Posttraumatic Stress and Resiliency in our Military Warrior Students

Alan Peterson, PhD, UT Health Science Center at San Antonio
Overview

- PTS, PTSD, and Resiliency
- Epidemiology of PTSD
- Trauma Exposure
- Military Culture
- Assessment and Diagnosis of PTSD
- Treatment of PTSD
- STRONG STAR and CAP
Warning

• Some of the content of this presentation may be distressing to some viewers

• Personal viewer discretion is advised
What is PTSD?

Posttraumatic Stress Disorder

• Results from exposure to one or more extreme traumatic events
  – Military Combat
  – Motor Vehicle Accidents
  – Physical or Sexual Assault
  – Terrorist Attacks
  – Natural Disasters
  – Other traumatic events

• Symptoms include
  – Distressing memories, dreams, flashbacks
  – Avoidance of trauma reminders
  – Negative changes in thought processes, mood
  – Heightened arousal (e.g., irritable, startle easily, difficulty concentrating, sleep disturbance)
What is Resiliency?

- Ability to sustain physical and psychological functioning despite extremely adverse conditions
- Ability to rebound or recover from injury or illness
- The “Blister-Callus Model of Resiliency” suggests increased resiliency results from repeated exposure and recovery from trauma or adversity
- Resiliency allows for the potential for “posttraumatic growth” after trauma exposure
How Common is PTSD?

- Affects 7% of Americans
  - 4% adult males
  - 10% adult females
- Percentage is twice as high in military service members and veterans (14%)
Who is at Greatest Risk for PTSD?

• Those with most significant or frequent traumas
• Tip-of-the spear military warriors
• Those in blast explosions resulting in horrific and mutilating injuries and death
• Those who experience significant risk of personal injury or death
• Those who experience things no humans should have to experience
Comorbidities of PTSD

- PTSD has many related or comorbid conditions
  - Depression
  - Traumatic Brain Injury (TBI)
  - Sleep Disorders
  - Chronic Pain
  - Substance Use Disorders
  - Suicide
Impact of PTSD

• PTSD has a significant impact on individuals, families, communities, and our nation
  – Homelessness
    • About 13% of adult homeless population in U.S. are veterans
    • About two-thirds of homeless veterans who served in Iraq/Afghanistan have PTSD
  – Disability
    • Service-connected PTSD costs an estimated $500,000 in lifetime disability payments
Epidemiology of PTSD
Prevalence of Trauma and PTSD in the US

Kessler (1995)
Rate of PTSD is Influenced by the Type of Trauma

Kessler (1995)
Rate of PTSD is Influenced by the Type of Trauma

Percentage of Crime Victim Groups With and Without Rape, Life Threat, and Physical Injury that Developed Crime-Related PTSD

Kilpatrick et al., (1989)
PTSD in Student Veterans

- Objectives: To determine if PTS symptoms are associated with problem drinking and alcohol-related consequences
- Participants: n = 248
  - 78 combat-exposed student service members/veterans
  - 53 non–combat-exposed student service members/veterans
  - 38 ROTC (Reserve Officers’ Training Corps) students
  - 79 civilian students.

- **Methods: Self-report data**
  - Posttraumatic Stress (PTS)
  - Problem drinking
  - Alcohol-related consequences
  - Grade point average
  - Educational self-efficacy
  - Academic amotivation
  - Persistence

• Results
  – Military students exposed to combat-related trauma reported significantly greater PTS symptoms than other military and civilian groups
  – PTS symptoms were associated with problem drinking and alcohol-related consequences for all groups
  – PTS not related to academic correlates among those exposed to combat-related trauma

- Study explored psychological symptoms, symptom severity, and suicide risk in a national sample (N = 628) of student veterans
- Hypothesized that problems experienced by student veterans would in mirror those reported by active duty service members as well as the OEF/OIF veteran population

• Results
  • 35% of the sample experienced “severe anxiety”
  • 24% experienced “severe depression”
  • 46% experienced significant symptoms of PTSD
  • 46% thinking about suicide
  • 20% had a plan about suicide

• Critical for clinicians on university and college campuses to be appropriately trained in two primary domains if they are going to work with combat veterans experiencing PTSD and associated suicidality:
  1. Treatments demonstrated to be effective with combat-related PTSD, including cognitive processing therapy and prolonged exposure
  2. Suicide risk assessment approaches unique to veterans with prominent PTSD symptoms
A Brief History of War in America
## Deaths in Major U.S. Wars/Conflicts

