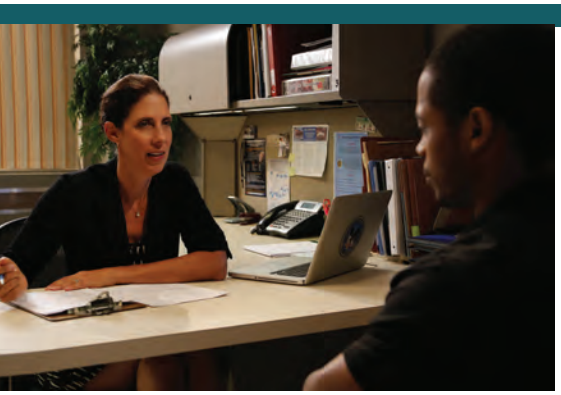
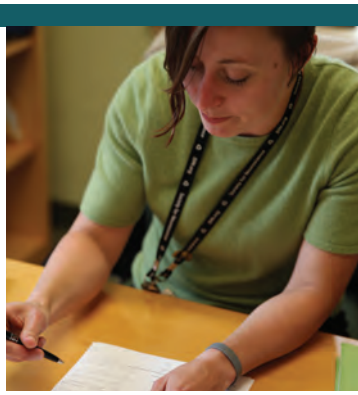
National Center for PTSD





Fiscal Year 2014
ANNUAL REPORT

25th Anniversary

National Center for PTSD
POSTTRAUMATIC STRESS DISORDER

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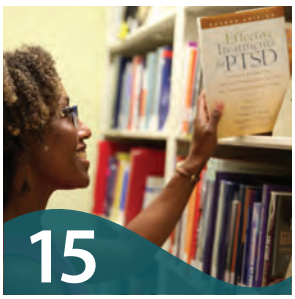
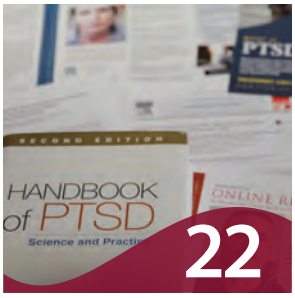




A version of the National Center for PTSD Fiscal Year 2014 Annual Report with all appendices, as well as each individual appendix, is available as a pdf document at http://www.ptsd.va.gov/about/mission/annual_reports/index.asp.

ACRONYMS

CAP
Consortium to Alleviate PTSD

CAPS
Clinician-Administered PTSD Scale

CBCT
Cognitive-Behavioral Conjoint Therapy

CBT
Cognitive-Behavioral Therapy

CDC
Centers for Disease Control and Prevention

CNN
Cable News Network

CPT
Cognitive Processing Therapy

CSP
Cooperative Studies Program

DoD
Department of Defense

DRRI
Deployment Risk and Resilience Inventory

DSM
Diagnostic and Statistical Manual of Mental Disorders

GABA
Gamma-Aminobutyric Acid

GWAS
Genome-Wide Association Study

HPA
Hypothalamic–Pituitary–Adrenal

ICD
International Classification of Diseases

MHS
Mental Health Services

MIRECC
Mental Illness Research, Education and Clinical Centers

NVVRS
National Vietnam Veterans Readjustment Survey

OEF
Operation Enduring Freedom

OIF
Operation Iraqi Freedom

OND
Operation New Dawn

PBIN
Practice-Based Implementation Network

PCL
PTSD Checklist

PE
Prolonged Exposure

PERSIST
Promoting Effective Routine and Sustained Implementation of Stress Treatments

PILOTS
Published International Literature on Traumatic Stress

PTSD
Posttraumatic Stress Disorder

RCS
Readjustment Counseling Service

RORA
Retinoid-Related Orphan Receptor Alpha

SERV
Survey of Experiences of Returning Veterans

STAIR
Skills Training in Affect 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

VHA
Veterans Health Administration

WET
Written Exposure Therapy

LETTER FROM THE DIRECTOR

On August 29, 2014, the U.S. Department of Veterans Affairs (VA) National Center for Posttraumatic Stress Disorder (PTSD) celebrated its 25th anniversary. Since its inception the National Center has been the leader in research and education for helping those who are living with PTSD. I was privileged to be a part of the team that started the Center, and part of an ever-growing number of people working to further knowledge about consequences of being exposed to a traumatic event.

Since its inception the National Center has been the leader in research and education for helping those who are living with PTSD.

In 1984 Congress directed VA to form a National Center for PTSD "to carry out and promote the training of healthcare and related personnel in, and research into, the causes and diagnosis of PTSD and the treatment of Veterans for PTSD." The proposal to create the National Center arose from the recognition of the growing mental health needs of Vietnam Veterans and others. VA established the National Center for PTSD in 1989 as a center of excellence that would set the agenda for research and education on PTSD. The diagnosis of PTSD had been formalized only nine years earlier, in the third edition of the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-III*, 1980). The new diagnosis significantly increased research on the consequences of exposure to horrific, life-threatening events. In 2013 the American Psychiatric Association published revised criteria for the diagnosis of PTSD — reflecting advances in knowledge gained since the last revision of the criteria in 1994 and generating new research aimed at understanding the implications of the changes.

But science and education are not the only influences that have increased understanding of PTSD. Disasters, wars, and other traumatic high-profile events — the terrorist attacks on 9/11/2001, the subsequent wars in Iraq and Afghanistan, the 2011 tsunami and earthquake in Japan — all have helped to raise public awareness. Media reports on PTSD have played a role in creating awareness, too. I think this is a good thing. Veterans and other trauma survivors who have PTSD do not always understand their reactions, and even if they do, they might not know how to get help. Being informed about the symptoms of PTSD and the treatments available can help people with PTSD take the first steps toward seeking assistance.

Our Mission

The mission of the National Center for PTSD is to advance the clinical care and social welfare of America's Veterans and others who have experienced trauma, or who suffer from PTSD, through research, education, and training in the science, diagnosis, and treatment of PTSD and stress-related disorders.

Another fundamental change over the past 25 years is an expansion of knowledge about how to treat PTSD. In 1989 few effective treatments had been identified. Many clinicians and their patients thought that PTSD was a disorder that had to be coped with. Now there are effective treatment options — psychotherapies and medications — that can help individuals with PTSD achieve meaningful improvements. VA has implemented national training programs for clinicians to enhance the availability of the most effective psychotherapies for PTSD to Veterans. Researchers are working to make existing treatments more effective and to develop even more effective treatments. And today, we can say with conviction that treatment works.

Technology is also playing a role by widening the distribution of information and access to treatment in multiple channels. For example, in 2011 the National Center partnered with the Department of Defense to create the first publicly available VA mobile app, the award-winning PTSD Coach. AboutFace — an online video gallery developed by the Center that features Veterans talking about living with PTSD and how treatment has turned their lives around — breaks down barriers around seeking care and reduces misconceptions about PTSD and its treatment. We are probably only at the beginning stages of figuring out how to use technology and social media to help individuals with PTSD.

Integrity, Commitment, Advocacy, Respect, and Excellence (I CARE) are the values that define "who the VA is" and the VA's culture, and help guide the actions of staff across the VA. The National Center's accomplishments and plans exemplify how we have supported and will continue to support these values. In 2012 the Center began a strategic planning process. Through this work, we identified Center-wide Operational Priorities to help us optimally serve the field and carry out the Center's mission. These priorities inform areas of research and education focus and include (1) Biomarkers; (2) *DSM-5*; (3) Treatment efficiency, effectiveness, and engagement; (4) Care delivery, models of care, and system factors; and (5) Implementation. Although the Center has made great strides in research and education, we look forward to making even greater progress in promoting understanding of and advancing scientific knowledge about PTSD.

Dr. Paula P. Schnurr is the Executive Director of the National Center for Posttraumatic Stress Disorder and served as Deputy Executive Director of the Center since 1989. She is a Research Professor of Psychiatry at the Geisel School of Medicine at Dartmouth and Editor of the *Clinician's Trauma Update-Online*.

MAJOR ACCOMPLISHMENTS

25 Anniver

Since its beginning in 1989, the National Center for PTSD has maintained a strong commitment to improve the care of Veterans through research into the prevention, causes, assessment, and treatment of traumatic stress disorders and through education of Veterans, others affected by trauma, professionals, and policy makers.

Through the methodological rigor and collaborative nature of our research, we are dedicated to high professional standards of integrity, excellence, and respect. Our research activities have a uniquely real-world perspective that ensures we are truly Veteran-centric. As a result, the Center is adept at translating basic findings into clinically relevant techniques and at conducting research on the best ways to implement evidence-based practices into care.

Our efforts benefit from continually improving quality — ensuring excellence in the programs and materials we provide to Veterans, their families, and providers. Our respect for military culture and for individual circumstances of Veterans and others impacted by trauma informs all the work we do including the Center's award-winning website (www.ptsd.va.gov), and our many publications, online resources, and national programs.

Advancing the Scientific Understanding of PTSD

When the National Center opened, research on PTSD was in its early stages. PTSD had been added to the American Psychiatric Association's official classification of mental disorders only nine years before. The National Vietnam Veterans Readjustment Survey (NVVRS) had just been published the previous year, "an incredibly important study scientifically, historically, and in terms of clinical policy moving forward," says Matthew Friedman, MD, PhD, Senior Advisor and former Executive Director of the National Center. "It was the first time that any nation had attempted to use rigorous science to assess the consequences of military deployment to a war zone in terms of psychiatric sequelae," continues Friedman. The survey documented a high prevalence of PTSD in Vietnam Veterans; for example, 30% of all male Veterans who had been deployed to Vietnam had experienced PTSD at some point. Of those, half still have PTSD. "It really underscored the fact that PTSD not only had severe consequences, but was a chronic condition and increased risk of other psychiatric problems," says Friedman. The NVVRS raised major questions about the scope of the problem that researchers continue to grapple with today: who develops PTSD and why? What happens to people with PTSD over time? Early research started to address these questions to better identify and treat those affected.

