NATIONAL CENTER FOR PTSD FISCAL YEAR 2020 ANNUAL REPORT

With a Special Focus on Telehealth and Digital Interventions for PTSD



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APPENDICES

A version of the National Center for PTSD Fiscal Year 2020 Annual Report with all appendices, as well as each individual appendix, is available as a pdf document at <u>https://www. ptsd.va.gov/about/work/docs/</u> <u>annual_reports/2020/NCPTSD_2020</u> <u>Annual_Report.pdf</u>.

ACRONYMS USED IN THE TEXT

CAP Consortium to Alleviate PTSD

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

CBT Cognitive Behavioral Therapy

CoE Center of Excellence

COVID-19 Coronavirus Disease 2019

CPT Cognitive Processing Therapy

CSP Cooperative Studies Program

CVT Clinical Video Teleconferencing

DoD Department of Defense

DSM-5

Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition

EBPs Evidence-Based Psychotherapies

FY Fiscal Year IPV Intimate Partner Violence

JIF Joint Incentive Fund

LIGHT Longitudinal Investigation of Gender, Health, and Trauma

mHealth Mobile Health

MST Military Sexual Trauma

NCPTSD National Center for PTSD

NHRVS National Health and Resilience in Veterans Study

OMHSP Office of Mental Health and Suicide Prevention

PBI Network Practice-Based Implementation Network

PE Prolonged Exposure

PTSD Posttraumatic Stress Disorder **PTSD-Repository**

PTSD Trials Standardized Database Repository

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

VA Department of Veterans Affairs

VA CRAFT Community Reinforcement and Family Training

VHA Veterans Health Administration

webSTAIR Web-Based Skills Training in Affective and Interpersonal Regulation

WET Written Exposure Therapy

WoVeN Women Veterans Network

FROM THE EXECUTIVE DIRECTOR



Paula P. Schnurr, PhD

2020 was a year of unprecedented challenges to "business as usual" – for the

National Center for Posttraumatic Stress Disorder PTSD (NCPTSD), Department of Veterans Affairs (VA) and the entire country. VA clinicians dramatically increased provision of virtual and telehealth care at the start of the coronavirus

disease 2019 (COVID-19) pandemic. The country also experienced a renewed focus on race after several highprofile deaths of people of color, followed by racial justice protests and a revitalized national conversation.

The year began with good news. In December 2019, the "Healing PTSD" U.S. Postal Service stamp was introduced. To me, the stamp was a milestone in just how far we have come in recognizing the people who have had PTSD and the impact PTSD has on so many of us. Proceeds from the sale of the stamp will go to the National Center to support our work on the treatment and understanding of PTSD.

Much of the year was spent developing and refining our response to the COVID-19 pandemic. As clinicians adapted to meet the challenges posed by virtual care, our Consultation Program developed a series of webinars relevant to providing treatment during the pandemic and expanded its usual consultation services to include any issues related to addressing the mental health effects of COVID-19. Our educational team rapidly published and disseminated resources for clinicians, patients and the community, including the COVID Coach app to promote coping with the stressors created by the pandemic. More information can be found in the Promoting PTSD Education: Training, Dissemination and Communication section of this report. Our researchers have also adapted, moving many research programs to a virtual setting and studying the effects of pandemic-related stress on Veterans, healthcare workers and people with PTSD.

In addition, we are bolstering our focus on the intersection of race and trauma. We have dedicated editions of our PTSD Research Quarterly, Clinician's Trauma Update Online and PTSD Consultation Program webinar series on issues around race and ethnicity, minority status and prejudice. We continue to support work by our staff on these important issues.

I am pleased to announce that in 2020 we created the VET— Veteran Engagement Team—a group of Veterans who will be providing feedback on NCPTSD research and educational activities. Although the National Center has always sought feedback from Veterans on various initiatives, having a diverse group of Veterans readily available to provide input across a wide range of activities will help us ensure the relevance of our work to these key stakeholders.

I also am sad to report that we lost a member of the National Center family who has been with us from the very beginning. Ron Duman, PhD, a neuroscientist at the Clinical Neurosciences Division, died in February. Ron's work on the molecular and neurobiological responses to stress and trauma was groundbreaking in the field of molecular psychiatry. His death is not just a loss to his family and friends, but also to the broader scientific community. He was an exceptional scientist and a wonderful person.

The challenges of this year have underscored the necessity of the work of the National Center for PTSD. I am proud of what our researchers and staff have accomplished to continue meeting the needs of Veterans in this unique year and beyond.

Paula P. Schnurr, PhD

Executive Director

TELEHEALTH AND DIGITAL INTERVENTIONS FOR PTSD

The flight from Honolulu to Hilo, Hawaii was about 55 minutes — not a long flight, but long enough to think there must be a better way. Dr. Leslie Morland, then a clinical postdoctoral fellow at NCPTSD's Pacific Islands Division, was making weekly flights from Honolulu to deliver anger management group therapy to Veterans with PTSD living on other Hawaiian Islands. VA mandates delivery of high-quality care to all Veterans, regardless of where they live. In the late 1990s, the only way to do this in Hawaii was to fly clinicians from the main hospital on Oahu to other locations to deliver specialty mental health care.

However, the late 1990s and early 2000s were a time of rapid expansion in digital technology. Dr. Morland thought her anger management content could be delivered virtually, using then-cutting-edge video technology. She was right. Veterans easily adapted to the new approach. She noted, "We were able to maintain engagement with these Veterans without having to fly. So we helped solve the issue of access to care among rural Veterans. But, the response was that this care was 'better than nothing,' and that the care was not reimbursable. What if we had data that telehealth delivery is just as good as in-person care?" Dr. Morland took initiative and led a study that demonstrated that anger management group therapy delivered with video-teleconferencing was as effective as traditional in-person treatment for Veterans with PTSD.



The shift from in-person care to care delivered through technological means began NCPTSD's multi-decade expansion into telehealth and digital interventions.



Leslie Morland, PsyD, Investigator, Pacific Islands Division

Dr. Morland's insight was an example of the burgeoning field of telehealth — the practice of using technology to connect a patient and a healthcare provider. The shift from in-person care to care delivered through technological means began NCPTSD's multi-decade expansion into telehealth and digital interventions for PTSD and related problems. This shift complemented broader VA efforts to make telehealth a viable option for Veterans. Advances in technology, rigorous research and ingenuity and flexibility of Veterans and clinicians made this possible and paved the way for the VA's expansion of telehealth during the COVID-19 pandemic.

After the initial success delivering anger management groups remotely in Hawaii, the National Center has identified ways to expand and evaluate VA telehealth offerings along the continuum of care to meet the needs of as many Veterans as possible. This includes delivering evidence-based psychotherapy via clinical video-teleconferencing (CVT), Mobile Health self-management (e.g., apps and online programs) and clinician-supported digital technologies. Work from the Dissemination & Training Division helps ensure these approaches are adopted by the field and the Veterans who need them. During the COVID-19 pandemic, the National Center has used this expertise to rapidly and effectively address the unique needs of patients and providers.

Clinical Video Teleconferencing: Traditional Psychotherapy Delivered Virtually

CVT allows for real-time, face-to-face telehealth appointments through video using a computer, tablet or smartphone. In the early 2000s, office-based CVT steadily grew; Veterans would visit a local VA community-based outpatient clinic to connect with their clinician at another facility. Telehealth delivery of psychotherapy to the home began in 2013 and expanded in 2017 with the national launch of the VA Video Connect platform. This platform allows patients to engage in mental health care from home, further increasing convenience and flexibility.

