Kok, B. C., Ma, V. K., **Owen, J. E.**, & **Kuhn, E. R.** (2019). Veterans Affairs and the Department of Defense mental health apps: A systematic literature review. *Psychological Services, 16*, 196-207. doi:10.1037/ser0000289

94. Greer, N., Sayer, N., **Spoont, M.**, Taylor, B., Ackland, P., MacDonald, R., McKenzie, L., Rosebush, C., & Wilt, T. (2019). Prevalence and severity of psychiatric disorders and suicidal behavior in service members and veterans with and without traumatic brain injury. *Journal of Head Trauma Rehabilitation*. doi:10.1097/HTR.0000000000000478

95. Gross, G., Laws, H., Park, C., **Hoff, R.**, & Hoffmire, C. (2019). Meaning in life following deployment sexual trauma: Prediction of posttraumatic stress symptoms, depressive symptoms, and suicidal ideation. *Psychiatry Research, 278*, 78-85. doi:10.1016/j.psychres.2019.05.037

96. Guetta, R. E., **Wilcox, E.**, **Stoop, T.**, **Maniates, H.**, Ryabchenko, K. A., **Miller, M. W.**, & **Wolf, E. J.** (2019). Psychometric properties of the Dissociative Subtype of PTSD Scale: Replication and extension in a clinical sample of trauma-exposed veterans. *Behavior Therapy, 50*, 952-966. doi:10.1016/j.beth.2019.02.003

97. **Gutner, C. A.**, & Presseau, C. (2019). Dealing with complexity and comorbidity: Opportunity for transdiagnostic treatment for PTSD. *Current Treatment Options in Psychiatry, 6*, 119-131. doi:10.1007/s40501-019-00170-2

98. **Gutner, C. A.**, **Canale, C.**, Vento, S., & **Wiltsey Stirman, S.** (2019). Stakeholder preferences on transdiagnostic psychosocial treatment for trauma-exposed veterans. *Administration and Policy in Mental Health and Mental Health Services Research, 46*, 660-669. doi:10.1007/s10488-019-00948-9

99. Hall, B., Yip, P., Garabiles, M., Lao, C., Chang, E. T., & **Marx, B. P.** (2019). Psychometric validation of the PTSD Checklist-5 among female Filipino migrant workers. *European Journal of Psychotraumatology*. doi:10.1080/20008198.2019.1571378

100. **Hamblen, J. L.**, **Norman, S. B.**, Sonis, J. H., Phelps, A. J., Bisson, J. T., Nunes, V. D., Megnin-Viggars, O., Forbes, D., Riggs, D., & **Schnurr, P. P.** (2019). A guide to guidelines for the treatment of posttraumatic stress disorder in adults: An update. *Psychotherapy, 56*, 359-373. doi:10.1037/pst0000231

101. Harb, J. C., Phelps, A., Gehrman, P. R., Forbes, D., Localio, R., **Harpaz-Rotem, I.**, Gur, R., & Ross, R. J. (2019). Randomized controlled trail of imagery rehearsal for posttraumatic nightmares in combat veterans. *Journal of Clinical Sleep Medicine, 15*, 757-767. doi:10.5664/jcsm.7770

102. **Harik, J. M.**, **Hamblen, J. L.**, **Norman, S. B.**, & **Schnurr, P. P.** (2018). Evidence-Based psychotherapies for adults with PTSD. In F. Stoddard, D. M. Benedek, M. Milad, & R. J. Ursano (Eds.), *Trauma and stressor related disorders* (pp. 239-251). New York, NY: Oxford University Press.

103. Harris, J. I., Strom, T. Q., Erbes, C. R., & **Ruzek, J. I.** (2019). Measuring perceived efficacy for coping with posttraumatic stress disorder in the workplace. *Work, 63*, 283-289. doi:10.3233/WOR-192929

104. Hermes, E. D., Burrone, L., Heapy, A., Martino, S., Perez, E., Rosenheck, R. A., Rowe, M., **Ruzek, J. I.**, & Greene, C. J. (2019). Beliefs and attitudes about the dissemination and implementation of internet-based self-care programs in a large integrated healthcare system. *Administration and Policy in Mental Health and Mental Health Services Research, 46*, 311-320. doi:10.1007/s10488-018-0913-7

105. Hoffmire, C., Monteith, L., Holliday, R., Park, C., Brenner, L., & **Hoff, R.** (2019). Administrative military discharge and suicidal ideation among post–9/11 veterans. *American Journal of Preventive Medicine*. doi:10.1016/j.amepre.2018.12.014

106. **Holmes, S.**, Scheinost, D., Finnema, S., Naganawa, M., **Davis, M.**, **DellaGioia, N.**, Nabulsi, N., Matuskey, D., Angarita, G., **Pietrzak, R. H.**, **Duman, R.**, **Sanacora, G.**, **Krystal, J. H.**, Carson, R., & **Esterlis, I.** (2019). Lower synaptic density is associated with depression severity and network alterations. *Nature Communications, 10*, 1529. doi:10.1038/s41467-019-09562-7

107. Homan, P., **Levy, I.**, Feltham, E., Gordon, C., Hu, J., Li, J., **Pietrzak, R. H.**, **Southwick, S. M.**, **Krystal, J. H.**, **Harpaz-Rotem, I.**, & Schiller, D. (2019). Author correction: Neural computations of threat in the aftermath of combat trauma. *Nature Neuroscience, 22*, 840-841. doi:10.1038/s41593-019-0356-9

108. Homan, P., **Levy, I.**, Feltham, E., **Gordon, C.**, Hu, J., Li, J., **Pietrzak, R. H.**, **Southwick, S. M.**, **Krystal, J. H.**, **Harpaz-Rotem, I.**, & Schiller, D. (2019). Neural computations of threat in the aftermath of combat trauma. *Nature Neuroscience, 22*, 470-476. doi:10.1038/s41593-018-0315-x

109. Huckins, J., daSilva, A., Wang, R., Wang, W., Hedlund, E., Murphy, E., Lopez, R., Rogers, C., **Holtzheimer, P. E.**, Kelley, W., Heatherton, T., Wagner, D., Haxby, J., & Campbell, A. (2019). Fusing mobile phone sensing and brain imaging to assess depression in college students. *Frontiers in Neuroscience*. doi:10.3389/fnins.2019.00248

110. Hudiburgh, S., Shaw, A., **Arditte Hall, K.**, & Timpano, K. (2019). Anxiety sensitivity differentially predicts factors of interpersonal-psychological suicide risk: A consideration of specificity. *Suicide and Life-Threatening Behavior, 49*, 264-277. doi:10.1111/sltb.12421

111. Hundt, N. E., **Harik, J. M.**, Thompson, K. E., Barrera, T. L., & Reynolds-Miles, S. (2018). Increased utilization of Prolonged Exposure and Cognitive Processing Therapy over time: A case example from a large Veterans Affairs posttraumatic stress disorder clinic. *Psychological Services, 15*, 429-436. doi:10.1037/ser0000138

112. Huston, J. C., **Iverson, K. M.**, & **Mitchell, K. S.** (2018). Associations between healthcare use and disordered eating among female veterans. *International Journal of Eating Disorders, 51*, 978-983. doi:10.1002/eat.22885

113. Huston, J., **Grillo, A.**, **Iverson, K. M.**, & **Mitchell, K. S.** (2019). Associations between disordered eating and intimate partner violence mediated by depression and posttraumatic stress disorder symptoms in a female veteran sample. *General Hospital Psychiatry, 58*, 77-82. doi:10.1016/j.genhosppsych.2019.03.007

114. Hyland, P., Shevlin, M., **Cloitre, M.**, Karatzias, T., Vallières, F., McGinty, G., Fox, R., & Powers, J. C. (2019). Quality not quantity: Loneliness subtypes, psychological trauma, and mental health in the U.S. adult population. *Social Psychiatry and Psychiatric Epidemiology, 54*, 1089-1099. doi:10.1007/s00127-018-1597-8

115. **Iverson, K. M.**, Dardis, C. M., **Grillo, A.**, **Galovski, T. E.**, & Pogoda, T. K. (2019). Associations between traumatic brain injury from intimate partner violence and future psychosocial health risks in women. *Comprehensive Psychiatry, 92*, 13-21. doi:10.1016/j.comppsych.2019.05.001

116. Jackson, C., Weiss, B. J., & **Cloitre, M.** (2019). STAIR group treatment for veterans with PTSD: Efficacy and impact of gender on outcome. *Military Medicine, 184*, e143-e147. doi:10.1093/milmed/usy164

117. Jacob, S., Dodge, C., & **Vasterling, J. J.** (2019). Posttraumatic stress disorder and neurocognition: A bidirectional relationship? *Clinical Psychology Review, 72*, 101747. doi:10.1016/j.cpr.2019.101747

118. Jak, A. J., Jurick, S. M., Crocker, L. D., Sanderson-Cimino, M., Aupperle, R., Rodgers, C. S., Thomas, K., Boyd, B., **Norman, S. B.**, Lang, A. J., Keller, A. V., Schiehser, D. M., & Twamley, E. W. (2019). SMART-CPT for veterans with comorbid post-traumatic stress disorder and history of traumatic brain injury: A randomised controlled trial. *Journal of Neurology, Neurosurgery & Psychiatry, 90*, 333-341. doi:10.1136/jnnp-2018-319315

119. Japuntich, S., **Arditte Hall, K.**, Joos, C., **Rasmusson, A. M.**, & **Pineles, S. L.** (2018). Methods to reduce false reporting of substance abstinence in clinical research. *International Journal of Methods in Psychiatric Research, 27*, e1603. doi:10.1002/mpr.1603

120. Japuntich, S., **Lee, L. O.**, **Pineles, S. L.**, Gregor, K., Joos, C., Patton, S., Krishnan-Sarin, S., & **Rasmusson, A. M.** (2019). Contingency management and cognitive behavioral therapy for trauma-exposed smokers with and without posttraumatic stress disorder. *Addictive Behaviors, 90*, 136-142. doi:10.1016/j.addbeh.2018.10.042

121. Jensen, K., Valentine, G. W., Buta, E., DeVito, E., **Gelernter, J.**, & Sofuoglu, M. (2018). Biochemical, demographic, and self-reported tobacco-related predictors of the acute heart rate response to nicotine in smokers. *Pharmacology Biochemistry and Behavior, 173*, 36-43. doi:10.1016/j.pbb.2018.08.004

122. Jiang, T., Veres, K., Körmendiné Farkas, D., Lash, T., Toft Sørensen, H., & **Gradus, J. L.** (2018). Post-Traumatic stress disorder and incident fractures in the Danish population. *Osteoporosis International, 29*, 2487-2493. doi:10.1007/s00198-018-4644-0

123. Johnson, D. P., Salters-Pedneault, K., & **Shipherd, J. C.** (2019). Conceptualizing acceptance in postdeployment soldiers. *Journal of Psychopathology and Behavioral Assessment, 41*, 112-122. doi:10.1007/s10862-018-9691-5

124. Johnson, J. E., Stout, R. L., Miller, T. R., Zlotnick, C., Cerbo, L. A., Andrade, J. T., Nargiso, J., Bonner, J., & **Wiltsey Stirman, S.** (2019). Randomized cost-effectiveness trial of group interpersonal psychotherapy (IPT) for prisoners with major depression. *Journal of Consulting and Clinical Psychology, 87*, 392-406. doi:10.1037/ccp0000379

125. Jordan, J. T., Samuelson, K. W., & **Tiet, Q. Q.** (2018). Impulsivity, painful and provocative events, and suicide intent: Testing the interpersonal theory of suicide. *Suicide and Life-Threatening Behavior, 49*, 1187-1195. doi:10.1111/sltb.12518

126. **Kachadourian, L.**, **Harpaz-Rotem, I.**, Tsai, J., **Southwick, S. M.**, & **Pietrzak, R. H.** (2019). Posttraumatic stress disorder symptoms, functioning, and suicidal ideation in U.S. military veterans: A symptomics approach. *Primary Care Companion for CNS Disorders*. doi:10.4088/PCC.18m02402

127. **Kachadourian, L.**, Jensen, K. P., Sofuoglu, M., & **Petrakis, I.** (2019). Pharmacotherapies for PTSD and substance use disorders. In A. Vujanovic & S. E. Back (Eds.), *Posttraumatic stress and substance use disorders* (pp. 239-259). New York, NY: Routledge.

128. **Kachadourian, L.**, Tsai, J., **Harpaz-Rotem, I.**, **Southwick, S. M.**, & **Pietrzak, R. H.** (2019). Protective correlates of suicidality among veterans with histories of posttraumatic stress disorder and major depressive disorder: Results from the National Health and Resilience in Veterans Study. *Journal of Affective Disorders, 246*, 731-737. doi:10.1016/j.jad.2018.12.058

129. Kaffman, A., White, J. D., Wei, L., Johnson, F. K., & **Krystal, J. H.** (2019). Enhancing the utility of preclinical research in neuropsychiatry drug development. In F. Kobeissy (Ed.) *Psychiatric disorders: Methods in molecular biology* (pp. 3-22). New York, NY: Humana. doi:10.1007/978-1-4939-9554-7_1

130. Karatzias, T., Hyland, P., Bradley, A., **Cloitre, M.**, Roberts, N., Bisson, J., & Shevlin, M. (2019). Risk factors and comorbidity of ICD-11 PTSD and complex PTSD: Findings from a trauma-exposed population based sample of adults in the United Kingdom. *Depression and Anxiety, 36*, 887-894. doi:10.1002/da.22934

131. Karatzias, T., Hyland, P., Bradley, A., Fyvie, C., Logan, K., Easton, P., Thomas, J., Philips, S., Bisson, J., Roberts, N. P., **Cloitre, M.**, & Shevlin, M. (2019). Is self-compassion a worthwhile therapeutic target for ICD-11 Complex PTSD (CPTSD)? *Behavioural and Cognitive Psychotherapy, 47*, 257-269. doi:10.1017/S1352465818000577

132. Karatzias, T., Murphy, P., **Cloitre, M.**, Bisson, J., Roberts, N., Shevlin, M., Hyland, P., Maercker, A., Ben-Ezra, M., Coventry, P., Mason-Roberts, S., Bradley, A., & Hutton, P. (2019). Psychological interventions for ICD-11 complex PTSD symptoms: Systematic review and meta-analysis. *Psychological Medicine, 49*, 1761-1775. doi:10.1017/S0033291719000436

133. Katon, J., Zephyrin, L., Meoli, A., Hulugalle, A., Bosch, J., Callegari, L., Galvan, I., Gray, K., Haeger, K., Hoffmire, C., Levis, S., Ma, E., Mccabe, J., **Nillni, Y. I.**, **Pineles, S. L.**, Reddy, S., Savitz, D., Shaw, J., & Patton, E. (2019). Reproductive health of women veterans: A systematic review of the literature from 2008 to 2017. *Seminars in Reproductive Medicine, 36*, 315-322. doi:10.1055/s-0039-1678750

134. Kavanaugh, B., Aaronson, S., Clarke, G., **Holtzheimer, P. E.**, Johnson, C., McDonald, W., Schneider, M., & Carpenter, L. (2018). Neurocognitive effects of repetitive transcranial magnetic stimulation with a 2-coil device in treatment-resistant major depressive disorder. *The Journal of ECT, 34*, 258-265. doi:10.1097/YCT.0000000000000494

135. Kim, E., Fong, K., **Lee, L. O.**, **Spiro, A.**, Schwartz, J., Whitsel, E., Horvath, S., Wang, C., Hou, L., Baccarelli, A., Li, Y., Stewart, J., Manson, J., Grodstein, F., DeMeo, D., & Kubzansky, L. (2019). Optimism is not associated with two indicators of DNA methylation aging. *Aging, 11*, 4970-4989. doi:10.18632/aging.102090

136. **Kleiman, S.**, **Bovin, M. J.**, **Black, S. K.**, Rodriguez, P., Brown, L. G., **Brown, M.**, **Lunney, C. A.**, Weathers, F. W., **Schnurr, P. P.**, **Spira, J. L.**, **Keane, T. M.**, & **Marx, B. P.** (2018). Psychometric properties of a brief measure of posttraumatic stress disorder-related impairment: The Brief Inventory of Psychosocial Functioning. *Psychological Services*. doi:10.1037/ser0000306

137. Knefel, M., Karatzias, T., Ben-Ezra, M., **Cloitre, M.**, Lueger-Schuster, B., & Maercker, A. (2019). The replicability of ICD-11 complex post-traumatic stress disorder symptom networks in adults. *The British Journal of Psychiatry, 214*, 361-368. doi:10.1192/bjp.2018.286

138. Krystal, A. D., Pizzagalli, D. A., Mathew, S. J., **Sanacora, G.**, Keefe, R., Song, A., Calabrese, J., Goddard, A., Goodman, W., Lisanby, S. H., Smoski, M., Weiner, R., Iosifescu, D., Nurnberger, J., Szabo, S., Murrough, J., Shekhar, A., & Potter, W. (2018). The first implementation of the NIMH FAST-FAIL approach to psychiatric drug development. *Nature Reviews Drug Discovery, 18*, 82-84. doi:10.1038/nrd.2018.222

139. **Krystal, J. H.** (2019). Celebrating 50 years of Biological Psychiatry: To the future, and beyond. *Biological Psychiatry, 85*, 2-4. doi:10.1016/j.biopsych.2018.08.015

140. **Krystal, J. H.**, **Abdallah, C.**, **Sanacora, G.**, Charney, D. S., & **Duman, R.** (2019). Ketamine: A paradigm shift for depression research and treatment. *Neuron, 101*, 774-778. doi:10.1016/j.neuron.2019.02.005

141. **Krystal, J. H.**, Yoon, G., & **Petrakis, I.** (2019). Rigorous trial design is essential to understand the role of opioid receptors in ketamine's antidepressant effect—reply. *JAMA Psychiatry, 76*, 658. doi:10.1001/jamapsychiatry.2019.0763

142. Kumar, A., **Azevedo, K. J.**, Factor, A., Hailu, E., Ramirez, J., & **Jain, S.** (2019). Peer support in an outpatient program for veterans with posttraumatic stress disorder: Translating participant experiences into a recovery model. *Psychological Services, 16*, 415-424. doi:10.1037/ser0000269

143. Lamp, K., Avallone, K., **Maieritsch, K. P.**, **Buchholz, K.**, & Rauch, S. (2019). Individual and group Cognitive Processing Therapy: Effectiveness across two Veterans Affairs posttraumatic stress disorder treatment clinics. *Psychological Trauma: Theory, Research, Practice, and Policy, 11*, 197-206. doi:10.1037/tra0000370

144. Lantrip, C. M., Delaloye, S., Baird, L., Dreyer-Oren, S., Brady, R., Roth, R., Gunning, F., & **Holtzheimer, P. E.** (2019). Effects of left versus right dorsolateral prefrontal cortex repetitive transcranial magnetic stimulation on affective flexibility in healthy women. *Cognitive and Behavioral Neurology, 32*, 69-75. doi:10.1097/WNN.0000000000000190

145. **Lee, D. J.**, **Bovin, M. J.**, Weathers, F. W., **Schnurr, P. P.**, Palmieri, P. A., **Sloan, D. M.**, **Keane, T. M.**, & **Marx, B. P.** (2019). Latent factor structure of DSM–5 posttraumatic stress disorder: Evaluation of method variance and construct validity of novel symptom clusters. *Psychological Assessment, 31*, 46-58. doi:10.1037/pas0000642

146. Lee, H., Aldwin, C. M., Choun, S., & **Spiro, A.** (2019). Impact of combat exposure on mental health trajectories in later life: Longitudinal findings from the VA Normative Aging Study. *Psychology and Aging, 34*, 467-474. doi:10.1037/pag0000334

147. **Lee, L. O.**, James, P., Zevon, E. S., Kim, E. S., Trudel-Fitzgerald, C., **Spiro, A.**, Grodstein, F., & Kubzansky, L. D. (2019). Optimism is associated with exceptional longevity in 2 epidemiologic cohorts of men and women. *Proceedings of the National Academy of Sciences, 116*, 18357-18362. doi:10.1073/pnas.1900712116

148. Levey, D. F., Polimanti, R., Cheng, Z., Zhou, H., Nuñez, Y. Z., Jain, S., He, F., Sun, X., Ursano, R. J., Kessler, R. C., Smoller, J. W., Stein, M., Kranzler, H. R., & **Gelernter, J.** (2019). Genetic associations with suicide attempt severity and genetic overlap with major depression. *Translational Psychiatry*. doi:10.1038/s41398-018-0340-2

149. **Levy, I.** (2018). Information utility in the human brain. *Proceedings of the National Academy of Sciences, 115*, 7846-7848. doi:10.1073/pnas.1809865115

150. Liang, J. L., & **Rasmusson, A. M.** (2018). Overview of the molecular steps in steroidogenesis of the GABAergic neurosteroids allopregnanolone and pregnanolone. *Chronic Stress*. doi:10.1177/2470547018818555

151. **Livingston, N.**, Berke, D., Ruben, M., **Matza, A.**, & **Shipherd, J. C.** (2019). Experiences of trauma, discrimination, microaggressions, and minority stress among trauma-exposed LGBT veterans: Unexpected findings and unresolved service gaps. *Psychological Trauma: Theory, Research, Practice, and Policy*. doi:10.1037/tra0000464

152. **Livingston, N.**, Shingleton, R., **Heilman, M.**, & Brief, D. (2019). Self-Help smartphone applications for alcohol use, PTSD, anxiety, and depression: Addressing the new research-practice gap. *Journal of Technology in Behavioral Science, 4*, 139-151. doi:10.1007/s41347-019-00099-6

153. Loflin, M. J., **Babson, K. A.**, Sottile, J., **Norman, S. B.**, Gruber, S., & Bonn-Miller, M. (2019). A cross-sectional examination of choice and behavior of veterans with access to free medicinal cannabis. *The American Journal of Drug and Alcohol Abuse, 45*, 506-513. doi:10.1080/00952990.2019.1604722

154. Lu, J., Sun, J., Wang, X., Kranzler, H., **Gelernter, J.**, & Bi, J. (2018). Inferring phenotypes from substance use via collaborative matrix completion. *BMC Systems Biology*. doi:10.1186/s12918-018-0623-5

155. Maguen, S., Li, Y., Madden, E., Seal, K., Neylan, T. C., Patterson, O., DuVall, S., Lujan, C., & **Shiner, B.** (2019). Factors associated with completing evidence-based psychotherapy for PTSD among veterans in a national healthcare system. *Psychiatry Research, 274*, 112-128. doi:10.1016/j.psychres.2019.02.027

156. **Mahoney, C. T.**, & Benight, C. (2019). The temporal relationship between coping self-efficacy and dissociation in undergraduate students. *Journal of Trauma & Dissociation, 20*, 471-487. doi:10.1080/15299732.2019.1597805

157. Malaktaris, A., Buzzella, B., Siegel, M., Myers, U., Browne, K., **Norman, S. B.**, & Angkaw, A. (2019). OEF/OIF/OND veterans seeking PTSD treatment: Perceptions of partner involvement in trauma-focused treatment. *Military Medicine, 184*, 263-270. doi:10.1093/milmed/usy231

158. Manhapra, A., Ralevski, E., & **Petrakis, I.** (2019). Is pretreatment blood pressure a marker of prazosin response in posttraumatic stress disorder with comorbid alcohol use disorder? *Biological Psychiatry, 85*, e11-e12. doi:10.1016/j.biopsych.2018.07.011