Key Milestones IN THE FIRST 25 YEARS

1989

Secretary of Veterans Affairs William Derwinski dedicates National Center for PTSD

At its first meeting, Center launches development of the Clinician Administered PTSD Scale (CAPS)

1990

First issues of *PTSD Research Quarterly* and *NCP Clinical Newsletter* are published by the Center

Center participates in first VA/DoD training conference to prepare for casualties from Operations Desert Storm and Desert Shield

1991

PILOTS (Published International Literature on Traumatic Stress) database is made publicly available by the Center; it provides a comprehensive cross-disciplinary index to all published research on trauma

1992

Center prepares to launch the Matsunaga Vietnam Veterans Project, a Congressionally mandated survey to assess the readjustment experiences of American Indian, Japanese American, and Native Hawaiian Veterans of the Vietnam War

Epidemiology of PTSD

Less than a year after the National Center opened, Congress mandated the Center to assess the readjustment experiences of American Indian, Japanese American, and Native Hawaiian Veterans of the Vietnam War. The resulting Matsunaga Vietnam Veterans Project (named for Spark Matsunaga, the former U.S. senator from Hawaii who spearheaded the legislation mandating the study) found significant differences in PTSD prevalence among the groups. Specifically, Northern Plains, Southwest Indian, and Native Hawaiian Veterans had higher PTSD prevalence than did White Veterans; Japanese Americans had lower prevalence (Beals et al., 2002[1]; Friedman, Schnurr, Sengupta, Holmes, & Ashcraft, 2004[2]). Native American Veterans were more exposed to atrocities and combat in Vietnam compared with White Veterans, which seems to have contributed to increased PTSD prevalence in that study group. The study's results for Japanese American Veterans triggered many questions by researchers "such as, is there sometimes a cultural norm against acknowledging these kinds of problems?" says Friedman. Researchers continue to pursue these types of questions regarding ethnicity and PTSD.

With the increasing number of women in military service, the National Center recognized early on the need to examine trauma and PTSD in this population. Our investigators published one of the first studies on the occurrence and negative impact of sexual harassment and assault in female military personnel (Wolfe et al., 1998[3]). More recent research has expanded the examination of sexual trauma to include male Servicemembers. For example, a study of Reservists indicated that although women are at greater risk for sexual harassment, men might be more negatively affected when harassment is severe (Street, Stafford, Mahan, & Hendricks, 2008[4]). As a result of such findings the VA developed assessment tools for sexual assault, and implemented screening and counseling for military sexual trauma.

Studies with large samples and measurements over time are needed to fully understand the predisposing factors for PTSD and the effects of trauma. In 2003 National Center investigators began one of the largest longitudinal surveys of military personnel: the Neurocognition Deployment Health Study of recently deployed Veterans (Vasterling et al., 2006[2]). This study was one of the first longitudinal studies of military Veterans that included predeployment assessments. The researchers found that soldiers who had been deployed to Iraq were experiencing neurobiological compromise, "a neural alteration that happens when people are functioning under extreme stress," says Jennifer Vasterling, PhD, study principal investigator. "They had been back a couple of months and were still in this hyperaroused state." The researchers continue to study subsets of this Veteran cohort. Long-term studies are useful, says Vasterling, "because you can develop predictive models of risk factors for certain psychiatric disorders."

Neurobiology of PTSD

The National Center has a strong legacy of basic science research into the neurobiological causes and correlates of PTSD. The ultimate aim of our basic science research, led by experts in the Clinical Neurosciences Division, is to improve assessment and treatment of Veterans and others affected by trauma. Center investigators were the first to demonstrate alterations in brain structure, function, and chemistry associated with PTSD. Dysregulation of the stress response system — the hypothalamic–pituitary–adrenocortical (HPA) axis — showed that HPA abnormalities in Veterans with PTSD were different compared with Veterans with depression (Yehuda et al., 1993[2]). Center investigators also found reduced hippocampal volume (Bremner et al., 1995[2]) and a smaller anterior cingulate cortex in Veterans with PTSD. These findings supported the argument that PTSD was a psychiatric disorder, which experts in the field were debating at the time.

The National Center has focused on identifying biomarkers associated with different expressions, or phenotypes, of PTSD. Findings from one key study suggest that a combination of genes involved in one particular neurotransmitter (serotonin) is associated with severity of two clusters of PTSD symptoms — arousal and re-experiencing — and might be a risk factor for PTSD (Pietrzak, Galea, Southwick, & Gelernter, 2013[5]). Center investigators also took part in the first comprehensive scan of DNA samples from many individuals: a Genome-Wide Association Study (GWAS) to see if there are any genetic differences between those with and those without PTSD. They found that a certain gene, called retinoid-related orphan receptor alpha (RORA), was associated with a higher risk of the disorder (Logue et al., 2013[2]). This study opened a new line of inquiry into the role the RORA gene plays in the brain. Mark Miller, PhD, principal investigator at the Center's Behavioral Science Division, says, "The GWAS findings got us thinking about molecular pathways and mechanisms we probably never would have thought about had we not found the association between RORA and PTSD."

Improving the Assessment of PTSD

Accurate and up-to-date measures are crucial to advancing research on PTSD and the clinical care of Veterans living with PTSD. The development of the Clinician-Administered PTSD Scale (CAPS) was one of the first Center-wide projects. We developed the CAPS because we believed it was essential to moving the field forward, and it was. The CAPS rapidly facilitated reliable and valid PTSD assessment in research around the world (Weathers, Keane, & Davidson, 2001[2]).

The development of the Clinician-Administered PTSD Scale (CAPS) was one of the first Center-wide projects. We developed the CAPS because we believed it was essential to moving the field forward, and it was.

Since then, the National Center has expanded its resources by developing additional leading assessment measures for trauma and PTSD for use in the VA, the Department of Defense (DoD), and around the world. These include the Primary Care-PTSD Screen (Prins et al., 2003[2]) and the PTSD Checklist (Weathers, Litz, Herman, Huska, & Keane, 1993[6]). One of the most widely used measures of PTSD symptom severity, the PTSD Checklist is also useful for making a provisional PTSD diagnosis.

As the field's understanding of PTSD has evolved, so have the clinical criteria used to make a diagnosis. Within the newly revised *DSM-5*, PTSD was reclassified from an anxiety disorder to an event-related disorder

1993

The Women's Health Sciences Division and the Pacific Islands Division are created

The Scientific Institute on Ethnocultural Aspects of PTSD is cosponsored by the Center and the National Institute of Mental Health (NIMH)

1994

National training conference on African-American Veterans and PTSD, cosponsored by the Center and Readjustment Counseling Service (RCS)

1995

Center launches its website to disseminate information about PTSD to researchers, clinicians, Veterans, and the general public

Consensus Conference on PTSD Assessment, cosponsored by the Center and the NIMH

1996

Congressionally mandated study of PTSD in Native American and Asian-American Vietnam Veterans is completed by the Center; results are presented to Secretary of Veterans Affairs

Women's Health Sciences Division completes national survey of women Veterans' perceptions of VA health care

1997

VA Cooperative Study #420 is launched, the largest PTSD psychotherapy study ever conducted

Education Division (currently Dissemination & Training Division) completes *VA Disaster Mental Health Manual*

1998

National Disaster Mental Health Training Series is launched by the Center, in collaboration with RCS

1999

Center supports VA Headquarters in coordinating the VA PTSD/ Primary Care Summit

2000

First practice guideline for PTSD is published by the International Society for Traumatic Stress Studies, with contributions from the Center

2001

Center develops and disseminates resources in response to the aftermath of the September 11 terrorist attacks at the World Trade Center and Pentagon

VA Cooperative Study #494, the first study of PTSD treatment for female Veterans, is launched

Congressionally mandated Military Sexual Trauma Project is launched by the Center

"because not all presentations of PTSD were consistent with conceptualizing the disorder in terms of simple fear or anxiety," says Paula Schnurr, PhD, Executive Director of the National Center. Dr. Friedman and other Center investigators not only played a leading role in redefining PTSD within *DSM-5*, but also validated revised assessment measures and examined the impact of the new criteria on rates of the disorder. In one seminal study, a Center research team found that the new criteria yielded prevalence estimates of PTSD similar to those of *DSM-IV* in both a national community sample and a sample of trauma-exposed Veterans (Miller et al., 2013[2]).

Beyond PTSD-specific measures, National Center investigators developed the most comprehensive assessment instrument for war-related stress: the Deployment Risk and Resilience Inventory (DRRI). Although the DRRI was developed for use by researchers to assess various areas of psychosocial risk and resilience factors from across the deployment cycle, clinicians are increasingly using it as an adjunct assessment. The measure was updated to validate its scales with Veterans from recent conflicts in Iraq and Afghanistan (Vogt et al., 2013[7]). In addition to measuring combat exposure, the DRRI also includes three measures related to family functioning and social support. The focus on family functioning is one of the major advantages of the DRRI "because research shows that family stressors have implications for Veterans' postdeployment health," says Dawne Vogt, PhD, Acting Deputy Director of the Center's Women's Health Sciences Division.

The National Center has investigated and continues to investigate whether multimodal approaches to assessment might improve PTSD diagnosis. An early milestone in the Center's research on assessment was VA Cooperative Study #344. A large-scale study, the project addressed whether psychophysiological changes — such as increased heart rate, sweating, and breathing — could differentiate Veterans with and without PTSD. In a sample of more than 1,000 Veterans seeking treatment in VA, investigators found that, on average, individuals with PTSD showed stronger, more distinctive physiological reactions to trauma cues, with the most impaired Veterans experiencing the highest levels of physiological reactivity. But some Veterans with PTSD did not show increased physiological reactivity (Keane et al., 19982), a finding that encouraged additional research and led to increased understanding of the physiology and assessment of PTSD.