Studies have consistently shown that outcomes for CVT delivery of PTSD trauma-focused psychotherapies are as good as outcomes for in-person care. Dr. Morland, who led much of the research demonstrating the efficacy of trauma-focused psychotherapies delivered by CVT, says that "rigorous studies have shown you can achieve the same clinical gains using the CVT platform." For example, in fiscal year (FY) 2020, Dr. Morland and her colleagues published the results from a study in which they compared efficacy of PE delivered in-home, in-person, through home-based telehealth, or office-based telehealth. Veterans in this study reported significant reductions in PTSD symptoms at posttreatment

and at 6-month follow-up regardless of *how* they received psychotherapy. Dr. Morland continues to study the ability of telehealth to deliver other psychotherapies for PTSD. She is in the final phase of a large trial examining the clinical efficacy of brief Cognitive-Behavioral Conjoint Therapy for PTSD, which is delivered to a patient with PTSD and their loved one, when conducted via home CVT versus in the office. Results are expected in FY 2021.

PTSD Self-Management via Mobile Health

In 2009, National Center investigators considered whether digital technologies could be used to support trauma survivors whenever and wherever the survivors needed it, such as in the middle of the night when awakened by a nightmare. "For several years," Dr. Eric Kuhn, an investigator at the Dissemination & Training Division and co-founder of the Mobile Mental Health Program, recollected, "we had been developing web-based tools for trauma survivors. In 2009, we noticed that many Veterans in our residential PTSD programs had smartphones. It was at that point we realized that if we were going to meet our Veterans where they were, we needed to be on their phones."

Mobile apps, sometimes described as Mobile Health or mHealth, can be used to promote self-help for PTSD and

NCPTSD Mobile Apps

The NCPTSD has created a suite of mobile apps to promote self-help and support psychotherapies for PTSD and related problems.





PTSD Coach is the most frequently downloaded trauma-related mobile app available.

related problems. "Advances in digital technology have afforded opportunities to reach and help trauma survivors at an unprecedented scale," says Dr. Kuhn. "NCPTSD is a world leader in driving this revolution with its publicly available evidence-based self-management tools, including the highlyrated and widely-used PTSD Coach mobile app." PTSD Coach, the most frequently downloaded trauma-related mobile app available, provides on-demand psychoeducation about PTSD, self-assessment with a validated measure (the PTSD Checklist for the *Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition [DSM-5]*), strategies for coping with PTSD symptoms and links to social support and professional resources. Dr. Kuhn's research shows that PTSD Coach improves PTSD symptoms, even when used independently of other mental health care.

Self-help apps like PTSD Coach are not intended to replace specialty mental health treatment, but they can serve to educate Veterans and their families, clinicians outside of mental health, and the public about stress, trauma, PTSD and available resources. According to Dr. Pearl McGee-Vincent, the Acting Deputy Director of the Dissemination & Training Division and a key member of the NCPTSD Mobile Mental Health Program, "These apps can help Veterans who are just starting to learn about PTSD or available treatments – they provide short readings to familiarize Veterans with PTSD, PTSD treatment, common reactions to trauma and coping skills. They can improve mental health literacy, which can be a first step in seeking care." In an ongoing study, Dr. Kuhn is evaluating whether PTSD Coach, combined with clinician support, improves PTSD and alters use of mental health care services in Veterans treated in primary care. Dr. Kuhn is also examining strategies using Veterans' families to increase Veterans' engagement in care. The National Center previously developed Community Reinforcement and Family Training (VA CRAFT) for PTSD, a web-based course for family members of Veterans with PTSD. Dr. Kuhn's new study combines VA CRAFT with VA's Coaching Into Care initiative, which involves telephone coaching to help spouses and intimate partners of Veterans with untreated PTSD encourage their Veteran to seek mental health care. National Center staff also developed PTSD Family Coach, an app that provides support for family members of individuals with PTSD.

The NCPTSD mobile apps portfolio includes other selfhelp apps to address problems commonly experienced by Veterans with PTSD, such as anger (Anger and Irritability Management Skills), smoking (StayQuit Coach), relationship distress (Couples Coach) and alcohol misuse (VetChange). The National Center also created treatment companion apps intended to be used during a course of PTSD treatment. For example, PE Coach and CPT Coach help both patients and providers work through the treatment protocols by providing easy access to treatment materials, reminders to complete homework and PTSD symptom tracking. PE Coach also allows exposure sessions to be recorded.

"Advances in digital technology have afforded opportunities to reach and help trauma survivors at an unprecedented scale."



Eric Kuhn, PhD, Investigator, Dissemination and Training Division

Regarding mHealth's future, Dr. Kuhn says, "Researchers and clinicians are developing, testing and implementing innovative approaches to support trauma survivors using digital self-management tools to increase their use and effectiveness. Depending upon settings, available resources and type of support desired by survivors, self-management tools are successfully being supported by peers, paraprofessionals and licensed clinicians."

Going Beyond Self-Management in mHealth

Tools like PTSD Coach that support self-management can provide brief, in-the-moment support for dealing with PTSD symptoms. The National Center is also working to develop more intensive self-management programs that leverage a similar digital approach but are enhanced by participation of a therapist, peer, or trained coach. Research has shown that facilitation can enhance mHealth tools for depression and anxiety, and initial evidence suggests facilitation may be helpful for PTSD as well. Dr. Carmen McLean's team is evaluating the efficacy of Web-PE (a web-based version of Prolonged Exposure [PE] for reducing symptoms of PTSD in military personnel and Veterans. Web-PE is delivered with therapist assistance and has potential to increase the reach of PE to those who cannot otherwise access in-person care. Another study, led by Dr. Marylene Cloitre, is examining the feasibility, acceptability and effectiveness of web-based Skills Training in Affective and Interpersonal Regulation (webSTAIR), an 8-session version of Skills Training in Affective and Interpersonal Regulation (STAIR). In this study, focused on rural women Veterans with military sexual trauma (MST),



With asynchronous text messaging, communication occurs using text, photo, audio or video whenever the patient and provider choose.

webSTAIR is adapted to the web with varying levels of therapist support.

Asynchronous text messaging between a patient and provider is a new and exciting strategy for delivering psychotherapy. With this method, communication occurs using text, photo, audio or video whenever the patient and provider choose—very different from "synchronous" telehealth where live interactions are required. In FY 2020, NCPTSD investigators published the first study of asynchronous text messaging for PTSD: therapists messaged patients at least once per day, 5 days a week for 12 weeks and patients could send any number of messages to their therapist. Nearly half of patients had clinically significant improvements in PTSD symptom severity following treatment, and investigators are now planning studies to Veterans and specific evidence-based treatments for PTSD.

These innovations–clinician-supported, web-based selfmanagement tools based on established psychotherapies and psychotherapy delivered via text messaging – help fill the gap between clinical care delivered real-time via CVT and mobile apps used independently. These approaches aim to make evidence-based PTSD care available an even broader group of patients.



Two-way Asynchronous Messaging to Treat PTSD

In the first study of asynchronous text messaging for PTSD, nearly half of the 475 patients had clinically significant improvements in PTSD symptom severity measured with the PTSD Symptom Checklist for *DSM-5* (PCL-5) following 12 weeks of treatment.

Malgaroli, M., Hull, T. D., Stirman, S. W., & Resick, P. (2020). Message delivery for the treatment of posttraumatic stress disorder: Longitudinal observational study of symptom trajectories. *Journal of Medical Internet Research*, 22, e15587. doi: 10.2196/15587

Optimizing the Use of Technology in PTSD Care

Developing evidence-based technological tools for treating PTSD is important, but these efforts are not truly successful until patients and providers adopt these approaches. While NCPTSD mobile apps were among the most researched and highly regarded digital tools available, many providers were unaware they existed or were not sure how to incorporate them into practice. In 2017, Dr. McGee-Vincent launched Tech into Care, which started as a collaboration with the Department of Defense (DoD) and initially worked with a small group of mental health clinicians to provide training and 12 weeks support to integrate mobile apps and online programs into care. This brief pilot led to a \$3.4 million initiative to more broadly implement Tech into Care across the Veterans Health Administration (VHA) and the Defense Health Agency.