159. Marques, L., Valentine, S. E., Kaysen, D., **Mackintosh, M.**, Dixon De Silva, L. E., Ahles, E., Youn, S., Shtasel, D., Simon, N., & **Wiltsey Stirman, S.** (2019). Provider fidelity and modifications to Cognitive Processing Therapy in a diverse community health clinic: Associations with clinical change. *Journal of Consulting and Clinical Psychology, 87*, 357-369. doi:10.1037/ccp0000384

160. Marshall, G., Jaycox, L., Engel, C., Richardson, A., Dutra, S., **Keane, T. M.**, Rosen, R., & **Marx, B. P.** (2019). PTSD symptoms are differentially associated with general distress and physiological arousal: Implications for the conceptualization and measurement of PTSD. *Journal of Anxiety Disorders, 62*, 26-34. doi:10.1016/j.janxdis.2018.10.003

161. **Maskin, R.**, **Iverson, K. M.**, **Vogt, D.**, & **Smith, B. N.** (2019). Associations between intimate partner violence victimization and employment outcomes among male and female post-9/11 veterans. *Psychological Trauma: Theory, Research, Practice, and Policy, 11*, 406-414. doi:10.1037/tra0000368

162. Mathew, S. J., Wilkinson, S. T., Altinay, M., Asghar-Ali, A., Chang, L. C., Collins, K. A., Dale, R. M., Hu, B., Krishnan, K., Kellner, C. H., Malone, D. A., Murrough, J. W., Ostroff, R. B., **Sanacora, G.**, Shao, M., & Anand, A. (2019). Electroconvulsive therapy (ECT) vs. ketamine in patients with treatment-resistant depression: The ELEKT-D study protocol. *Contemporary Clinical Trials, 77*, 19-26. doi:10.1016/j.cct.2018.12.009

163. **McCarthy, E.**, & **Cook, J.** (2018). Using Prolonged Exposure with an older male U.S. veteran with childhood sexual abuse-related PTSD. *Clinical Case Studies*. doi:10.1177/1534650118819140

164. **McCaslin, S. E.**, **Cloitre, M.**, Neylan, T. C., **Garvert, D.**, Herbst, E., & Marmar, C. (2019). Factors associated with high functioning despite distress in post-9/11 veterans. *Rehabilitation Psychology, 64*, 377-382. doi:10.1037/rep0000271

165. **McClendon, J.**, Perkins, D., Copeland, L., Finley, E., & **Vogt, D.** (2019). Patterns and correlates of racial/ethnic disparities in posttraumatic stress disorder screening among recently separated veterans. *Journal of Anxiety Disorders, 68*, 102145. doi:10.1016/j.janxdis.2019.102145

166. McFarland, C., & **Vasterling, J. J.** (2018). Prospective memory in depression: Review of an emerging field. *Archives of Clinical Neuropsychology, 33*, 912-930. doi:10.1093/arclin/acx118

167. McGuire, A. P., **Mota, N.**, **Sippel, L. M.**, Connolly, K., & Lyons, J. (2018). Increased resilience is associated with positive treatment outcomes for veterans with comorbid PTSD and substance use disorders. *Journal of Dual Diagnosis, 14*, 181-186. doi:10.1080/15504263.2018.1464237

168. **McLean, C. P.**, Zandberg, L., Brown, L., Zang, Y., Benhamou, K., Dondanville, K., Yarvis, J., Litz, B., Mintz, J., Young-McCaughan, S., Peterson, A., & Foa, E. (2019). Guilt in the treatment of posttraumatic stress disorder among active duty military personnel. *Journal of Traumatic Stress, 32*, 616-624. doi:10.1002/jts.22416

169. **Meffert, B.**, **Morabito, D. M.**, Mosich, M., Loflin, M. J., Sottile, J., & **Heinz, A. J.** (2019). Navigating blind in the green rush: Clinical considerations and harm reduction practices for cannabis. *Current Drug Research Reviews, 11*, 3-11. doi:10.2174/2589977511666181109153958

170. Meis, L. A., Noorbaloochi, S., Hagel Campbell, E. M., Erbes, C. R., Polusny, M. A., Velasquez, T. L., Bangerter, A., Cutting, A., **Eftekhari, A.**, **Rosen, C. S.**, Tuerk, P. W., Kattar, K. A., Burmister, L., & **Spoont, M.** (2019). Sticking it out in trauma-focused treatment for PTSD: It takes a village. *Journal of Consulting and Clinical Psychology, 87*, 246-256. doi:10.1037/ccp0000386

171. Meshberg-Cohen, S., Black, A. C., DeViva, J. C., **Petrakis, I.**, & Rosen, M. I. (2019). Trauma treatment for veterans in buprenorphine maintenance treatment for opioid use disorder. *Addictive Behaviors, 89*, 29-34. doi:10.1016/j.addbeh.2018.09.010

172. Meyer, E. C., **La Bash, H.**, DeBeer, B., Kimbrel, N. A., Gulliver, S. B., & Morissette, S. B. (2019). Psychological inflexibility predicts PTSD symptom severity in war veterans after accounting for established PTSD risk factors and personality. *Psychological Trauma: Theory, Research, Practice, and Policy, 11*, 383-390. doi:10.1037/tra0000358

173. Meyer, E. C., **Walser, R. D.**, Hermann, B., Oi-Man, K., **La Bash, H.**, DeBeer, B., Batten, S., & **Schnurr, P. P.** (2018). Acceptance and Commitment Therapy for co-occurring posttraumatic stress disorder and alcohol use disorders: Pilot treatment outcomes. *Journal of Traumatic Stress, 31*, 781-789. doi:10.1002/jts.22322

174. **Miller, K. E.**, **Kuhn, E. R.**, Yu, J., **Owen, J. E.**, **Jaworski, B. K.**, Taylor, K., Blonigen, D. M., & Possemato, K. (2019). Use and perceptions of mobile apps for patients among VA primary care mental health providers: A brief report. *Professional Psychology: Research and Practice, 50*, 204-209. doi:10.1037/pro0000229

175. Millner, A., den Ouden, H., Gershman, S., Glenn, C., **Kearns, J. C.**, Bornstein, A., **Marx, B. P.**, **Keane, T. M.**, & Nock, M. (2019). Suicidal thoughts and behaviors are associated with an increased decision-making bias for active responses to escape aversive states. *Journal of Abnormal Psychology, 128*, 106-118. doi:10.1037/abn0000395

176. **Mitchell, K. S.**, **Wolf, E. J.**, Lyons, M. J., Goldberg, J., & Magruder, K. M. (2018). A co-twin control study of the association between combat exposure, PTSD, and obesity in male veterans. *Psychological Medicine, 48*, 2449-2452. doi:10.1017/S0033291718001514

177. Monson, C., Shields, N., Suvak, M., Lane, J., Schnaider, P., Wagner, A., Masina, T., Landy, M., & **Wiltsey Stirman, S.** (2018). A randomized controlled effectiveness trial of training strategies in Cognitive Processing Therapy for posttraumatic stress disorder: Impact on patient outcomes. *Behaviour Research and Therapy, 110*, 31-40. doi:10.1016/j.brat.2018.08.007

178. Monteith, L., Smith, N., Holliday, R., & **Pietrzak, R. H.** (2018). Psychiatric and interpersonal correlates of suicide ideation in military sexual trauma survivors: The National Health and Resilience in Veterans Study. *Chronic Stress*. doi:10.1177/2470547018815901

179. Mori, D. L., **Smidt, K.**, Brown, L. G., **Pless Kaiser, A.**, **Weinstein, E.**, & **Niles, B. L.** (2019). Acceptability of a wellness group program for veterans with symptoms of posttraumatic stress disorder. *Global Advances in Health and Medicine, 8*, 1-5. doi:10.1177/2164956119867048

180. Moring, J. C., Nason, E., Hale, W. J., **Wachen, J. S.**, Dondanville, K. A., Straud, C., Moore, B. A., Mintz, J., Litz, B. T., Yarvis, J. S., Young-McCaughan, S., Peterson, A. L., Resick, P. A., & STRONG STAR Consortium (2019). Conceptualizing comorbid PTSD and depression among treatment-seeking, active duty military service members. *Journal of Affective Disorders, 256*, 541-549. doi:10.1016/j.jad.2019.06.039

181. **Morland, L. A.**, **Macdonald, A.**, Grubbs, K. M., **Mackintosh, M.**, Monson, C. M., Glassman, L. H., Becker, J., Sautter, F. J., Buzzella, B., Wrape, E., Wells, S. Y., Rooney, B. M., & Glynn, S. M. (2019). Design of a randomized superiority trial of a brief couple treatment for PTSD. *Contemporary Clinical Trials Communications, 15*, 100369. doi:10.1016/j.conctc.2019.100369

182. **Morrison, F. G.**, **Logue, M. W.**, Guetta, R. E., **Maniates, H.**, Stone, A., Schichman, S. A., McGlinchey, R. E., Milberg, W. P., **Miller, M. W.**, & **Wolf, E. J.** (2019). Investigation of bidirectional longitudinal associations between advanced epigenetic age and peripheral biomarkers of inflammation and metabolic syndrome. *Aging, 11*, 3487-3504. doi:10.18632/aging.101992

183. **Morrison, F. G.**, **Miller, M. W.**, **Logue, M. W.**, Assef, M., & **Wolf, E. J.** (2019). DNA methylation correlates of PTSD: Recent findings and technical challenges. *Progress in Neuro-Psychopharmacology and Biological Psychiatry, 90*, 223-234. doi:10.1016/j.pnpbp.2018.11.011

184. **Morrison, F. G.**, **Miller, M. W.**, **Wolf, E. J.**, **Logue, M. W.**, **Maniates, H.**, Kwasnik, D., Svirsky, S., Restaino, A., Hildebrandt, A., Aytan, N., Stein, T. D., Alvarez, V. E., McKee, A. C., Traumatic Stress Brain Study Group, & **Huber, B.** (2019). Reduced interleukin 1A gene expression in the dorsolateral prefrontal cortex of individuals with PTSD and depression. *Neuroscience Letters, 692*, 204-209. doi:10.1016/j.neulet.2018.10.027

185. **Moshier, S. J.**, **Lee, D. J.**, **Bovin, M. J.**, **Gauthier, G. M.**, **Zax, A.**, Rosen, R. C., **Keane, T. M.**, & **Marx, B. P.** (2019). An empirical crosswalk for the PTSD Checklist: Translating DSM-IV to DSM-5 using a veteran sample. *Journal of Traumatic Stress, 32*, 799-805. doi:10.1002/jts.22438

186. **Mota, N.**, **Cook, J.**, Smith, N., Tsai, J., **Harpaz-Rotem, I.**, **Krystal, J. H.**, **Southwick, S. M.**, & **Pietrzak, R. H.** (2019). Posttraumatic stress symptom courses in U.S. military veterans: A seven-year, nationally representative, prospective cohort study. *Journal of Psychiatric Research, 119*, 23-31. doi:10.1016/j.jpsychires.2019.09.005

187. Mueller, L. N., Wolfe, W., Neylan, T. C., **McCaslin, S. E.**, Yehuda, R., Flory, J., Kyriakides, T., Toscano, R., & Davis, L. (2019). Positive impact of IPS supported employment on PTSD-related occupational-psychosocial functional outcomes: Results from a VA randomized-controlled trial. *Psychiatric Rehabilitation Journal, 42*, 246-256. doi:10.1037/prj0000345

188. Murdoch, M., Partin, M., Vang, D., & **Kehle-Forbes, S.** (2018). The psychological risk of minimal risk activities: A pre- and posttest study using the self-assessment manikin. *Journal of Empirical Research on Human Research Ethics, 14*, 15-22. doi:10.1177/1556264618810302

189. Naeser, M., Martin, P. I., Ho, M. D., Krengel, M. H., **Knight, J. A.**, Bogdanov, Y., Fedoruk, A., Hamblin, M. R., & Koo, B. B. (2019). Transcranial, red/near-infrared light emitting diode therapy for chronic traumatic brain injury and poststroke aphasia: Clinical studies. In M. R. Hamblin & Y. Y. Huang (Eds.), *Photobiomodulation in the brain: Low-Level laser light therapy in neurology and neuroscience* (pp. 309-326). London, UK: Academic Press/Elsevier.

190. **Negreira, A.**, & **Abdallah, C.** (2019). A review of fMRI affective processing paradigms used in the neurobiological study of posttraumatic stress disorder. *Chronic Stress*. doi:10.1177/2470547019829035

191. Nichter, B., **Norman, S. B.**, **Haller, M.**, & **Pietrzak, R. H.** (2019). Physical health burden of PTSD, depression, and their comorbidity in the U.S. veteran population: Morbidity, functioning, and disability. *Journal of Psychosomatic Research*. doi:10.1016/j.jpsychores.2019.109744

192. Nichter, B., **Norman, S. B.**, **Haller, M.**, & **Pietrzak, R. H.** (2019). Psychological burden of PTSD, depression, and their comorbidity in the U.S. veteran population: Suicidality, functioning, and service utilization. *Journal of Affective Disorders, 256*, 633-640. doi:10.1016/j.jad.2019.06.072

193. **Niles, B. L.**, **Polizzi, C.**, Voelkel, E., **Weinstein, E.**, **Smidt, K.**, & **Fisher, L. M.** (2018). Initiation, dropout, and outcome from evidence-based psychotherapies in a VA PTSD outpatient clinic. *Psychological Services, 15*, 496-502. doi:10.1037/ser0000175

194. **Nillni, Y. I.**, & **Gutner, C. A.** (2019). Treatment for perinatal depression: Movement towards scalability. *The Lancet Psychiatry, 6*, 83-85. doi:10.1016/S2215-0366(19)30002-1

195. **Nillni, Y. I.**, Mehralizade, A., Mayer, L., & Milanovic, S. (2018). Treatment of depression, anxiety, and trauma-related disorders during the perinatal period: A systematic review. *Clinical Psychology Review, 66*, 136-148. doi:10.1016/j.cpr.2018.06.004

196. **Norman, S. B.**, Trim, R., **Haller, M.**, **Davis, B.**, Myers, U., Colvonen, P., Blanes, E., Lyons, R., **Siegel, E.**, Angkaw, A., Norman, G., & Mayes, T. (2019). Efficacy of integrated exposure therapy vs integrated coping skills therapy for comorbid posttraumatic stress disorder and alcohol use disorder. *JAMA Psychiatry, 76*, 791-799. doi:10.1001/jamapsychiatry.2019.0638

197. Nosrat, S., **Whitworth, J.**, SantaBarbara, N., Dunsiger, S., & Ciccolo, J. (2019). Acute effects of resistance-exercise intensity in depressed Black/African Americans living with HIV: A randomized pilot study. *Journal of Sport and Exercise Psychology*. doi:10.1123/jsep.2018-0301

198. O'Cleirigh, C., Safren, S., Taylor, S., Goshe, B., Bedoya, C., Marquez, S., Boroughs, M., & **Shipherd, J. C.** (2019). Cognitive behavioral therapy for trauma and self-care (CBT-TSC) in men who have sex with men with a history of childhood sexual abuse: A randomized controlled trial. *AIDS and Behavior, 23*, 2421-2431. doi:10.1007/s10461-019-02482-z

199. O'Connor, A. A., Herbst, E., Leach, B., Armstrong, K., **Graham, B. C.**, Jersky, B., & **McCaslin, S. E.** (2018). Student veterans with posttraumatic stress symptoms: Perceived preferences for on-campus psychoeducation. *Psychiatric Rehabilitation Journal, 41*, 351-355. doi:10.1037/prj0000306

200. O'Neil, M., Laman-Maharg, B., **Schnurr, P. P.**, Twamley, E. W., Peterson, C., Storzbach, D., Helfand, M., & Sayer, N. (2019). Objective cognitive impairment and subjective cognitive problems in veterans initiating psychotherapy for posttraumatic stress disorder: An exploratory study. *Applied Neuropsychology: Adult, 26*, 247-254. doi:10.1080/23279095.2017.1395334

201. Oprel, D., Hoeboer, C., Schoorl, M., De Kleine, R., Wigard, I., **Cloitre, M.**, Van Minnen, A., & Van der Does, W. (2018). Improving treatment for patients with childhood abuse related posttraumatic stress disorder (IMPACT study): Protocol for a multicenter randomized trial comparing Prolonged Exposure with Intensified Prolonged Exposure and phase-based treatment. *BMC Psychiatry, 18*, 385. doi:10.1186/s12888-018-1967-5

202. Osma, J., Quilez-Orden, A., Suso-Ribera, C., Peris-Baquero, O., **Norman, S. B.**, Bentley, K., & Sauer-Zavala, S. (2019). Psychometric properties and validation of the Spanish versions of the overall anxiety and depression severity and impairment scales. *Journal of Affective Disorders, 252*, 9-18. doi:10.1016/j.jad.2019.03.063

203. Parida, S., Carroll, K., **Petrakis, I.**, & Sofuoglu, M. (2019). Buprenorphine treatment for opioid use disorder: Recent progress. *Expert Review of Clinical Pharmacology, 12*, 791-803. doi:10.1080/17512433.2019.1635454

204. **Parker-Guilbert, K.**, **Moshier, S. J.**, **Marx, B. P.**, & **Keane, T. M.** (2018). Measures of PTSD symptom severity. In C. B. Nemeroff & C. R. Marmar (Eds.), *Post-Traumatic stress disorder* (pp. 49-62). New York, NY: Oxford University Press.

205. Peltier, M., Verplaetse, T., Mineur, Y., **Petrakis, I.**, **Cosgrove, K.**, Picciotto, M., & McKee, S. (2019). Sex differences in stress-related alcohol use. *Neurobiology of Stress, 10*, 100149. doi:10.1016/j.ynstr.2019.100149

206. Philip, N., Aiken, E., Kelley, M., Burch, W., Waterman, L., & **Holtzheimer, P. E.** (2019). Synchronized transcranial magnetic stimulation for posttraumatic stress disorder and comorbid major depression. *Brain Stimulation, 12*, 1335-1337. doi:10.1016/j.brs.2019.06.010

207. **Pineles, S. L.**, & Borba, C. P. (2018). A path towards effectively investigating the impact of sex and gender on mental health. *Clinical Psychology Review, 66*, 1-2. doi:10.1016/j.cpr.2018.11.004

208. **Pineles, S. L.**, & Orr, S. P. (2018). The psychophysiology of PTSD. In C. B. Nemeroff & C. R. Marmar (Eds.), *Post-Traumatic stress disorder* (pp. 393-408). New York, NY: Oxford University Press.

209. Pitts, B., Whealin, J., **Harpaz-Rotem, I.**, **Duman, R.**, **Krystal, J. H.**, **Southwick, S. M.**, & **Pietrzak, R. H.** (2019). BDNF Val66Met polymorphism and posttraumatic stress symptoms in U.S. military veterans: Protective effect of physical exercise. *Psychoneuroendocrinology, 100*, 198-202. doi:10.1016/j.psyneuen.2018.10.011

210. Piva, M., Velnoskey, K., Jia, R., Nair, A., **Levy, I.**, & SWC, C. (2019). The dorsomedial prefrontal cortex computes task-invariant relative subjective value for self and other. *eLife*. doi:10.7554/eLife.44939

211. **Pless Kaiser, A.**, **Cook, J.**, Glick, D. M., & Moye, J. (2019). Posttraumatic stress disorder in older adults: A conceptual review. *Clinical Gerontologist, 42*, 359-376. doi:10.1080/07317115.2018.1539801

212. Polimanti, R., Ratanatharathorn, A., Maihofer, A., Choi, K., Stein, M., Morey, R., **Logue, M. W.**, Nievergelt, C., Stein, D., Koenen, K., & **Gelernter, J.** (2019). Association of economic status and educational attainment with posttraumatic stress disorder. *JAMA Network Open, 2*, e193447. doi:10.1001/jamanetworkopen.2019.3447

213. Poole, G., Creech, S. K., **Macdonald, A.**, & **Taft, C. T.** (2019). Predictors of session attendance in intimate partner violence treatment for trauma-exposed veterans. *Partner Abuse, 10*, 283-297. doi:10.1891/1946-6560.10.3.283

214. Pushkarskaya, H., Sobowale, K., Henick, D., Tolin, D., **Anticevic, A.**, Pearlson, G., **Levy, I.**, **Harpaz-Rotem, I.**, & Pittenger, C. (2019). Contrasting contributions of anhedonia to obsessive-compulsive, hoarding, and post-traumatic stress disorders. *Journal of Psychiatric Research, 109*, 202-213. doi:10.1016/j.jpsychires.2018.11.029

215. Quagliato, L., Cosci, F., Shader, R., Silberman, E., Starcevic, V., Balon, R., Dubovsky, S., Salzman, C., **Krystal, J. H.**, Weintraub, S., Freire, R., & Nardi, A. (2019). Selective serotonin reuptake inhibitors and benzodiazepines in panic disorder: A meta-analysis of common side effects in acute treatment. *Journal of Psychopharmacology*. doi:10.1177/0269881119859372

216. Radhakrishnan, K., Aslan, M., Harrington, K., **Pietrzak, R. H.**, Huang, G., Muralidhar, S., Cho, K., Quaden, R., Gagnon, D., Pyarajan, S., Sun, N., Zhao, H., Gaziano, M., Concato, J., Stein, M., & **Gelernter, J.** (2019). Genomics of posttraumatic stress disorder in veterans: Methods and rationale for Veterans Affairs Cooperative Study #575B. *International Journal of Methods in Psychiatric Research, 28*, e1767. doi:10.1002/mpr.1767

217. Ralevski, E., **Petrakis, I.**, & Altemus, M. (2019). Heart rate variability in alcohol use: A review. *Pharmacology Biochemistry and Behavior, 176*, 83-92. doi:10.1016/j.pbb.2018.12.003

218. Ranzler, H. R., Zhou, H., Kember, R. L., Vickers Smith, R., Justice, A. C., Damrauer, S., Klarin, D., Baras, A., Reid, J., Overton, J., Rader, D. J., Cheng, Z., Tate, J. P., Becker, W. C., Concato, J., Xu, K., Polimanti, R., Zhao, H., & **Gelernter, J.** (2019). Genome-Wide association study of alcohol consumption and use disorder in 274,424 individuals from multiple populations. *Nature Communications, 10*, 1499. doi:10.1038/s41467-019-09480-8

219. **Rasmusson, A. M.**, **King, M. W.**, Valovski, I., Gregor, K., **Scioli, E. R.**, **Pineles, S. L.**, Hamouda, M., **Nillni, Y. I.**, Anderson, G., & Pinna, G. (2018). Relationships between cerebrospinal fluid GABAergic neurosteroid levels and symptom severity in men with PTSD. *Psychoneuroendocrinology, 102*, 95-104. doi:10.1016/j.psyneuen.2018.11.027

220. Rauch, S. M., Kim, H., Powell, C., Tuerk, P. W., Simon, N. M., Acierno, R., Allard, C. B., **Norman, S. B.**, Venners, M. R., Rothbaum, B. O., Stein, M., Porter, K., Martis, B., King, A. P., Liberzon, I., Phan, K. L., & Hoge, C. W. (2019). Efficacy of Prolonged Exposure therapy, sertraline hydrochloride, and their combination among combat veterans with posttraumatic stress disorder. *JAMA Psychiatry, 76*, 117. doi:10.1001/jamapsychiatry.2018.3412

221. Reid, K. F., Banurru, R., Wang, C., Mori, D. L., & **Niles, B. L.** (2019). The effects of Tai Chi mind-body approach on the mechanisms of Gulf War Illness: An umbrella review. *Integrative Medicine Research, 8*, 167–172. doi:10.1016/j.imr.2019.05.003