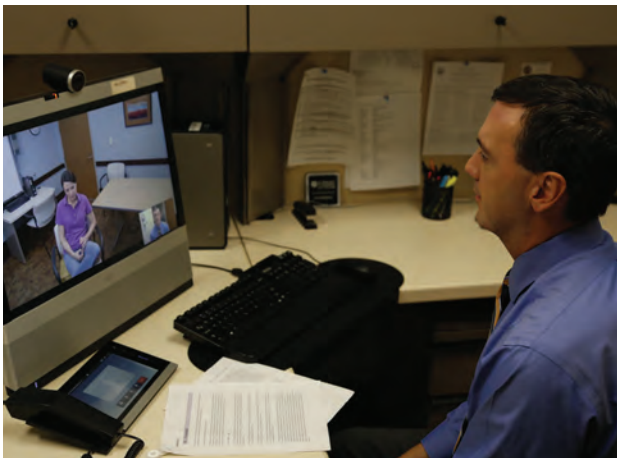
Advancing the Treatment of PTSD

Among our highest priorities are supporting VA clinicians, and improving Veterans' lives through development, research, and dissemination of evidence-based treatments for PTSD. Our investigators have conducted landmark studies on cognitive-behavioral therapy (CBT) for PTSD, particularly the main evidence-based psychotherapies: Cognitive Processing Therapy (CPT) and Prolonged Exposure (PE).

The National Center has carried out the two largest randomized controlled trials of psychotherapy for PTSD ever conducted: (1) VA Cooperative Study #420, launched in 1997, which found no

difference between trauma-focused and present-centered group therapy for PTSD among male Vietnam Veterans (Schnurr et al., 2003[2]); and (2) VA Cooperative Study #494, launched in 2001, the first randomized controlled trial of treatment for PTSD in female Veterans and Servicemembers, which found that PE was more effective than present-centered therapy (Schnurr et al., 2007[2]). A smaller Center-led VA study added support to CPT for the treatment of military-related PTSD (Monson et al., 2006[2]). These studies showed definitively that "we have reliable, evidence-based treatments that work," says Schnurr.

National Center researchers have also led advances in the delivery of evidence-based PTSD treatments and in novel psychotherapeutic approaches. Studies that support CBT delivered via teleconferencing (Morland et al., 2010[2]) and in an Internet-based, therapist-assisted format (Litz, Engel, Bryant, & Papa, 2007[2]) have helped increase access to PTSD treatment nationwide. Another Center-developed innovation, cognitive-behavioral conjoint therapy (CBCT), sought to meet the needs of Veterans and others with PTSD struggling with intimate relationship issues or who want their partners directly involved in their PTSD care. A randomized controlled trial showed CBCT for PTSD alleviates distress, decreases PTSD symptom severity, and improves relationship satisfaction (Monson et al., 2012[2]).



The National Center has a strong commitment to psychopharmacology research trials as well. A multisite study by Center investigators found that sertraline, an antidepressant previously shown to work in civilian populations, was ineffective for Veterans with PTSD (Friedman, Marmar, Baker, Sikes, & Farfel, 2007[2]). More recently, the results of VA Cooperative Study #504 (Krystal et al., 2011[2]), launched in 2004, indicated that an atypical antipsychotic agent, risperidone, did not add any benefits to existing pharmacological treatment for PTSD — a finding that led to revisions of the *VA/DoD Clinical Practice Guideline for the Management of Posttraumatic Stress*, which describes critical decision points in the management of PTSD and outlines the evidence behind different treatments. Trials testing novel agents that specifically address PTSD are needed, according to Friedman. "What I see looking down the road is research on medications that work on the biological systems we know are dysregulated in PTSD," he says, such as inflammation markers or other neurosteroids or neuropeptides.

Promoting Implementation of Evidence-Based Care

The National Center was instrumental in the development of the *VA/DoD Clinical Practice Guideline for the Management of Posttraumatic Stress*. The guideline offers clinicians essential information on how to provide consistent quality of care and utilization of resources throughout the health care system. However, the development and dissemination of state-of-the art tools and products are not sufficient to change practice. "We've increasingly recognized that dissemination

2002

Usage of the Center's website more than doubles, as professionals and laypersons seek information on disaster mental health following 9/11 attacks

Interagency summit on Early Intervention Following Mass Casualties is led by the Center

2003

The *Iraq War Clinician Guide* is released by the Center to prepare VA and DoD to serve personnel returning from Iraq

Research on the use of telehealth to care for Veterans in remote locations initiated by the Center

2004

Center co-leads development of the *VA/DoD Clinical Practice Guideline for the Management of Posttraumatic Stress*

VA Cooperative Study #504 on the effectiveness of risperidone for PTSD is launched

2005

Center completes *Psychological First Aid*, a manual that provides evidence-based guidance for first responders, and disseminates it online to help responders to Hurricane Katrina

2006

PTSD 101, a comprehensive online PTSD training curriculum, is launched

2006 cont.

Center leads VA's national training initiative on Cognitive Processing Therapy

2007

Findings from Cooperative Study #494 are published; they show that Prolonged Exposure is effective for female Veterans with PTSD

Center leads VA's national training initiative on Prolonged Exposure

Clinician's Trauma Update-Online (CTU-Online), a bimonthly electronic research newsletter, is published by the Center

2008

The PTSD Mentoring Program, started by the Center, supports VA PTSD program administrators and facilitates best practices in PTSD care for Veterans

Center and DoD collaborate on STRONG STAR Multidisciplinary Research Consortium, aimed at developing effective interventions to prevent and treat combat-related PTSD in active-duty military personnel

2009

The first online toolkit for nonclinical professionals who come in contact with Veterans and other trauma survivors is made available by the Center

VA Cooperative Study #566 is funded; it supports long-term follow-up of a cohort of Iraq War Veterans initially assessed prior to their first deployment

is not enough," says Schnurr, "and in order to ensure the uptake of treatment, it's important also to facilitate implementation and expand our training programs for therapists."

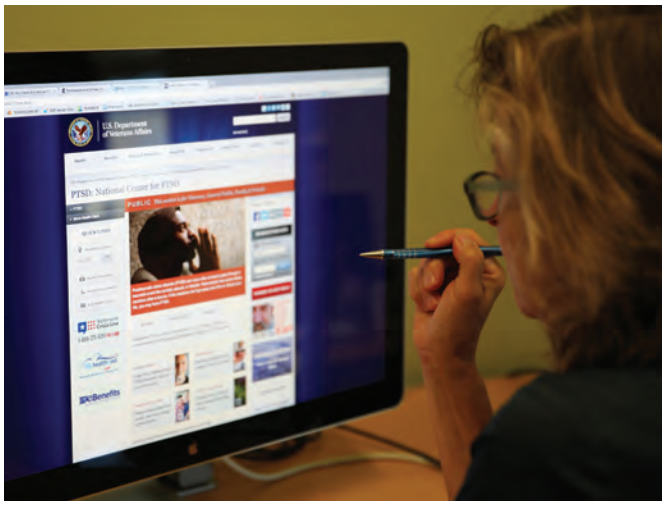
"The data from this study provided real-world information on patients who were treated while the therapists were learning the treatment. So at the very beginning, with novice therapists learning the treatment, we saw very meaningful improvements."

To make evidence-based treatment for PTSD widely available to Veterans across the United States, the VA created national clinical training programs in CPT (launched in 2006) and PE (launched in 2007). The National Center led the development and implementation of both programs. As of January 2015, there were nearly 2,000 VA providers trained to deliver PE and more than 6,000 VA and Vet Center providers trained to deliver CPT. Our evaluation of the PE training initiative showed that both PTSD and depression improved significantly for Veterans regardless of gender, war era, or trauma type (Eftekhari et al., 2013[2]). "The data from this study provided real-world information on patients who were treated while the therapists were learning the treatment. So at the very beginning, with novice therapists learning the treatment, we saw very meaningful improvements," says Schnurr. "This study strongly validated our training program for therapists." The evaluation of the CPT training program, led by Center collaborator Kathleen Chard, PhD, has found similarly positive outcomes (Chard, Ricksecker, Healy, Karlin, & Resick, 2012[8]).

Online training offers great potential to widely disseminate proven clinical practices. However, there is little information about how to conduct online training to help providers learn and implement new skills. Investigators from the National Center and the New England Research Institutes report encouraging findings from a randomized controlled trial testing a Web-based cognitive-behavioral skills training for PTSD providers. Results suggest that online training, especially with consultation, has potential for large health care systems such as VA (Ruzek et al., 2014[9]).

Pioneering the Use of Technology in Education

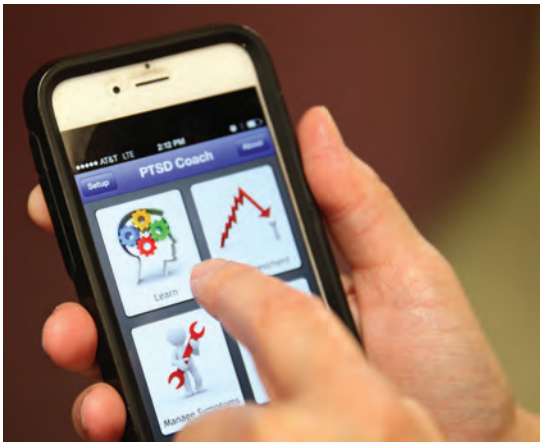
The National Center is internationally known as the leader in development of technology-based education and resources for trauma survivors. In 1995 we launched our website, www.ptsd.va.gov. The initial purpose of the website was to provide widespread access to the Published International Literature on Traumatic Stress (PILOTS) online database, a comprehensive, cross-discipline index to all published works on trauma. Starting with just 2,000 records, when it was first made publicly available in 1991, PILOTS now includes more than 53,000 records, with materials in 30 languages.