Tech into Care trains staff in a range of care settings, such as Primary Care and Specialty Mental Health, to access and use the National Center's many online resources and apps. Great interest in NCPTSD's apps has been shown by a diverse group of care providers including chaplains, audiologists and peer support specialists. By giving staff both the language and the resources to share mobile apps with Veterans, more Veterans now have access to critical resources, such as the Veterans Crisis Line, and in-the-moment coping tools to manage distress between sessions and before or after an episode of care. Dr. McGee-Vincent says, "Providers have told us that they often recommend PTSD Coach as a resource to start learning



Pearl McGee-Vincent, PsyD, Acting Deputy Director, Dissemination and Training Division

about PTSD symptoms, effective treatments and ways to cope with in-the-moment distress in preparation for their first visit with a trauma-focused therapist."

Tech into Care promotes better care for Veterans with PTSD and helps them sustain improvements over time. A provider in the initiative describes the benefits of integrating online interventions into traditional care: "I love introducing apps and online programs into a Veteran's treatment as it encourages them to see therapeutic intervention and self-progress as an endeavor to be continued outside of the therapy room. Not only does it provide supplemental support in a convenient, clear and anonymous way; it also promotes the self-efficacy needed for long term recovery."

Telehealth in the Pandemic Era: The Silver Lining

Based on its extensive experience with telehealth and digital interventions, NCPTSD was well positioned to help VHA pivot to deliver virtual mental health care on a large scale during the COVID-19 pandemic. Given the need for providers to prioritize infection prevention while addressing the increased needs for mental health care, delivery of psychotherapy by CVT dramatically increased in early 2020. VHA provided 1.2 million mental health telephone and video visits in April 2020 and reduced in-person visits by 80%. By June 2020, there was an eleven-fold increase in video visits and a five-fold increase in phone visits. Across all modalities, between April and June 2020, Veterans received almost the same average number of mental health encounters as they did before the pandemic — evidence that VHA providers transitioned quickly and effectively to providing virtual mental health care.

The rapid switch to telehealth at the beginning of the pandemic provided a real-time, unplanned implementation trial for virtual PTSD care in VHA. The PTSD Mentoring Program played a critical role in supporting the clinical infrastructure for this shift to virtual delivery of evidencebased psychotherapy for PTSD. For example, the PTSD Clinical Dashboard was updated to better capture telephone- and video-based appointments. Dr. Kelly Maieritsch, Director of the PTSD Mentoring Program, says, "PTSD specialty care was fortunate to have the resources developed by the National Center in place when providers had to quickly pivot to primarily virtual care. As we focused our efforts on helping

Virtual Mental Health Care During the COVID-19 Pandemic







Modality of VHA mental health encounters, October 2019 to May 2020. During this period of the pandemic, in-person contact was reduced while telephone and video contacts more than doubled.

Rosen, C. S., Morland, L. A., Glassman, L. H., Marx, B. P., Weaver, K., Smith, C. A., ... & Schnurr, P. P. (2020). Virtual mental health care in the Veterans Health Administration s immediate response to coronavirus disease-19. *American Psychologist, 76*, 26-38. doi:10.1037/amp0000751

providers navigate local challenges in the implementation of virtual care, our abundance of resources and technical support were frequently offered and greatly appreciated."

Simultaneously, the PTSD Consultation Program provided support to clinicians in the field. For providers treating Veterans with PTSD, they continued to offer one-on-one expert consultation tailored to the evolving situation. The team addressed the challenges of treating PTSD during the pandemic in a live webinar that was attended by over 700 people in March and continues to be available for on-demand viewing. The PTSD Consultation Program also launched a new online course, PTSD Treatment Via Telemental Health Technology, to help clinicians understand the latest research on telehealth for PTSD and the benefits and challenges of using video technology to provide evidencebased psychotherapy for PTSD. The National Center's Dr. Morland, who also serves as the Director of Telemental Health at the VA San Diego Healthcare System, says, "We are constantly trying to address needs in the field to make telehealth a more viable option. Most times a provider in VA has already navigated the problems another provider is having. Rather than struggling on their own, we want providers to tap into the ample VA resources available to them, with the goal of making telehealth a more sustainable and seamless part of the mental health process for Veterans

with the overarching goal to increase access and reduce disparity of access."

While clinicians and consultants were working to dramatically increase the amount of mental health care delivered by CVT during the early months of the pandemic, the Mobile Mental Health Program worked to develop a mobile app to help Veterans and others manage stress and access resources related to COVID-19. COVID Coach was released in mid-April 2020. Based on the original PTSD Coach app, COVID Coach was created in response to public and clinical demand for resources to help manage pandemic-related stress and mental health challenges. With 135,000 downloads by the

"PTSD specialty care was fortunate to have the resources developed by the National Center in place when providers had to quickly pivot to primarily virtual care."



Kelly Maieritsch, PhD, Director of the PTSD Mentoring Program



Elissa McCarthy, PhD, Consultant with the PTSD Consultation Program

end of FY 2020, COVID Coach is a cornerstone of NCPTSD's digital response to the COVID-19 pandemic.

It is hard to imagine the delivery of PTSD care ever going back to business-as-usual, in which in-office, in-person care is the primary or only option offered to Veterans seeking PTSD care. In fact, VA's Office of Connected Care has added the expansion of virtual mental health care treatment as a performance metric, and in the wake of the COVID-19 pandemic, virtual mental health care is expected to continue to be available for all outpatient mental health care to ensure flexible access for all Veterans. According to Dr. Morland, "the rapid expansion of virtual mental health care is a silver lining of the COVID-19 pandemic."

The Future of Telehealth and Digital Interventions for PTSD

The history of telehealth delivery of psychotherapy and digital self-management tools for PTSD is a story of using technological advances to better and more efficiently meet patient needs. The culmination of decades of innovation and research in concert with 2020's landscape-shifting challenges and successes provides a unique opportunity to imagine the future of digital PTSD care. This future promises increased confidence in the effectiveness of virtually-delivered PTSD care and easier access to care.

In addition to giving rural Veterans access to the best care available and providing in-the-moment self-management tools, virtually-delivered PTSD care promises to increase access for many groups of Veterans who face barriers to the standard in-person model of care delivery. For example, Veterans with disabilities, women Veterans and Veterans with jobs and families all might access care more easily through technology. According to Dr. Morland, "Our goal is to keep Veterans in their lives. We don't want treatment to pull them out of their lives, and for them to have to schedule their life around coming to the VA."

The National Center for PTSD's unique history of innovation, development and research in this field has made it a national leader in virtual PTSD care. This expertise allowed NCPTSD to greatly contribute to the increased need for virtual mental health care during the COVID-19 pandemic and positions the National Center to continue leading digital health efforts going forward.

Digital Self-Help During the COVID-19 Pandemic



In addition to COVID Coach, which was created to support self-care and mental health during the pandemic, investigators are working to create and evaluate a web-based program specifically for healthcare workers impacted by COVID-19. This program will assess users' needs and provide individualized evidence-based strategies to help them cope with challenges related to the pandemic.