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<th>Duration (Years)</th>
<th>Deaths</th>
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<td>0.002%</td>
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U.S. Military Deaths in Iraq (4486)
U.S. Military Deaths in Afghanistan (2322)
Trauma Exposure in OIF/OEF
Lethality of Combat Injuries (Gawande, 2004)
Weaponry Cause of Death

- Explosive Device: 1000
- Gunshot: 600
- Mortar/Rocket: 100
- Bomb: 50

Legend: STRONG STAR - Building Strong, Resilient, Prepared
Signature Injuries of OIF/OEF/OND

- Amputations
- Burns
- Traumatic Brain Injury (TBI)
- Posttraumatic Stress Disorder (PTSD)
Impact of Trauma Exposure

• PTSD
• Acute Stress Disorder (ASD)
• Adjustment Disorder
• Marital/Relationship Problems
• Substance Abuse
• Family Violence
Exposure to Explosive Devices

• Rockets and mortars
• Rocket-Propelled Grenades (RPGs)
• Improvised Explosive Devices (IEDs)
• Vehicle Borne Explosive Devices (VBEDs)
‘They left their footprints for the last time on the sands of Gold Beach...’

D-DAY 65 YEARS ON

PAGES 2, 3, 4, 5, 40, 41

‘I get nightmares even now. I can’t get pictures of bodies floating in the sea out of my head’
Behavioral Model of PTSD
Stimulus

Extreme Traumatic Event

IED Explosion

Mutilating Injuries
Grotesque Images
Unique Smells
Stimulus

- Extreme Traumatic Event
- IED Explosion
- Mutilating Injuries
- Grotesque Images
- Unique Smells

Response

- Extreme Reaction (Fight or Flight Response)
  - Cognitive
  - Behavioral
  - Emotional
  - Physiological
Stimulus
- Extreme Traumatic Event
- IED Explosion
- Mutilating Injuries
- Grotesque Images
- Unique Smells

Response
- Extreme Reaction (Fight or Flight Response)
- Cognitive
- Behavioral
- Emotional
- Physiological

Conditioned Stimulus
- Memories of Traumatic Event
- Environmental Reminders/Triggers
Stimulus
- Extreme Traumatic Event
- IED Explosion
- Mutilating Injuries
- Grotesque Images
- Unique Smells

Conditioned Stimulus
- Memories of Traumatic Event
- Environmental Reminders/Triggers

Response
- Extreme Reaction (Fight or Flight Response)
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- Physiological
Conditioned Stimulus
- Memories of Traumatic Event
- Environmental Reminders/Triggers

Conditioned Response
- Extreme Reaction (Fight or Flight Response)
- Cognitive
- Behavioral
- Emotional
- Physiological

Escape/Avoidance
Conditioned Stimulus
- Memories of Traumatic Event
- Environmental Reminders/Triggers

Escape/Avoidance
Maintains or strengthens Conditioned Response

Conditioned Response
- Extreme Reaction (Fight or Flight Response)
  - Cognitive
  - Behavioral
  - Emotional
  - Physiological
Conditioned Stimulus

Memories of Traumatic Event

Environmental Reminders/Triggers

Conditioned Response

Extreme Reaction (Fight or Flight Response)

Cognitive
Behavioral
Emotional
Physiological

Escape/Avoidance
Maintains or strengthens Conditioned Response

Approach/Exposure
Conditioned Stimulus
- Memories of Traumatic Event
- Environmental Reminders/Triggers

Conditioned Response
- Extreme Reaction (Fight or Flight Response)
  - Cognitive
  - Behavioral
  - Emotional
  - Physiological

Escape/Avoidance
- Maintains or strengthens Conditioned Response

Approach/Exposure
- Weakens or eliminates Conditioned Response
Conditioned Stimulus

- Memories of Traumatic Event
- Environmental Reminders/Triggers

Conditioned Response

- Extreme Reaction (Fight or Flight Response)
  - Cognitive
  - Behavioral
  - Emotional
  - Physiological

Exposure Therapy

- Weakens or eliminates Conditioned Response
- Approach and exposure to memories (imaginal exposure, narrative writing, cognitive processing)
- Approach and exposure to environmental reminders/triggers (In-vivo or real-world exposure)
- Results in habituation to Conditioned Stimulus (normal reactions to non-dangerous stimuli)
Diagnosis of PTSD