PILOTS is produced within the Center's PTSD Resource Center, the world's largest collection of literature on traumatic stress.

Early online offerings included fact sheets and other materials about PTSD and its treatment, geared toward providers. Through innovative programming and design, we have widened the scope of our website — with online manuals, mobile apps, toolkits, and videos — and it is now one of the world's leading websites on PTSD for professionals, Veterans, and the public. In fiscal year (FY) 2014, our website had more than five million unique page views (averaging 422,000 views per month); and the mobile site had nearly 72,000 views (averaging 6,000 views per month). Recent offerings for Veterans, their families, and the public include *Understanding PTSD, Understanding PTSD Treatment*, and the *Returning from the War Zone Guides*.

As mobile apps have become an integral part of our everyday lives, the National Center has been at the forefront in the application of this technology for PTSD and co-occurring problems. Starting with *PTSD Coach*, released in 2011, the National Center has continued to create iOS and Android apps for the public and providers. Our apps are evidence-informed, using cognitive-behavioral and other tested principles to help users self-manage symptoms and to augment professional care.



In 2010 the National Center entered the social media arena by establishing a Twitter feed. We launched our Facebook page the following year, and established a presence on YouTube in 2012. We quickly recognized that social media offers great promise as a tool for communication and education. With social media we can deliver our products to new audiences and provide real-time resources when disasters and other large-scale traumatic events occur. Social media has also opened up an interactive communication channel with our audiences, enabling us to gain insights into the concerns and experiences of trauma survivors, and to respond to their questions. The "social" part of social media is also crucial, as those who engage with us share our resources with their own networks of friends, family, and colleagues.

Outreach to Professionals

To better, the National Center has moved from passive dissemination strategies toward active outreach. And we have developed mechanisms to make new scientific findings and evidence-based treatments easily accessible.

National Center staff present regularly on national VA calls and at professional meetings to disseminate information. Since 2013 we have made the continuing education courses in our popular *PTSD 101* curriculum available as podcasts, so providers can learn about assessment and treatment of PTSD at their convenience. With our PTSD Consultation Lecture Series, which is archived following each live broadcast, providers can keep current on the latest clinical findings and best practices for PTSD care.

2010

Congress designates June 27 as PTSD Awareness Day (S. Res. 455) and the Center launches its first annual PTSD outreach campaign

Skills for Psychological Recovery, an intervention for postdisaster survivors, is published by the Center in collaboration with the National Child Traumatic Stress Network

Center contributes to the revised *VA/DoD Clinical Practice Guideline for the Management of Posttraumatic Stress*

2011

The VA PTSD Consultation Program is established to advise VA staff on PTSD and to promote the use of evidence-based practice

PTSD Coach, VA's first mobile phone app, is released by the Center and DoD's National Center for Telehealth & Technology

Findings from VA Cooperative Study #504 are published. They show that risperidone is not effective for treatment-resistant PTSD, leading to a revision of the *VA/DoD Clinical Practice Guideline for the Management of Posttraumatic Stress*

2012

PTSD Coach Online, an expanded desktop version of the popular *PTSD Coach* app, is made available by the Center

AboutFace, a website offering videos of Veterans' stories of PTSD and how treatment turned their lives around, is launched by the Center

2012 cont.

PE Coach, the first treatment companion app, is released by the Center and DoD's National Center for Telehealth & Technology

2013

DSM-5 versions of the CAPS and the PTSD Checklist are released by the Center

Center assists in VA's response to the Sandy Hook school shooting by providing training and consultation to local providers

The University of Texas Health Science Center and the National Center for PTSD receive the Consortium to Alleviate PTSD award, a 5-year, $45 million research initiative funded by VA and DoD to improve understanding and treatment of PTSD

2014

What is PTSD?, the Center's first Whiteboard video, debuts on YouTube

VA Cooperative Study #591, a 17-site trial to compare the effectiveness of Prolonged Exposure and Cognitive Processing Therapy for Veterans, is launched

Center receives Congressional funding to expand the PTSD Consultation Program to non-VA providers and to establish the National PTSD Brain Bank, the first brain tissue repository to advance PTSD research

The National Center also produces publications aimed at disseminating novel information to the field. The *Clinician's Trauma Update-Online* is an electronic newsletter that provides clinicians with summaries of peer-reviewed articles, with an emphasis on the assessment and treatment of Veterans. Published six times a year, the newsletter had more than 34,000 subscribers at the end of FY 2014. The *PTSD Research Quarterly*, with more than 50,000 subscribers, provides expert reviews of the scientific PTSD literature. Topics covered in FY 2014 included the dissociative subtype of PTSD, partial PTSD, *DSM-5* and the upcoming ICD-11, and adjustment to mass shootings.

The National Center has moved from passive dissemination strategies toward active outreach.

Looking Towards the Future

To optimally serve the field and carry out the National Center's mission, we continued to align our research portfolio in FY 2014 with the Operational Priorities identified the previous year. These priorities include (1) Biomarkers; (2) *DSM-5*; (3) Treatment efficiency, effectiveness, and engagement; (4) Care delivery, models of care, and system factors; and (5) Implementation. Each priority reflects a critical area for development in both research and education.

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[2] See **Top 25 National Center Publications**, 1989-2014 on pages 13-14

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[8] Chard, K. M., Ricksecker, E. G., Healy, E. T., Karlin, B. E., & Resick, P. A. (2012). Dissemination and experience with cognitive processing therapy. *Journal of Rehabilitation Research and Development, 49*, 667-678. doi:10.1682/JRRD.2011.10.0198

[9] Ruzek, J. I., Rosen, R. C., Garvert, D. W., Smith, L. D., Sears, K. C., Marceau, L., . . . Stoddard, A. M. (2014). Online self-administered training of PTSD treatment providers in cognitive-behavioral intervention skills: Results of a randomized controlled trial. *Journal of Traumatic Stress, 27*, 703-711. doi:10.1002/jts.21977

TOP 25 NATIONAL CENTER PUBLICATIONS*

25 Anniver

The development of a clinician-administered PTSD scale

Blake, D. D., **Weathers, F. W.**, **Nagy, L. M.**, **Kaloupek, D. G.**, **Gusman, F. D.**, **Charney, D. S.**, & **Keane, T. M.** (1995). *Journal of Traumatic Stress, 8*, 75-90. doi:10.1002/jts.2490080106 View Article

MRI-based measurement of hippocampal volume in patients with combat-related posttraumatic stress disorder

Bremner, J. D., Randall, P. K., Scott, T. M., Bronen, R. A., Seibyl, J. P., **Southwick, S. M.**, ... Innis, R. B. (1995). *American Journal of Psychiatry, 152*, 973-981. doi:10.1176/ajp.152.7.973 View Article

Effectiveness of national implementation of prolonged exposure therapy in Veteran Affairs care

Eftekhari, A., **Ruzek, J.I.**, **Crowley, J. J.**, **Rosen, C.S.**, Greenbaum, M.S., & Karlin, B. E. (2013). *Journal of the American Medical Association Psychiatry, 70*, 949-955. doi:10.1001/jamapsychiatry.2013.3 View Article

Randomized, double-blind comparison of sertraline and placebo for posttraumatic stress disorder in a Department of Veterans Affairs setting

Friedman, M. J., Marmar, C. R., Baker, D. G., Sikes, C. R., & Farfel, G. M. (2007). *Journal of Clinical Psychiatry, 68*, 711-720. doi:10.4088/JCP.v68n0508 View Article

The Hawaii Vietnam Veterans Project: Is minority status a risk factor for posttraumatic stress disorder?

Friedman, M. J., **Schnurr, P. P.**, Sengupta, A., Holmes, T., & Ashcraft, M. (2004). *Journal of Nervous and Mental Disease, 192*, 42-50. doi:10.1097/01.nmd.0000105999.57129.ee View Article

Utility of psychophysiological measurement in the diagnosis of posttraumatic stress disorder: Results from a Department of Veterans Affairs cooperative study

Keane, T. M., Kolb, L. C., **Kaloupek, D. G.**, Orr, S. P., Blanchard, E. B., Thomas, R. G., ... Lavori, P. W. (1998). *Journal of Consulting and Clinical Psychology, 66*, 914-923. doi:10.1037//0022-006X.66.6.914 View Article

Posttraumatic stress disorder in a national sample of female and male Vietnam veterans: Risk factors, war-zone stressors, and resilience-recovery variables

King, D. W., **King, L. A.**, Foy, D. W., **Keane, T. M.**, & Fairbank, J. A. (1999). *Journal of Abnormal Psychology, 108*, 164-170. doi:10.1037/0021-843X.108.1.164 View Article

Adjunctive risperidone treatment for antidepressant-resistant symptoms of chronic military service–related PTSD: A randomized trial

Krystal, J. H., **Rosenheck, R. A.**, Cramer, J. A., Vessicchio, J. C., Jones, K. M., Vertrees, J. E., ... Stock, C.: Veterans Affairs Cooperative Study No. 504 Group. (2011). *Journal of the American Medical Association, 306*, 493-502. doi:10.1001/jama.2011.1080 View Article

A randomized, controlled proof-of-concept trial of an internet-based, therapist-assisted self-management treatment for posttraumatic stress disorder

Litz, B. T., Engel, C. C., Bryant, R. A., & Papa, A. (2007). *American Journal of Psychiatry, 164*, 1676-1684. doi:10.1176/appi.ajp.2007.06122057 View Article