ADVANCING KNOWLEDGE ABOUT PTSD: MAJOR RESEARCH INITIATIVES IN FY 2020

For over 30 years, the National Center for PTSD has been the world's leading research center of excellence on PTSD and traumatic stress. That legacy continued in FY 2020. Investigators at the National Center participated in 146 funded studies, many in collaboration with partner organizations in the government, academic institutions and agencies outside the United States. NCPTSD investigators published 249 peer-reviewed journal articles, book chapters and books, and prepared an additional 150 in-press and advance online publications. A comprehensive listing of funded and published work can be found in Appendices C, D, and E.

National Center investigators continue to support innovative clinical trials and biological studies through the <u>Consortium</u> to <u>Alleviate PTSD (CAP</u>), a seven-year, \$42 million award to fund research in PTSD diagnosis, prevention and treatment for Service members and Veterans. The consortium is led by the National Center and the South Texas Research Organizational Network Guiding Studies on Trauma and Resilience (STRONG STAR) network at the University of Texas Health Science Center at San Antonio. The CAP has finished its seventh year. All 11 CAP projects are completed; two of these have published their findings and the remainder are finishing data analyses.

Several projects under the VA Cooperative Studies Program (CSP) also take advantage of the National Center's broad

reach and robust partnerships. Recruitment for CSP #2016, a multi-site, placebo-controlled CSP study to examine three commonly prescribed medications for PTSD-related insomnia (trazodone, eszopiclone and gabapentin), will launch in FY 2021. Results for CSP #591, a comparative effectiveness study of over 900 Veterans engaged in Prolonged Exposure (PE) and Cognitive Processing Therapy (CPT) at 17 VA facilities across the country, are expected in FY 2021.

The size and scope of the National Center make it wellpositioned to undertake studies with large samples and long time frames. In the Longitudinal Investigation of Gender, Health and Trauma (LIGHT) study, for example, National Center researchers are examining the influence of community violence on PTSD and health outcomes, including reproductive health in women Veterans, over time. This study, launched in FY 2018, currently includes four waves of data from over 3,600 Veterans, about half of whom are women. A fifth survey is planned for winter 2021.

Research activities in the National Center are driven by operational priorities: Biomarkers, Treatment, Care Delivery, Implementation and PTSD and Suicide. The following sections highlight some of the research undertaken during FY 2020. Appendix B contains descriptions of research projects that took place at each of the 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. NCPTSD biomarker work benefits from collaborations with several other organizations, including the <u>Translational</u> <u>Research Center for Traumatic Brain Injury and Stress</u> <u>Disorders</u>, the Psychiatric Genomics Consortium, the PTSD Working Group of the Enhancing Neuroimaging Genetics through Meta-Analysis Consortium and the Million Veteran Program.

VA's National PTSD Brain Bank continues to grow under the direction of Dr. Matthew Friedman, Senior Advisor to the National Center. The current inventory includes approximately 280 brains. The Brain Bank's intramural research program has made significant progress, with several high impact articles that identify genes in specific brain regions important to the neurobiology of PTSD. In other genetics work, National Center investigators examined how specific genes were modified

by experience (epigenetics) in over 1,650,000 U.S. Veterans with PTSD. The findings, published in *Nature Neuroscience*, identified eight distinct genetic risk factors for intrusive reexperiencing symptoms; results were replicated using data from the UK Biobank.

In neuroendocrinology, recently published results reveal that lower levels of the neurohormone allopregnanolone contribute to deficits in recall of extinction learning, a key learning mechanism in recovery from PTSD, among women with PTSD. A new study is investigating the impact of intravenous allopregnanolone on extinction retention and fear memory reconsolidation, a process by which fear memories can be modified to be less distressing.

Multiple ongoing studies are examining PTSD and traumatic brain injury (TBI) to clarify their relative contributions to poor functioning and health outcomes. Studies include combat Veterans with blast-related TBI and women with PTSD secondary to intimate partner violence (IPV). Investigators are also examining neurostimulation in pre-clinical models of PTSD and blast-related TBI.



Abnormalities in Fear Learning Associated with Neurohormone Levels Among Women with PTSD

Resting plasma Allo + pregnanolone (PA) during the mid-luteal phase was differentially associated with extinction retention (with poorer retention indicated by higher values on the y-axis) measured with skin conductance (SC) at both early and late stages of extinction among women with (n = 9) and without PTSD (n = 9). Findings suggest that treatments that increase Allo + PA levels may improve PTSD.

Pineles, S. L., Nillni, Y. I., Pinna, G., Webb, A., Hall, K. A. A., Fonda, J. R., ... & Rasmusson, A. M. (2020). Associations between PTSD-related extinction retention deficits in women and plasma steroids that modulate brain GABA, and NMDA receptor activity. *Neurobiology of Stress*, *13*, 100225. doi:<u>10.1016/j.</u> ynstr.2020.100225

Treatment Engagement, Efficiency and Effectiveness

Development and evaluation of effective treatments, increasing engagement in evidence-based psychotherapies (EBPs) and delivering care more efficiently are longstanding goals of the National Center. Effectiveness and efficacy studies help researchers understand which treatments work best for which patients, and under which circumstances. Results for the largest known efficacy study of repeated doses of ketamine in Veterans and active duty Service members diagnosed with treatment-resistant PTSD are anticipated in 2021. A large effectiveness study will compare traumafocused and non-trauma-focused psychotherapy for cooccurring PTSD and substance use disorders. In addition, several in-progress studies are exploring the effectiveness of combining multiple treatments for PTSD and comorbid disorders, including PE and topiramate for PTSD and Alcohol Use Disorder, ketamine and PE for PTSD and PE and Cognitive Behavioral Therapy (CBT) for Insomnia for Veterans with cooccurring PTSD and sleep problems.

An approach to understanding which treatments work best for which patients in real-world clinical settings is to examine data from anonymized VA medical records. For example, in

The PTSD-Repository



The <u>PTSD Trials Standardized Database</u> <u>Repository (PTSD-Repository)</u> is a large, publicly available database of over 300 variables abstracted from 318

published PTSD clinical trials. In FY 2020, National Center staff created featured stories and visualizations that provide an overview of the studies included in the PTSD-Repository and information about how investigators can use the data for their own research. Developers also published a manuscript in which they described how they created the PTSD-Repository and discuss how it can be used to advance research and education initiatives.

work completed in FY 2020, investigators used this method to compare the effectiveness of five evidence-based antidepressants for PTSD over a 10-year period of observation.

National Center investigators continue to evaluate new, shorter treatments for PTSD that may be more amenable to some patient populations and settings, such as Written Exposure Therapy (WET), which is five sessions compared to

PTSD

Comparing Medications for *DSM-5* PTSD in Routine VA Practice

Methods

Retrospective VA chart review of Veterans with PTSD (N=834) who received an adequate medication trial (≥ 12 weeks) initiated within 2 weeks of assessment

Highlights

- Novel method to estimate medication use duration
- Unique assessment of acute psychiatric service use, which could impact suicide risk

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To read the full article, see Shiner et al. J Clin Psychiatry 2020;81(6):20m13244

Findings 10.1% % of patients in remission (12 weeks) 4.7% 2.9% 1.3% 0% 1.3% Paroxetine Topiramate Fluoxetine Sertraline Venlafaxine

- Compared to other medications in this study, venlafaxine may be more likely to help VA patients with PTSD achieve remission (defined as no longer meeting DSM-5 criteria and a PCL-5 score ≤ 18 at 12 weeks). Additional prospective research is needed to confirm this result.
- All medications studied showed a decrease in PTSD symptom score at 12 weeks.
- Stopping any of the medications before 9 months was associated with higher chance of needing acute psychiatric services.