222. Reilly, E. D., Robinson, S. A., Petrakis, B. A., **Kuhn, E. R.**, Pigeon, W., Wiener, R. S., McInnes, D. K., & Quigley, K. S. (2019). Mobile app use for insomnia self-management: Pilot findings on sleep outcomes in veterans. *Interactive Journal of Medical Research, 8*, e12408. doi:10.2196/12408

223. Roberts, W., **Ralevski, E.**, Verplaetse, T. L., McKee, S. A., & **Petrakis, I.** (2018). Tobacco use during a clinical trial of mecamylamine for alcohol dependence: Medication effects on smoking and associations with reductions in drinking. *Journal of Substance Abuse Treatment, 94*, 91-96. doi:10.1016/j.jsat.2018.08.015

224. Robinson, M. E., McKee, A. C., **Salat, D.**, **Rasmusson, A. M.**, Radigan, L., Catana, C., Milberg, W., & McGlinchey, R. (2019). Positron emission tomography of tau in Iraq and Afghanistan veterans with blast neurotrauma. *NeuroImage: Clinical, 21*, 101651. doi:10.1016/j.nicl.2019.101651

225. Rosebrock, L. E., **Arditte Hall, K.**, Rando, A., **Pineles, S. L.**, & Liverant, G. I. (2019). Rumination and its relationship with thought suppression in unipolar depression and comorbid PTSD. *Cognitive Therapy and Research, 43*, 226-235. doi:10.1007/s10608-018-9935-4

226. Rosellini, A., Stein, M., Benedek, D., Bliese, P., Chiu, W., Hwang, I., Monahan, J., Nock, M., Sampson, N., **Street, A. E.**, Zaslavsky, A., Ursano, R., & Kessler, R. (2018). Predeployment predictors of psychiatric disorder-symptoms and interpersonal violence during combat deployment. *Depression and Anxiety, 35*, 1073-1080. doi:10.1002/da.22807

227. **Rosen, C. S.**, **Bernardy, N. C.**, Chard, K., Clothier, B., **Cook, J.**, **Crowley, J. J.**, **Eftekhari, A.**, **Kehle-Forbes, S.**, Mohr, D., Noorbaloochi, S., Orazem, R., **Ruzek, J. I.**, **Schnurr, P. P.**, **Smith, B. N.**, & Sayer, N. (2019). Which patients initiate Cognitive Processing Therapy and Prolonged Exposure in Department of Veterans Affairs PTSD clinics? *Journal of Anxiety Disorders, 62*, 53-60. doi:10.1016/j.janxdis.2018.11.003

228. Rozek, D. C., Keane, C., **Sippel, L. M.**, Stein, J. Y., Rollo-Carlson, C., & Bryan, C. J. (2018). Short-Term effects of crisis response planning on optimism in a U.S. Army sample. *Early Intervention in Psychiatry, 13*, 682-685. doi:10.1111/eip.12699

229. Ruben, M., **Livingston, N.**, Berke, D., **Matza, A.**, & **Shipherd, J. C.** (2019). Lesbian, gay, bisexual, and transgender veterans' experiences of discrimination in health care and their relation to health outcomes: A pilot study examining the moderating role of provider communication. *Health Equity, 3*, 480-488. doi:10.1089/heq.2019.0069

230. Salloum, N. C., Fava, M., Freeman, M. P., Flynn, M., Hoeppner, B., Hock, R. S., Cusin, C., Iosifescu, D. V., Trivedi, M. H., **Sanacora, G.**, Mathew, S. J., Debattista, C., Ionescu, D. F., & Papakostas, G. I. (2019). Efficacy of intravenous ketamine treatment in anxious versus nonanxious unipolar treatment-resistant depression. *Depression and Anxiety, 36*, 235-243. doi:10.1002/da.22875

231. Salminen, L. E., Sämann, P. G., Zheng, Y., Dennis, E. L., Clarke-Rubright, E. K., Jahanshad, N., . . . **Hayes, J. P.**, . . . **Averill, C. L.**, . . . **Krystal, J. H.**,. . . **Wrocklage, K. M.**, . . . **Harpaz-Rotem, I.**, . . . & **Logue, M. W.** (2019). Hippocampal subfield volumes are uniquely affected in PTSD and depression: International analysis of 31 cohorts from the PGC-ENIGMA PTSD working group. *bioRxiv*. doi:10.1101/739094

232. **Samimi Sadeh, N.**, Spielberg, J. M., **Logue, M. W.**, **Hayes, J. P.**, **Wolf, E. J.**, McGlinchey, R. E., Milberg, W. P., Schichman, S. A., Stone, A., & **Miller, M. W.** (2019). Linking genes, circuits, and behavior: Network connectivity as a novel endophenotype of externalizing. *Psychological Medicine, 49*, 1905-1913. doi:10.1017/S0033291718002672

233. Schaper, K. M., **Mackintosh, M.**, Willis, E. A., Liu, C., Meyer, M., & White, L. R. (2019). Military-Related experiences and late-life depressive symptomatology among Japanese-American World War II veterans. *Aging Mental Health*. doi:10.1080/13607863.2018.1558173

234. Scherrer, J. F., Salas, J., Cohen, B. E., **Schnurr, P. P.**, Schneider, F. D., Chard, K. M., Tuerk, P., **Friedman, M. J.**, **Norman, S. B.**, van den Berk-Clark, C., & Lustman, P. J. (2019). Comorbid conditions explain the association between posttraumatic stress disorder and incident cardiovascular disease. *Journal of the American Heart Association, 8*, e011133. doi:10.1161/JAHA.118.011133

235. Scherrer, J., Salas, J., Lustman, P., van den Berk-Clark, C., **Schnurr, P. P.**, Tuerk, P., Cohen, B., **Friedman, M. J.**, **Norman, S. B.**, Schneider, F., & Chard, K. (2018). The role of obesity in the association between posttraumatic stress disorder and incident diabetes. *JAMA Psychiatry, 75*, 1189-1198. doi:10.1001/jamapsychiatry.2018.2028

236. Scherrer, J., Salas, J., **Norman, S. B.**, **Schnurr, P. P.**, Chard, K., Tuerk, P., Schneider, F., van den Berk-Clark, C., Cohen, B., **Friedman, M. J.**, & Lustman, P. (2019). Association between clinically meaningful posttraumatic stress disorder improvement and risk of type 2 diabetes. *JAMA Psychiatry*. doi:10.1001/jamapsychiatry.2019.2096

237. **Schnurr, P. P.**, & **Lunney, C. A.** (2019). Residual symptoms following Prolonged Exposure and Present-Centered Therapy for PTSD in female veterans and soldiers. *Depression and Anxiety, 36*, 162-169. doi:10.1002/da.22871

238. **Schnurr, P. P.**, Chard, K., **Ruzek, J. I.**, Chow, B., Shih, M., Resick, P., Foa, E., **Marx, B. P.**, Huang, G., & Lu, Y. (2019). Corrigendum to "Design of VA Cooperative Study #591: CERV-PTSD, Comparative Effectiveness Research in Veterans with PTSD" [Contemp. Clin. Trials 41 (2015) 75–84]. *Contemporary Clinical Trials, 80*, 61. doi:10.1016/j.cct.2019.04.003

239. **Shiner, B.**, Gui, J., Leonard Westgate, C., **Schnurr, P. P.**, Watts, B., **Cornelius, S. L.**, & Maguen, S. (2019). Using patient-reported outcomes to understand the effectiveness of guideline-concordant care for post-traumatic stress disorder in clinical practice. *Journal of Evaluation in Clinical Practice, 25*, 689-699. doi:10.1111/jep.13158

240. **Shipherd, J. C.**, Berke, D., & **Livingston, N.** (2019). Trauma recovery in the transgender and gender diverse community: Extensions of the minority stress model for treatment planning. *Cognitive and Behavioral Practice*. doi:10.1016/j.cbpra.2019.06.001

241. Simiola, V., Ellis, A., Thompson, R., **Schnurr, P. P.**, & **Cook, J.** (2019). Provider perspectives on choosing Prolonged Exposure of Cognitive Processing Therapy for PTSD: A national investigation of VA residential treatment providers. *Practice Innovations, 4*, 194-203. doi:10.1037/pri0000091

242. **Sippel, L. M.**, **Watkins, L. E.**, **Pietrzak, R. H.**, **Hoff, R.**, & **Harpaz-Rotem, I.** (2018). The unique roles of emotional numbing and arousal symptoms in relation to social connectedness among military veterans in residential treatment for PTSD. *Psychiatry: Interpersonal and Biological Processes, 81*, 271-282. doi:10.1080/00332747.2017.1395313

243. **Sippel, L. M.**, **Watkins, L. E.**, **Pietrzak, R. H.**, **Hoff, R.**, & **Harpaz-Rotem, I.** (2019). Heterogeneity of posttraumatic stress symptomatology and social connectedness in treatment-seeking military veterans: A longitudinal examination. *European Journal of Psychotraumatology*. doi:10.1080/20008198.2019.1646091

244. **Sloan, D. M.**, & **Marx, B. P.** (2019). *Written Exposure Therapy for PTSD: A brief treatment approach for mental health professionals*. Washington, DC: American Psychological Press. doi:10.1037/0000139-001

245. **Sloan, D. M.**, Unger, W., **Lee, D. J.**, & Beck, J. G. (2018). A randomized controlled trial of group cognitive behavioral treatment for veterans diagnosed with chronic posttraumatic stress disorder. *Journal of Traumatic Stress, 31*, 886-898. doi:10.1002/jts.22338

246. Smith, N., **Sippel, L. M.**, Presseau, C., Rozek, D., Mota, N., Gordon, C., Horvath, M., & **Harpaz-Rotem, I.** (2018). Locus of control in U.S. combat veterans: Unique associations with posttraumatic stress disorder 5-factor model symptom clusters. *Psychiatry Research, 268*, 152-156. doi:10.1016/j.psychres.2018.07.015

247. Smith, N., **Sippel, L. M.**, Rozek, D., **Hoff, R.**, & **Harpaz-Rotem, I.** (2019). Predictors of dropout from residential treatment for posttraumatic stress disorder among military veterans. *Frontiers in Psychology*. doi:10.3389/fpsyg.2019.00362

248. Sripada, R. K., Hannemann, C. M., **Schnurr, P. P.**, **Marx, B. P.**, Pollack, S. J., & McCarthy, J. F. (2018). Mental health service utilization before and after receipt of a service-connected disability award for PTSD: Findings from a national sample. *Health Services Research, 53*, 4565-4583. doi:10.1111/1475-6773.12859

249. Sripada, R., Blow, F., Rauch, S., Ganoczy, D., **Hoff, R.**, **Harpaz-Rotem, I.**, & Bohnert, K. (2019). Examining the nonresponse phenomenon: Factors associated with treatment response in a national sample of veterans undergoing residential PTSD treatment. *Journal of Anxiety Disorders, 63*, 18-25. doi:10.1016/j.janxdis.2019.02.001

250. Stein, D. J., **Friedman, M. J.**, McLaughlin, K. A., Scott, K. M., & Kessler, R. C. (2018). DSM-5 and ICD-11 definitions of post-traumatic stress disorder: Investigating "narrow" and "broad" approaches. In E. J. Bromet, E. G. Karam, K. C. Koenen, & D. J. Stein (Eds.), *Trauma and posttraumatic stress disorder* (pp. 253-262). Cambridge, MA: Cambridge University Press.

251. Stein, M., Choi, K., Jain, S., Campbell-Sills, L., Chen, C., **Gelernter, J.**, He, F., Heeringa, S., Maihofer, A., Nievergelt, C., Nock, M., Ripke, S., Sun, X., Kessler, R., Smoller, J., & Ursano, R. (2019). Genome-Wide analyses of psychological resilience in U.S. Army soldiers. *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics, 180*, 310-319. doi:10.1002/ajmg.b.32730

252. Steine, I., Skogen, J., **Krystal, J. H.**, Winje, D., Milde, A., Grønli, J., Nordhus, I., Bjorvatn, B., & Pallesen, S. (2019). Insomnia symptom trajectories among adult survivors of childhood sexual abuse: A longitudinal study. *Child Abuse & Neglect, 93*, 263-276. doi:10.1016/j.chiabu.2019.05.009

253. Straus, E., **Norman, S. B.**, **Haller, M.**, **Southwick, S. M.**, **Hamblen, J. L.**, & **Pietrzak, R. H.** (2019). Differences in protective factors among U.S. veterans with posttraumatic stress disorder, alcohol use disorder, and their comorbidity: Results from the National Health and Resilience in Veterans Study. *Drug and Alcohol Dependence, 194*, 6-12. doi:10.1016/j.drugalcdep.2018.09.011

254. **Street, A. E.**, Hilbert, A. J., Eliezer, D., Axelrad, S. H., Dyches, K. D., & Galbreath, N. W. (2019). Sexual assault in the military. In E. Weiss & C. Castro (Eds.), *American military life in the 21st century: Social, cultural, economic issues and trends (Vol. 1 - 2)* (pp. 255-269). Santa Barbara, CA: Praeger/ABC-CLIO.

255. **Sullivan, D. R.** (2019). A cerebrovascular hypothesis of neurodegeneration in mTBI. *Journal of Head Trauma Rehabilitation, 34*, E18-E27. doi:10.1097/HTR.0000000000000449

256. **Sullivan, D. R.**, **Logue, M. W.**, **Wolf, E. J.**, **Hayes, J. P.**, **Salat, D.**, Fortier, C. B., Fonda, J. R., McGlinchey, R. E., Milberg, W. P., & **Miller, M. W.** (2019). Close-Range blast exposure is associated with altered white matter integrity in APOE e4 carriers. *Journal of Neurotrauma, 36*, 1-10. doi:10.1089/neu.2019.6489

257. **Sullivan, D. R.**, **Marx, B. P.**, Chen, M. S., Depue, B. E., Hayes, S. M., & **Hayes, J. P.** (2019). Behavioral and neural correlates of memory suppression in PTSD. *Journal of Psychiatric Research, 112*, 30-37. doi:10.1016/j.jpsychires.2019.02.015

258. **Sullivan, D. R.**, **Morrison, F. G.**, **Wolf, E. J.**, **Logue, M. W.**, Fortier, C. B., **Salat, D.**, Fonda, J. R., Stone, A., Schichman, S., Milberg, W., McGlinchey, R., & **Miller, M. W.** (2019). The PPM1F gene moderates the association between PTSD and cortical thickness. *Journal of Affective Disorders, 259*, 201-209. doi:10.1016/j.jad.2019.08.055

259. Tamman, A., Montalvo-Ortiz, J., **Southwick, S. M.**, **Krystal, J. H.**, Levy, B., & **Pietrzak, R. H.** (2019). Accelerated DNA methylation aging in U.S. military veterans: Results from the National Health and Resilience in Veterans Study. *The American Journal of Geriatric Psychiatry, 27*, 528-532. doi:10.1016/j.jagp.2019.01.001

260. **Thompson-Hollands, J.**, **Marx, B. P.**, & **Sloan, D. M.** (2019). Brief novel therapies for PTSD: Written Exposure Therapy. *Current Treatment Options in Psychiatry, 6*, 99-106. doi:10.1007/s40501-019-00168-w

261. **Tiet, Q. Q.**, **Duong, H. M.**, **Davis, L.**, French, R., Smith, C. L., Levya, Y., & **Rosen, C. S.** (2019). PTSD coach mobile application with brief telephone support: A pilot study. *Psychological Services, 16*, 227-232. doi:10.1037/ser0000245

262. **Tiet, Q. Q.**, Leyva, Y., & Moos, R. (2019). Screen of drug use: Diagnostic accuracy for opioid use disorder. *Drug and Alcohol Dependence, 198*, 176-179. doi:10.1016/j.drugalcdep.2019.01.044

263. **Tiet, Q. Q.**, Leyva, Y., Browne, K., & Moos, R. (2019). Screen of drug use: Diagnostic accuracy for cannabis use disorder. *Addictive Behaviors, 95*, 184-188. doi:10.1016/j.addbeh.2019.02.010

264. Toomey, R., Alpern, R., Reda, D., Baker, D. G., **Vasterling, J. J.**, Blanchard, M., & Eisen, S. (2019). Mental health in spouses of U.S. Gulf War veterans. *Psychiatry Research, 275*, 287-295. doi:10.1016/j.psychres.2019.03.043

265. Tripp, J., Jones, M., Back, S., & **Norman, S. B.** (2019). Dealing with complexity and comorbidity: Comorbid PTSD and substance use disorders. *Current Treatment Options in Psychiatry, 6*, 188-197. doi:10.1007/s40501-019-00176-w

266. Tucker, R., Testa, R., Reger, M., Simpson, T. L., **Shipherd, J. C.**, & Lehavot, K. (2019). Current and military-specific gender minority stress factors and their relationship with suicide ideation in transgender veterans. *Suicide and Life-Threatening Behavior, 49*, 155-166. doi:10.1111/sltb.12432

267. Valentine, S. E., & **Shipherd, J. C.** (2018). A systematic review of social stress and mental health among transgender and gender non-conforming people in the United States. *Clinical Psychology Review, 66*, 24-38. doi:10.1016/j.cpr.2018.03.003

268. Valera, E., Campbell, J., Gill, J., & **Iverson, K. M.** (2019). Correlates of brain injuries in women subjected to intimate partner violence: Identifying the dangers and raising awareness. *Journal of Aggression, Maltreatment & Trauma, 28*, 695-713. doi:10.1080/10926771.2019.1581864

269. van den Berk Clark, C., Moore, R., Secrest, S., Tuerk, P., **Norman, S. B.**, Myers, U., Lustman, P., Schneider, F., Barnes, J., Gallamore, R., Ovais, M., Plurad, J., & Scherrer, J. (2019). Factors associated with receipt of cognitive-behavioral therapy or Prolonged Exposure Therapy among individuals with PTSD. *Psychiatric Services, 70*, 703-713. doi:10.1176/appi.ps.201800408

270. Verplaetse, T. L., McKee, S. A., & **Petrakis, I.** (2018). Pharmacotherapy for co-occurring alcohol use disorder and posttraumatic stress disorder: Targeting the opioidergic, noradrenergic, serotonergic, and GABAergic/glutamatergic systems. *Alcohol Research: Current Reviews, 39*, 193-205. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/31198658

271. Verplaetse, T., Ralevski, E., Roberts, A., Gueorguieva, R., McKee, S. A., & **Petrakis, I.** (2019). Alcohol abstainer status and prazosin treatment in association with change in PTSD symptoms in veterans with comorbid AUD and PTSD. *Alcoholism: Clinical and Experimental Research, 43*, 741-746. doi:10.1111/acer.13969

272. **Vogt, D.**, Danitz, S., **Fox, A. B.**, **Sanders, W.**, & **Smith, B. N.** (2019). Do functional impairments promote or hinder mental health treatment seeking: Differential results for women and men. *Psychiatry Research, 271*, 614-620. doi:10.1016/j.psychres.2018.12.031

273. **Vogt, D.**, Taverna, E., **Nillni, Y. I.**, Booth, B., Perkins, D., Copeland, L., Finley, E., Tyrell, F., & Gilman, C. (2019). Development and validation of a tool to assess military veterans' status, functioning, and satisfaction with key aspects of their lives. *Applied Psychology: Health and Well-Being, 11*, 328-349. doi:10.1111/aphw.12161

274. **Wachen, J. S.**, Dondanville, K., Evans, W., Morris, K., & Cole, A. (2019). Adjusting the timeframe of evidence-based therapies for PTSD-massed treatments. *Current Treatment Options in Psychiatry, 6*, 107-118. doi:10.1007/s40501-019-00169-9

275. **Wachen, J. S.**, Dondanville, K., Young-McCaughan, S., Mintz, J., Lapiz-Bluhm, M., Pruiksma, K., Yarvis, C., Peterson, A., & Resick, P. (2019). Testing a variable-length Cognitive Processing Therapy intervention for posttraumatic stress disorder in active duty military: Design and methodology of a clinical trial. *Contemporary Clinical Trials Communications, 15*, 100381. doi:10.1016/j.conctc.2019.100381

276. Walters, E., Jenkins, M., Nappi, C., **Clark, J.**, Lies, J., **Norman, S. B.**, & Drummond, S. (2019). The impact of Prolonged Exposure on sleep and enhancing treatment outcomes with evidence-based sleep interventions: A pilot study. *Psychological Trauma: Theory, Research, Practice, and Policy*. doi:10.1037/tra0000478

277. Walters, R., Polimanti, R., Johnson, E., McClintick, J., Adams, M., Adkins, A., . . . **Gelernter, J.**, . . . & Agrawal, A. (2018). Transancestral GWAS of alcohol dependence reveals common genetic underpinnings with psychiatric disorders. *Nature Neuroscience, 21*, 1656-1669. doi:10.1038/s41593-018-0275-1

278. Watson, H., Yilmaz, Z., Thornton, L., Hübel, C., Coleman, J., Gaspar, H., . . . **Mitchell, K.** . . . & Bulik, C. (2019). Genome-Wide association study identifies eight risk loci and implicates metabo-psychiatric origins for anorexia nervosa. *Nature Genetics, 51*, 1207-1214. doi:10.1038/s41588-019-0439-2

279. **Watson, P.** (2019). PTSD as a public mental health priority. *Current Psychiatry Reports, 21*, 61. doi:10.1007/s11920-019-1032-1

280. Wells, S. Y., Talkovsky, A., Glassman, L. H., Chatfield, M. A., **Morland, L. A.**, & **Mackintosh, M.** (2019). Examining changes in sexual functioning after Cognitive Processing Therapy in a sample of women trauma survivors. *Women's Health Issues, 29*, 72-79. doi:10.1016/j.whi.2018.10.003

281. Werner, K. B., **Arditte Hall, K.**, Griffin, M. G., & **Galovski, T. E.** (2019). Predicting attentional impairment in women with posttraumatic stress disorder using self-reported and objective measures of sleep. *Journal of Clinical Sleep Medicine, 15*, 1329-1336. doi:10.5664/jcsm.7930

282. **Whitworth, J.**, Nosrat, S., SantaBarbara, N., & Ciccolo, J. (2019). High intensity resistance training improves sleep quality and anxiety in individuals who screen positive for posttraumatic stress disorder: A randomized controlled feasibility trial. *Mental Health and Physical Activity, 16*, 43-49. doi:10.1016/j.mhpa.2019.04.001

283. Wilkinson, S. T., & **Sanacora, G.** (2019). A new generation of antidepressants: An update on the pharmaceutical pipeline for novel and rapid-acting therapeutics in mood disorders based on glutamate/GABA neurotransmitter systems. *Drug Discovery Today, 24*, 606-615. doi:10.1016/j.drudis.2018.11.007

284. Wilkinson, S., **Holtzheimer, P. E.**, Gao, S., Kirwin, D., & Price, R. (2019). Leveraging neuroplasticity to enhance adaptive learning: The potential for synergistic somatic-behavioral treatment combinations to improve clinical outcomes in depression. *Biological Psychiatry, 85*, 454-465. doi:10.1016/j.biopsych.2018.09.004

285. Wilks, C. R., **Morland, L. A.**, Dillon, K., **Mackintosh, M.**, Blakey, S. M., Wagner, H. R., & Elbogen, E. (2019). Anger, social support, and suicide risk in U.S. military veterans. *Journal of Psychiatric Research, 109*, 139-144. doi:10.1016/j.jpsychires.2018.11.026

286. Williams, A. M., **Galovski, T. E.**, & Resick, P. A. (2019). Cognitive Processing Therapy. In B. A. Moore & W. E. Penk (Eds.), *Treating PTSD in military personnel: A clinical handbook (2nd ed.)* (pp. 63-77). New York, NY: Guilford Press.