A genome-wide association study of post-traumatic stress disorder identifies the retinoid-related orphan receptor alpha (RORA) gene as a significant risk locus

Logue, M. W., Baldwin, C., Guffanti, G., Melista, E., **Wolf, E. J.**, Reardon, A. F., ... **Miller, M. W.** (2013). *Molecular Psychiatry, 18*, 937-942. doi:10.1038/mp.2012.113 View Article

The prevalence and latent structure of proposed *DSM-5* posttraumatic stress disorder symptoms in U.S. national and veteran samples

Miller, M. W., **Wolf, E. J.**, Kilpatrick, D., Resnick, H., **Marx, B.P.**, **Holowka, D. W.**, ... **Friedman, M. J.** (2013). *Psychological Trauma: Theory, Research, Practice and Policy, 5*, 501-512. doi:10.1037/a0029730 View Article

Effect of cognitive-behavioral couple therapy for PTSD: A randomized controlled trial

Monson, C. M., **Fredman, S. J.**, **Macdonald, A.**, Pukay-Martin, N. D., **Resick, P. A.**, & **Schnurr, P. P.** (2012). *Journal of the American Medical Association, 308*, 700-709. doi:10.1001/jama.2012.9307 View Article

Cognitive processing therapy for veterans with military-related posttraumatic stress disorder

Monson, C. M., **Schnurr, P. P.**, **Resick, P. A.**, **Friedman, M. J.**, **Young-Xu, Y.**, & **Stevens, S. P.** (2006). *Journal of Consulting and Clinical Psychology, 74*, 898-907. doi:10.1037/0022-006X.74.5.898 View Article

Relationships among plasma dehydroepiandrosterone sulfate and cortisol levels, symptoms of dissociation, and objective performance in humans exposed to acute stress

Morgan, C. A., **Southwick, S. M.**, Hazlett, G., **Rasmusson, A. M.**, Hoyt, G., **Zimolo, Z.**, & **Charney, D**. (2004). *Archives of General Psychiatry, 61*, 819-825. doi:10.1001/archpsyc.61.8.819 View Article

Telemedicine for anger management therapy in a rural population of combat veterans with posttraumatic stress disorder: A randomized noninferiority trial

Morland, L. A., **Greene, C. J.**, **Rosen, C. S.**, Foy, D., Reilly, P., Shore, J., ... Frueh, B. C. (2010). *Journal of Clinical Psychiatry, 71*, 855-863. doi:10.4088/JCP.09m05604blu View Article

Naltrexone and disulfiram in patients with alcohol dependence and comorbid post-traumatic stress disorder

Petrakis, I. L., Poling, J., Levinson, C., Nich, C., Carroll, K., Ralevski, E., & Rounsaville, B. (2006). *Biological Psychiatry, 60*, 777-783. doi:10.1016/j.biopsych.2006.03.074 View Article

The primary care PTSD Screen (PC-PTSD): Development and operating characteristics

Prins, A., Ouimette, P., **Kimerling, R.**, Cameron, R. P., Hugelshofer, D. S., Shaw-Hegwer, J., ... Sheikh, J. (2003). *Primary Care Psychiatry, 9*, 9-14. doi:10.1185/135525703125002360 View Article

A randomized clinical trial to dismantle components of Cognitive Processing Therapy for posttraumatic stress disorder in female victims of interpersonal violence

Resick, P. A., Galovski, T. E., Uhlmansiek, M. O. B., Scher, C. D., Clum, G. A., & **Young-Xu, Y.** (2008). *Journal of Consulting and Clinical Psychology, 76*, 243-258. doi:10.1037/0022-006X.76.2.243 View Article

Cognitive behavioral therapy for posttraumatic stress disorder in women: A randomized controlled trial

Schnurr, P. P., **Friedman, M. J.**, Engel, C. C., Foa, E. B., Shea, M. T., Chow, B. K., ... **Bernardy, N.** (2007). *Journal of the American Medical Association, 297*, 820-830. doi:10.1001/jama.297.8.820 View Article

Randomized trial of trauma-focused group therapy for posttraumatic stress disorder : Results from a department of Veterans Affairs cooperative study

Schnurr, P. P., **Friedman, M. J.**, Foy, D. W., Shea, M. T., Hsieh, F. Y., Lavori, P. W., ... **Bernardy, N. C.** (2003). *Archives of General Psychiatry, 60*, 481-489. doi:10.1001/archpsyc.60.5.481 View Article

Abnormal noradrenergic function in posttraumatic stress disorder

Southwick, S. M., **Krystal, J. H.**, **Morgan, C. A.**, **Johnson, D. R.**, **Nagy, L. M.**, **Nicolaou, A. L.**, ... **Charney, D. S.** (1993). *Archives of General Psychiatry, 50*, 266-274. doi:10.1001/archpsyc.1993.01820160036003 View Article

Neuropsychological outcomes of Army personnel following deployment to the Iraq War

Vasterling, J. J., Proctor, S. P., Amoroso, P., Kane, R., Heeren, T., & White, R. F. (2006). *Journal of the American Medical Association, 296*, 519-529. doi:10.1001/jama.296.5.519 View Article

Gender differences in combat-related stressors and their association with postdeployment mental health in a nationally representative sample of U.S. OEF/OIF veterans

Vogt, D., Vaughn, R., Glickman, M. E., Schultz, M., Drainoni, M.L., Elwy, R., & Eisen, S. (2011). *Journal of Abnormal Psychology, 120*, 797-806. doi:10.1037/a0023452 View Article

Clinician-administered PTSD scale: A review of the first ten years of research

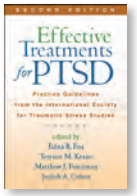
Weathers, F. W., **Keane, T. M.**, & Davidson, J. R. T. (2001). *Depression and Anxiety, 13*, 132-156. doi:10.1002/da.1029 View Article

Enhanced suppression of cortisol following dexamethasone administration in posttraumatic stress disorder

Yehuda, R., **Southwick, S. M.**, **Krystal, J. H.**, Bremner, D., **Charney, D.** S., & Mason, J. W. (1993). *American Journal of Psychiatry, 150*, 83-86. doi:10.1176/ajp.150.1.83 View Article

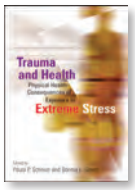
* Author names in boldface indicate affiliation with the National Center.

TOP 10 NATIONAL CENTER BOOKS*



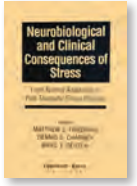
Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies (2nd ed.)

Foa, E. B., **Keane, T. M., Friedman, M. J.**, & Cohen, J. A. (Eds.) (2009). New York, NY: Guilford Press.



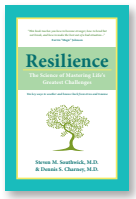
Trauma and health: Physical health consequences of exposure to extreme stress

Schnurr, P. P., & Green, B. L. (Eds.) (2004). Washington, DC: American Psychological Association.



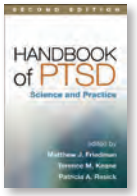
Neurobiological and clinical consequences of stress: From normal adaptation to posttraumatic stress disorder

Friedman, M. J., **Charney, D. S.**, & Deutch, A. Y. (Eds.) (1995). Philadelphia, PA: Lippincott-Raven.



Resilience: The science of mastering life's greatest challenges

Southwick, S. M., & Charney, D. S. (2012). New York, NY: Cambridge University Press.

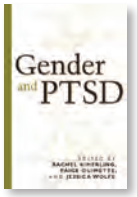


Handbook of PTSD: Science and practice (2nd ed.)

Friedman, M. J., Keane, T. M., & Resick, P. A. (Eds.) (2014). New York, NY: Guilford Press.

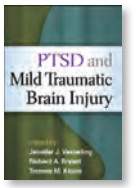
Caring for veterans with deployment-related stress disorders: Iraq, Afghanistan, and beyond

Ruzek, J. I., **Schnurr, P. P.**, **Vasterling, J. J.**, & **Friedman, M. J.** (Eds.) (2012). Washington, DC: American Psychological Association.



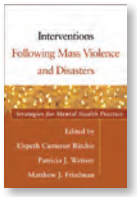
Gender and PTSD

Kimerling, R., Ouimette, P., **Wolfe, J**. (Eds.) (2002). New York, NY: Guilford Press.



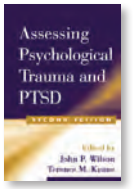
PTSD and mild traumatic brain injury

Vasterling, J. J., Bryant, R. A., & **Keane, T. M.** (Eds.) (2012). New York, NY: Guilford Press.



Interventions following mass violence and disasters: Strategies for mental health practices.

Ritchie, E. C., **Watson, P. J.**, & **Friedman, M.J.** (Eds.) (2007). New York, NY: Guilford Press.



Assessing psychological trauma and PTSD (2nd ed.)

Wilson, J. P. & **Keane, T. M.** (2004). New York, NY: Guilford Press.

* Author names in boldface indicate affiliation with the National Center.

RECENT MAJOR INITIATIVES

The National Center has made great strides in PTSD research and education. The diversity of our initiatives during the past few years speaks to the leadership role we play in informing the prevention, assessment, and treatment of PTSD. The VA I CARE values of Integrity, Commitment, Advocacy, Respect, and Excellence guide this work.

Our reach and our ambitions have grown. The insights gained from our research inform daily clinical practice. Training has expanded from brief courses to comprehensive curricula and expert consultation on PTSD to any provider working with Veterans. Outreach efforts have matured, resulting in a dynamic website with interactive content and mobile offerings.

As we look forward to the next 25 years, we will continue to pursue multiple paths to achieve the goal of enhancing the clinical care and social welfare of those who have experienced trauma.