DSM-5
Criterion A: Stressor

- Exposed to actual/threatened death, injury, violence:
  - Directly
  - Witness
  - Learning it happened to family member or close friend (must be violent or accidental)
  - Repeated exposure to aversive details of event (not through media unless work-related)
Criterion B: Intrusion Symptoms (1/5)

• The traumatic event is persistently re-experienced in the following way(s):
  – Recurrent, involuntary, and intrusive memories.
  – Traumatic nightmares.
  – Dissociative reactions (e.g., flashbacks) which may occur on a continuum from brief episodes to complete loss of consciousness.
  – Intense or prolonged distress after exposure to traumatic reminders.
  – Marked physiologic reactivity after exposure to trauma-related stimuli.
Criterion C: Avoidance (1/2)

- Persistent effortful avoidance of distressing trauma-related stimuli after the event:
  - Trauma-related thoughts or feelings.
  - Trauma-related external reminders (e.g., people, places, conversations, activities, objects, or situations).
Criterion D: Negative Alterations in Cognitions and Mood (2/7)

- Negative alterations in cognitions and mood that began or worsened after the traumatic event:
  - Inability to recall key features of the traumatic event (usually dissociative amnesia; not due to head injury, alcohol, or drugs).
  - Persistent (and often distorted) negative beliefs and expectations about oneself or the world (e.g., "I am bad," "The world is completely dangerous").
  - Persistent distorted blame of self or others for causing the traumatic event or for resulting consequences.
  - Persistent negative trauma-related emotions (e.g., fear, horror, anger, guilt, or shame).
  - Markedly diminished interest in (pre-traumatic) significant activities.
  - Feeling alienated from others (e.g., detachment or estrangement).
  - Constricted affect: persistent inability to experience positive emotions.
Criterion E: Alterations in Arousal and Reactivity (2/6)

– Irritable behavior/angry outbursts
– Reckless/self-destructive behavior
– Hypervigilance
– Exaggerated startle response
– Problems concentrating
– Sleep disturbance
Criterion F: Duration

— Persistence of symptoms (in Criteria B, C, D, and E) for more than one month.
Criterion G: Functional Significance

– Significant symptom-related distress or functional impairment (e.g., social, occupational).
Criterion H: Exclusion Criterion

— Disturbance is not due to medication, substance use, or other illness.
Specifiers

– With dissociative symptoms
  • Depersonalization
  • Derealization
– With delayed expression
  • >6 months after event
Assessment of PTSD
Assessment of PTSD

- DSM-5 Clinical Interview
- CAPS
- PSS-I
- PDS
- PCL-M or PCL-5
- PC-PTSD
- PDHA and PDHRA
PTSD Checklist-Military Version (PCL-M)
PTSD Checklist-5 (PCL-5)


• This is a Government document in the public domain

• Self-report inventory that measures each of the DSM-5 symptoms
PC-PTSD

• A 4-item measure designed as brief screener for PTSD in primary care (PC) settings
• Is brief, problem-focused
• Does not include list of potentially traumatic events
• Same 4 items included in PDHA & PDHRA
PC-PTSD Items

• In your life, have you ever had any experience that was so frightening, horrible, or upsetting that, in the past month, you:

1. Have had nightmares about it or thought about it when you did not want to? YES/NO

2. Tried hard not to think about it or went out of your way to avoid situations that reminded you of it? YES/NO
PC-PTSD Items

• In your life, have you ever had any experience that was so frightening, horrible, or upsetting that, in the past month, you:

  3. Were constantly on guard, watchful, or easily startled? YES/NO

  4. Felt numb or detached from others, activities, or your surroundings? YES/NO
PC-PTSD

• Considered "positive" if "yes" to 2 or more items, depending on local policy
  – 0-1 = Within Normal Limits
  – 2 = Slightly Elevated; possible PTSD
  – 3-4 = Elevated; probable PTSD

• Positive does not mean a patient has PTSD; indicates possible PTSD

• Further evaluation a mental-health professional may be warranted
Treatment of PTSD
Treatment of PTSD

- PTSD Clinical Practice Guidelines (PTSD CPG)

Evidence-Based Treatments for PTSD (DoD/VA CPG)

• Medication
  – Sertraline (Zoloft) - FDA indication in 1999
  – Paroxetine (Paxil) - FDA indication in 2001

• Cognitive Behavior Therapy
  – Exposure Therapy
  – Stress Inoculation Training
  – Cognitive Therapy
  – EMDR
  – Combination of Cognitive and Exposure Therapy
Treatment of Posttraumatic Stress Disorder
AN ASSESSMENT OF THE EVIDENCE