287. **Wiltsey Stirman, S.**, Baumann, A., & Miller, C. (2019). The FRAME: An expanded framework for reporting adaptations and modifications to evidence-based interventions. *Implementation Science*. doi:10.1186/s13012-019-0898-y

288. **Wolf, E. J.**, **Logue, M. W.**, **Morrison, F. G.**, **Wilcox, E.**, Stone, A., Schichman, S. A., McGlinchey, R. E., Milberg, W. P., & **Miller, M. W.** (2019). Posttraumatic psychopathology and the pace of the epigenetic clock: A longitudinal investigation. *Psychological Medicine, 49*, 791-800. doi:10.1017/S0033291718001411

289. **Wolf, E. J.**, **Morrison, F. G.**, **Sullivan, D. R.**, **Logue, M. W.**, Guetta, R. E., Stone, A., Schichman, S. A., McGlinchey, R. E., Milberg, W. P., & **Miller, M. W.** (2019). The goddess who spins the thread of life: Klotho, psychiatric stress, and accelerated aging. *Brain, Behavior, and Immunity, 80*, 193-203. doi:10.1016/j.bbi.2019.03.007

290. Xiang, B., Yang, B. Z., Zhou, H., Kranzler, H. R., & **Gelernter, J.** (2019). GWAS and network analysis of co-occurring nicotine and alcohol dependence identifies significantly associated alleles and network. *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics, 180*, 3-11. doi:10.1002/ajmg.b.32692

291. Xu, K., Montalvo-Ortiz, J., Zhang, X., **Southwick, S. M.**, **Krystal, J. H.**, **Pietrzak, R. H.**, & **Gelernter, J.** (2019). Epigenome-Wide DNA methylation association analysis identified novel loci in peripheral cells for alcohol consumption among European American male veterans. *Alcoholism: Clinical and Experimental Research*. doi:10.1111/acer.14168

292. **Yang, J.**, Simoni, J., Dorsey, S., Lin, Z., Sun, M., Bao, M., & Lu, H. (2019). Reducing distress and promoting resilience: A preliminary trial of a CBT skills intervention among recently HIV-diagnosed MSM in China. *AIDS Care, 30 (sup5)*, S39-S48. doi:10.1080/09540121.2018.1497768

293. Yang, Y., **Davis, M.**, Wynn, J. K., Hellemann, G., Green, M. F., & Marder, S. R. (2019). N-acetylcysteine improves EEG measures of auditory deviance detection and neural synchronization in schizophrenia: A randomized, controlled pilot study. *Schizophrenia Research, 208*, 479-480. doi:10.1016/j.schres.2019.01.036

294. Yoon, G., **Petrakis, I.**, & **Krystal, J. H.** (2019). Association of combined naltrexone and ketamine with depressive symptoms in a case series of patients with depression and alcohol use disorder. *JAMA Psychiatry, 76*, 337-338. doi:10.1001/jamapsychiatry.2018.3990

295. Youngren, W. A., **Miller, K. E.**, & Davis, J. L. (2019). An assessment of medical practitioners' knowledge of, experience with, and treatment attitudes towards sleep disorders and nightmares. *Journal of Clinical Psychology in Medical Settings, 26*, 166-172. doi:10.1007/s10880-018-9574-7

296. Zang, Y., Gay, N., Kaczkurkin, A. N., **McLean, C. P.**, **Wachen, J. S.**, Yarvis, J. S., Foa, E. B., Resick, P. A., & STRONG STAR Consortium (2018). Factor structure and psychometric properties of the peritraumatic and posttraumatic emotions questionnaires among active duty military personnel with posttraumatic stress disorder. *Journal of Traumatic Stress, 31*, 826-836. doi:10.1002/jts.22350

297. Zang, Y., Su, Y., **McLean, C. P.**, & Foa, E. (2019). Predictors for excellent versus partial response to Prolonged Exposure therapy: Who needs additional sessions? *Journal of Traumatic Stress, 32*, 577-585. doi:10.1002/jts.22412

298. Zerach, G., Shevlin, M., **Cloitre, M.**, & Solomon, Z. (2019). Complex posttraumatic stress disorder (CPTSD) following captivity: A 24-year longitudinal study. *European Journal of Psychotraumatology, 10*, 1616488. doi:10.1080/20008198.2019.1616488

299. Zhornitsky, S., Ide, J., Wang, W., Chao, H., Zhang, S., Hu, S., **Krystal, J. H.**, & Li, C. R. (2018). Problem drinking, alcohol expectancy, and thalamic resting-state functional connectivity in nondependent adult drinkers. *Brain Connectivity, 8*, 487-502. doi:10.1089/brain.2018.0633

300. Zhornitsky, S., Zhang, S., Ide, J., Chao, H., Wang, W., Le, T., Leeman, R., Bi, J., **Krystal, J. H.**, & Li, C. (2019). Alcohol expectancy and cerebral responses to cue-elicited craving in adult nondependent drinkers. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, 4*, 493-504. doi:10.1016/j.bpsc.2018.11.012

301. Zhou, H., Cheng, Z., Bass, N., **Krystal, J. H.**, Farrer, L. H., Kranzler, H. R., & **Gelernter, J.** (2018). Genome-Wide association study identifies glutamate ionotropic receptor GRIA4 as a risk gene for comorbid nicotine dependence and major depression. *Translational Psychiatry, 8*, 208. doi:10.1038/s41398-018-0258-8

302. Zhou, Z., Lunetta, K. L., Smith, A., **Wolf, E. J.**, Stone, A., Schichman, S. A., McGlinchey, R. E., Milberg, W., **Miller, M. W.**, & **Logue, M. W.** (2019). Correction for multiple testing in candidate-gene methylation studies. *Epigenomics, 11*, 1089-1105. doi:10.2217/epi-2018-0204

303. **Zimmerman, L. E.**, Strompolis, M., Emshoff, J., & Mooss, A. (2019). Dissemination and implementation. In L. A. Jason, O. Glantsman, J. F. O'Brien, & K. N. Ramian (Eds.), *Introduction to community psychology: Becoming an agent of change* (pp. 348-363). Quebec, CND: Rebus Community. Retrieved from https://press.rebus.community/introductiontocommunitypsychology/

304. Zuromski, K., Ustun, B., Hwang, I., **Keane, T. M.**, **Marx, B. P.**, Stein, M., Ursano, R., & Kessler, R. (2019). Developing an optimal short-form of the PTSD Checklist for DSM-5 (PCL-5). *Depression and Anxiety, 36*, 790-800. doi:10.1002/da.22942

APPENDIX E

Fiscal Year 2019 In Press and Advance Online Publications

1. **Akiki, T.**, & **Abdallah, C.** (2018). Are there effective psychopharmacologic treatments for PTSD? *The Journal of Clinical Psychiatry*. Advance online publication. doi:10.4088/JCP.18ac12473

2. **Arditte Hall, K.**, **Healy, E.**, & **Galovski, T. E.** (in press). The sequelae of sexual assault. In W. O'Donohue, P. Schewe, & C. Cummings (Eds.), *Handbook of sexual assault and sexual assault prevention.* New York, NY: Springer.

3. Arenson, M., **McCaslin, S. E.**, & Cohen, B. (2019). Predictors of multiple domains of functioning in veterans with posttraumatic stress disorder: Results from the Mind Your Heart Study. *Depression and Anxiety*. Advance online publication. doi:10.1002/da.22945

4. **Averill, L.**, **Averill, C. L.**, & **Abdallah, C.** (in press). Neurobiological mechanisms of ketamine: Depression, suicide, trauma, and chronic stress pathologies. *Psychiatric Annals*.

5. **Azevedo, K. J.**, Ramirez, J., Kumar, A., LeFevre, A., Factor, A., Hailu, E., Lindley, S., & **Jain, S.** (2019). Rethinking violence prevention in rural and underserved communities: How veteran peer support groups help participants deal with sequelae from violent traumatic experiences. *The Journal of Rural Health*. Advance online publication. doi:10.1111/jrh.12362

6. Baldassarri, S., **Kachadourian, L.**, **Esterlis, I.**, & **Pietrzak, R. H.** (in press). Nicotine dependence in U.S. military veterans: Results from the National Health and Resilience in Veterans Study. *Addiction Research and Theory*.

7. Bartlett, B. A., Smith, L. J., **Smith, B. N.**, Tran, J. K., & Vujanovic, A. A. (in press). Occupational stress and functioning among military veterans in the fire service. *Military Behavioral Health*.

8. Batchelder, A. W., Safren, S., Coleman, J., Boroughs, M. S., Thiim, A., Ironson, G., **Shipherd, J. C.**, & O'Cleirigh, C. (2018). Indirect effects from childhood sexual abuse severity to PTSD: The role of avoidance coping. *Journal of Interpersonal Violence*. Advance online publication. doi:10.1177/0886260518801030

9. Bosch, J., **Mackintosh, M.**, Wells, S. Y., Wickramasinghe, I., & **Morland, L. A.** (2019). PTSD treatment response and quality of life in women with childhood trauma histories. *Psychological Trauma: Theory, Research, Practice, and Policy*. Advance online publication. doi:10.1037/tra0000468

10. **Bovin, M. J.**, Miller, C. J., Koenig, C. J., Lipschitz, J. M., Zamora, K. A., Wright, P. B., Pyne, J. M., & Burgess, J. F. (2018). Veterans' experiences initiating VA-based mental health care. *Psychological Services*. Advance online publication. doi:10.1037/ser0000233

11. Braun, J., El-Gabalway, R., Sommer, J. L., **Pietrzak, R. H.**, **Mitchell, K. S.**, & **Mota, N.** (in press). Trauma exposure, DSM-5 posttraumatic stress, and binge eating symptoms: Results from a nationally representative sample. *Journal of Clinical Psychology*.

12. Brooks Holliday, S., Hepner, K., Farmer, C., Ivany, C., Iyiewuare, P., **McGee-Vincent, P.**, **McCaslin, S. E.**, & **Rosen, C. S.** (2019). A qualitative evaluation of Veterans Health Administration's implementation of measurement-based care in behavioral health. *Psychological Services*. Advance online publication. doi:10.1037/ser0000390

13. Brownlow, J. A., **Miller, K. E.**, Gehrman, P. R., & Ross, R. J. (in press). Trauma- and stressor-related disorders. In A. Chopra, P. Das, & K. Doghramji (Eds.), *Management of sleep disorders in psychiatry.* New York, NY: Oxford University Press.

14. **Buchholz, K.**, **Feingold, Z.**, & **Galovski, T. E.** (in press). Etiology and phenomenology of posttraumatic stress disorder. In B. Olatunji (Ed.), *Handbook of anxiety and related disorders.* Cambridge, UK: Cambridge University Press.

15. Carter, S., Montgomery, A. E., Henderson, E., Ketterer, B., Dichter, M., Gordon, A., **Shipherd, J. C.**, Kauth, M. R., & Blosnich, J. (in press). Housing instability characteristics among transgender veterans cared for in the Veterans Health Administration, 2013-2016. *American Journal of Public Health*.

16. Chard, K. M., Kaysen, D., **Galovski, T. E.**, & Monson, C. M. (in press). Cognitive Processing Therapy. In D. Forbes, J. Bisson, C. Monson, & L. Berliner (Eds.), *Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies (3rd Ed.)*. New York, NY: Guilford.

17. Clarke-Walper, K., Penix, E. A., Trachtenberg, F., **Simon, E. P.**, Coleman, J., Magnavita, A., **Ortigo, K. M.**, **Regala, S. L.**, Marceau, L., **Ruzek, J. I.**, Rosen, R. C., & Wilk, J. E. (in press). How effective is a web-based tool for reducing behavioral health clinician burnout? Results from the PTSD Clinicians Exchange. *Psychiatric Research and Clinical Practice*.

18. **Cloitre, M.**, Hyland, P., Bisson, J. I., Brewin, C. R., Roberts, N. P., Karatzias, T., & Shevlin, M. (in press). ICD-11 PTSD and complex PTSD in the United States: A population-based study. *Journal of Traumatic Stress*.

19. Coleman, J. L., Marceau, L., Zincavage, R., Magnavita, A. M., Ambrosoli, J. A., Shi, L., **Simon, E. P.**, **Ortigo, K. M.**, Clarke-Walper, K., Penix, E., Wilk, J., **Ruzek, J. I.**, & Rosen, R. C. (in press). Understanding how clinicians use a new web-based tool for disseminating evidence-based practices for the treatment of PTSD: The PTSD clinicians exchange. *Military Medicine*.

20. **Cook, J.**, Thompson, R., Simiola, V., **Wiltsey Stirman, S.**, & **Schnurr, P. P.** (2018). Provider general attitudes versus specific perceptions of evidence-based psychotherapies for PTSD. *Psychological Services*. Advance online publication. doi:10.1037/ser0000280

21. Cronce, J., **Zimmerman, L. E.**, Rhew, I., Cadigan, J., Atkins, D., & Lee, C. (in press). Does it work and does it last? Effects of social and drinking behavior on mood. *Addictive Behaviors*. doi:10.1016/j.addbeh.2019.106111

22. Dennis, E. L., Disner, S. G., Fani, N., Salminen, L. E., **Logue, M. W.**, Clarke, E., Haswell, C., **Averill, C. L.**, . . . **Krystal, J. H.**, . . . **Abdallah, C.**, . . . & Morey, R. (2019). Altered white matter microstructural organization in post-traumatic stress disorder across 3,049 Adults: Results from the PGC-ENIGMA PTSD Consortium. *bioRxiv*. Advance online publication. doi:10.1101/677153

23. Desai, M., Pavlo, A., Davidson, L., **Harpaz-Rotem, I.**, & Rosenheck, R. (in press). Context matters: Social, cultural, and political dimensions of PTSD among veterans. *Ethical Human Psychology and Psychiatry*.

24. Dillon, K., Hale, W. J., LoSavio, S. T., **Wachen, J. S.**, Pruiksma, K. E., Yarvis, J. S., Mintz, J., Litz, B. T., Peterson, A. L., Resick, P. A., & STRONG STAR Consortium (in press). Weekly changes in blame and PTSD among active duty military personnel receiving Cognitive Processing Therapy. *Behavior Therapy*.

25. Dollar, K., Kirchner, J. E., DePhilippis, D., Ritchie, M. J., **McGee-Vincent, P.**, & Resnick, S. G. (2019). Steps for implementing measurement-based care: Implementation planning guide development and use in quality improvement. *Psychological Services*. Advance online publication. doi:10.1037/ser0000368

26. **Dutra, S.**, **Hayes, J. P.**, & **Keane, T. M.** (in press). Issues in assessment of PTSD in military personnel. In B. A. Moore & W. A. Penk (Eds.), *Treating PTSD in military personnel: A clinical handbook (2nd ed.)*. New York, NY: Guilford Press.

27. **Dutra, S.**, **Lee, D. J.**, **Marx, B. P.**, & **Keane, T. M.** (in press). Assessment of posttraumatic stress disorder. In D. M. Benedek & G. H. Wynn (Eds.), *Clinical manual for assessment of PTSD*. Washington, DC: American Psychiatric Press.

28. **Eftekhari, A.**, **Crowley, J. J.**, **Mackintosh, M.**, & **Rosen, C. S.** (2019). Predicting treatment dropout among veterans receiving Prolonged Exposure therapy. *Psychological Trauma: Theory, Research, Practice, and Policy*. Advance online publication. doi:10.1037/tra0000484

29. Erbes, C., **Kuhn, E. R.**, Polusny, M., **Ruzek, J. I.**, **Spoont, M.**, Meis, L. A., Gifford, E., Campbell, E. H., & Taylor, B. C. (2019). A pilot trial of online training for family well-being and veteran treatment initiation for PTSD. *Military Medicine*. Advance online publication. doi:10.1093/milmed/usz326

30. Fava, M., Freeman, M. P., Flynn, M., Judge, H., Hoeppner, B. B., Cusin, C., Ionescu, D. F., Mathew, S. J., Chang, L. C., Iosifescu, D. V., Murrough, J., Debattista, C., Schatzberg, A. F., Trivedi, M. H., Jha, M. K., **Sanacora, G.**, Wilkinson, S. T., & Papakostas, G. I. (2019). Double-blind, placebo-controlled, dose-ranging trial of intravenous ketamine as adjunctive therapy in treatment-resistant depression (TRD). *Molecular Psychiatry*. Advance online publication. doi:10.1038/s41380-018-0256-5

31. Finley, E. P., Garcia, H. A., Ramirez, V. A., Haro, E. K., Mignogna, J., DeBeer, B., & **Wiltsey Stirman, S.** (2019). Treatment selection among posttraumatic stress disorder (PTSD) specialty care providers in the Veterans Health Administration: A thematic analysis. *Psychological Trauma: Theory, Research, Practice, and Policy*. Advance online publication. doi:10.1037/tra0000477

32. Fitzpatrick, S., Dworkin, E. R., **Zimmerman, L. E.**, Javorka, M., & Kaysen, D. (in press). Stressors and drinking in sexual minority women: The mediating role of emotion dysregulation. *Psychology of Sexual Orientation and Gender Diversity*.

33. Frankfurt, S., Frazier, P., Litz, B., **Schnurr, P. P.**, Orazem, R., Gravely, A., & Sayers, S. (2019). Online expressive writing intervention for reintegration difficulties among veterans: Who is most likely to benefit? *Psychological Trauma: Theory, Research, Practice, and Policy*. Advance online publication. doi:10.1037/tra0000462

34. **Friedman, M. J.** (in press). PTSD in DSM-5: New wines in an old bottle? In G. H. Wynn & D. M. Benedek (Eds.), *Post traumatic stress disorders, (2nd ed.)*. Washington, DC: American Psychiatric Publishing.

35. **Friedman, M. J.**, & Sonis, J. H. (in press). What psychologists should know about pharmacotherapy for PTSD. In R. Halfond, V. Wright, & L. Bufka (Eds.), *PTSD casebook*. Washington, DC: American Psychological Association.

36. **Galovski, T. E.**, & Kaysen, D. (in press). *Flexible applications of Cognitive Processing Therapy.* Cambridge, MA: Elsevier.

37. **Gradus, J. L.**, Rosellini, A. J., Horvath-Puho, E., **Street, A. E.**, Galatzer-Levy, I., Jiang, T., Lash, T. L., & Sørensen, H. T. (in press). Sex-Specific suicide risk using machine learning and single-payer healthcare registry data from Denmark. *JAMA Psychiatry*.

38. **Grillo, A.**, Danitz, S. B., Dichter, M. E., Driscoll, M., Gerber, M. R., Hamilton, A. B., **Wiltsey Stirman, S.**, & **Iverson, K. M.** (2019). Strides toward recovery from intimate partner violence: Elucidating patient-centered outcomes to optimize a brief counseling intervention for women. *Journal of Interpersonal Violence*. Advance online publication. doi:10.1177/0886260519840408

39. Haro, E., Mader, M., Noël, P., Garcia, H., **Vogt, D.**, **Bernardy, N. C.**, Bollinger, M. J., Pugh, M. J., & Finley, E. (2019). The impact of trust, satisfaction, and perceived quality on preference for setting of future care among veterans with PTSD. *Military Medicine*. Advance online publication. doi:10.1093/milmed/usz078

40. Harris, J. I., Strom, T. Q., **Jain, S.**, Doble, T., Raisl, H., Hundt, N. E., Polusny, M., Fink, D. M., & Erbes, C. R. (2019). Peer-Enhanced Exposure Therapy (PEET): A case study series. *Cognitive and Behavioral Practice*. Advance online publication. doi:10.1016/j.cbpra.2019.07.002

41. Hausman, C., **Meffert, B.**, Mosich, M., & **Heinz, A. J.** (2019). Impulsivity and cognitive flexibility as neuropsychological markers for suicidality: A multi modal investigation among military veterans with alcohol use disorder and PTSD. *Archives of Suicide Research*. Advance online publication. doi:10.1080/13811118.2019.1635930

42. Held, P., Klassen, B., Boley, R., **Wiltsey Stirman, S.**, Smith, D., Brennan, M., Van Horn, R., Pollack, M., Karnik, N., & Zalta, A. (2019). Feasibility of a 3-week intensive treatment program for service members and veterans with PTSD. *Psychological Trauma: Theory, Research, Practice, and Policy*. Advance online publication. doi:10.1037/tra0000485

43. Herbst, E., **McCaslin, S. E.**, Daryani, S., Laird, K., Hopkins, L., Pennington, D., & **Kuhn, E. R.** (2019). A qualitative examination of Stay Quit Coach, a mobile application for veteran smokers with posttraumatic stress disorder. *Nicotine & Tobacco Research*. Advance online publication. doi:10.1093/ntr/ntz037

44. Ho, G. W. K., Karatzias, T., **Cloitre, M.**, Chan, A. C. Y., Bressington, D., Chien, W. T., Hyland, P., & Shevlin, M. (in press). Translation and validation of the Chinese ICD-11 International Trauma Questionnaire (ITQ) for the assessment of posttraumatic stress disorder (PTSD) and complex PTSD (CPTSD). *European Journal of Psychotraumatology*.

45. Holder, N., **Shiner, B.**, Li, Y., Madden, E., Neylan, T. C., Seal, K., Lujan, C., Patterson, O., DuVall, S., & Maguen, S. (2019). Timing of evidence-based psychotherapy for posttraumatic stress disorder initiation among Iraq and Afghanistan War veterans in the Veterans Health Administration. *Psychological Trauma: Theory, Research, Practice, and Policy*. Advance online publication. doi:10.1037/tra0000496

46. **Holmes, S.**, **Johnson, C. M.**, Suvak, M., Sijercic, I., Monson, C., & **Wiltsey Stirman, S.** (2019). Examining patterns of dose response for clients who do and do not complete Cognitive Processing Therapy. *Journal of Anxiety Disorders*. Advance online publication. doi:10.1016/j.janxdis.2019.102120

47. Hyland, P., Karatzias, T., Shevlin, M., & **Cloitre, M.** (in press). Nosological structure of ICD-11 PTSD, complex PTSD, and borderline personality disorder: Results from a UK population sample. *Journal of Traumatic Stress*.

48. **Iverson, K. M.**, Adjognon, O., **Grillo, A.**, Dichter, M. E., **Gutner, C. A.**, Hamilton, A. B., **Wiltsey Stirman, S.**, & Gerber, M. R. (2019). Intimate partner violence screening programs in the Veterans Health Administration: Informing scale-up of successful practices. *Journal of General Internal Medicine*. Advance online publication. doi:10.1007/s11606-019-05240-y

49. Jacobs, J. C., Blonigen, D. M., **Kimerling, R.**, Slightam, C., Gregory, A., Gurmessa, T., & Zulman, D. (2019). Increasing mental health care access, continuity, and efficiency for veterans through telehealth with video tablets. *Psychiatric Services*. Advance online publication. doi:10.1176/appi.ps.201900104

50. Jacoby, V. M., Hale, W., Dillon, K., Dondanville, K. A., **Wachen, J. S.**, Yarvis, J. S., Litz, B. T., Mintz, J., Young-McCaughan, S., Peterson, A. P., Resick, P. A., & STRONG STAR Consortium (2019). Depression suppresses treatment response for traumatic loss–related posttraumatic stress disorder in active duty military personnel. *Journal of Traumatic Stress*. Advance online publication. doi:10.1002/jts.22441

51. Jurick, S. M., Crocker, L. D., Merritt, V., Hoffman, S., Keller, A., Eglit, G., Thomas, K., **Norman, S. B.**, Schiehser, D. M., Rodgers, C., Twamley, E. W., & Jak, A. J. (in press). Psychological symptoms and rates of performance validity improve following trauma-focused treatment in veterans with PTSD and history of mild-to-moderate TBI. *Journal of the International Neuropsychological Society*. Advanced online publication. doi:10.1017/S1355617719000997

52. Karatzias, T., & **Cloitre, M.** (in press). Treating adults with complex PTSD (CPTSD) using a modular approach to treatment: Rationale, evidence & directions for future research. *Journal of Traumatic Stress*.