Increasing Scientific Understanding of Trauma and PTSD

The key to improving care is advancing our understanding of the neurobiology of trauma and PTSD.

Genetics of PTSD: Analysis of RORA and Other Candidate Genes in PTSD

The National Center is continuing its pioneering work on the role of the RORA gene in the development of PTSD (see page 7). The research team is now conducting a more detailed genetic analysis of RORA and PTSD to: (1) identify the complete array of genetic variation in these genes associated with PTSD risk, (2) perform genome-wide expression analysis, (3) analyze additional PTSD-related comorbidity phenotypes, and (4) examine possible gene-gene interactions.

The Consortium to Alleviate PTSD

In 2013 President Obama announced a $45 million award over five years to establish the Consortium to Alleviate PTSD (CAP). The National Center partnered with the STRONG STAR Consortium at the University of Texas Health Science Center at San Antonio to successfully compete for this award. The funding will advance PTSD care for Servicemembers and Veterans. The CAP will provide an array of cutting-edge clinical treatment trials and biological studies including efforts to learn more about the biology/physiology of PTSD development, treatment response to inform diagnosis, prediction of disease outcome, and new or improved treatment methods.

The VA PTSD Brain Bank

Currently there are more than 50 brain banks in the United States. The focus of these brain tissue repositories is on investigating alcoholism, Alzheimer's disease, depression, schizophrenia, and a variety of neurological disorders. Yet there has never been a PTSD brain bank — until now. With funding appropriated by Congress, the National Center is leading a consortium to develop a national PTSD brain bank — the first brain tissue repository dedicated to studying the physical impact of stress, trauma, and PTSD on brain tissue. Projects overseen by the consortium will advance scientific knowledge about PTSD, particularly biological indicators (biomarkers) associated with the disorder. Dr. Friedman is Director of the consortium, which includes the Uniformed Services University of Health Sciences, the VA Medical Center in San Antonio and in Boston, and the National Center's Behavioral Science and Clinical Neurosciences Divisions.

Understanding the Longitudinal Course of PTSD

Examining how PTSD develops and changes over time reveals risk and protective factors, as well as effects of the disorder.

VA Cooperative Study #566: Neuropsychological and Mental Health Outcomes of Operation Iraqi Freedom (OIF)

The VA Cooperative Studies Program funded the latest wave of followup in the Neurocognition Deployment Health Study, which has been examining the psychological impact of war zone stress (including PTSD and TBI) in male and female active duty Army soldiers since 2003 (see page 6). The latest wave of data collection was completed in June 2014, with more than 600 cohort members participating.

Project VALOR: Veterans After-Discharge Longitudinal Registry

The first registry of combat-exposed men and women with PTSD aims to: (1) identify clinical characteristics, risk factors, and comorbidities, (2) describe and evaluate neuropsychological and psychosocial outcomes and treatment trajectories, and (3) compare an undiagnosed group of Veterans who are high health care users with nondeployed Veterans. The registry will provide essential data on the natural history of PTSD including progression, remission, and outcomes associated with the disorder.

SERV Registry: Survey of Experiences of Returning Veterans

A longitudinal cohort study, the SERV Registry aims to determine differences in how male and female combat Veterans readjust to civilian life after deployment by tracking Veterans' use and continuity of care, physical and psychiatric comorbidity, and medication use and adherence since 2002. As of April 2015 a total of 711 Veterans (480 men and 231 women) have been enrolled. Results will help identify gaps in and barriers to services.

Enhancing Care for PTSD

Although we have effective psychotherapies for PTSD, care will be advanced when we understand what works best for whom and offer proven alternative delivery methods. Patient-centered care will also be optimized when new medication options are identified.

VA Cooperative Study #591: Comparative Effectiveness Research in Veterans with PTSD (CERV-PTSD)

The National Center is currently leading a $10 million study that will compare PE and CPT, and will help answer whether one treatment is better suited than the other for specific types of patients. Launched in early FY 2014, VA Cooperative Study #591 is the first large-scale comparative effectiveness trial of treatment for PTSD. The study, which will involve 900 Veterans at 17 sites across the country, will help VA leadership, providers, and Veterans in making informed choices about PTSD care in VA, and will also be broadly relevant to the scientific and clinical communities outside VA.

Novel Approaches to Treatment Delivery

Two National Center studies examine new delivery methods for PTSD treatment to give patients a range of choices. The first extends our work in telehealth by comparing three ways to provide PE to Veterans with PTSD: in-home in-person, in-home teleconferencing, and in-clinic teleconferencing. If PE can be effectively delivered in these diverse ways, patients will be able to use the option that best suits their needs. A second trial compares Written Exposure Therapy (WET), a brief treatment that requires minimal therapist involvement, with CPT. If results are positive, WET could be an alternative trauma-focused treatment for patients who prefer to write about, rather than talk about, their trauma.

Novel Pharmacological Approaches

The most effective medications for PTSD are selected types of antidepressants that work by increasing two important brain neurotransmitters: serotonin and norepinephrine. Other types of medication might offer even more effective alternatives. National Center investigators are planning a trial of ketamine, which is typically used for sedation but also has rapid antidepressant effects, for treating PTSD in active duty military personnel and Veterans who do not respond to antidepressant treatment. The trial is part of the CAP award. A second study is examining the safety and efficacy of URB597, a compound that increases the brain's production of endocannabinoids, which reduce depression and pain. The same group of investigators is also examining a substance that works on glutamate, the most abundant neurotransmitter in the brain, and important for learning and memory. Lastly, Center investigators completed data collection in a clinical trial of ganaxolone, a steroid that might help alleviate PTSD due to its effects on gamma-aminobutyric acid (GABA), a neurotransmitter that helps regulate anxiety and fear.

Promoting Awareness of PTSD and Engagement in Evidence-based Treatment

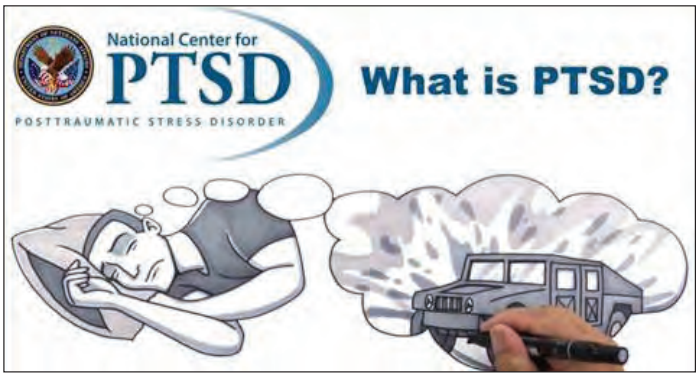
The first step in encouraging treatment engagement is helping people recognize that they might have a problem that can be helped with treatment.

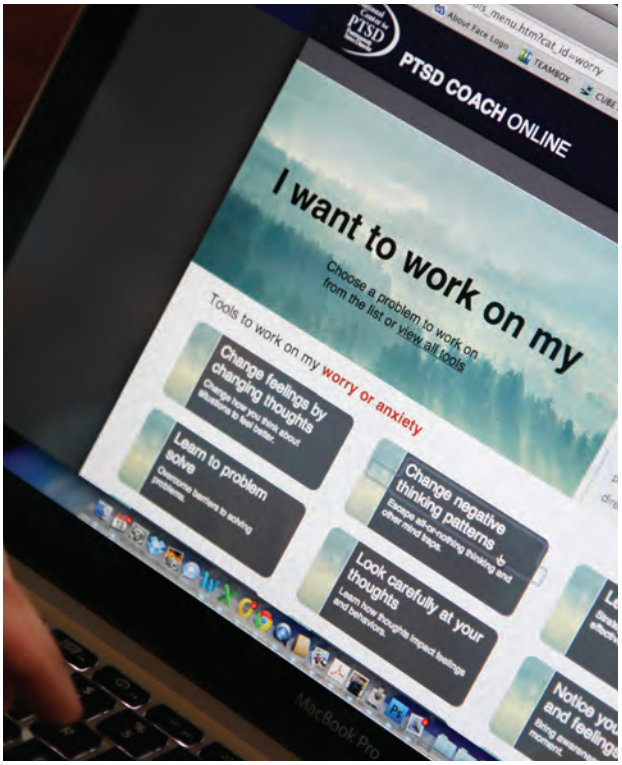
AboutFace

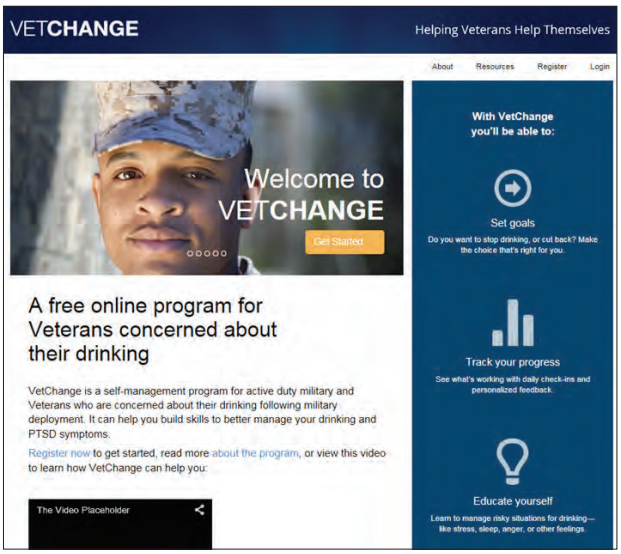
For those trauma survivors who develop troubling symptoms, it can be difficult to take the first step to get care. The National Center created *AboutFace* to help Veterans and other trauma survivors learn about people who have successfully overcome stigma and other treatment obstacles. *AboutFace* is an award-winning online video gallery of Veterans telling their stories of how PTSD treatment has turned their lives around. Since its 2012 launch, *AboutFace* has expanded to include videos from family and friends of Veterans with PTSD, along with insights from clinicians who treat PTSD.