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES
Evidence-Based Treatments for PTSD (IOM, 2007)

– The committee concludes that the current scientific evidence is:

  • Sufficient to conclude the efficacy of exposure therapies
  • Inadequate to determine the efficacy of EMDR, cognitive restructuring, coping skills training, and group format psychotherapy
  • Inadequate to determine the efficacy in the treatment of PTSD with pharmacotherapy
Paroxetine Treatment of PTSD: % with PTSD at 12 Weeks

Percent with PTSD on CAPS-2 (>20)

Baseline

Week 12

Paroxetine Treatment: Paroxetine vs Placebo

Odds ratio = 2.29. *P = .008. Dose = 27.6 + 6.72 mg/d. N = 323.

Medication Treatment for Combat-Related PTSD


- OBJECTIVE: To evaluate the efficacy of sertraline in the treatment of PTSD in a VA setting involving patients with predominantly combat-related PTSD
Friedman et al. (2007)
Treatment of Combat-Related PTSD

METHOD: 169 outpatient subjects with PTSD were randomly assigned to 12 weeks of flexibly dosed sertraline (25-200 mg/day).

RESULTS: There were no significant differences between sertraline (-13% on CAPS) and placebo (-15% on CAPS) on any of the primary or secondary efficacy measures at endpoint.
Krystal et al. (2007)

Adjunctive risperidone treatment of chronic military service-related PTSD: A randomized trial

• METHOD: A 6-month, randomized, double-blind, placebo-controlled multicenter trial (N = 296) with military-related PTSD of risperidone (up to 4 mg once daily) or placebo.

• RESULTS: Mixed model analysis of all time points also showed no significant difference in CAPS score for risperidone vs placebo.
Krystal et al. (2007)

Change in CAPS Total Score

No. of patients
Placebo: 134, 122, 127, 124
Risperidone: 133, 128, 122, 123

Evidence-based Behavioral Treatments for PTSD in Civilians

—Prolonged Exposure (PE)
  • Involves repeated exposure to:
    – Memories of the trauma
    – Trauma-related situations

—Cognitive Processing Therapy (CPT)
  • Involves exposure to trauma through:
    – Writing and reading accounts of the trauma
    – Challenging and modifying maladaptive thoughts and beliefs related to trauma
Loss of PTSD Diagnosis in Civilians after Treatment with PE and CPT

Resick et al., 2012
Prevention of PTSD by Early Intervention

- Participants (N = 289)
  - Adult survivors of a traumatic event
  - Hadassah Univ Hospital, Israel (2003-07)
  - Contacted by telephone & interviewed

- Inclusion criteria:
  - Experienced a “Criterion A Event”
  - Met criteria for full or partial ASD

Shalev et al., 2011
Prevention of PTSD by Early Intervention

- Patients seen at 29.7 days after trauma

- Type of Trauma:
  - Road traffic accidents (76%)
  - Work accidents (15%)
  - Terrorist attacks (4%)
  - Other (6%)

Shalev et al., 2011
Prevention of PTSD by Early Treatment

- Equipose Stratified Randomization
  - Offered 4 treatment options
    - Prolonged Exposure
    - Cognitive Therapy
    - SSRI medication (Escitalopram) or placebo
    - Wait List
  - Could decline up to 2 treatments

Shalev et al., 2011
Prevention of PTSD by Early Treatment

- Equipose Stratified Randomization
  - 152 accepted all modalities
  - 118 declined SSRI medication
  - 8 declined Wait list
  - 0 declined Prolonged Exposure (PE)
  - 2 declined Cognitive Therapy (CT)
  - 3 declined SSRI and CT
  - 2 declined SSRI and PE
  - 7 declined SSRI and Wait List
  - 1 declined PE and CT

Shalev et al., 2011
Prevention of PTSD by Early Treatment

Final Treatment Group Randomization:

- Prolonged Exposure, n = 73
- Cognitive Therapy, n = 51
- SSRI, n = 26
- Placebo, n = 26
- Wait List, n = 113

Shalev et al., 2011
Prevention of PTSD in Civilians with Early Treatment

Percent with PTSD at 5-Month Follow-Up (N = 289)