Comparing Medications for DSM-5 PTSD in Routine VA Practice

NCPTSD investigators used VA medical records to compare the effectiveness of evidence based antidepressants for PTSD.

Shiner, B., Leonard, C. E., Gui, J., Schnurr, P. P., Hoyt, J. E., Young-Xu, Y., & Watts, B. V. (2020) Comparing medications for DSM-5 PTSD in routine VA practice. *Journal of Clinical Psychiatry*. 81:20m13244. doi: <u>10.4088/JCP.20m13244</u>.

Research on Diversity, Equity and Inclusion in Relation to Trauma



Investigators are evaluating a group intervention that enhances coping skills and social support to reduce the impact of race-based stressors on

health. Investigators also continued work refining a model focused on trauma recovery among sexual and gender minority people that considers their unique minority context and ongoing exposures. An assessment tool that identifies risk for mental health problems is focusing on racial and ethnic minority patients who have experienced disparities in trauma exposure and mental health care is in development.

around a dozen sessions in PE and CPT. Data analyses for a recently completed study comparing WET with CPT for PTSD are in progress. Another ongoing study is examining the efficacy of WET in comparison to PE with Veterans.

Care Delivery, Models of Care and System Factors

Effective treatments are only valuable if they are accessible to patients who might benefit. Several initiatives aimed at improving access to quality care across settings, assessing different models of delivering care and promoting use of evidence-based practices are taking place in the National Center.

Several ongoing studies are assessing the ability of telehealth and web- and mobile-based technologies to increase Veteran access to mental health care and to improve outcomes. Described in detail in the introductory section of this Annual Report, this work by the National Center has generally shown that digital interventions for PTSD can be effective in improving PTSD and related symptoms.

Many Veterans are first identified as having PTSD symptoms during their primary care visits. However, a recent NCPTSD study suggested that only 60% of Veterans initially screened for PTSD in primary care are referred to specialty mental

Adapting Care Delivery to the COVID-19 Pandemic

National Center investigators rapidly produced multiple manuscripts to inform adaptation of mental health care delivery during the COVID-19 pandemic. These publications detail lessons learned from VA's expansion of telemental health services in response to COVID-19, describe how a psychotherapy training program was modified during the treating pandemic-related moral distress and outline best practices for deciding when to use or not use trauma-focused psychotherapies for PTSD with people affected by the pandemic.

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| A Model for Treating COVID-1 Moira Haller Vetense Affairs Sen Dege Beabcare System, San D California, and University of California San Rego Seb Medicine | 9-Related Guilt, Shame, and Moral Injury Sonya B. Norman Pep. University of California San Deps School of Medicine and National Center for PDSD, White Biver Junction, Vennom | | | ttraumatic Stress Disorder via ons During the COVID-19 c | |
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health care, with lower rates of referral for Veterans in rural vs. urban clinics. Ongoing work aims to improve access to evidence-based PTSD treatments at rural VA facilities by utilizing strategies such as having external facilitators working directly with providers to promote implementation of EBPs.

Making systems-level changes to increase access to care requires significant effort and stakeholder buy-in. To allow stakeholders to experiment with such changes in a lowburden way, NCPTSD investigators are testing participatory systems dynamics modeling, which uses a computer modeling to compare the likely outcomes of potential solutions to system-level problems. These models were recently updated to address factors related to the COVID-19 pandemic. Preliminary findings indicate that this method, now being tested in two ongoing randomized controlled trials, substantially improved access to EBPs at two facilities.

Implementation

The NCPTSD implementation research portfolio includes research that aims to ensure that best practices are employed throughout the health care system and tests strategies for improving implementation of best practices. Ongoing NCPTSD studies are evaluating approaches for simplifying assessment of the quality of CBT and examining competing strategies intended to enhance and sustain the delivery of CPT. One approach emphasizes fidelity to the CPT protocol through expert consultation and online resources; the other focuses on using continuous quality improvement to improve fit and address barriers to treatment delivery.

In collaboration with investigators at the Minneapolis VA, National Center investigators published findings showing



Investigators are carrying out a multi-site effectiveness-implementation clinical trial of Recovering from IPV through Strength and Empowerment (RISE), a brief counseling intervention for women who are experiencing IPV.

that an implementation intervention increased the reach of EBPs for PTSD in clinics with low use of EBPs. A trial involving toolkit-guided facilitation of PE in military bases is underway. National Center staff are also studying the implementation of intensive models of PTSD care (defined as delivery of three to five EBP sessions per week) following a successful pilot.

Investigators continued to evaluate a national rollout of IPV screening programs within women's health primary care clinics in VA. Investigators are also carrying out a multisite effectiveness-implementation clinical trial of a brief counseling intervention, Recovering from IPV through Strength and Empowerment (RISE), for women who are experiencing IPV. A complementary project conducted with the national VHA IPV Assistance Program demonstrated the scalability of RISE in routine care and extended its use to male and non-binary Veterans.



Increasing Reach of Evidence-based Psychotherapies for PTSD

Investigators showed that an implementation intervention increased EBP reach in VA PTSD clinics.

Reprinted by permission from Springer Nature Customer Service Centre GmbH: Springer, Administration and Policy in Mental Health and Mental Health Services Research, Evaluation of an implementation intervention to increase reach of evidence-based psychotherapies for PTSD in US Veterans Health Administration PTSD clinics, Sayer N A, Bernardy N C, Yoder M, et al., Copyright © 2020, advance online publication, September 17, 2020, https://doi.org/10.1007/s10488-020-01086-3

PTSD and Suicide

National Center work on PTSD and suicide covers a broad spectrum, including identification of brain-based biomarkers of suicidality, examination of psychosocial risk factors and novel treatments and evaluation of systems-levels tools for improving suicide prevention among Veterans.

Investigators are using data from the Veterans Metrics Initiative Study to predict suicidal ideation during the first three years after military service. Based on data showing that insomnia is a risk factor for suicide, another new study is conducting in-home sleep monitoring to detect suicide risk in Veterans. Data from the National Health and Resilience in Veterans Study (NHRVS), which surveyed a nationally representative sample of U.S. Veterans, showed that trouble experiencing positive feelings; negative beliefs about oneself, others, or the world; and irritability/aggression were most strongly associated with suicidal ideation.

National Center investigators are also working to develop interventions to prevent suicide and identify barriers to treatment-seeking. National Center investigators continue to test 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. Several projects are evaluating the anti-suicidal properties of ketamine in both treatment-resistant PTSD and depression and testing how neural alterations and changes in synaptic connectivity after ketamine treatment may underlie behavioral changes.

Individual PTSD Symptoms in Relation to Suicidal Ideation among Veterans



Using data from the NHRVS, investigators examined the contribution of individual PTSD symptoms to suicidal ideation in a national representative sample of Veterans.

Kachadourian, L. K., Harpaz-Rotem, I., Tsai, J., Southwick, S. M., & Pietrzak, R. H. (2019). Posttraumatic stress disorder symptoms, functioning, and suicidal ideation in US military veterans: A symptomics approach. *The Primary Care Companion for CNS Disorders,* 21. doi:<u>10.4088/pcc.18m02402</u> Copyright 2019, Physicians Postgraduate Press. Reprinted by permission.

Investigators are also developing and implementing an effective suicide prevention intervention for rural VA facilities to decrease suicide risk in Veterans living in rural settings.