Animated Whiteboard Videos

Our collection of six short, hand-drawn, animated videos gives Veterans, family members, professionals, and the general public an accurate and accessible overview of the assessment and treatment of PTSD. Five of the six videos target a public audience: *What is PTSD?; Prolonged Exposure for PTSD; Cognitive Processing Therapy for PTSD; PTSD Treatment: Know Your Options; and "Evidence-based" Treatment: What Does It Mean?* The final video, *Prescribing for PTSD: Know Your Options*, is for providers and includes information about screening for PTSD, prescribing, and referring for psychotherapy.







Developing Self-Help and Treatment Companion Resources

The National Center offers trauma survivors innovative tools that are grounded in science.

Mobile Phone Applications

In 2011 the National Center partnered with the DoD to launch the first publicly available VA app, *PTSD Coach*. The app offers users self-assessment, coping skills, and other resources, and has received numerous awards. The Center has continued to develop a wide array of apps, including self-help tools and apps that support the delivery of PE, CPT, and CBT for insomnia. Apps provide users with information and assistance wherever they are and whenever they need it. Like all our products, National Center apps are distributed for free.

PTSD Coach Online

Inspired by the enthusiastic response to the *PTSD Coach* app, we created *PTSD Coach Online*, a suite of evidence-informed, Web-based tools to help users cope with symptoms like anger, sadness, anxiety, and trouble sleeping. In addition to integrating many elements from the *PTSD Coach* app, *PTSD Coach Online* includes tools that allow users create in-depth plans to tackle the issues they are facing. Integrating video, animation, audio, and interactivity, *PTSD Coach Online* helps those impacted by stress and trauma help themselves.

VetChange

Heavy drinking is a common problem in Veterans of the most recent conflicts; and research has shown that Veterans who struggle with problematic drinking patterns often have PTSD symptoms as well. *VetChange*, an online self-management program for Veterans concerned about their drinking, addresses both issues. A randomized controlled trial of an initial version of *VetChange* showed that the intervention helped many Veterans reduce their drinking and PTSD symptoms. A new version — with enhanced interactivity, video tips, and responsive design — is slated for release in 2015.

Educating Professionals about Evidence-based PTSD Care

Online resources give providers within VA and in the community on-demand access to free training.

Continuing Education Courses

Educating VA providers in the assessment and treatment of PTSD and related issues is vital to the National Center's mission. Our continuing education resources are all freely available online, making them accessible to not only providers within VA but also community-based providers, researchers, trainees, and paraprofessionals. Our flagship *PTSD 101* series offers a broad array of hour-long courses that are available both online and as podcasts. The lecture series *From the War Zone to the Home Front*, a collaboration with the Red Sox Foundation and the Massachusetts General Hospital Home Base Program, features on-demand lectures on topics relevant to caring for Veterans of the Iraq and Afghanistan wars and their families.

Within the past five years, we have expanded our Web-based continuing education offerings to include advanced multimodule courses on specialized treatment approaches. These courses incorporate video vignettes, step-by-step guidance, and patient materials that can help providers integrate these interventions into their practice. Currently available courses include *STAIR: Skills Training in Affect and Interpersonal Regulation* and *Assessment and Treatment of Sleep Problems in PTSD*. Soon-to-be-released courses include *Managing Anger* and *Clinician-Administered PTSD Scale-5 (CAPS-5) Online Training for Providers.*

Comprehensive Toolkits

Our toolkits feature fact sheets, handouts, and tutorials to give professionals in a variety of disciplines one-stop access to key resources to help address the needs of the Veterans they serve. Going beyond a focus purely on PTSD, the toolkits cover broader mental health, medical, employment, and educational aspects of Veterans' lives. The *Community Provider Toolkit*, *VA Campus Toolkit*, and *Veterans Employment Toolkit* are currently available online, and additional toolkits are in development.

Provider Resources to Help Address the Needs of Women Veterans

Women are the fastest-growing group within the Veteran population. The National Center has taken the initiative to better address their needs, both as patients and as research participants. The online course *Caring for Women Veterans*, available on the Center's intranet, aims to help VA providers understand common issues that arise in the medical and mental health care of female Veterans. A second online offering, *Conducting Research with Women Veterans*, provides suggestions for study recruitment, research design, data analysis, and reporting results from projects involving women Veterans.

Supporting the Implementation of Evidence-based PTSD Care

These initiatives encourage adoption of evidence-based practices by providers and clinic managers, and the systems in which they work.

PTSD Consultation Program

Launched in 2011 the PTSD Consultation Program connects VA providers working within any clinic or setting with expert PTSD consultants. The program's consultants are available via phone and email, providing information about treating Veterans with PTSD and answering questions related to the disorder. A 61% increase in consults from FY 2013 to FY 2014 demonstrates the program's impressive growth. This growth will continue as the program begins offering consultation and resources to non-VA providers who see Veterans in the community, starting in 2015.

VA PTSD Mentoring Program

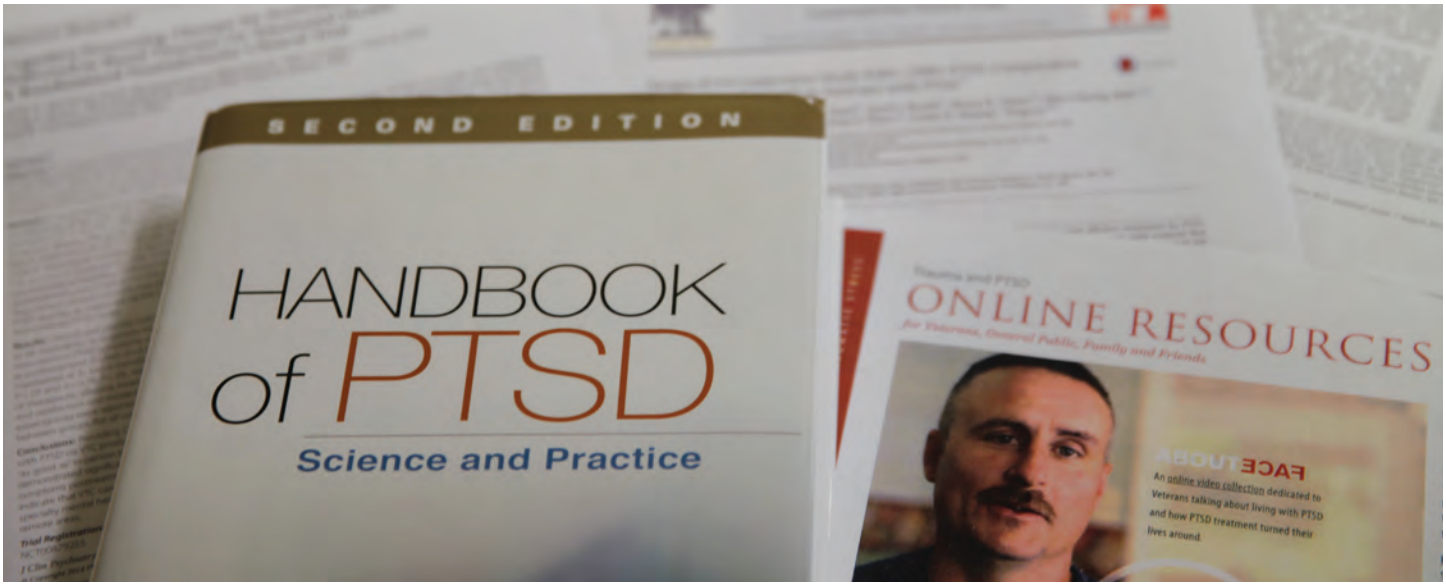
PTSD program directors throughout VA face myriad challenges to effective delivery of PTSD treatments to the Veterans seen in their clinics. In 2008 the National Center initiated the VA PTSD Mentoring Program to connect program directors with seasoned mentors within their regions. Mentors work with PTSD program directors to help them meet the increased demand for treatment by restructuring existing programs, and by implementing best administrative and clinical practices.

Promoting Effective, Routine, and Sustained Implementation of Stress Treatments (PERSIST)

The ongoing PERSIST research project, launched in 2013, provides the Veterans Health Administration (VHA) with information about factors that interfere with and promote adoption and sustained use of evidence-based psychotherapies for PTSD (PE and CPT). The study will also yield a clinical tool to help provider teams in specialized PTSD outpatient programs and community-based outpatient clinics more readily identify challenges associated with delivery of evidence-based psychotherapies and actionable solutions to those challenges.

Practice-Based Implementation Network (PBIN) in Mental Health

National Center researchers are implementing a practice-based implementation network by bringing together VA and DoD clinicians, clinic managers, and implementation scientists to put into practice new treatments and to facilitate the adoption of improvements across systems of care. The project will identify system-specific barriers and facilitators to adoption of mental health best practices. The first practice the PBIN will work to improve is the routine implementation of patient outcomes monitoring, a vital but underused element in ensuring high-quality PTSD care.



FISCAL YEAR 2014 AT A GLANCE

Research Overview

In FY 2014, the National Center research portfolio included 109 research grants – including small single-site studies, large multisite projects, research training fellowships, and research infrastructure grants – with nearly $130 million in total award funding. A narrative description of research initiatives at each of the Center divisions is provided in Appendix A. The Center's FY 2014 research and other funding is provided in Appendix B.

In 2014, Center investigators produced 228 print publications (journal articles, book chapters, and books) and had another 168 in-press and advance online publications.