53. Katon, J. G., Gerber, M. R., **Nillni, Y. I.**, & Patton, E. W. (in press). Consequences of military sexual trauma for perinatal mental health: How do we improve care for pregnant women veterans with a history of sexual trauma? *Journal of Women's Health*.

54. Kilpatrick, D., **Friedman, M. J.**, & Gilmore, A. K. (in press). Classification and descriptive psychopathology of posttraumatic stress disorder and other stressor-related disorders. In J. Geddes, G. Doodwin, & N. Andreasen (Eds.), *New Oxford textbook of psychiatry (3rd ed.).* Oxford, EN: Oxford University Press.

55. **Kimerling, R.**, Lewis, E., Javier, S., & Zulman, D. (in press). Opportunity or burden? A behavioral framework for patient engagement. *Medical Care*.

56. **La Bash, H.**, **Galovski, T. E.**, & **Wiltsey Stirman, S.** (in press). Adapting evidence-based psychotherapies while maintaining fidelity. *Current Treatment Options in Psychiatry*.

57. Larsen, S. E., **Mackintosh, M.**, **La Bash, H.**, Evans, W., Suvak, M. K., Shields, N., Lane, J., Sijercic, I., Monson, C. M., & **Wiltsey Stirman, S.** (in press). Predictors of temporary PTSD symptom increases and association with overall symptom change trajectory among individuals receiving CPT in a hybrid effectiveness-implementation trial. *Psychological Trauma: Theory, Research, Practice, and Policy*.

58. **Lee, D. J.**, **Thompson-Hollands, J.**, Strage, M., **Marx, B. P.**, Unger, W., Beck, J. G., & **Sloan, D. M.** (2018). Latent factor structure and construct validity of the cognitive emotion regulation questionnaire-short form among two PTSD samples. *Assessment*. Advance online publication. doi:10.1177/1073191118791301

59. **Lee, L. O.**, Aldwin, C. M., Kubzansky, L. D., Mroczek, D. K., & **Spiro, A.** (2019). The long arm of childhood experiences on longevity: Testing midlife vulnerability and resilience pathways. *Psychology and Aging*. Advance online publication. doi:10.1037/pag0000394

60. Lord, K. A., Suvak, M. K., Holmes, S., Shields, N., Sijercic, I., Wagner, A. C., **Wiltsey Stirman, S.**, & Monson, C. (in press). Bidirectional relationships between posttraumatic stress disorder (PTSD) and social functioning during Cognitive Processing Therapy. *Behavior Therapy*.

61. Lyons, R., **Haller, M.**, Curry, I., & **Norman, S. B.** (2019). The relationship between negative trauma-related cognitions and psychosocial functioning in veterans with posttraumatic stress disorder and alcohol use disorder. *Substance Abuse*. Advance online publication. doi:10.1080/08897077.2019.1635957

62. **Mahoney, C. T.**, **Cole, H. E.**, Gilbar, O., & **Taft, C. T.** (in press). The role of impulsivity in the association between PTSD symptom severity and substance use in male military veterans. *Journal of Traumatic Stress*.

63. **Mahoney, C. T.**, Lynch, S. M., & Benight, C. C. (2019). The indirect effect of coping self-efficacy on the relation between sexual violence and PTSD symptoms. *Journal of Interpersonal Violence*. Advance online publication. doi:10.1177/0886260519881525

64. Marini, C. M., Fiori, K. L., Wilmoth, J. M., **Pless Kaiser, A.**, & Martire, L. M. (in press). Psychological adjustment of aging Vietnam veterans: The role of social network ties in reengaging with wartime memories. *Gerontology*.

65. **McCarthy, E.**, DeViva, J., **Norman, S. B.**, **Southwick, S. M.**, & **Pietrzak, R. H.** (2019). Self-Assessed sleep quality partially mediates the relationship between PTSD symptoms and functioning and quality of life in U.S. veterans: Results from the National Health and Resilience in Veterans Study. *Psychological Trauma: Theory, Research, Practice, and Policy*. Advance online publication. doi:10.1037/tra0000436

66. **McCaslin, S. E.**, **Bramlett, D. M.**, **Juhasz, K. M.**, **Mackintosh, M.**, & Springer, S. (in press). Veterans and disaster response work: The role of continued service in meaning making and recovery. In S. E. Schulenberg (Ed.), *Disaster mental health and positive psychology.* New York, NY: Springer.

67. **McLean, C. P.**, Zang, Y., Gallagher, T., Suzuki, N., Yarvis, J., Litz, B., Mintz, J., Young-McCaughan, S., Peterson, A., & Foa, E. (2019). Trauma-Related cognitions and cognitive emotion regulation as mediators of PTSD change among treatment-seeking active-duty military personnel with PTSD. *Behavior Therapy*. Advance online publication. doi:10.1016/j.beth.2019.03.006

68. **Meffert, B.**, **Morabito, D. M.**, **Sawicki, D. A.**, Hausman, C., **Southwick, S. M.**, **Pietrzak, R. H.**, & **Heinz, A. J.** (2019). U.S. veterans who do and do not utilize Veterans Affairs health care services. *The Primary Care Companion for CNS Disorders*. Advance online publication. doi:10.4088/PCC.18m02350

69. Miles, S., Dillon, K., Jacoby, V. M., Hale, W. J., Dondanville, K. A., **Wachen, J. S.**, Yarvis, J. S., Peterson, A. L., Mintz, J., Litz, B. T., Young-McCaughan, S., Resick, P. A., & STRONG STAR Consortium (in press). Changes in anger and aggression after treatment for PTSD in active duty military. *Journal of Clinical Psychology*.

70. **Miller, K. E.**, Bäbler, L., Maillart, T., Faerman, A., & **Woodward, S. H.** (in press). Sleep/Wake detection by behavioral response to haptic stimuli. *Journal of Clinical Sleep Medicine*.

71. **Miller, M. W.** (2018). Leveraging genetics to enhance the efficacy of PTSD pharmacotherapies. *Neuroscience Letters*. Advance online publication. doi:10.1016/j.neulet.2018.04.039

72. **Morland, L. A.**, Wells, S. Y., Glassman, L. H., Grubbs, K., **Mackintosh, M.**, Golshan, S., Sohn, M., Thorp, S. R., Savage, U., & Acierno, R. (2019). What do veterans want? Understanding veterans' preferences for PTSD treatment delivery. *Military Medicine*. Advance online publication. doi:10.1093/milmed/usz035

73. Murdoch, M., **Kehle-Forbes, S.**, **Spoont, M.**, Sayers, S., Noorbaloochi, S., & Arbisi, P. (2019). Changes in post-traumatic stress disorder service connection among veterans under age 55: An 18-year ecological cohort study. *Military Medicine*. Advance online publication. doi:10.1093/milmed/usz052

74. **Niles, B. L.**, Williston, S. K., & Mori, D. L. (in press). Mindfulness approaches to treating complex PTSD. In C. Courtois & J. D. Ford (Eds.), *Treating complex traumatic stress disorders 2nd ed.* New York, NY: Guilford Press.

75. **Nillni, Y. I.**, **Arditte Hall, K.**, Langdon, K. J., & **Pineles, S. L.** (2019). Examination of the stability of the anxiety sensitivity index across the menstrual cycle in trauma-exposed women with and without PTSD. *Anxiety, Stress, & Coping*. Advance online publication. doi:10.1080/10615806.2019.1660322

76. O'Malley, K. A., Vinson, L., **Pless Kaiser, A.**, Sager, Z. S., & Hinrichs, K. (in press). Mental health and aging veterans: How the Veterans Health Administration meets the needs of aging veterans. *The Gerontologist Public Policy and Aging Report*.

77. Perkins, D. F., Aronson, K. R., Morgan, N., Bleser, J., **Vogt, D.**, Copeland, L. A., Finley, E. P., & Gilman, C. L. (in press). Veterans' use of programs and services as they transition to civilian life: Baseline assessment for the Veteran Metrics Initiative. *Journal of Social Service Research*.

78. **Petrakis, I.**, **Ralevski, E.**, Gueorguieva, R., Sloan, M., Devine, L., Yoon, G., Arias, A., & Sofuoglu, M. (2019). Targeting neuroinflammation with minocycline in heavy drinkers. *Psychopharmacology*. Advance online publication. doi:10.1007/s00213-019-05205-3

79. Portnoy, G., Relyea, M., **Street, A. E.**, Haskell, S., & **Iverson, K. M.** (2019). A longitudinal analysis of women veterans' partner violence perpetration: The roles of interpersonal trauma and posttraumatic stress symptoms. *Journal of Family Violence*. Advance online publication. doi:10.1007/s10896-019-00061-3

80. Reeves, J. W., Fisher, A. J., & **Woodward, S. H.** (2019). Increased epoch-to-epoch parasympathetic cardiac regulation in participants with posttraumatic stress disorder compared to those with panic disorder and control participants. *Journal of Anxiety Disorders*. Advance online publication. doi:10.1016/j.janxdis.2019.102144

81. Richardson, C. B., Chesnut, R. P., Morgan, N. R., Bleser, J. A., Perkins, D. F., **Vogt, D.**, Copeland, L. A., & Finley, E. (2019). Examining the factor structure of the Moral Injury Events Scale in a veteran sample. *Military Medicine*. Advance online publication. doi:10.1093/milmed/usz129

82. **Rosen, C. S.**, Lindley, S., & **Wiltsey Stirman, S.** (in press). Standardized assessment and measurement-based care. In L. W. Roberts (Ed.), *The American psychiatric publishing textbook of psychiatry, 7th ed.* Arlington, VA: American Psychiatric Press.

83. Rosen, R. C., Cikesh, B., Fang, S., Trachtenberg, F., Seal, K., Magnavita, A. M., **Bovin, M. J.**, **Green, J. D.**, Bliwise, D., **Marx, B. P.**, & **Keane, T. M.** (in press). Sleep disturbance, insomnia, and PTSD severity: Longitudinal associations in a large, gender-balanced cohort of combat-exposed veterans. *Journal of Traumatic Stress*.

84. **Ruzek, J. I.**, Wilk, J., **Simon, E. P.**, Marceau, L., Trachtenberg, F. L., Magnavita, A. M., Coleman, J. L., **Ortigo, K. M.**, Ambrosoli, J., Zincavage, R., Clarke-Walper, K., Penix, E., & Rosen, R. C. (in press). A randomized controlled trial of a web-based intervention to disseminate clinical practice guidelines for PTSD: The PTSD Clinicians Exchange. *Journal of Traumatic Stress*.

85. Salas, J., Scherrer, J., Tuerk, P., van den Berk-Clark, C., Chard, K., Schneider, F., **Schnurr, P. P.**, **Friedman, M. J.**, **Norman, S. B.**, Cohen, B., & Lustman, P. (2019). Large posttraumatic stress disorder improvement and antidepressant medication adherence. *Journal of Affective Disorders*. Advance online publication. doi:10.1016/j.jad.2019.08.095

86. **Sanders, W.**, **Smith, B. N.**, **Fox, A. B.**, & **Vogt, D.** (2019). Five-Year impacts of family stressors and combat threat on the mental health of Afghanistan and Iraq War veterans. *Journal of Traumatic Stress*. Advance online publication. doi:10.1002/jts.22437

87. Scherrer, J., Salas, J., Lustman, P., Tuerk, P., Gebauer, S., **Norman, S. B.**, Schneider, F., Chard, K., van den Berk-Clark, C., Cohen, B., & **Schnurr, P. P.** (2019). Combined effect of posttraumatic stress disorder and prescription opioid use on risk of cardiovascular disease. *European Journal of Preventive Cardiology*. Advance online publication. doi:10.1177/2047487319850717

88. Schmidt, E. M., Magruder, K., Kilbourne, A. M., Stock, E. M., Cypel, Y., Serpi, T., **Kimerling, R.**, Cohen, B., **Spiro, A.**, Furey, J., Huang, G. D., & Frayne, S. M. (2019). Four decades after war: Incident diabetes among women Vietnam-Era veterans in the HealthViEWS study. *Women's Health Issues*. Advance online publication. doi:10.1016/j.whi.2019.08.002

89. Sijercic, I., **Gutner, C. A.**, Lane, J., Suvak, M., Monson, C. M., & **Wiltsey Stirman, S.** (in press). The influence of clinician and perceived organizational factors on early fidelity to Cognitive Processing Therapy for posttraumatic stress disorder in a randomized controlled implementation trial. *Administration and Policy in Mental Health and Mental Health Services Research*.

90. Silverstein, M. W., **Lee, D. J.**, Seligowski, A. V., & Worley, C. W. (in press). Trauma-Related functional impairment: The role of PTSD symptom severity, negative mood regulation and unmet interpersonal needs. *Traumatology*.

91. Simon, N. M., Hoeppner, S. S., Lubin, R. E., Robinaugh, D. J., Malgaroli, M., **Norman, S. B.**, Acierno, R., Goetter, E. M., Hellberg, S. N., Charney, M. E., Bui, E., Baker, A. W., Smith, E., Kim, H. M., & Rauch, S. A. M. (in press). Understanding the impact of complicated grief on combat related posttraumatic stress disorder, guilt, suicide and functional impairment in a clinical trial of post-9/11 service members and veterans. *Depression and Anxiety*.

92. **Smith, B. N.**, **Spiro, A.**, Frayne, S. M., **Kimerling, R.**, Cypel, Y., Reinhard, M. J., Kilbourne, A. M., & Magruder, K. M. (in press). Impact of wartime stress exposures and mental health on later-life functioning and disability in Vietnam-Era women veterans: Findings from the Health of Vietnam-Era Women's Study (HealthViEWS). *Psychosomatic Medicine*.

93. Smith, L. J., Paulus, D. J., Gallagher, M. W., **Norman, S. B.**, Tran, J., & Vujanovic, A. A. (in press). Perceived stress and alcohol dependence in firefighters: The role of posttraumatic stress. *International Journal of Stress Management*.

94. Stokes, C., Alonso, J., Andrade, L., Atwoli, L., Cardoso, G., Chiu, W., Dinolova, R., Gureje, O., Karam, A., Karam, E., Kessler, R., Chatterji, S., King, A., Lee, S. E., Mneimneh, Z., Oladeji, B., Petukhova, M., Rapsey, C., Sampson, N., Scott, K., **Street, A. E.**, Viana, M., Williams, M., & Bossarte, R. M. (2019). Pre-Marital predictors of marital violence in the WHO World Mental Health (WMH) surveys. *Social psychiatry and psychiatric epidemiology*. Advance online publication. doi:10.1007/s00127-019-01703-z

95. Straus, E., **Haller, M.**, Lyons, R. C., & **Norman, S. B.** (in press). Review of the functional and psychiatric correlates of comorbid posttraumatic stress disorder and alcohol use disorder. *Alcohol Research: Current Reviews*.

96. **Street, A. E.**, Shin, M. H., Marchany, K. E., **McCaughey, V.**, **Bell, M. E.**, & Hamilton, A. (2019). Veterans' perspectives on military sexual trauma-related communication with VHA providers. *Psychological Services*. Advance online publication. doi:10.1037/ser0000395

97. **Thompson-Hollands, J.**, Burmeister, L. B., **Rosen, C. S.**, O'Dougherty, M., Erickson, E. P. G., & Meis, L. A. (2019). Veterans with poor PTSD treatment adherence: Exploring their loved ones' experience of PTSD and understanding of PTSD treatment. *Psychological Services*. Advance online publication. doi:10.1037/ser0000389

98. **Thompson-Hollands, J.**, **Lee, L. O.**, & **Schnurr, P. P.** (in press). Military PTSD. In C. Castro & C. Warner (Eds.), *Mental healthcare for military and veteran personnel.* Washington, DC: American Psychiatric Association.

99. Toczek, J., Hillmer, A., Han, J., Liu, C., Peters, D., Emami, H., Wu, J., **Esterlis, I.**, **Cosgrove, K.**, & Sadeghi, M. (2019). FDG PET imaging of vascular inflammation in post-traumatic stress disorder: A pilot case–control study. *Journal of Nuclear Cardiology*. Advance online publication. doi:10.1007/s12350-019-01724-w

100. Tsai, J., Huang, M., Wilkinson, S., Edelen, C., Rosenheck, R. A., & **Holtzheimer, P. E.** (2019). A measure to assess perceptions and knowledge about electroconvulsive therapy. *The Journal of ECT*. Advance online publication. doi:10.1097/YCT.0000000000000609

101. Tsai, J., Snitkin, M., Trevisan, L., Kraus, S. W., & **Pietrzak, R. H.** (2019). Awareness of suicide prevention programs among U.S. military veterans. *Administration and Policy in Mental Health and Mental Health Services Research*. Advance online publication. doi:10.1007/s10488-019-00975-6

102. Valenstein-Mah, H., **Kehle-Forbes, S.**, Nelson, D., Danan, E. R., **Vogt, D.**, & **Spoont, M.** (2019). Gender differences in rates and predictors of individual psychotherapy initiation and completion among Veterans Health Administration users recently diagnosed with PTSD. *Psychological Trauma: Theory, Research, Practice, and Policy*. Advance online publication. doi:10.1037/tra0000428

103. Valentine, S., Woulfe, J., & **Shipherd, J. C.** (in press). An evidence-based approach to conceptualizing trauma responses among transgender and gender non-conforming (TGNC) adults. In J. E. Pachankis & S. A. Safren (Eds.), *Handbook of evidence-based mental health practice with LGBT clients.* New York, NY: Oxford University Press.

104. **Vasterling, J. J.**, Jacob, S., & **Rasmusson, A. M.** (in press). PTSD. In J. M. Silver, T. W. McAllister, & D. B. Archiniegas (Eds.), *APA textbook of traumatic brain injury (3rd ed.).* Arlington, VA: American Psychiatric Publishing.

105. **Wachen, J. S.**, Evans, W. R., Blankenship, A. E., & Jacoby, V. (in press). Cognitive Processing Therapy for moral injury. In J. Currier, K. Drescher, & J. Nieuwsma (Eds.), *Addressing moral injury in clinical practice.* Washington, DC: American Psychological Association.

106. **Walser, R. D.** (in press). *The heart of ACT: Developing a flexible, process-based and client centered practice.* Oakland, CA: New Harbinger.

107. **Walser, R. D.**, & **McGee-Vincent, P.** (in press). How to develop your abilities as an ACT therapist. In P. Lucena-Santos, S. A. Carvalho, J. Pinto-Gouveia, M. S. Oliveira, & J. Pistorello (Eds.), *Manual prático internacional de Terapia de Aceitação e Compromisso [International practical handbook of Acceptance and Commitment Therapy].* Novo Hamburgo, RS: Sinopsys.

108. **Walser, R. D.**, & Wharton, E. (in press). Acceptance and Commitment Therapy: Using mindfulness and values in the treatment of moral injury. In M. Currier, K. D. Drescher, & J. A. Nieuwsma (Eds.), *Addressing moral injury in clinical practice.* Washington, DC: American Psychological Association.

109. Wharton, E., **Edwards, K. S.**, **Juhasz, K. M.**, & **Walser, R. D.** (in press). Acceptance-Based interventions in the treatment of PTSD: Group and individual pilot data using Acceptance and Commitment Therapy. *Journal of Contextual Behavioral Science*. doi:10.1016/j.jcbs.2019.09.006

110. **Whitworth, J.**, Nosrat, S., SantaBarbara, N. J., & Ciccolo, J. T. (in press). Feasibility of resistance exercise for posttraumatic stress and anxiety symptoms (REPS): A randomized controlled pilot study. *Journal of Traumatic Stress*.

111. Wiedeman, L., Hannan, S., **Maieritsch, K. P.**, Robinson, C., & Bartoszek, G. (2018). Treatment choice among veterans with PTSD symptoms and substance-related problems: Examining the role of preparatory treatments in trauma-focused therapy. *Psychological Services*. Advance online publication. doi:10.1037/ser0000313

112. Williston, S., **Bramande, E.**, **Vogt, D.**, & Fox, A. (in press). An examination of the roles of mental health literacy, treatment-seeking stigma, and perceived need for care in female veterans' service use. *Psychiatric Services*.

113. Williston, S., Roemer, L., & **Vogt, D.** (in press). Cultural and service factors related to mental health beliefs among post-9/11 veterans. *International Journal of Social Psychiatry*.

114. Wohleb, E. S., & **Duman, R.** (in press). Disruption of mTORC1 signaling contributes to synaptic deficits caused by chronic stress: Reversal by rapid-acting antidepressants. *Neurobiology of Stress*.

115. Zulman, D., Wong, E., Slightam, C., Gregory, A., Jacobs, J., **Kimerling, R.**, Blonigen, D., Peters, J., & Heyworth, L. (2019). Making connections: Nationwide implementation of video telehealth tablets to address access barriers in veterans. *JAMIA Open*. Advance online publication. doi:10.1093/jamiaopen/ooz024

APPENDIX F

Fiscal Year 2019 Scientific Presentations

American Psychological Association | Chicago, IL | August 2019

1. **Bovin, M. J.** *Blending science and art in trauma therapy outcomes*.

2. Holliday, S. B., Hepner, K., & **Rosen, C. S.** (2019, August). *Enhancing measurement-based care in behavioral health through staff and patient perspectives*.

3. Tran, L., & **Tiet, Q. Q.** *Towards an integrated model of grief and bereavement disorders*.

4. **Wiltsey Stirman, S.**, Song, J., **Lagdamen, J. M.**, Pace, B., Hull, D., & Resick, P. Adaptation of Cognitive Processing Therapy for message-based psychotherapy. In **S. Stirman** (Chair), *Message-Based teletherapy – How well does it work and for whom?*

Anxiety and Depression Association of America | Chicago, IL | March 2019

5. **Abdallah, C.** Serendipity strikes again: An mTOR inhibitor to prolong the antidepressant effects of ketamine. In **C. G. Abdallah** (Chair), *How to augment and extend the rapid-acting antidepressant effects of ketamine in treatment-resistant depression and PTSD?*

6. **Abdallah, C.**, **Averill, C. L.**, & **Adams, T.** *Effects of prefrontal transcranial direct current stimulation (tDCS) on therapeutic learning and memory in posttraumatic stress disorder (PTSD)*.

7. **Adams, T.** *Novel methods for augmenting fear extinction processes and the potential to improve extinction-based treatments*.

8. **Akiki, T.**, **Abdallah, C.**, **Anticevic, A.**, **Southwick, S. M.**, **Krystal, J. H.**, & **Averill, L.** *Stress induced alterations of default mode and central executive networks in depressed patients with and without PTSD*.

9. **Akiki, T.**, **Goktas, S.**, **Nemati, S.**, **Averill, L.**, & **Abdallah, C.** *Subthreshold symptoms of depression, anxiety, and attention-deficit/hyperactivity are characterized by distinct large-scale brain network abnormalities in modularity*.