Shalev et al., 2011
Case Example of Combat-Related PTSD

- Convoy hit by Improvised Explosive Device (IED)
- First responder with exposure to aftermath of blast
- Provided security for medic to assess injured
- Many grotesque, mutilating injuries; many killed
- Nightmares, flashbacks, hyperarousal, avoidance
- Prolonged Exposure audiotape from treatment session in Iraq
  - CLS = Combat Life Saver
  - Apologies for vulgar language
  - Warning: content may be stressful to some viewers
Case Example of Combat-Related PTSD

• Before treatment
  • Recurrent nightmares of explosion and aftermath
  • Flashbacks of images and voice of child
  • Hypervigilance; avoidance of memories/triggers
  • I promised the kid I was going to help him
  • I left him there, he died, and it was my fault
  • Military leaders make stupid decisions that kill people
Case Example of Combat-Related PTSD

- After 4 treatment sessions
  - Nightmares/flashback significantly reduced
  - I talked with the kid; he didn’t understand a thing I was saying
  - Others may have helped the kid; he might have survived
  - Concern about secondary explosions; decision kept us alive

- Result
  - Returned to convoy duty; additional trauma; completed deployment
  - Volunteered to remain in theater as trainer; “I learned some things”
  - 8 ½ years later: 4 promotions; completed another deployment
  - Does not have PTSD
  - Highly valued contributor to military, family, society
  - Example of resiliency and posttraumatic growth
Can PTSD be Cured?

- Many of the world’s leading PTSD researchers believe it can be cured!
- Studies of civilians with PTSD indicate up to 80% can be treated into remission and remain in remission up to 5 years later
- How well combat-related PTSD can be treated in active duty military and veterans is not known
- Research needed to determine factors related to risk, resiliency, and recovery after trauma
- San Antonio keenly positioned to answer these questions
Understanding Military Culture
Military Culture

- Learn about military culture
  - Center for Deployment psychology
    - [http://deploymentpsych.org/training/training-catalog/military-cultural-competence](http://deploymentpsych.org/training/training-catalog/military-cultural-competence)
  - What is a soldier?
  - Military rank structure
  - Branches of Service
  - Active, Guard, Reserve
Military Culture

• Military organizational structure
• Military acronyms
  • TDY
  • PCS
  • IED
  • DFAC
  • FOB
  • COP
Abbreviations/Acronyms

PTSD  Posttraumatic Stress Disorder
ASD   Acute Stress Disorder
mTBI  Mild Traumatic Brain Injury
OIF   Operation Iraqi Freedom
OEF   Operation Enduring Freedom
OND   Operation New Dawn
IED   Improvised Explosive Device
IED   Improvised Explosive Device
RPG   Rocket-Propelled Grenade
PC-PTSD Primary Care PTSD Screener
PCL-M PTSD Checklist-Military Version
Army Core Values

- Loyalty
- Duty
- Respect
- Selfless Service
- Honor
- Integrity
- Personal Courage
Navy Core Values

- Honor
- Courage
- Commitment
Air Force Core Values

• Integrity
• Service Before Self
• Excellence in All We Do
Marines Core Values

- “Semper Fidelis” -- Always Faithful
Inter-service Competition
How the Military is Viewed by...
How the **Air Force** is viewed by:

- **Themselves**
- **Everyone Else**
How the Army is viewed by:

[Image of a soldier with a gun and a faintly smiling figure holding a GED certificate and saying, "Them-selves Everyone Else"

Bottom of image: [Signature] 2011
How the Marines are viewed by:

Everyone Else

Themselves
How the NAVY is viewed by

Themselves

Everyone Else
STRONG STAR

• South Texas Research Organizational Network Guiding Studies on Trauma And Resilience

• Headquartered at UT Health Science Center San Antonio

• Largest PTSD Research Consortium in world
  • Over 100 of the world’s leading investigators
  • Over 30 collaborating institutions including partnership with VA’s National Center for PTSD
  • Over 25 ongoing research studies

• Conducting most important military-relevant clinical trials and translational research in Department of Defense (DoD)

• Results will have direct impact on best clinical practices in military and VA treatment facilities
www.STRONGSTAR.org
Consortium to Alleviate PTSD (CAP)

- September 2012 Program Announcement through a Collaborative DoD/VA Psychological Health and TBI Research Program Award
- Total award $45M (DoD = $20M; VA = $25M)
- Stated Consortium Objectives in Program Announcement
  - Advance treatment for PTSD
  - Identify and confirm clinically relevant biomarkers as diagnostic and prognostic indicators of PTSD and co-occurring conditions
- STRONG STAR-CAP was 1 of 17 submissions for competitive peer-reviewed funding
CAP Objectives