Research productivity at the National Center illustrates the breadth and depth of our scientific pursuits and our impact within the PTSD field. In FY 2014, Center investigators produced 226 print publications (journal articles, book chapters, and books) and had another 168 in-press and advance online publications. The Center also continued to be well represented on the editorial boards of leading journals and at professional meetings and conferences, contributing to more than 263 scientific presentations in FY 2014. Comprehensive lists of our publications, scientific presentations, and editorial board activities can be found in Appendices C, D, E, and F.

Education Overview

The National Center's educational programs span the dissemination and implementation continuum. Activities in FY 2014 included educational presentations at national conferences and to specific groups, clinical demonstration projects, national consultation, and regional/national trainings of providers and paraprofessionals. We continued our involvement in several VA-wide provider training programs including PE and CPT for PTSD. Highlights from the FY 2014 educational program portfolio and associated funding are provided in Appendix B. A listing of educational presentations by Center staff and affiliates are in Appendix G.

The National Center's educational products in FY 2014 highlight innovations in technology as well as our commitment to increasing provider use of and patient engagement in evidence-based PTSD care. We made available or are in the process of developing a wide variety of products for VA and community providers, Veterans, families, and the general public. Products include treatment guides and newsletters, mobile applications, online courses, videos, social media channels, and online toolkits.

The National Center's educational programs span the dissemination and implementation continuum.

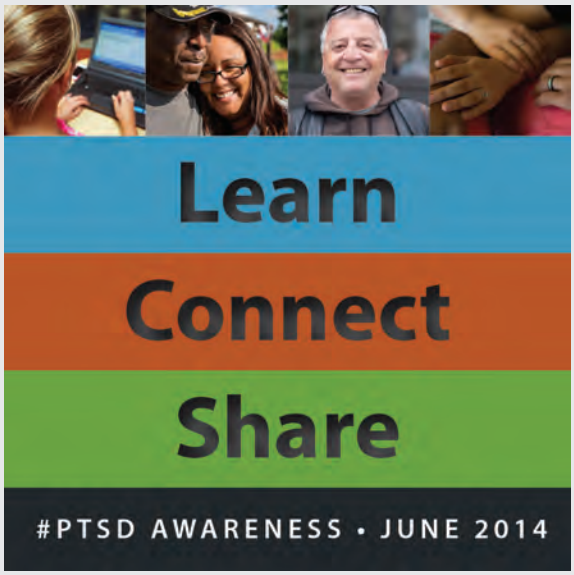
Communications Overview

The National Center utilizes diverse online communication strategies to disseminate information and share resources. Our website, www.ptsd.va.gov, had more than six million views in FY 2014. We maintained a strong social media presence, ending the FY with more than 18,000 Twitter followers and a Facebook page with more than 83,000 fans. We also continued to share information through our *PTSD Monthly Update*, an electronic newsletter with more than 84,000 subscribers. The newsletter focuses on a different theme in each issue, highlighting relevant Center products for professionals and the general public.

Even as our reach has expanded with the use of new media, traditional communication channels continue to play an important role in information dissemination. As media interest in PTSD grows each year, National Center staff are increasingly called upon to provide accurate information and context when PTSD and traumatic events are in the news. Just in the past two years, we have responded to more than 80 inquiries from leading newspapers, television channels, and popular magazines. Center leadership and staff have been interviewed by reporters from diverse media outlets, including *Time Magazine*, *The Boston Globe*, CNN, Al Jazeera America, and Vermont Public Radio.

And, when leaders and policy makers in VA, the DoD, and other federal agencies need insight into research and practice related to PTSD, they turn to the National Center for PTSD. So too do their international counterparts. Consultations include a wide variety of activities, from responding to a phone call or email, to serving on a task force or work group, to participating onsite in the aftermath of a natural disaster.

Raising PTSD Awareness

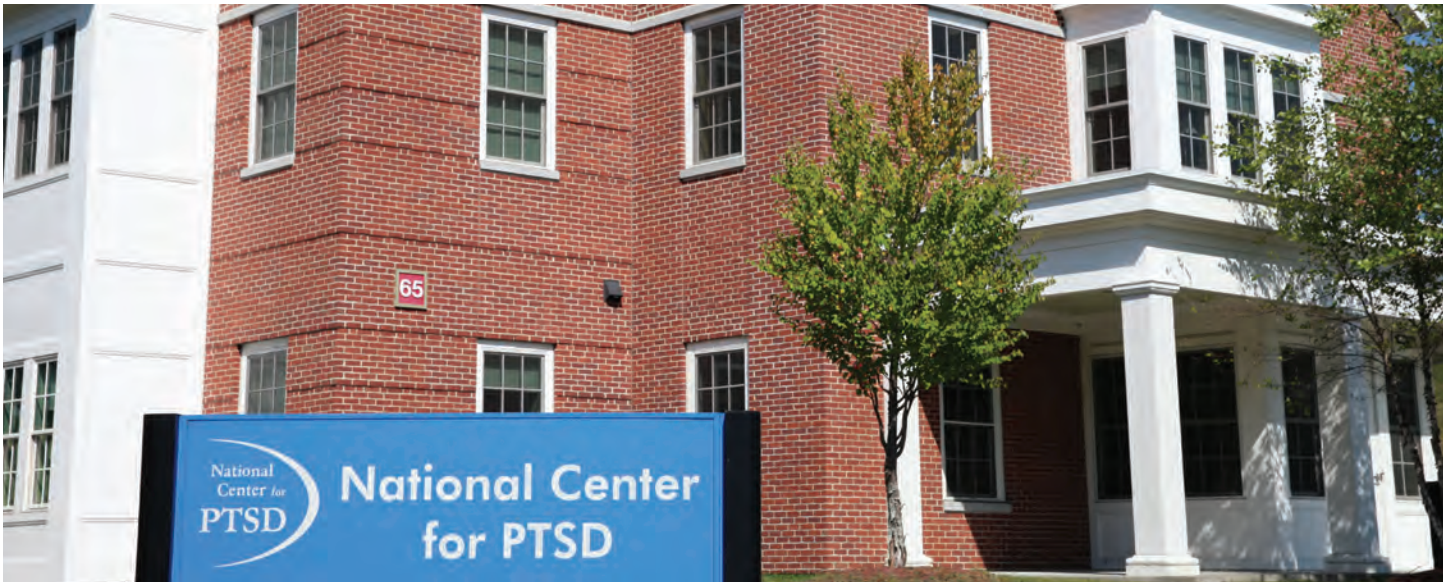


The National Center promotes awareness of PTSD and effective treatments throughout the year. In 2010 Congress named June 27th PTSD Awareness Day (S. Res. 455). This year the Senate designated the full month of June for National PTSD Awareness (S. Res. 481), continuing a practice that had begun in 2013. Efforts are under way to continue this designation in future years.

Our efforts around PTSD Awareness Month expanded in 2014. We collaborated with more than 36 organizations and departments to implement a national online and networking campaign to promote raising PTSD awareness. Recognizing the continuing growth and importance of social media, the campaign centered on the theme "#PTSD Awareness — Learn. Connect. Share." We created the hashtag "#PTSD Awareness" to encourage widespread sharing of the message through social media channels.

In May 2014 we launched a dedicated PTSD Awareness section of our website to provide materials that organizations and individuals could use to raise PTSD awareness throughout June. We developed and disseminated flyers, social media posts, screen savers, and email marketing bulletins. We also encouraged events and postings at VA facilities and public locations across the country.

During the month of June, traffic to our website increased substantially from previous months, with page views for the full site topping 500,000 for the month. We also met our goal to increase Facebook *Likes*. Thanks to extensive outreach and social networking, our *Likes* grew to 66,700 by the end of PTSD Awareness Month — a 91% increase from the prior year's campaign.



ABOUT THE NATIONAL CENTER FOR PTSD

The Center was developed with the ultimate purpose of improving the wellbeing, status, and understanding of Veterans in American society.

History

The National Center for PTSD was created in 1989 within the Department of Veterans Affairs in response to a Congressional mandate (PL 98-528) to address the needs of Veterans and other trauma survivors with PTSD. The 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 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. Other divisions are located in Boston, Massachusetts; West Haven, Connecticut; Palo Alto, California; and Honolulu, Hawaii; and each contributes to the overall Center mission through specific areas of focus.

The National Center for PTSD is an integral and valued component of the VA's Mental Health Services (MHS), which itself is within the VHA. MHS 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
POSTTRAUMATIC STRESS DISORDER

LEADERSHIP IN FISCAL YEAR 2014

Paula P. Schnurr, PhD

Executive Director, Executive Division, VT

Research Professor of Psychiatry, Geisel School of Medicine at Dartmouth

Matthew J. Friedman, MD, PhD

Senior Advisor and founding Executive Director, Executive Division, VT

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

Jessica L. Hamblen, PhD

Acting Deputy Executive Director and Deputy for Education, Executive Division, VT

Associate Professor of Psychiatry, Geisel School of Medicine at Dartmouth

Rani Hoff, PhD, MPH

Division Director, Evaluation Division, CT
Director of the Northeast Program Evaluation Center

Professor of Psychiatry, Yale University School of Medicine

Terence M. Keane, PhD

Division Director, Behavioral Science Division, MA

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

John H. Krystal, MD

Division Director, Clinical Neurosciences Division, CT

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

Josef Ruzek, PhD

Division Director, Dissemination and Training Division, CA

Professor (Clinical Professor-Affiliated), Stanford University; Associate Professor, Palo Alto University

Amy Street, PhD

Acting Division Director, Women's Health Sciences Division, MA

Associate Professor of Psychiatry, Boston University School of Medicine

James Spira, PhD, MPH

Director, Pacific Islands Division, HI

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Kenneth Weingardt, PhD
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AVAILABLE APPENDICES

A Research Narrative

B Funding

C Publications

D In Press and Advance Online Publications

E Scientific Presentations

F Editorial Board Activities

G Educational Presentations

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