Honors and Awards Received by National Center Staff in FY 2020



Tara Galovski, PhD

Women's Health Sciences Division Kappa Epsilon Psi Military Sorority Award

Lorig Kachadourian, PhD

Clinical Neurosciences Division Yale Center for Clinical Investigation Scholar Award

Ben Kelmendi, MD Clinical Neurosciences Division NIH Loan Repayment Award

Jillian Shipherd, PhD

Women's Health Sciences Division Certificate of Commitment: Diversity & Inclusion Modernization Team VHA

Fellowships and Travel Awards

James Whitworth, PhD

Behavioral Science Division

Alies Muskin Career Development Leadership Program, Anxiety and Depression Association of America

PROMOTING PTSD EDUCATION: TRAINING, DISSEMINATION AND COMMUNICATION

The Education Landscape during the Coronavirus Pandemic

The COVID-19 pandemic has presented unprecedented challenges on many levels, but it has also created opportunities, encouraging us to find creative solutions to emerging problems. This is certainly true for NCPTSD's education portfolio. While COVID-19 did not upend our educational efforts, it did make us pause and consider a range of questions:

- » How can we help providers in the field pivot quickly to providing most of their PTSD care via telehealth?
- » What resources can we create to help the public successfully navigate the psychological demands of an ongoing public health crisis?
- » How do we migrate in-person training to an online format?
- » What are proven self-care strategies that can we encourage health care workers to use to prevent burnout?
- » Here, we describe how our education portfolio was shaped by the COVID-19 pandemic, a crisis that is still profoundly affecting the way we work.

The <u>PTSD Consultation Program</u> and the PTSD Mentoring Program were in many respects the National Center's "first responders" to the pandemic. Focusing, respectively, on individual PTSD providers in any setting and on specialty PTSD programs in VA, each was uniquely positioned to play a key role in ensuring that Veterans and the providers who treat them get the support they need.

Established in 2011 to provide free consultation to providers treating Veterans with PTSD, the **PTSD Consultation Program** began fielding COVID-19-related questions starting in the early days of the crisis and demand only grew throughout the spring of 2020. Providers wondered if it was still appropriate to deliver evidence-based treatments

The Intersection of PTSD and Racism



The PTSD Consultation Program was also a leader in the National Center's response to the call to more closely consider the impact of racism and

exclusion on mental health. In order to better serve providers who had questions on these issues, the program added a consultant with expertise in the treatment of race-based trauma. The program also hosted two diversity related lectures: one on racism and trauma and another on treating LGBTQ individuals.

for PTSD while a pandemic raged. They needed help transitioning to delivering care virtually. VA and other hospital-based mental health providers, in particular, had to cope with their new role: acting as disaster mental health specialists for their medical colleagues, especially in those parts of the country where the pandemic was hitting the hardest. These were just some of the issues that program consultants helped providers work through.

In addition to providing the one-on-one guidance for which it is known, the PTSD Consultation Program was able to use its <u>monthly Lecture Series</u> as a vehicle to address COVIDrelated issues. Beginning in March 2020, previously scheduled lectures were postponed in favor of talks that focused on topics that are especially salient during this pandemic: self-care, treating PTSD in the context of COVID-19, coping with moral distress in health care settings and addressing intimate partner violence while the nation was in lockdown. Consultants also wrote articles and handouts for the NCPTSD website and spoke on VHA Office of Mental Health and Suicide Prevention (OMHSP) national calls. The **PTSD Mentoring Program** fulfilled its mission to promote clinical and administrative best practices in PTSD specialty care —a mission that began with the program's 2008 founding — by helping sites translate rapidly evolving policy into on-the-ground practice. Additionally, it provided person-to-person support to its network of mentors and mentees. As COVID-19 spread and the nation went into lockdown, a sense of urgency set in. Policy was changing rapidly, with directives, memos and briefs being promulgated continually. The Mentoring Program stepped in, distilling information and using its recently redesigned SharePoint site as a knowledge management tool. Timely email updates to leaders of PTSD specialty clinics were designed to communicate the most important points, and the team provided ongoing technical assistance to help sites operationalize directives. As needed, the PTSD Clinical Dashboard was updated with features that could capture the realities of clinical practice during a pandemic, including telephone and VA Video Connect-based telehealth.

In the past, occasional face-to-face meetings of mentors and mentees in the program have fostered collaboration and innovation. In fact, the 2019 meeting, with its focus on telemental health, meant that sites were well on the way to implementing this treatment modality before the pandemic struck. This year, however, no in-person meetings could be held, so the Mentoring Program instead hosted a smaller online implementation facilitation training in partnership with the Quality Enhancement Research Initiative (QUERI) for Team-Based Behavioral Health. These mentors will work with colleagues in the next fiscal year to use this model in their work to facilitate EBP reach.

NCPTSD has a track record of quickly developing **resources in the wake of disasters** ranging from earthquakes to mass shootings. The pandemic was no different. Starting in January



The COVID-19: Resources for Managing Stress page helps individuals access resources to learn how to cope with effects of the pandemic.

2020, when cases first began to appear in the United States, we recognized there would be an acute need for resources to address the sadness, fear, loneliness and grief engendered by the crisis. We created and posted <u>twenty online articles</u> and handouts for Veterans, VA providers, community and business leaders and the public at large. Starting with a core set of materials, we expanded our offerings, always aiming to provide evidence-informed information that could be applied immediately and shared widely. Many of the documents were made into PDFs for easy printing, and a subset were translated into Spanish.

Beyond the stress and fear associated with infection rates and the virus itself, isolation and loneliness clearly contribute to the decay of mental and physical health. <u>The Women</u> <u>Veterans Network (WoVeN)</u> is a program led by the Women's Health Sciences Division for which the primary aim is improving members' quality of life through establishing social support among women Veterans. The program has

Selected Resources Related to the COVID-19 Pandemic

- » <u>Strategies for Families to Adapt to the</u> <u>Coronavirus (COVID-19) Pandemic</u>
- » <u>Treating PTSD During the COVID-19</u> <u>Virus Outbreak</u>
- » Managing Health Care Workers' Stress Associated with the COVID-19 Virus Outbreak
- » For Leaders: Helping Employees in the Aftermath of Loss
- » <u>Pensamiento útil durante el brote de</u> <u>coronavirus (COVID-19)</u>

redoubled its efforts to meet the specific needs of members during this challenging time. Prior to the COVID-19 pandemic, WoVeN had begun a small-scale implementation of online support groups. These were rapidly scaled up, with formerly in-person groups shifted completely online and a total of 53 new online groups started. In addition, WoVeN's peer leader training program, historically conducted as large in-person group trainings held two or three times a year, was shifted to monthly online trainings. These trainings offer advantages to the in-person model, including decreased cost, improved retention and creation of a more consistent pipeline of peer leaders, without any apparent decreases in the effectiveness of the training model.

Moving from peer support to self-help, the Dissemination and Training Division, long at the forefront of creating apps, developed the **COVID Coach app** in record time. This tool, released in mid-April 2020, is designed to help people manage stress, track their moods and access resources during the pandemic. Its programming was based on the structure and code of the popular PTSD Coach app. The app is designed to help people manage stress, track their moods and access resources during the pandemic. Two considerations informed the decision to build the app:

» the awareness—demonstrated in <u>national polling</u> early in the outbreak—that the pandemic was presenting mental health challenges for people across the country » the many requests from providers in the field for a tool they could offer their patients

After its release, COVID Coach immediately garnered <u>national</u> <u>news coverage</u> and overwhelmingly positive user reviews. By the end of the fiscal year it had been downloaded more than 135,000 times.

Requests from providers also played an important role in the decision to develop and disseminate materials on **Stress** First Aid (SFA). As the pandemic persisted, providers across VA told us they needed help supporting coworkers and dealing with their own stress reactions. SFA, a framework to improve recovery from stress, is a flexible, easy to implement, evidence-informed model that was originally developed for first responders and military personnel. In the context of the pandemic, NCPTSD adapted the model for mental health and medical providers. We presented the model on national calls, developed a handout for essential workers and their families and created a brief slide deck that could be used to train individuals and teams in this approach. We are continuing to create a comprehensive suite of materials that will be disseminated in FY 2021, including materials for in-person trainings (a slide deck, manual and workbook), additional tailored handouts and an online course for VA and community providers.