• Develop and evaluate most effective interventions for prevention and treatment of acute and chronic PTSD, sub-syndromal or partial PTSD, and comorbid conditions in Service Members and recently discharged OEF/OIF/OND Veterans

• Expand study of biomarkers across all treatment and epidemiologic studies to identify:
  – Biological root causes of PTSD
  – Changes associated with treatment response
DoD, VA approve $45 million to fund the Consortium to Alleviate PTSD

Award to be managed by the UT Health Science Center San Antonio and the VA National Center for PTSD, leaders of the national PTSD research consortium

SAN ANTONIO (Aug. 12, 2013) — In an unprecedented show of support for our nation’s wounded warriors, the U.S. Department of Defense and the U.S. Department of Veterans Affairs have agreed to provide approximately $45 million over five years for post-traumatic stress disorder (PTSD) research to advance PTSD diagnosis, prevention and treatment for service members and veterans. The University of Texas Health Science Center at San Antonio and VA National Center for PTSD lead the consortium, announced over the weekend by the White House and DoD and VA officials.

The Consortium to Alleviate PTSD (CAP) will provide an array of cutting-edge clinical treatment trials and biological studies for active military and veterans with PTSD and related conditions, said CAP Consortium Director Alan L. Peterson, Ph.D., professor of psychiatry in the School of Medicine at the UT Health Science Center San Antonio. The consortium’s initiatives will include efforts to learn more about the biology/physiology of PTSD development and treatment response to inform diagnosis, prediction of disease outcome, and new or improved treatment methods.

“Historically, PTSD has been considered to be a chronic, lifelong disorder that is difficult to treat, particularly in military combat veterans,” Dr. Peterson said. “However, results of studies of PTSD in civilian populations demonstrate that a large percentage of patients have been able to be treated to the point of remission or recovery. Although the term ‘cured’ is rarely used in reference to PTSD, we believe it is possible.”

Many critical questions remain unanswered, said CAP Co-Director Terence Keane, Ph.D., of the VA Boston Healthcare System, the National Center for PTSD and Boston University. “Is combat-related PTSD uniquely different and more difficult to treat?” he asked. “Would outcomes improve with earlier interventions delivered soon after trauma exposure? Can combat-related PTSD be cured? Few national health crises are more deserving of the greatest efforts of the world’s top scientists to answer these questions.”

CAP clinical trials will be conducted to develop programs to treat the largest percentage of service members possible to the point of remission or recovery so that they can remain operationally and functionally fit for military service. The clinical trials will also recruit prior-service veterans to allow them to regain their full potential for social and occupational functioning.

Although the majority of service members who are exposed to traumatic events during the course of duty do not go on to develop clinical symptoms that impair functioning, research shows that an estimated 14 percent of members and veterans who have deployed to Iraq and Afghanistan developed symptoms that are significant enough to result in a clinical diagnosis of PTSD. More than 2 million U.S. military personnel have deployed in support of Operation Iraqi Freedom, Operation Enduring Freedom and Operation New Dawn; therefore, an estimated 250,000 service members could be diagnosed with PTSD, resulting in a large financial and personal cost to their families, the Department of Defense, the VA and the nation.

“Our goal is to treat veterans with PTSD to remission. To set our sights any lower would be a disservice to our military warriors, their families and our nation,” Dr. Peterson said. “Those who have fought hard and sacrificed so much deserve the best our nation can give.”

Additionally, because an estimated 7 percent of the civilian population will develop PTSD at some point, treatment advances made through CAP could be applied to help millions more Americans gain a new lease on life.

CAP has assembled an unprecedented collaboration of highly qualified researchers and clinicians with expertise in PTSD, neuroscience, genetics, traumatic brain injury, suicide, research in military settings, and comorbid conditions such as depression, pain, sleep disturbances and substance abuse. The group includes military clinicians with “boots on the ground” experience in assessing and treating combat-related PTSD. This includes Dr. Peterson himself, a retired U.S. Air Force
STRONG STAR

- Initially funded in 2008 by DoD Psychological Health/Traumatic Brain Injury Research Program
- Additional peer-reviewed funding between 2008-2013
- Recent announcement of $45M DoD/VA funding of STRONG STAR Consortium to Alleviate PTSD
- Total funding for research Over $100M
Everyone can contribute one important piece to help solve the puzzle of PTSD
Contact

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