10. **Averill, L.** *Identifying biomarkers of childhood trauma*.

11. **Averill, L.** *Neurobiology and behavioral markers of suicidality among veterans with PTSD*.

12. **Bovin, M. J.**, **Moshier, S. J.**, Rosen, R. C., **Keane, T. M.**, & **Marx, B. P.** The impact of PTSD treatment no shows on changes in clinical outcomes. In **M. J. Bovin** (Chair), *Examining assumptions across PTSD treatment.*

13. **Brown, M.**, **Bovin, M. J.**, Rosen, R. C., **Keane, T. M.**, & **Marx, B. P.** *Association between trauma-related externalizing behaviors and criminal activity in OEF/OIF/OND veterans*.

14. Duval, E. R., Sheynin, J., King, A. P., Phan, K. L., Simon, N. M., Martis, B., Porter, K., **Norman, S. B.**, Liberzon, I., & Rauch, S. Predicting treatment outcome in PTSD: Neural function during attention shifting and emotional appraisal. In S. Rauch (Chair), *What works and how: Primary outcomes and mechanisms of PTSD treatment in veterans from the PROGRESS trial.*

15. Holmes, S. C., **Johnson, C. M.**, Suvak, M. K., Monson, C. M., & **Wiltsey Stirman, S.** *Associations among depression, PTSD treatment non-completion, and clinical outcomes in Cognitive Processing Therapy for PTSD*.

16. Isley, B. C., Shayani, D. R., Zvolensky, M. J., Rohan, K. J., & **Nillni, Y. I.** *The role of health anxiety in predicting panic-relevant responding to a CO2 challenge*.

17. **Johnson, C. M.**, Suvak, M., Masina, T., Shields, N., Monson, C., & **Wiltsey Stirman, S.** *Changes in PTSD symptoms correspond to changes in suicidal ideation in a combined military and civilian sample engaged in Cognitive Processing Therapy*.

18. **Lee, D. J.**, Nock, M. K., **Sloan, D. M.**, Rosen, R. C., **Keane, T. M.**, & **Marx, B. P.** *Differential association between risk factors and future suicide attempts among demographically homogenous groups of OEF/OIF veterans*.

19. **Lee, D. J.**, **Thompson-Hollands, J.**, **Marx, B. P.**, Resick, P. A., & **Sloan, D. M.** *Do symptoms change the way we think they do: Sequence of change in PTSD symptom clusters in Written Exposure Therapy and Cognitive Processing Therapy*.

20. **Moshier, S. J.**, **Bovin, M. J.**, **Kleiman, S.**, Abdulkerim, H., Rosen, R. C., **Keane, T. M.**, & **Marx, B. P.** (2019, March). Understanding VA psychotherapy utilization and clinical outcomes in veterans with PTSD. In **M. J. Bovin** (Chair), *Examining assumptions across PTSD treatment.*

21. **Nillni, Y. I.**, **Arditte Hall, K.**, **King, M. W.**, **Rasmusson, A. M.**, & **Pineles, S. L.** Association of GABAergic neurosteroids and psychological symptoms across the menstrual cycle among women with PTSD. In L. Hantsoo (Chair), *The role of neuroactive steroid hormones in psychological and psychophysiological symptoms of anxiety.*

22. **Pineles, S. L.** Extinction retention deficits and a block in conversion of progesterone to the GABAergic neurosteroids allopregnanolone and pregnanolone. In V. Michopoulos & J. Stephens (Chair), *Neuroendocrine risk pathways for trauma- and stress-related disorders in women.*

23. **Schnurr, P. P.** Discussant. In **M. Bovin** (Chair), *Examining assumptions across PTSD treatment.*

24. **Schnurr, P. P.** Discussant. In S. Rauch (Chair), *What works and how: Primary outcomes and mechanisms of PTSD treatment in veterans from the PROGRESS Trial.*

25. Shayani, D. R., Isley, B. C., Zvolensky, M. J., Rohan, K. J., & **Nillni, Y. I.** *The role of health anxiety in the experience of menstrual symptoms and perceived stress across the menstrual cycle*.

Association for Behavioral and Cognitive Therapies | Washington, DC | November 2018

26. **Adams, T.**, & **Pietrzak, R. H.** *U-Shaped association between exercise and PTSD symptoms in U.S. veterans*.

27. **Canale, C.**, **Wiltsey Stirman, S.**, & **Gutner, C. A.** *Systematic cultural adaptation of unified protocol for veterans*.

28. **Cloitre, M.**, **Ortigo, K. M.**, **Morabito, D. M.**, **Crowley, J. J.**, **Mackintosh, M.**, Lindsay, J. A., & Jackson, C. *Increasing access to care for women veterans with MST: Web-Based in-home coaching for trauma related problems*.

29. Danitz, S. B., **Grillo, A.**, Dichter, M., Driscoll, M., Gerber, M., & **Iverson, K. M.** *A recovery-oriented intervention for women veterans experiencing intimate partner violence: The important role of patient-centered outcomes*.

30. Danitz, S. B., **Grillo, A.**, **Wiltsey Stirman, S.**, Driscoll, M., Hamilton, A., & **Iverson, K. M.** *When user-centered design meets implementation science: Integrating provider perspectives on implementation characteristics in the development of an IPV intervention*.

31. Day, S. C., Hogan, J. B., Barrera, T. L., Nessim, M., Keegan, F., Davis, M., Lindsay, J. A., & **Cloitre, M.** *Role of the therapist when simultaneously using video telehealth and an online program: WebSTAIR for the treatment of military sexual trauma*.

32. Guetta, R. E., **Wilcox, E.**, **Maniates, H.**, Ryabchenko, K., **Miller, M. W.**, & **Wolf, E. J.** *Data privacy expectations of trauma-exposed veterans enrolled in research: Associations with psychopathology and demographic characteristics*.

33. **Gutner, C. A.**, Litwack, S., **Niles, B. L.**, & **Canale, C.** Effectiveness and implementation of the Unified Protocol in trauma-exposed veterans. In **C. Gutner** (Chair), *Flexing with fidelity: Routine care delivery of transdiagnostic and modular treatment.*

34. Jarnagin, J., **Arditte Hall, K.**, Rosebrock, L., & **Pineles, S. L.** *Examining trauma-related rumination in trauma-exposed women*.

35. **Johnson, C. M.**, **Mallard, K. N.**, Carreno, P., **Beristianos, M.**, Masina., T., Shields, N., Monson, C., & **Wiltsey Stirman, S.** *The feasibility and effectiveness of an online message board used to enhance therapist fidelity in Cognitive Processing Therapy for PTSD*.

36. **Kachadourian, L.**, **Harpaz-Rotem, I.**, Tsai, J., **Southwick, S. M.**, & **Pietrzak, R. H.** *PTSD symptoms are not created equal: A symptomics approach to evaluating associations between individual DSM-5 PTSD symptoms and functioning and quality of life in U.S. military veterans*.

37. **McLean, C. P.** Discussant. In **C. P. McLean** (Chair), *How do different PTSD treatments work? Clues from mediation research.*

38. **McLean, C. P.** If you build it, they will come... but how do we get them to stay? The role of support in e-health interventions. In **C. P. McLean** (Chair), *How do different PTSD treatments work? Clues from mediation research.*

39. **McLean, C. P.**, Gallagher, T., Zang, Y., Suzuki, N., Yarvis, J., Litz, B. T., Mintz, J., Young-McCaughan, S., Peterson, A. L., Foa, E. B., & STONG STAR Consortium. *Negative trauma-related cognitions as a mediator of PTSD change among treatment-seeking active duty military personnel with PTSD*.

40. **McLean, C. P.**, Yadin, E., Rosenfield, D., Yarvis, J., Mintz, J., Young-McCaughan, S., Peterson, A. L., Foa, E. B., & STRONG STAR Consortium. Efficacy of massed PE for PTSD among active duty military personnel. In L. Zandberg (Chair), *Increasing the reach of exposure therapy for PTSD: The latest in randomized controlled trials designed to reduce implementation barriers.*

41. Meffert, B., Morabito, D. M., **Southwick, S. M.**, **Pietrzak, R. H.**, & Heinz, A. J. *The interactive effects of age of worst trauma and trauma burden on resilience, physical health, and suicidality: Results from the National Health and Resilience in Veterans Study*.

42. **Morabito, D. M.**, **Mackintosh, M.**, & **Cloitre, M.** *Therapeutic alliance as a mediator of PTSD symptoms in Skills Training in Affective and Interpersonal Regulation (STAIR) versus Present Centered Therapy (PCT)*.

43. **Morland, L. A.**, **Mackintosh, M.**, Grubbs, K., Wells, S. Y., Rauch, S., Tuerk, P., Glassman, L. H., & Acierno, R. *Home-Based delivery of Prolonged Exposure therapy: A comparison of clinical efficacy between service modalities*.

44. **Moshier, S. J.**, **Bovin, M. J.**, **Lee, D. J.**, **Gauthier, G. M.**, **Zax, A.**, Rosen, R., **Keane, T. M.**, & **Marx, B. P.** *A crosswalk for the PTSD Checklist: Translating scores from DSM-IV to DSM-5*.

45. **Moshier, S. J.**, **Kleiman, S.**, **Bovin, M. J.**, **Zax, A.**, **Gauthier, G. M.**, Rosen, R., **Keane, T. M.**, & **Marx, B. P.** *Demographic predictors of psychotherapy utilization at VA hospitals among veterans diagnosed with PTSD: Who gets an adequate dose?*

46. **Shipherd, J. C.** Transgender veterans' trauma recovery and discrimination: Considerations for treatment. In J. A. Puckett (Chair), *Minority stress, gender affirmation, and mental health in transgender individuals: Research and clinical perspectives.*

47. **Sloan, D. M.** Discussant. In **C. McLean** (Chair), *How do different PTSD treatments work? Clues from mediation research.*

48. **Sloan, D. M.**, **Marx, B. P.**, **Lee, D. J.**, & **Thompson-Hollands, J.** Treatment gains of a brief, exposure-based treatment for PTSD. In L. J. Zandberg (Chair), *Increasing the reach of exposure therapy for PTSD: The latest in randomized controlled trials designed to reduce implementation barriers.*

49. **Taft, C. T.** *The working alliance and group cohesion in CBT to prevent partner violence*.

50. Willis, E. A., Glassman, L. H., Schaper, K. M., Greene, C. J., Morland, L. A., & **Mackintosh, M.** *Delivering anger management treatment through a web-based intervention supplemented with brief coaching: A pilot study*.

51. Willis, E. A., **Mackintosh, M.**, **Greenbaum, M. A.**, **Jaworski, B. K.**, **Kuhn, E. R.**, **Pietrzak, R. H.**, & **Owen, J. E.** *Interest in mobile applications for mental health among veterans*.

Association for Psychological Science | Washington, DC | May 2018

52. **Galovski, T. E.** *A new gun-attitude measure: Development, validation, and evaluation with a community and veteran samples*.

53. **Knight, J. A.**, **Berlingeri, A.**, & Fox., A. *Unique pattern sequences characterize the 639,120 theoretical possibilities used to clinically diagnose and empirically categorize individuals with posttraumatic stress disorder*.

54. **Shipherd, J. C.** *Psychoeducation for the prevention of postdeployment intrusive cognition-related distress is socially valid but ineffective*.

55. Song, J., **La Bash, H.**, Masina, T., Shields, N., Monson, C. M., & **Wiltsey Stirman, S.** *Multilevel confirmatory factor analysis of posttraumatic stress disorder for patients in Cognitive Processing Therapy*.

Combat PTSD Conference | San Antonio, TX | October 2018

56. Creech, S. K., **Gnall, K.**, Murphy, C. M., & **Taft, C. T.** National implementation of a trauma-informed intervention for intimate partner violence in veterans: Two-year outcomes. In K. Dondanville (Chair), *Preparing the workforce: Training and dissemination efforts.*

57. **Schnurr, P. P.** *Psychotherapy in the treatment of PTSD: The state of the evidence*.

58. **Sloan, D. M.** *Written Exposure Therapy: A brief treatment approach for PTSD*.

59. **Sloan, D. M.**, Foa, E. B., Peterson, A., Fredman, S., **Wachen, J. S.**, & **Schnurr, P. P.** *Expert perspectives on PTSD treatment and research: Panel discussion and questions*.

Gerontological Society of America | Boston, MA | November 2018

60. Bamonti, P., & **Pless Kaiser, A.** A psychoeducational discussion group focused on later-adulthood trauma reengagement in Vietnam veterans with PTSD: What we learned and what comes next. In P. Bamonti (Chair), *Older trauma-exposed male and female Vietnam veterans: Clinical issues and innovations.*

61. **Brady, C. B.**, **Pless Kaiser, A.**, **Davison, E.**, & **Spiro, A.** Combat-Related trauma re-engagement in aging Vietnam-era veterans: Correlates of positive and negative outcomes. In P. Bamonti (Chair), *Older trauma-exposed male and female Vietnam veterans: Clinical issues and innovations.*

62. **Lee, L. O.** Psychological functioning and cardiometabolic risk over four decades: Findings from the VA Normative Aging Study. In **L. O. Lee** (Chair), *Uniting biomarker research in aging and health: Identifying integrative pathways.*

63. **Smith, B. N.**, **Spiro, A.**, & Magruder, K. M. The impact of military stress exposures on health and functioning in Vietnam-era women veterans. In P. Bamonti (Chair), *Older trauma-exposed male and female Vietnam veterans: Clinical issues and innovations.*

64. **Wolf, E. J.**, **Morrison, F. G.**, **Logue, M. W.**, & **Miller, M. W.** Traumatic stress-related accelerated cellular aging. In C. Hill (Chair), *NIA health disparities research network: Approaches and findings from aging biology research.*

International Conference of the System Dynamics Society | Albuquerque, NM | July 2019

65. Branscomb, J., **Zimmerman, L. E.**, **Park, S.**, **Lounsbury, D.**, Rust, T., & Holbrook, A. *An accredited, interactive, virtually-facilitated curriculum for frontline mental health teams*.

66. Holbrook, A., **Zimmerman, L. E.**, **Park, S.**, Rust, T., **Lounsbury, D.**, & Branscomb, J. *Supporting locally calibrated modeling at scale with front-line clinical teams using a transparent data user interface*.

67. **Lounsbury, D.**, **Zimmerman, L. E.**, **Park, S.**, Rust, T., Holbrook, A., & Branscomb, J. *From Scriptapedia to hexagons, engaging stakeholders in model building to develop a healthcare quality improvement program*.

68. Rust, Tom, **Zimmerman, L. E.**, **Park, S.**, **Lounsbury, D.**, Branscomb, Jane, & Holbrook, Andrew *Improving frontline healthcare operations: Adapted use of the Oliva and Sterman service delivery model*.

69. **Zimmerman, L. E.**, **Park, S.**, **Lounsbury, D.**, Branscomb, J., Holbrook, A., & Rust, T. *Effectiveness of modeling as a health system intervention for addiction and mental health service improvement*.

International Society for Traumatic Stress Studies | Washington, DC | November 2018

70. Ackland, P., Meis, L., Orazem, R., Gerould, H., Lyon, A., & **Kehle-Forbes, S.** *When thoughts of dropout arise: Interventions used in Cognitive Processing Therapy and Prolonged Exposure*.

71. **Arditte Hall, K.** *Fear of emotion and posttraumatic stress symptoms among trauma-exposed veterans*.

72. **Banducci, A. N.**, **McCaughey, V.**, **Gradus, J. L.**, & **Street, A. E.** *The relations between traumatic deployment experiences and alcohol use: The impact of PTSD, depression, and social support*.

73. Bosch, J., **Mackintosh, M.**, Wells, S. Y., Wickramasinghe, I., & Morland, L. A. *PTSD treatment response and quality of life in women with childhood abuse histories*.

74. **Bovin, M. J.**, **Lee, D. J.**, **Thompson-Hollands, J.**, **Dutra, S.**, **Kleiman, S.**, **Moshier, S. J.**, **Sloan, D. M.**, & **Marx, B. P.** Understanding the concordance between the CAPS-5 and the PCL-5. In **B. P. Marx** (Chair), *Examining similarities and discrepancies in outcomes assessed by the CAPS-5 and PCL-5*.

75. **Bramande, E.**, Tyrell, F., Finley, E., & **Vogt, D.** *Does post-military stress mediate the relationship between military sexual trauma and well-being?*

76. Brown, L. G., **Bovin, M. J.**, **Brown, M.**, **Sloan, D. M.**, & **Marx, B. P.** *Tonic immobility versus fighting back: Does peritraumatic behavior affect perpetrator aggression during sexual assault?*

77. **Brown, M.**, **Bovin, M. J.**, Brown, L. G., Rosen, R. C., **Keane, T. M.**, & **Marx, B. P.** *The effects of military sexual trauma type on psychosocial functioning: Comparing harassment to assault*.

78. Creech, S. K., **Gnall, K.**, Murphy, C. M., & **Taft, C. T.** *National implementation of a trauma-informed intervention for intimate partner violence in veterans: Two-year outcomes*.

79. Ellickson-Larew, S., Guetta, R. E., **Wilcox, E.**, **Maniates, H.**, **Miller, M. W.**, & **Wolf, E. J.** *Psychometric properties of the M-FAST in a veteran sample with PTSD*.

80. Finley, E., Copeland, L., **Bramande, E.**, **Nillni, Y. I.**, **Vogt, D.**, Perkins, D. E., & Gilman, C. L. *Experiences of stress, trauma, and PTSD among U.S. veterans across the military-to-civilian transition*.

81. Frankfurt, S., DeBeer, B., Morissette, S., **La Bash, H.**, Kimbrel, N. A., & Meyer, E. C. *Should experiencing military sexual trauma be considered a morally injurious act?: Exploring the role of military sexual trauma within a moral injury framework*.

82. **Gauthier, G. M.**, **Moshier, S. J.**, **Zax, A.**, **Marx, B. P.**, & **Keane, T. M.** *Examining the association between wartime atrocity exposure and psychotherapy utilization among OEF/OIF veterans*.

83. **Grillo, A.**, Adjognon, O. A., Maskin, R. M., Dichter, M. E., Gerber, M., **Gutner, C. A.**, Hamilton, A. B., **Wiltsey Stirman, S.**, & **Iverson, K. M.** *Reducing intimate partner violence (IPV) among women: Understanding contextual barriers and facilitators to IPV screening practices in an integrated health care system*.

84. **Grillo, A.**, Danitz, S. B., Maskin, R. M., Dichter, M. E., Driscoll, M., Gerber, M., Hamilton, A. B., **Wiltsey Stirman, S.**, & **Iverson, K. M.** *Strides towards recovery from intimate partner violence: Identifying patient- centered outcomes to optimize a brief counseling intervention for women veterans*.

85. **Johnson, C. M.**, Holmes, S., Suvak, M., Masina, T., Shields, N., Monson, C., & **Wiltsey Stirman, S.** *Changes in PTSD symptoms correspond to changes in suicidal ideation in a combined military and civilian sample engaged in Cognitive Processing Therapy*.

86. Keegan, F., Barrera, T. L., Lindsay, J. A., Day, S. C., Nessim, M., & **Cloitre, M.** *Satisfaction and feasibility of integrated web and video-to-home treatment delivery*.

87. **Kehle-Forbes, S.**, Ackland, P., Chard, K., Foa, E., Gerould, H., Lyon, A., Meis, L., Orazem, R., Polusny, M., **Schnurr, P. P.**, **Spoont, M.**, & Zickmund, S. *Why do some dropout while others complete? Describing the diverging experiences of veterans receiving trauma-focused therapy*.

88. **Knight, J. A.**, **Berlingeri, A.**, & Fox, A. *The extreme number of unique symptom patterns resulting from combinations of the DSM PTSD diagnostic criteria: Theoretical and practical considerations*.

89. **La Bash, H.**, **Johnson, C. M.**, Marques, L., Creed, T., **Gutner, C. A.**, DeRubeis, R., **Kuhn, E. R.**, **Mallard, K. N.**, Affrunti, N., **Canale, C.**, Youn, S. J., & **Wiltsey Stirman, S.** *An innovative fidelity scoring mechanism: Development of a method to score CBT fidelity based on worksheets*.

90. **Lee, D. J.**, **Lee, L. O.**, **Bovin, M. J.**, **Moshier, S. J.**, **Dutra, S.**, **Kleiman, S.**, Rosen, R. C., **Keane, T. M.**, & **Marx, B. P.** Longitudinal posttraumatic stress disorder symptom trajectories among Operation Enduring Freedom and Operation Iraqi Freedom veterans. In **D. J. Lee** (Chair), *Longitudinal course of mental health symptoms among post-9/11 military personnel and veterans*.

91. **Lee, L. O.** *Predicting long-term PTSD symptom trajectories in Iraq-deployed soldiers: A prospective study*.

92. Luehrs, R., **Grillo, A.**, Danitz, S., Suvak, M., & **Iverson, K. M.** *Hope and self-efficacy as predictors of PTSD symptoms in a sample of women veterans*.

93. **Mackintosh, M.**, Glassman, L. H., Willis, E. A., **Greenbaum, M. A.**, **Chang, A.**, & Morland, L. A. *Sustaining increases in quality of life following Cognitive Processing Therapy: The importance of attending to anger and sleep concerns*.

94. **Mackintosh, M.**, Morland, L. A., Willis, M. A., Sohn, M. J., **McCaslin, S. E.**, & **Pietrzak, R. H.** *Predicting chronic suicidal ideation among veterans: Longitudinal effects of social support, sleep and anger problems*.

95. **Mackintosh, M.**, Schaper, K. M., Willis, E. A., Edland, S., Liu, C., & White, L. R. *What are the life-long effects of WW II military service on late-life social functioning?*

96. **Mahoney, C. T.**, & Lynch, S. M. *Coping self-efficacy mediates the relationship between lifetime sexual trauma exposure and substance use*.

97. **Maieritsch, K. P.**, **Kehle-Forbes, S.**, Resick, P., & **Wachen, J. S.** *Dismantling the dilemma of treatment dropout*.

98. **McCaughey, V.**, Shin, M. H., Gormley, K. E., & **Street, A. E.** *Patient-Provider communication about military sexual trauma: Understanding veterans' satisfaction and preferences*.

99. **McCaughey, V.**, **Street, A. E.**, & **Mitchell, K. S.** *Examining associations between military sexual trauma and non-military physical/sexual assault and eating disorder symptoms in male and female veterans*.

100. **Meffert, B.**, Santiago, R., **Regala, S. L.**, **Sawicki, D. A.**, Hausman, C., & **Heinz, A. J.** *Does performance on neuropsychological assessments predict self-reported functioning? An investigation among veterans with alcohol use disorder and PTSD*.

101. **Mitchell, K. S.**, Huston, J., & **Iverson, K. M.** Intimate partner violence and eating disorder symptoms in female veterans: The mediating role of PTSD and depression. In S. Holmes (Chair), *Trauma, PTSD, and eating disorders: An examination of comorbidities, mechanisms of association, and an integrated treatment approach.*

102. **Morabito, D. M.**, **Ortigo, K. M.**, **Mackintosh, M.**, & **Cloitre, M.** *Unique associations between PTSD, reduced self-compassion, and co-morbid OCD symptoms among women with a history of interpersonal violence*.

103. Morland, L. A., Grubbs, K., **Macdonald, A.**, Monson, C., Buzzella, B., Wrape, E., Wickramasinghe, I., Wells, S. Y., & **Mackintosh, M.** *Abbreviated cognitive behavioral couples therapy into the home: A scalable model for couples with PTSD*.