In addition to creating and disseminating materials on SFA, the National Center has also supported an effort to



COVID Coach App

The COVID Coach app was created to help individuals manage their response to the pandemic and learn about associated resources.



implement and evaluate the framework in four VA sites in New Jersey, Connecticut, Minnesota and Iowa. The locations were chosen for their geographic diversity and self-identified need for strategies to support staff well-being as the pandemic was spreading across the country. For this quality improvement service project, each site will identify one or two teams that will receive up to eight sessions of training in SFA that is integrated into the teams' usual training activities. Each team will decide what aspects of the SFA model they want to implement, based on their sites' needs and interest.

Studying the uptake of evidence-based PTSD treatment is a key National Center activity. Our ongoing facilitated learning collaborative in WET had been designed to be fully virtual in order to avoid travel costs. This proved advantageous during the pandemic. The patient care being provided as part of the training was intended to be delivered in person, however, so when facilities moved to virtual visits, WET project staff supplemented workshop content with a guide on transitioning from in-person to telehealth-delivered WET. As challenges arose, trainers encouraged peer-to-peer problem solving during program leader and group facilitation calls. Participants across sites shared creative tips and suggestions with each other on how to overcome barriers to care. Even in those cases when treatment was disrupted, clinicians reported that the ongoing consultation calls provided an oasis of stability during a period that was both personally and professionally challenging.

All training activities that the Dissemination and Training Division's Practice-Based Implementation (PBI) Network has been conducting under the auspices of its **Tech into Care** initiative moved to an online-only format when the pandemic began. During the pandemic, app use has skyrocketed, so Tech into Care's aim of training up a cadre of VA providers ("mHealth Ambassadors") who can facilitate Veterans' use of these tools has never been timelier. Staff across VA comprise a growing community of practice that is working to increase the uptake of mobile apps and online programs in mental health care. The PBI Network has continued its popular continuing education lecture series, which is open to VA staff and community providers who are interested in integrating apps and other mHealth and telehealth modalities into care. Tech into Care also debuted an online course that provides free continuing education credits and additional app demo videos to continue to spread the reach of the mobile app portfolio.

The Executive Division's academic detailing and facilitation **project**, funded by the Office of Rural Health, works with rural VA sites across the country to increase the reach of evidence-based treatment for PTSD and discourage prescribing practices that run counter to the VA/DoD Clinical Practice Guideline. In the pandemic, in-person facilitation switched to a virtual format. There is little research on virtual facilitation and virtual academic detailing. The sites themselves had concerns about treating patients using telehealth. Nevertheless, facilitation continued, with clinics in the program seeing a 25% increase in the use of evidencebased psychotherapy. Interestingly, as treatment moved from in-person groups to individual telehealth treatment, many clinics took the opportunity to start patients on evidencebased psychotherapy rather that supportive treatment. Earlier work on the part of the PTSD Mentoring Program to include incentives for the use of EBPs-a development that facilitators made sure to mention during their outreach to

Get Help

Military Sexual Trauma (MST)

ABOUT30A

If you experienced sexual assault or sexual harassment while serving in the military, healing is possible. Hear Veterans' stories and find out how treatment has changed their lives.

Home

Watch **v**

AboutFace's new feature on military sexual trauma.

sites—may have played a role in the increased uptake of these treatments.

Along with these initiatives, the National Center continued its efforts in PTSD awareness efforts, support for providers and researchers and development of self-help and treatment companion resources.

PTSD Awareness

The National Center's two largest efforts in the area of increasing awareness of PTSD and PTSD treatment are **AboutFace** and **PTSD Awareness Month**. This year we completed development of a new feature on MST on the AboutFace website. In keeping with the site's focus on the stories of Veterans with PTSD, the feature is built around the experiences of male and female Veterans who turned their lives around through treatment. For PTSD Awareness Month, we had our largest ever cadre of organizations and individuals sign up to partner with the National Center to host online events and share materials, reinforcing the message that effective PTSD treatments are available.

This year the National Center for PTSD launched the **PTSD**-**Repository**, a large publicly available database of PTSD clinical trials. The PTSD-Repository brings together data from more than 300 published studies on a wide range of treatments and will be updated annually to capture new research. The PTSD-Repository includes hundreds of variables. The information in it is wide in scope and rich in detail. The intended audience is also broad: anyone with an

interest in PTSD treatment, including not just providers, but Veterans, the general public, clinicians, researchers, educators, policymakers and the media, could learn from the PTSD-Repository. In FY 2020, National Center staff created featured stories and visualizations that provide an overview of the studies included in the PTSD-Repository and information about how investigators can use the data for their own research. More detailed stories are in development.

Learn More

PTSD-Repository

The PTSD-Repository compiles data from 300+ published studies and can be used to learn more about PTSD treatment. Studies will be updated annually to capture new research.





Featured Visualizations from the PTSD-Repository

- 1. Number of Studies per Study Class
- 2. Number of Studies by Military Status
- 3. Number of Studies by Publication Year

Support for Providers in the Field

As described above, the PTSD Consultation and Mentoring Programs continued working with providers to promote evidence-based treatment of PTSD. Work on the redesigned **Community Provider Toolkit** continued. The revamped site was developed using a human-centered design approach that integrates the perspectives of key stakeholder groups. Meanwhile, a new podcast series for providers, with content aligned to that of the toolkit, is being recorded and will launch within the coming year.



The updated Community Provider Toolkit site.

The Dissemination and Training Division's PBI Network began implementing a Joint Incentive Fund (JIF) quality improvement project, "Expanding Reach of VA/DoD Mobile Apps to Improve Coping and Reduce Suicide Risk." This project is an expansion of the Tech into Care initiative, established in 2017, which works to increase the uptake of mobile apps and online programs via trainings, marketing and a VA-wide Community of Practice.

The Women's Health Sciences Division piloted a small implementation project for RISE. The project was funded by <u>VHA's Intimate Partner Violence Assistance Program</u>, which, in response to participants' positive feedback on the pilot, is interested in expanding the intervention to Veterans of all gender identities.

Self-Help and Treatment Companion Resources

Input from stakeholders across VA, including the Veterans Crisis Line, OMHSP and the Rocky Mountain MIRECC for Veteran Suicide Prevention informed the Dissemination and Training Division's creation of the **Suicide Safety Planning App Module**, a digital version of the safety plan used in VA's Safety Planning Intervention. The module gives Veterans anytime access to a high quality, personalized safety plan for suicide prevention. After extensive testing with Veterans, subject matter experts and other stakeholders, the module went live in April 2020 as a new section in the popular PTSD Coach app. Development of a standalone Safety Plan App is underway, with an expected FY2021 release date. This year also saw the release of **Couples Coach**, a self-help app designed to foster communication and promote problemsolving in romantic partners. **Beyond MST**, an app that fosters adaptive coping in people who have experienced military sexual trauma, continued to be refined. Finally, **Insomnia Coach**, which is based on Cognitive Behavioral Therapy for Insomnia—one of the most effective insomnia treatments—debuted this year.

The National Center's Behavioral Science Division continues to enhance **VetChange**, an online program that helps Veterans and Service members track their progress toward abstinence or drinking reduction goals and manage PTSD symptoms. A <u>research version of the site</u> now allows providers to collaborate with patients on their treatment goals and share information. The team will conduct research on this new version and also work to make it publicly available.