104. **Niles, B. L.**, Weinstein, E. S., Mori, D. L., & **Pless Kaiser, A.** *Complementary and integrative interventions for PTSD: What is the evidence base and how can we improve it?*

105. **Pless Kaiser, A.**, O'Malley, K., & Bamonti, P. Later-Adulthood trauma reengagement in Vietnam veterans with PTSD: Impact of a psychoeducational discussion group. In **B. Smith** (Chair), *Trauma and aging: Examining and integrating new findings on health outcomes, mental health utilization, and treatment in older adults.*

106. **Prins, A.**, Davis, A., **Bovin, M. J.**, **Kimerling, R.**, **Schnurr, P. P.**, & **Tiet, Q. Q.** *Examining spectrum effects on the operating characteristics of the PC-PTSD-5*.

107. **Rosen, C. S.** Discussant. In **C. S. Rosen** (Chair), *What if we don't talk about trauma.*

108. **Sanders, W.**, **Smith, B. N.**, **Fox, A. B.**, & **Vogt, D.** *Long-Term effects of family stressors and combat threat on mental health of post-9/11 veterans*.

109. **Sawdy, M.**, **Sanders, W.**, Beagley, M. C., Peterson, Z. E., & **Galovski, T. E.** *Exposure to community violence during Ferguson protests: The relationship between family stress and perceived family threat on police officers' mental health*.

110. **Schnurr, P. P.** Discussant. In A. MacDonald (Chair), *The flexible delivery of Cognitive Behavioral Couple Therapy for posttraumatic stress disorder to overcome barriers to care.*

111. **Schnurr, P. P.** Discussant. In **B. Marx** (Chair), *Examining similarities and discrepancies in outcomes assessed by the CAPS-5 and PCL-5.*

112. **Schnurr, P. P.** Discussant. In **C. Rosen** (Chair), *What If we don't talk about trauma? Evidence-Based alternatives to trauma-focused psychotherapy.*

113. **Schnurr, P. P.**, **Galovski, T. E.**, **Holtzheimer, P. E.**, & Olff, M. Panel discussion. In **L. Sippel** (Chair), *Defining treatment-resistant PTSD: Research and treatment opportunities.*

114. **Shipherd, J. C.** Understanding the experience of trauma and minority stress in lesbian, gay, bisexual, and transgender populations: Implications for conceptualization, practice, and policy. In J. A. Scholl (Chair), *Understanding the experience of trauma and minority stress in lesbian, gay, bisexual, and transgender populations: Implications for conceptualization, practice, and policy.*

115. **Sippel, L. M.**, **Galovski, T. E.**, **Holtzheimer, P. E.**, **Schnurr, P. P.**, & Olff, M. *Defining treatment-resistant PTSD: Research and treatment opportunities*.

116. **Sippel, L. M.**, Watkins, L. E., **Pietrzak, R. H.**, **Hoff, R.**, & **Harpaz-Rotem, I.** Heterogeneity of posttraumatic stress symptomatology and social connectedness in treatment-seeking military veterans: A longitudinal examination. In **L. M. Sippel** and L. E. Watkins (Chair), *Implications of interpersonal relationships for functioning and treatment among military veterans with PTSD.*

117. Smidt, K., **Niles, B. L.**, Weinstein, E. S., & **Fisher, L. M.** *Examining efforts to reduce trauma-focused evidence-based psychotherapy (TF-EBP) dropout rates: Comparison across two rounds of program evaluation data*.

118. **Smith, B. N.**, **Spiro, A.**, & Magruder, K. M. The impact of stress exposures and mental health sequelae on health, functioning, and disability in Vietnam-era women veterans. In **B. N. Smith** (Chair), *Trauma and aging: Examining and integrating new findings on health outcomes, mental health utilization, and treatment in older adults.*

119. **Spoont, M.**, MacDermid-Wadsworth, S., Meis, L., Topp, D., & Polusny, G. *Who in U.S. veterans' social networks encourage or discourage them to pursue mental health treatment for PTSD?*

120. Straus, E., **Norman, S. B.**, **Haller, M.**, **Hamblen, J. L.**, **Southwick, S. M.**, & **Pietrzak, R. H.** Protective factors associated with posttraumatic stress disorder, alcohol use disorder, and their comorbidity in U.S. veterans results from the National Health and Resilience in Veterans Study. In L. Luciano (Chair), *Self-Medication and beyond: Towards a more complete understanding of trauma and alcohol misuse in under-represented, community, and national samples.*

121. **Thompson-Hollands, J.**, Burmeister, L. B., **Rosen, C. S.**, O'Dougherty, M., & Meis, L. A. Exploring the knowledge, attitudes, and experience of significant others during veterans' evidence-based treatment for PTSD. In L. Watkins and **L. Sippel** (Chair), *Implications of interpersonal relationships for functioning and treatment among military veterans with PTSD.*

122. **Thompson-Hollands, J.**, **Lee, D. J.**, **Marx, B. P.**, **Bovin, M. J.**, **Kleiman, S.**, **Moshier, S. J.**, **Dutra, S.**, & **Sloan, D. M.** Longitudinal change and predictive ability of the CAPS-5 and PCL-5. In **B. P. Marx** (Chair), *Examining similarities and discrepancies in outcomes assessed by the CAPS-5 and PCL-5.*

123. **Vogt, D.**, Tyrell, F., & **Bramande, E.** *Vocational and social challenges experienced by trauma-exposed military veterans after separation from military service.*

124. **Wachen, J. S.**, Hale, W., Blankenship, A., Dondanville, K., Mintz, J., Litz, B., Young-McCaughan, S., Yarvis, J., Peterson, A., & Resick, P. *The effect of post-concussive symptoms on outcomes in Cognitive Processing Therapy for active duty military personnel.*

125. Willis, E. A., **Greenbaum, M. A.**, Jaworski, B. K., **Pietrzak, R. H.**, **Owen, J. E.**, **Mackintosh, M.**, & **Kuhn, E. R.** *Predictors of interest in mental mobile health applications among U.S. veterans: Results from the National Health and Resilience in Veterans Study.*

126. Wilks, C., Morland, L. A., Dillon, K., **Mackintosh, M.**, Blakey, S. M., Wagner, H. R., VA Mid-Atlantic MIRECC Workgroup, & Elbogen, E. *Anger, social support, and suicide risk in U.S. military veterans.*

127. **Woodward, S. H.**, Lawlor, C., **Jamison, A. L.**, **Gala, S. M.**, **Villasenor, D. L.**, & **Arsenault, N. J.** *Does canine companionship improve sleep in severe deployment-related PTSD.*

128. **Zax, A.**, **Lee, D. J.**, **Gauthier, G. M.**, **Marx, B. P.**, & **Keane, T. M.** *Associations between childhood abuse and suicide attempts among OIF/OEF veterans: Differences between male and female veterans.*

Science of Dissemination and Implementation in Health | Washington, DC | December 2018

129. Baumann, A., Hooley, C., Kryzer, E., Malone, S., Morshed, A., **Gutner, C. A.**, & Purtle, J. *Dissemination outcomes and strategies: A review of frameworks and empirical studies.*

130. Dollar, K., Kirchner, J. E., **McGee-Vincent, P.**, Burden, J., DePhilippis, D., & Resnick, S. G. Implementation of measurement-based care: Creation of an implementation planning guide. In M. Engelgau (Chair), *Innovations in implementation science to enhance sustainability and quality improvement.*

131. **Iverson, K. M.**, Adjognon, O., **Grillo, A.**, Dichter, M., Gerber, H. R., **Gutner, C. A.**, & **Wiltsey Stirman, S.** *Getting intimate partner violence screening implementation right: Identifying best clinical practices, implementation strategies and contextual factors for success.*

132. **Rosen, C. S.**, **Davis, C.**, **McLean, C. P.**, Peterson, A., Young-McCaughan, S., Haddock, K., **Neitzer, A.**, **Wiltsey Stirman, S.**, **Mallard, K. N.**, **Mackintosh, M.**, **McGee-Vincent, P.**, Riggs, D., **Cook, J.**, Mistretta, M., Brim, W., French, L., Phillips, J., Frick, E., Mann, J., & Mir, R. *Crosswalking implementation theory and practice: Applying practical knowledge, CFIR and ERIC frameworks to implementing evidence-based psychotherapy in the U.S.*

133. **Zimmerman, L. E.**, **Lounsbury, D.**, **Rosen, C. S.**, **Kimerling, R.**, Hong, A., Branscomb, J., Kibbe, D., **Park, S.**, Kramer, R., Barlow, D. C., **Mushiana, S.**, **Azevedo, K. J.**, **Yang, J.**, Trafton, J., Lindley, S., & Rust, T. Participatory system dynamics for high quality VA addiction and mental health care. In **L. Zimmerman** (Chair), *Participatory modeling approaches to implementation science.*

Society for Biological Psychiatry | Chicago, IL | May 2019

134. **Harpaz-Rotem, I.** *Augmented psychotherapy with ketamine (KPE) – first results, network neural connectivity.*

135. **Harpaz-Rotem, I.** *Combined adjusted Prolonged Exposure therapy and ketamine infusion as potential treatment for PTSD.*

136. **Harpaz-Rotem, I.** *Computational models and transdiagnostic approach in fear learning and updating following exposure to trauma.*

137. **Kaye, A.** *F39: Stress speeds arousal fluctuations in mPFC after neurons and pupillary diameter.*

138. **Kaye, A.** *PTSD as a threat mood: Insights from a reinforcement.*

139. **Logue, M. W.**, **Wolf, E. J.**, **Morrison, F. G.**, Zhou, Z., Smith, A. K., Daskalakis, N., Stone, A., Schichman, S. A., McGlinchey, R. E., Milberg, W. P., Traumatic Stress Brain Study Group, **Huber, B.**, & **Miller, M. W.** An epigenome-wide association study of PTSD in veterans implicates several new DNA methylation loci. In **M. W. Logue** (Chair), *Epigenome-Wide association studies reveal new methylation loci related to posttraumatic stress disorder.*

140. Polimanti, R., Ratanatharathorn, A., Maihofer, A., Choi, K., Stein, M., Morey, R., **Logue, M. W.**, Nievergelt, C., Stein, D., Koenen, K., & **Gelernter, J.** *Genetic overlap and causality between cognitive ability and posttraumatic stress disorder.*

141. **Sullivan, D. R.**, **Morrison, F. G.**, **Wolf, E. J.**, **Logue, M. W.**, Fortier, C. B., **Salat, D.**, Fonda, J. R., Stone, A., Schichman, S., Milberg, W., McGlinchey, R., & **Miller, M. W.** *The PPM1F gene moderates the association between PTSD and cortical thickness*.

142. **Wolf, E. J.**, **Morrison, F. G.**, **Sullivan, D. R.**, **Logue, M. W.**, Guetta, R. E., Stone, A., Schichman, S. A., McGlinchey, R. E., Milberg, W. P., Study Group, B., **Huber, B.**, & **Miller, M. W.** *Klotho, PTSD, and advanced cellular age: Spinning the thread of life*.

Society for General Internal Medicine | Washington, DC | May 2019

143. **Bogdan, K.**, Gerber, M., & **Scioli, E. R.** *A preliminary qualitative analysis of fibromyalgia care in VA through narratives of women veterans*.

144. Danan, E., **Spoont, M.**, Brunner, J., & Yano, E. M. *The relationship between sexual assault history and gynecologic exam distress and delay among women veterans in the VA*.

145. Gerber, M. R., Danitz, S. B., & **Iverson, K. M.** *A novel patient-centered approach to intimate partner violence in primary care: Recovering from IPV through strengths and empowerment (RISE)*.

146. Simon, S., **Livingston, N.**, **Sawdy, M.**, Yeksigian, C., Bickmore, T., Zhou, S., Saitz, R., & Kressin, N. *Randomized controlled trial of a relational agent to reduce risky alcohol use*.

Society for Implementation Research Conference | Seattle, WA | September 2019

147. **La Bash, H.**, **Johnson, C. M.**, Song, J., Shields, N., Masina, T., **Swanson, K. N.**, **Beristianos, M.**, Finley, E., Ramirez, V., Lane, J., **Mackintosh, M.**, Suvak, M., Monson, C., & **Wiltsey Stirman, S.** A comparison of consultant effects, activities, and perceptions on therapist fidelity and patient treatment outcomes. In A. Baumann (Chair), *Where the rubber meets the road in clinical mental health settings.*

148. **Lounsbury, D.**, Kibbe, Debra, Rollins, James, & **Zimmerman, L. E.** *From blank page to local optimization: Participatory systems modeling to improve*. Breakout Session.

149. Riggs, D., Dondanville, K., Borah, E., & **Rosen, C. S.** *A tailored implementation approach to improving PTSD care in military treatment facilities: Integrating practice-based knowledge and implementation science*.

150. Song, J., Garcia, H., Finley, E., & **Wiltsey Stirman, S.** *Graduate school training in structured cognitive behavioral therapy protocols predicts greater evidence based psychotherapy reach*.

151. **Zimmerman, L. E.**, **Lounsbury, D.**, Rust, T., **Rosen, C. S.**, **Kimerling, R.**, Trafton, J., Lindley, S., Holbrook, A., **Park, S.**, Branscomb, J., Kibbe, D., Rollins, J., & Hong, S. *Modeling to learn: Conserving staff time when comparing implementation alternatives via simulation*.

Other

152. **Abdallah, C.** (2019, May). *Trauma & stress: From synapses to complex behavioral disturbances*. Dartmouth Psychiatry Department Grand Rounds, Lebanon, NH.

153. **Averill, C. L.**, **Averill, L.**, & **Abdallah, C.** (2019, May). *Suicide prediction in major depressive disorder using connectome based modeling*. Yale Clinical Neuroimaging Symposium, New Haven, CT.

154. Barnes, S. M., Borges, L. M., Smith, G., & **Walser, R. D.** (2019, June). *Empowering patients to thrive despite their desire for death: A workshop on ACT for suicide prevention*. Workshop presented at the 17th annual meeting of the Association for Contextual Behavioral Science (ACBS), Dublin, Ireland.

155. **Bernardy, N. C.**, & Altemus, M. (2019, April). *Women's mental health and benzodiazepine use* [Webinar]. Presented for the VA Psychotropic Drug Safety Initiative Phase4.

156. Blosnich, J. R., Ketterer, B., Dichter, M., Gordon, A. J., Kauth, M. R., **Shipherd, J. C.**, & Montgomery, A. E. (2018, November). *Housing instability and VA housing services among transgender U.S. veterans in care*. Paper presentation at the 146th Annual Meeting & Exposition of the American Public Health Association, San Diego, CA.

157. **Bogdan, K.**, Monach, P., Gerber, M., & **Scioli, E. R.** (2019, April). *Development of a semi-structured interview to understand VA treatment barriers for clinicians treating women veterans with fibromyalgia: A qualitative pilot study*. American Pain Society, Milwaukee, WI.

158. Borges, L. M., **Walser, R. D.**, Nieuwsma, J., Luoma, J., & Barnes, S. M. (2019, June). *Perspectives on a process-based approach to moral injury: Targeting the pathways maintaining suffering*. Panel conducted at the 17th Association for Contextual Behavioral Science World Conference, Dublin, Ireland.

159. **Esterlis, I.** (2019, May). *Neurology and psychiatry: Meeting age of the brain*. American Association for the Advancement of Science, Washington, DC.

160. Farmer, C., Hepner, K., Brooks Holliday, S., Bharil, S., **Kimerling, R.**, **McGee-Vincent, P.**, **McCaslin-Rodrigo, S. E.**, & **Rosen, C. S.** (2019, June). *Measurement-Based care for behavioral health in the Veterans Health Administration*. Academy Health Annual Research Meeting, Washington, DC.

161. Freedman, D., Bess, K., Foster-Fishman, P., **Lounsbury, D.**, & **Zimmerman, L. E.** (2019, June). *Developing training to advance community systems science for health equity*. Roundtable at the 2019 Biennial Meeting of the Society for Community Research and Action (APA Div. 27), Chicago, IL.

162. **Galovski, T. E.** (2018, November). *Psychological impact of military service on women veterans*. Presented at the quarterly meeting for the Advisory Committee on Women Veterans, Jackson, MS.

163. **Galovski, T. E.** (2018, November). *Women veterans network: WoVeN*. Presented at the Pentagon for the DoD Women's Mental Health Work Group, Washington, DC.

164. **Galovski, T. E.** (2018, October). *Memory: Its public, private, and political meanings*. Presented at the Boston University Student-Faculty Forum, Boston, MA.

165. **Galovski, T. E.** (2019, June). *Non-Clinical approaches for supporting veteran well-being*. Center for a New American Security, Washington, DC.

166. **Gelernter, J.** (2019, May). *Results from the USVA MVP PTSD Cooperative Study*. PCG-PTSD Working Group Meeting, Chicago, IL.

167. **Girgenti, M.** (2019, March). *Sex-Specific molecular neuropathologies in human PTSD*. Weill-Cornell School of Medicine, New York, NY.

168. Gomez, M. A., **Meffert, B.**, Lucas, E. L., Mosich, M., **Sawicki, D. A.**, **Cloitre, M.**, & **Heinz, A. J.** (2019, February). *A dimensional perspective of adverse childhood experiences: Childhood exposure to threat and deprivation and adult neurocognitive characteristics among U.S. military veterans*. Poster presentation at the International Society of Neuropsychology Annual Meeting, New York, NY.

169. Gulliver, S. B., Dobani, F., Meyer, E. C., Pennington, M. L., **Knight, J. A.**, & **Keane, T. M.** (2019, June). *Alcohol use in female firefighters over the first three years of service*. Presentation at the 42nd Annual Scientific Meeting of the Research Society on Alcoholism, Minneapolis, MN.

170. **Harpaz-Rotem, I.** (2019, January). *Decision making and fear learning in PTSD*. Columbia University Department of Psychiatry and NYS Psychiatric Institute, New York, NY.

171. **Harpaz-Rotem, I.** (2019, March). *PTSD treatment outcomes and preventing suicide - implementation of evidence based therapy*. VA Residential Rehabilitation Treatment Program Director Meeting VA Central Office, Orlando, FL.

172. Hassanbeigi Daryani, S., Herbst, E., Hopkins, L., **McCaslin, S. E.**, Laird, K., Pennington, D., & **Kuhn, E. R.** (2018, November). *A qualitative examination of a mobile application for veteran smokers with posttraumatic stress disorder*. Poster presentation at the Association for Medical Education Substance Abuse, San Francisco, CA.

173. **Kaye, A.** (2018, December). *Cortical arousal and pupillary fluctuations in a mouse model of acute stress*. American College of Neuropsychopharmacology, Hollywood, FL.

174. **Kaye, A.** (2019, August). *Prefrontal noradrenergic and cholinergic dynamics define global arousal after stress*. Gordon Research Conferences (GRC) Catecholamines (2019), Newry, ME.

175. **Kehle-Forbes, S.**, & **Healy, E.** (2019, June). *Using veterans' voices to improve engagement in Cognitive Processing Therapy* [Webinar]. Presented for the Evidence-Based Practice Institute.

176. **Knight, J. A.**, **Berlingeri, A.**, & Fox, A. (2019, August). *636,120 DSM-5 symptom combinations yield diagnostic variability: Sampling issues for PTSD*. Paper presented at the 127th annual meeting of the American Psychological Association, Washington, DC.

177. **Krystal, J. H.** (2019, July). *Repurposing abused drugs for treatment of psychiatric disorders*. Ketamine and the pursuit of rapid acting antidepressants, Wayne State University, Symposium, Detroit, MI.

178. **Krystal, J. H.** (2019, September). *Rapid-Acting antidepressants: New treatments, new hope, and new insights into the brain*. ONE MIND Symposium, Rutherford, CA.

179. **Lee, D. J.** (2019, May). *Retrospective review of respiratory function in the amyotrophic lateral sclerosis veteran population with and without Edaravone therapy*. American Academy of Neurology, Philadelphia, PA.

180. **Lee, L. O.** (2019, March). Optimism, stress, and affective dynamics: Prospective findings from the VA Normative Aging Study. In **L.O. Lee** & C Trudel-Fitzgerald (Chair), *Emotion regulation and variability in relation to daily stressors and health.* Symposium at the 77th annual scientific meeting of the American Psychosomatic Society, Vancouver, Canada.

181. **Levy, I.** (2018, October). *Uncertainty in brain and behavior: Implications for aging and psychopathology*. Neuroeconomics seminar, University of Zurich, Zurich, Switzerland.

182. **Livingston, N.** (2019, May). *Leveraging "relational agent" technology to improve drinking outcomes and treatment referrals among veteran primary care patients*. Presentation at the annual U.S. Department of Veteran Affairs' National Interprofessional Advanced Fellowship in Addiction Treatment research conference series, Boston, MA.

183. **Livingston, N.**, Ameral, V., Enggasser, J., Brief, D., Rubin, A., **Helmuth, E.**, Litwack, S., Roy, M., Solhan, M., & **Keane, T. M.** (2019, April). *Reach and effectiveness of an online alcohol use intervention among veterans with vs without concurrent in-person treatment*. Poster presentation at the 2019 American Psychological Association Division 50 Collaborative Perspectives on Addiction Research Conference, Providence, RI.

184. **Livingston, N.**, **Sawdy, M.**, Yeksigian, K., Bickmore, T., Zhou, S., Simon, S., Saitz, R., Kressin, N., & Rubin, A. (2019, April). *A computerized "relational agent" to reduce alcohol use and increase referrals to treatment within primary care*. Poster presentation at the 2019 American Psychological Association Division 50 Collaborative Perspectives on Addiction Research Conference, Providence, RI.

185. **Logue, M. W.**, **Morrison, F. G.**, **Wolf, E. J.**, Study Group B, **Huber, B.**, & **Miller, M. W.** (2018, October). *An epigenome-wide investigation of DNA methylation and PTSD in brain tissue from the prefrontal cortex*. Poster presented at the annual meeting of the World Congress in Psychiatric Genetics, Glasgow, Scotland.

186. **Mahoney, C. T.**, **Bovin, M. J.**, Rosen, R. C., **Keane, T. M.**, & **Marx, B. P.** (2019, August). *Association between trauma-related externalizing behaviors and criminal activity in OEF/OIF/OND veterans*. Poster presented at the 11th Annual Meeting of the Military Health System Research Symposium, Orlando, FL.

187. **Miller, K. E.**, Bäbler, L., Maillart, T., Faerman, A., & **Woodward, S. H.** (2019, June). *Sleep/Wake detection by behavioral response to haptic stimuli*. Presentation to the Association of Professional Sleep Societies, San Antonio, TX.

188. **Mitchell, K. S.** (2019, March). *Posttraumatic stress disorder and eating disorders: The potential mediating roles of food addiction symptoms and eating for coping*. Poster presented at the meeting of the Academy for Eating Disorders International Conference, New York, NY.

189. **Mitchell, K. S.**, & **Iverson, K. M.** (2019, September). *Diagnostic utility of bulimia nervosa and binge eating disorder symptoms in men and women*. Poster presented at the meeting of the Eating Disorder Research Society, Chicago, IL.

190. **Morrison, F. G.**, **Maniates, H.**, **Logue, M. W.**, Stone, A., Schichman, S. A., McGlinchey, R. E., Milberg, W. P., **Miller, M. W.**, & **Wolf, E. J.** (2018, December). *Longitudinal investigation of advanced epigenetic age and change in peripheral biomarkers of inflammation and metabolic syndrome*. Poster presented at the annual meeting of the American College for Neuropsychopharmacology, Hollywood, FL.

191. Naeser, M. A., Martin, P. I., Ho, M. D., Krengel, M. H., **Knight, J. A.**, Fedoruk, A., & Hamblin, M. R. (2018, October). *At-Home, LED treatment results after scalp application of near-infrared light in a retired, professional football player for possible CTE: Improvements in emotional outbursts, PTSD, depression and cognition*. Presentation at the 3rd annual conference on Chronic Traumatic Encephalopathy, Boston University School of Medicine, Boston, MA.

192. Naeser, M., Martin, P., Ho, M., Krengel, M., **Knight, J. A.**, Fedoruk, A., & Hamblin, M. (2019, March). *Transcranial, near-infrared photobiomodulation to improve cognition in two, retired professional football players with clinical signs of CTE*. Presentation at the biannual meeting of the International Brain Injury Association, Toronto, CA.

193. **Nillni, Y. I.** (2019, July). *Posttraumatic stress disorder and women's reproductive health: Identifying mechanisms and improving healthcare outcomes*. Presented for the Department of Epidemiology, Boston University School of Medicine, Boston, MA.

194. **Pless Kaiser, A.** (2018, November). *Trauma, PTSD, and aging: Diagnosis, assessment, and treatment among older adults and veterans*. Guest lecture presented for Lifespan Psychopathology, Department of Clinical Psychology Doctoral Program, UMass Boston, Boston, MA.

195. Richards, A., **Woodward, S. H.**, Ruoff, L., Huie1, R., & Neylan, T. C. (2019, June). *Characteristics of nap sleep in trauma-exposed men and women with and without PTSD: Contributions of biological sex and PTSD to REM sleep in a lab-based experimental study*. Presented to the Association of Profession Sleep Societies, San Antonio, TX.

196. Rossi, N., Hopkins, L. B., Hassanbeigi-Daryani, S., Dixit, D., **McCaslin, S. E.**, Manuel, J., & Herbst, E. (2019, February). *A qualitative examination of a telephone and technology facilitated treatment for young adult veterans with posttraumatic stress disorder*. Poster presentation at the Society of Research on Nicotine and Tobacco Conference, San Francisco, CA.

197. **Sanacora, G.** (2018, November). *GABA/glutamate in brain health: It's more than a balancing act, presentation; excitatory/inhibitory balance and glia in psychiatric conditions*. James S. McDonnell Foundation Meeting, Tarrytown, NY.

198. **Sanacora, G.** (2018, October). *Development of rapid acting pharmacological treatments for suicidal ideation and behavior*. CT Suicide Advisory Board, special presentation, Middletown, CT.

199. **Sanacora, G.** (2018, October). *Ketamine and other putative rapid-acting antidepressant medications: What have they taught us about neurobiology*. Psychiatric Congress, Orlando, FL.

200. **Schnurr, P. P.** (2018, November). *Psychotherapy in the treatment of PTSD: The state of the evidence*. Invited lecture, Perspectives on Trauma Lecture Series, McLean Hospital, Belmont, MA.

201. **Schnurr, P. P.** (2019, July). *Psychotherapy in the treatment of PTSD: The state of the evidence*. Keynote address at the World Congress of Behavioral and Cognitive Therapy, Berlin, Germany.

202. **Scioli, E. R.** (2019, January). *Neurobiological mediators of self-regulatory and reward based motivational predictors of exercise maintenance in chronic pain & PTSD*. Science of Behavior Change, Bethesda, MD.

203. **Scioli, E. R.**, **Bogdan, K.**, Ayvazian, L., Bair, M., Hauger, R. L., Pinna, G., & **Rasmusson, A. M.** (2019, April). *Neuropeptide Y and ALLO: Potential neurobiological mediators of exercise benefits for pain sensitivity in chronic pain and PTSD: Preliminary CDA2 findings*. American Pain Society, Milwaukee, WI.

204. **Shipherd, J. C.**, Kauth, M. R., & Brown, G. (2018, November). *Nationwide transgender veteran e-consultation*. Presentation at the annual convention of the World Professional Association for Transgender Health Annual Meeting, Buenos Aires, Argentina.

205. **Sloan, D. M.** (2019, August). *Written Exposure Therapy: A brief treatment approach for PTSD*. Northwestern University Feinberg School of Medicine, Chicago, IL.

206. **Smith, B. N.**, Taverna, E. C., Tyzik, A. L., **Fox, A. B.**, & **Vogt, D.** (2019, March). *Risk mechanisms linking stress exposures and physical health outcomes in male and female post-9/11 veterans: Examining the role of PTSD and depression symptom severity*. Poster presented at the annual meeting of the American Psychosomatic Society, Vancouver, BC.

207. Song, J., **Johnson, C. M.**, Shields, N., Masina, T., Monson, C. M., & **Wiltsey Stirman, S.** (2019, March). *Medical conditions do not impede the effectiveness of Cognitive Processing Therapy*. Poster session presented at the meeting of the TBI Research Forum, Palo Alto, CA.

208. Steadman-Wood, P., McCurry, S., **Walser, R. D.**, Wetherall, J., & Ferenback, C. (2019, June). *Values and aging: The role of CBS in facing the challenges of aging*. Panel conducted at Association for Contextual Behavioral Science World Conference 17, Dublin, Ireland.

209. **Street, A. E.** (2019, August). *PTSD and the social construction of gender*. Invited plenary speaker at VHA's National Women's Mental Health Mini-Residency, Dallas, TX.

210. **Street, A. E.** (2019, February). *Complex trauma and associated symptom presentations*. Invited webinar for Trauma Perspectives Brown Bag Lecture Series, Northern Illinois University, Dekalb, IL.

211. **Street, A. E.** (2019, March). *Understanding the impact of sexual assault during military service*. Invited address for "Update on PTSD: Epigenetics military sexual assault and moral injury" at the royal Ottawa Mental Health Centre, Ottawa, Canada.

212. **Street, A. E.** (2019, May). *Talking about MST: Patient preferences for MST-related communication*. Invited address for McLean Hospital's Perspectives on Trauma Series, Belmont, MA.

213. **Sullivan, D. R.** (2019, March). *Blast injury in OEF/OIF/OND veterans: Neural changes, associated behavioral sequelae and genetic moderators*. Presented for the Southern New Hampshire University students and faculty, Hooksett, NH.

214. **Sullivan, D. R.** (2019, September). *Neural and behavioral correlates of trauma exposure and PTSD*. Presented for Center for Depression, Anxiety and Stress Research's 2019-2020 Speaker Series, McLean Hospital/Harvard Medical School, Belmont, MA.

215. **Whitworth, J.** (2018, December). *Resistance exercise for posttraumatic stress disorder (REPS)* [Webinar]. SBM Behavior Change Grand Rounds: Current Approaches to Physical Activity Promotion.

216. **Whitworth, J.**, Nosrat, S., SantaBarbara, N. J., & Ciccolo, J. T. (2019, March). *Resistance exercise for posttraumatic stress disorder (REPS): A randomized controlled study*. Presentation at the 40th Annual Meeting of the Society of Behavioral Medicine, Washington, DC.

217. **Wiltsey Stirman, S.**, Song, J., **Lagdamen, J. M.**, Pace, B., Hull, D., & Resick, P. (2019, May). Adaptation of Cognitive Processing Therapy for message-based psychotherapy: CPT and TAU comparison. In **S. Wiltsey Stirman** (Chair), *Messaging in a bottle: How messaging therapy extends research for treating PTSD.* Symposium conducted at the meeting of the American Psychiatric Association, San Francisco, CA.

218. **Woodward, S. H.**, **Khan, C. T.**, **Jamison, A. L.**, **Gala, S. M.**, & **Arsenault, N. J.** (2019, June). *Suicidality is associated with elevated sleep heart rate, BMI, and snoring in veterans with chronic severe PTSD*. Presentation at the Associated Professional Sleep Societies, San Antonio, TX.

219. **Zimmerman, L. E.** (2018, December). *Systems science methods to advance implementation science*. Presented for the National Institutes of Health, Bethesda, MD.

220. **Zimmerman, L. E.** (2019, May). *Putting it together: Combining measurement based stepped care for suicide prevention* [Webinar]. HSRD Cyberseminar Series. Retrieved from https://www.hsrd.research.va.gov/for_researchers/cyber_seminars/archives/video_archive.cfm?SessionID=3624.

221. **Zimmerman, L. E.**, & Rust, T. (2019, May). *Comparing measurement based care and stepped care for suicide prevention* [Webinar]. HSRD Cyberseminar Series. Retrieved from https://www.hsrd.research.va.gov/for_researchers/cyber_seminars/archives/video_archive.cfm?SessionID=3623.

222. **Zimmerman, L. E.**, & Rust, T. (2019, May). *Introducing measurement based stepped care for suicide prevention* [Webinar]. HSRD Cyberseminar Series. Retrieved from https://www.hsrd.research.va.gov/for_researchers/cyber_seminars/archives/video_archive.cfm?SessionID=3622.

223. **Zimmerman, L. E.**, & Rust, T. (2019, May). *Test. Don't guess: Modeling to learn helps teams find local improvements to meet veterans' needs* [Webinar]. HSRD Cyberseminar Series. Retrieved from https://www.hsrd.research.va.gov/for_researchers/cyber_seminars/archives/video_archive.cfm?SessionID=3621.

APPENDIX G

Fiscal Year 2019 Education Presentations

Association for Contextual Behavioral Science World Conference | Dublin, Ireland | June 2019

1. Follette, W. C., Wilson, K. G., Barnes-Holmes, Y., & **Walser, R. D.** *Dissemination of RFT and the clinical contextual behavioral sciences: Forgotten issues and overlooked problems*.
2. Torneke, N., & **Walser, R. D.** (2019, June). *How to do an RFT- enlightened functional analysis of clinical work*.
3. Villatte, M., & **Walser, R. D.** (2019, June). *Doing experiential and process-based therapy*.
4. **Walser, R. D.**, & O'Connell, M. (2019, June). *The heart of the therapeutic stance*.
5. **Walser, R. D.**, & Westrup, D. (2019, June). *Rapid role play: Flexibly integrating the ACT core processes in therapy*.

International Society of Traumatic Stress Studies | Washington, DC | November 2018

6. **Bernardy, N. C.**, **Montano, M. A.**, **Merrick, C.**, & **Hamblen, J. L.** *Primary care: The best posttraumatic stress disorder care anywhere starts with you*.
7. **Carlson, E. B.** *Everything you always wanted to know about psychometrics but were afraid to ask*.
8. Evans, W., Held, P., **Wachen, J. S.**, Chard, K., & Rauch, S. *Using Prolonged Exposure and Cognitive Processing Therapy to treat moral injury-based PTSD*. Pre-Meeting Institute.
9. **Hamblen, J. L.**, Norman, S. B., & **Bernardy, N. C.** *A comparison of psychotherapy and pharmacotherapy recommendations from four recent PTSD clinical practice guidelines*.
10. **McCaslin, S. E.**, Ermold, J., Tkachuck, M., & **Watson, P.** *Integration of military culture into provider education to promote more effective care for service members, veterans, and their families*. Pre-Meeting Institute.
11. **McGee-Vincent, P.**, **Juhasz, K. M.**, **Owen, J. E.**, **Jaworski, B. K.**, & **Miller, K. E.** *Hands-on skills for using apps and online programs for veterans with PTSD and related issues*. Pre-Meeting Institute.
12. **Street, A. E.**, Hobfoll, I., Newman, E., Tang, E., Bufka, L., Cogan, C., & Patel, A. *Have women 'made it'? Challenges and possibilities for future female scientists, policy-makers, and practitioners in traumatic stress studies*.

U.S. Department of Veterans Affairs

13. **Bernardy, N. C.** (2019, June). *Rural PTSD improvement in the Northeast through outreach* [Webinar]. Presented for the National VA CBOC Grand Rounds.
14. Cuccurullo, L., & **Bernardy, N. C.** (2019, August). *Key messages of the 2017 VA/DoD revised clinical practice guideline for PTSD: How to inform MST care* [Webinar]. Presented for the VA MST Support Team Teleconference Training Series. Retrieved from http://www.meantalhealth.va.gov/msthome.asp.
15. **Galovski, T. E.** (2019, January). *Flexible application in delivering EBPs for PTSD* [Webinar]. Presented for the VISN 20 CE Series.
16. **Iverson, K. M.** (2019, September). *An overview of the RISE counseling intervention for women veterans who experience intimate partner violence* [Webinar]. Retrieved from Audio recorded session available on IPVAP SharePoint.
17. Kauth, M. R., & **Matza, A.** (2019, March). *Treating the unique health care needs of veterans with lesbian, gay, bisexual, transgender, and related identities [teleconference]*. Presented to the national VHA Community Care Providers Network didactic series, Houston, TX.
18. **Kehle-Forbes, S.** (2019, May). *Treatment engagement and retention in patients with PTSD* [Webinar]. Invited presentation for National Center for PTSD Consultation Program. Retrieved from https://www.ptsd.va.gov/professional/consult/2019lecture_archive/03202019_lecture_slides.pdf.
19. **Pineles, S. L.** (2019, September). *Neurobiology of PTSD: Findings of particular relevance for women* [Webinar]. Presented for the VA Women's Mental Health Monthly Clinical Training Teleconference.
20. **Rosen, C. S.** (2019, May). *Implementation science: Barriers, facilitators and strategies*. VA Evidence Based Psychotherapy Coordinators Workshop, Denver, CO.

Other

21. **Bovin, M. J.** (2019, April). *PTSD assessment and its relevance to treatment*. Invited workshop hosted by the Clinical Counseling Psychology Program in conjunction with the Aaron T. Beck Institute for Cognitive Studies at Assumption College, Worcester, MA.

22. Chu, B. C., **Sloan, D. M.**, Comer, J. S., Hart, T. A., Kamholz, B. W., Khanna, M., Martell, C. R., Hart, T., McHugh, R. K., McKay, D., & O'Connor, R. (2018, November). *How to get published in Cognitive and Behavioral Practice and Behavior Therapy*. Panel presented at the 52nd annual convention of the Association for Behavioral and Cognitive Therapies, Washington, DC.

23. Dollar, K., Kirchner, J. E., **McGee-Vincent, P.**, DePhilippis, D., & Resnick, S. G. (2018, December). *Implementation of measurement-based care*. Oral presentation at the 2nd Annual International Conference on Practice Facilitation, Tampa, FL.

24. **Galovski, T. E.** (2018, November). *Fireside chat describing women veterans network (WoVeN)*. Presented at Walmart Foundation's Veteran Day Event, Bentonville, AR.

25. **Galovski, T. E.** (2018, October). *Cognitive Processing Therapy and the treatment of PTSD*. 2-day workshop for Texas community mental health service providers, San Angelo, TX.

26. **Galovski, T. E.** (2019, June). *Adapting evidence-based psychotherapy protocols for older adults: The example of Cognitive Processing Therapy for PTSD* [Webinar]. Presented for the Meeting the Mental Health Needs of Aging Veterans: Research and Practice Webinar Series.

27. **Galovski, T. E.** (2019, June). *PTSD round table hosted by Chairman of the Congressional Gulf War Veterans Caucus, Congressman Paul A. Gosar, D. D. S. and the Congressional Military Veteran Caucus Chairman, Congressman Mike Thompson*. PTSD Round Table at Capitol Hill, Washington, DC.

28. **Galovski, T. E.** (2019, May). *The status on female veteran mental health and functioning*. Presented for Representatives Mark Takano (Chairman of the House Committee on Veterans' Affairs) and Joseph Kennedy III, Boston, MA.

29. **Galovski, T. E.**, & **Street, A. E.** (2019, April). *WoVeN train the trainers*. Boston University, Washington, DC.

30. **Gelernter, J.** (2019, January). *GWAS of PTSD and substance use disorders: What do you get with really large samples*. Icahn School of Medicine at Mount Sinai Department of Psychiatry Grand Rounds, New York, NY.

31. Kauth, M. R., & **Shipherd, J. C.** (2019, January). *Transgender veteran care: Information for therapeutic and supported employment services*. Teleconference presented to the national Therapeutic & Supported Employment Services program, Houston, TX.

32. **Kaye, A.** (2019, May). *Slow pupillary fluctuation reveals cortical arousal after stress*. Oregon Health Sciences, Portland, OR.

33. **Kehle-Forbes, S.**, & **Healy, E.** (2019, May). *Using veterans' voices to improve engagement in Cognitive Processing Therapy* [Webinar]. Presented for CPT Advance Practice Cyber Seminar Series. Retrieved from https://www.cptstudy.com/wp-content/uploads/2019/06/Webinar.mp4.

34. **Krystal, J. H.** (2019, April). *Harold Cooper Lectureship*. University of Texas Grand Rounds, Houston, TX.

35. **Krystal, J. H.** (2019, June). *Ketamine and the pursuit of rapid acting antidepressants*. Grand Rounds Brown University, Providence, RI.

36. **Krystal, J. H.** (2019, March). *Inaugural Henry and Amelia Nasrallah Distinguished Lecture*. St. Louis Grand Rounds, St. Louis, MO.

37. **Krystal, J. H.** (2019, September). *A synaptic hypotheses of PTSD: Therapeutic implications*. Grand Rounds, Silver Hill Hospital, New Canaan, CT.

38. **Prins, A.**, **Bramlett, D. M.**, & Vinatieri, T. (2019, February). *Evaluating the effectiveness and usability of the VA/DoD online Moving Forward course with and without peer support*. NASPA for military connected students, Las Vegas, NV.

39. **Rasmusson, A. M.** (2019, May). *Neurobiology of PTSD* [Webinar]. Interviewed by David Ross, M.D., Director of Residency Education, Yale University School of Medicine, and Co-Chair, National Neuroscience Curriculum Initiative.

40. **Sanacora, G.** (2018, October). *Rational development and clinical adoption of ketamine and other rapid acting pharmacological treatments in psychiatry*. Northwell, Zucker Hillside Hospital Grand Rounds, Queens, NY.

41. **Schnurr, P. P.** (2019, March). *When stress is traumatic: Posttraumatic stress disorder*. Solutions Conference on Mental Health and the Law, Vermont Law School, South Royalton, VT.

42. **Shipherd, J. C.** (2019, April). *Thinking about intrusive thoughts: Building resilience following deployment*. Department of Psychiatry and Behavioral Sciences, East Tennessee State University, Johnson City, TN.

43. **Sloan, D. M.** (2018, October). *Written Exposure Therapy: A brief, exposure-based treatment for PTSD*. Home Base: Veteran and Family Care, Massachusetts General Hospital, Boston, MA.

44. **Sloan, D. M.** (2019, February). *Written Exposure Therapy: Brief treatment approach for PTSD*. Workshop conducted at Family and Children's Services, Tulsa, OK.

45. **Sloan, D. M.**, & **Marx, B. P.** (2018, November). *Written Exposure Therapy for PTSD*. Presentation at the 52nd annual convention of the Association for Behavioral and Cognitive Therapies, Washington, DC.

46. **Smith, B. N.** (2019, September). *Women who served during the Vietnam Era: Examining the impact of military service on later-life health outcomes* [Webinar]. Presented for the Meeting the Mental Health Needs of Aging Veterans: Research and Practice National Webinar Series.

47. **Street, A. E.** (2019, April). *Day of awareness for sexual assault and trauma*. Roundtable discussion hosted by Boston University School of Medicine's STOP (Sexual Trauma Outreach and Prevention), Boston, MA.

48. **Vogt, D.** (2018, October). *Introduction to the Well-Being Inventory framework: Assessing the building blocks of veterans' well-being*. Invited presentation at George Bush Institute, Dallas, TX.

49. **Walser, R. D.** (2019, August). *Psychological flexibility and women's health: The joy and pain of well-being and vitality*. Plenary conducted at the National Women's Health Mini Residency, Dallas, TX.

50. **Woodward, S. H.** (2019, September). *Can a canine companion modify cardiac autonomic reactivity and tone in PTSD*? Presented at the Assistance Dogs International Conference, Indianapolis, ID.

51. **Zimmerman, L. E.**, & Freeman, M. (2019, May). *Developing systems-based practice and quality improvement competencies during psychiatry residency: The problem of suicide prevention in the VHA*. Annual meeting of the American Psychiatric Association, San Francisco, CA.

52. **Zimmerman, L. E.**, & Wheeler, S. (2019, March). *Systems science methods to advance implementation science* [Webinar]. Presented for the National Center Institutes Implementation Science Webinar Series. Retrieved from https://cancercontrol.cancer.gov/IS/training-education/Details.aspx?ID=66.

APPENDIX H

Fiscal Year 2019 Editorial Board Activities

Administration and Policy in Mental Health Services and Mental Health Services Research
Wiltsey Stirman

Annals of LGBTQ Public and Population Health
Livingston (Editorial Advisory Board)

Asian Biomedicine (Research Reviews and News)
Gelernter

The Behavior Therapist
Wiltsey Stirman (Associate Editor)

Behavior Therapy
Gutner, Sloan (Editor), Wiltsey Stirman

Behaviour Research and Therapy
Sloan

Biological Psychiatry
Duman, Gelernter, Krystal (Editor), Sanacora

Biological Psychiatry: Cognitive Neuroscience and Imaging
Sanacora

Chinese Journal of Psychology
Keane

Chronic Stress
Abdallah (Editor), Averill (Deputy Editor), Duman, Esterlis, Krystal (Associate Editor), Pietrzak, Rasmusson, Sanacora, Southwick, Woodward

Clinical Psychology Review
Pineles

Cognitive and Behavioral Practice
McLean, Shipherd (Guest Editor)

Community Mental Health Journal
Harpaz-Rotem

Current Psychiatry Reports
Friedman

Data in Brief (Elsevier)
Akiki

Depression and Anxiety
Holtzheimer, Schnurr, Wolf

Eating Behaviors
Mitchell (Associate Editor)

European Journal of Psychotraumatology
Cloitre (Associate Editor), Pineles

Frontiers in Neuroscience: Neurogenesis
Duman (Associate Editor)

International Journal of Emergency Mental Health
Keane

Journal of Abnormal Psychology
Miller (Associate Editor); Wolf

Journal of Anxiety Disorders
Pietrzak

Journal of Clinical Psychology
Sloan

Journal of Consulting and Clinical Psychology
Marx; Sloan; Taft

Journal of Contemporary Psychotherapy
Sloan

Journal of Depression and Anxiety
Tiet

Journal of Family Psychology
Taft

Journal of Family Violence
Taft

Journal of Neurochemistry
Duman

Journal of Neuroscience
Levy (Associate Editor)

Journal of Obsessive-Compulsive and Related Disorders
Thompson-Hollands

Journal of Trauma and Dissociation
Barlow; Carlson; Cook; Marx

Journal of Traumatic Stress
Galovski (Associate Editor); Miller; Morland; Wolf

Journals of Gerontology: Psychological Sciences
Spiro

Molecular Neuropsychiatry
Abdallah

Molecular Pharmacology
Duman

Neuropsychology
Vasterling

Neuropsychopharmacology
Duman; Gelernter (Associate Editor)

Psychiatric Genetics
Gelernter

Psychological Assessment
Mitchell; Vasterling

Psychology Injury and Law
Pietrzak

Psychological Services
Norman

Psychological Trauma: Theory, Research, Practice and Policy
Barlow; Carlson; Cook; Keane; Marx; Miller; Smith; Vogt; Wachen

Psychopharmacology
Duman

Psychosomatic Medicine
Sloan

Trauma, Violence & Abuse
Iverson