National Center staff and colleagues at Boston University have also partnered with Google to launch another public version of an updated VetChange program for public use. This new version allows Veterans to track their drug use in addition to their alcohol use and includes a new module designed to help users identify and manage urges to drink and use drugs more effectively. Plans are also underway to develop a version of VetChange tailored to the unique needs of women Veterans.

Insomnia Coach



Insomnia Coach was released this year on Android and iOS



A collaborative research version of VetChange debuted this year.

Education Resources for Professionals

Building on the prior year's work, Executive and Behavioral Science Division staff collaborated to further refine the **Clinician-Administered PTSD Scale for DSM-5 (CAPS-5) Training Simulator**, an online course that uses speech recognition and virtual patient technology to improve assessors' competence in administration of the CAPS-5. Direct feedback from users and course metrics are guiding enhancement to the current course. We are also creating a second module with a new patient; this course is designed for learners who require less guidance in administration, but still want to improve their facility with the CAPS-5. Both the updated original course and the new course will be released in early FY 2021.

The National Center wrapped up development on six new courses for the **PTSD 101 continuing education series**, covering a range of topics of interest to providers including massed delivery of EBPs, PTSD and aging and using treatment for sleep disturbances as a way to reduce PTSD symptoms and prevent suicide. The National Center also worked with the <u>Office of Community Care</u> on the development of a comprehensive introductory course on PTSD <u>for providers</u> <u>seeing Veterans under the auspices of the MISSION Act</u>. National Center staff are also contributing their expertise on PTSD assessment to a new course on mental health examinations that is being developed by the Office of Disability Assessment.

The CAPS-5 Training Simulator new patient, Kathy.



| Criterion B | () | | |
|--|--|--|--|
| Item 1 (B1) : Recurrent, involuntary, and intrusive distressing memories of the traumatic even play may occur in which themes or aspects of the traumatic event(s) are expressed. | nt(s). Note: In children older than 6 years, repetitive | | |
| In the past month, have you had any <u>unwanted memories</u> of (EVENT) while you were awake, so not counting dreams?(Rate 0=Absent if only during dreams) How does it happen that you start remembering (EVENT)? [If not clear:] (<i>Are these <u>unwanted</u> memories, or are you thinking about</i> (EVENT) on purpose?) (Rate 0=Absent unless perceived as involuntary and intrusive) How much do these memories bother you? | 0 Absent 1 Mild / subthreshold 2 Moderate / threshold 3 Severe / markedly elevated 4 Extreme / incapacitating | | |
| Are you able to put them out of your mind and think about something else? [If not clear:] (Overall, how much of a problem is this for you? How so?) | Key rating dimensions = frequency / intensity of distress Moderate = at least 2 X month / distress clearly present, some difficulty dismissing memories | | |
| <u>Circle</u> : Distress = Minimal Clearly Present Pronounced Extreme How often have you had these memories in the past month? # of times | Severe = at least 2 X week / pronounced distress, considerable difficulty dismissing memories | | |

Online Communication Resources

In FY 2020, the Resource Center staff continued to develop its new content management system to streamline the indexing and publishing of records to **PTSDpubs**, NCPTSD's online database of PTSD and traumatic stress literature. PTSDpubs

currently holds 63,366 records. The National Center's new semantic software has facilitated the ability to quickly edit and update our thesaurus, providing users with more precise terminology for locating relevant research without needing to construct complex search queries. In the upcoming year the Center hopes to fully integrate auto-tagging capabilities using machine learning and to revamp its public interface.

FY 2020 Communication Resources at a Glance

WEBSITE (WWW.PTSD.VA.GOV) 8.5 million views



MOBILE APPS 676,480 downloads of 19 apps



CTU CLINICIAN'S TRAUMA UPDATE

PTSD MONTHLY UPDATE NEWSLETTER 371,651 subscribers FACEBOOK 157,662 likes

PTSD RESEARCH QUARTERLY PTSD) PTSD RESEARCH QUARTERLY 58,872 subscribers

CLINICIAN'S TRAUMA UPDATE-ONLINE

49,307 subscribers



ITEMS DISTRIBUTED FREE OF CHARGE THROUGH THE U.S. GOVERNMENT **PUBLISHING OFFICE**

256,835 printed items

ABOUT THE NATIONAL CENTER FOR PTSD



Quick Facts



The National Center for PTSD was formed in 1989.



It has seven Divisions across the United States, each with a distinct area of focus.



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

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 (CoE) 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 National Center as a consortium of five Divisions.

Organization

The National Center now consists of seven VA academic CoEs 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 NCPTSD mission through specific areas of focus.

The National Center for PTSD is an integral and valued component of VA's OMHSP, which is part of VHA. OMHSP and NCPTSD receive budget support from VA, although NCPTSD also leverages this support through successful competition for extramural research funding.

LEADERSHIP IN 2020



Paula P. **Schnurr, PhD** Executive Director, <u>Executive Division</u>, White River Junction, VT Professor of Psychiatry, Geisel School of Medicine at Dartmouth



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Senior Advisor and founding Executive Director, <u>Executive Division</u>, White River Junction, VT

Professor of Psychiatry and of Pharmacology and Toxicology, Geisel School of Medicine at Dartmouth



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Associate Professor of Psychiatry, Geisel School of Medicine at Dartmouth



Paul E. Holtzheimer, MD

Deputy for Research, <u>Executive</u> <u>Division</u>, White River Junction, VT

Associate Professor of Psychiatry, Geisel School of Medicine at Dartmouth



Terence M. **Keane, PhD** Division Director, <u>Behavioral Science</u> <u>Division</u>, Boston, MA

Professor of Psychiatry and Assistant Dean for Research, Boston University School of Medicine



Craig S. **Rosen, PhD** Division Director, <u>Dissemination and</u> <u>Training Division</u>, Menlo Park, CA

Professor of Psychiatry and Behavioral Sciences, Stanford University School of Medicine



Rani A. **Hoff, PhD, MPH** Division Director, <u>Evaluation Division</u>, West Haven, CT

Professor of Psychiatry, Yale University School of Medicine



John H. **Krystal, MD** Division Director, <u>Clinical</u> <u>Neurosciences Division</u>, West Haven, CT

Robert L. McNeil, Jr. Professor of Translational Research and Chairman of the Department of Psychiatry, Yale University School of Medicine



Tara E. **Galovski, PhD** Division Director, <u>Women's Health</u> <u>Sciences Division</u>, Boston, MA

Associate Professor of Psychiatry, Boston University School of Medicine

FISCAL YEAR 2020 EXPERT PANELS

Expert Scientific Panel

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

Col. Dave 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

John Fortney, PhD University of Washington 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

Candice Monson Ph.D., C. Psych. Ryerson University

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

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

Educational Expert Panel

Tamara Campbell, MD, DFAPA Office of Community Care, Veterans Health Administration

Claire Collie, PhD Office of Mental Health and Suicide Prevention, Department of Veterans Affairs

Chris Crowe, PhD Office of Mental Health and Suicide Prevention, Department of Veterans Affairs Joseph Liberto, MD Office of Mental Health and Suicide Prevention, Department of Veterans Affairs

Aimee Johnson, LCSW Office of Mental Health and Suicide Prevention, Department of Veterans Affairs

Stacey Pollack, PhD Office of Mental Health and Suicide Prevention, Department of Veterans Affairs Sandra Resnick, PhD

VA Northeast Program Evaluation Center, Yale University School of Medicine

Kendra Weaver, PsyD

Office of Mental Health and Suicide Prevention, Department of Veterans Affairs



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 3375 Koapaka Street Suite 1-560 Honolulu, HI 96819

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







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