An Overview of PTSD and Co-Morbid Conditions in Veterans: What You Need to Know, What You Need to Do

Brian L. Meyer, Ph.D.
Interim Associate Chief, Mental Health Clinical Services
McGuire VA Medical Center
Richmond, VA
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Disclaimer

The views expressed in this presentation are solely those of the presenter and do not represent those of the Veterans Health Administration, the Department of Defense, or the United States government.
PTSD in Veterans
Multiple and Repeated Types of Trauma in the Military

- Combat and war-zone trauma
- Traumatic grief/loss
- Military sexual trauma
- Accidents
Trauma Exposure among OEF/OIF Veterans

- 50% had a friend seriously wounded or killed
- 45% saw dead or seriously wounded civilians
- 10% required hospitalization for injury

Tanielian & Jaycox, RAND, 2008
Post-Traumatic Stress Disorder

PTSD is characterized by:

• Exposure to a severe life-threatening event
• Repetitive re-experiencing of the event
• Avoidance of stimuli associated with trauma
• Negative cognitions and mood
• Increased arousal

(American Psychiatric Association, 2013)
Changes to PTSD Diagnosis in DSM 5*

- Trauma and Stressor-Related Disorders are placed in their own category
- Loss of loved one must be traumatic or accidental
- Elimination of B criterion of reaction of horror, terror, or helplessness
  - Military and first responders do their job

* Indicates material in packet
Changes to PTSD Diagnosis in DSM 5

- Addition of new criteria involving negative cognitions (negative beliefs about the world, blame of self or others for the trauma) and mood (anxiety, anger, guilt)
- Addition of a new arousal criterion: self-destructive or reckless behavior
- These changes result in approximately the same number of people who will meet criteria for a diagnosis of PTSD
Types of Military Stress Injuries

Combat/Operational Stress

Stress Adaptations
- Positive Behaviors
- Negative Behaviors

Stress Injuries
- Traumatic Stress
- Operational Fatigue
- Grief
- Moral Injury

- A horrible or terrifying event
- The wear and tear of deployment
- The loss of friends and leaders
- Actions that violate moral values

Grief
- The loss of friends and leaders
PTSD and the Brain*

Amygdala – Emotional reactions, fight or flight alarm system

Hippocampus – Relay station for sorting memories

Prefrontal cortex – logic, reasoning, planning, impulse control, organizing

*PTSD = Post-Traumatic Stress Disorder

Amygdala – Emotional reactions, fight or flight alarm system

Hippocampus – Relay station for sorting memories

Prefrontal cortex – logic, reasoning, planning, impulse control, organizing

Prefrontal cortex – Underactive

Amygdala – Overactive

Hippocampus – Smaller volume
ACUTE RESPONSE TO TRAUMA

Terror
Fear
Alarm
Vigilance
Calm

Traumatic Event

Normal with supports
Vulnerable few supports
Vulnerable “with supports”
Dissociation or Resilient

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Veterans may show signs and symptoms of Post-Traumatic Stress without having PTSD.
Who Gets PTSD?

It depends on:
- Severity
- Duration
- Proximity

PTSD is mitigated or worsened by:
- Childhood experience
- Personality characteristics
- Family history
- Social support
Military and Combat Reinforcement of PTSD Symptoms

These are all adaptive in a war zone and, in some cases, trained:

- Reactivity to reminders
- Avoidance of felt danger
- Distrust of outsiders
- Negative expectations of world
- Anger
- Aggressive behavior
- Numbness
- Hypervigilance
- Startle responses
- Risk-taking
- Insomnia
Variable Rates of PTSD in Different Conflicts

- **Vietnam veterans**: lifetime prevalence 30.9% for males and 26.9% for females (NVVRS, Kulka, Schlenger, et al., 1990)
  - This is equivalent to 479,000 veterans
- **First Gulf War veterans**: 10.1% (Kang, Natelson et al., 2003)
Variable Rates of PTSD in Different Conflicts

- **OEF/OIF/OND veterans after 9/11/01**: 13.8-21.8\% (Seal, Metzler, et al., 2009; Tanielian & Jaycox, 2008)
  - 28.4\% of OEF/OIF/OND veterans treated in VHA have PTSD (VHA, 2012)
    - This is equivalent to 250,000 veterans
    - But 45\% of veterans do not receive medical and mental health services from the VHA, so the number is much greater
  - Future estimates as high as 35\% lifetime prevalence (Atkinson, Guetz, & Wein, 2009)
    - This is equivalent to 735,000 veterans
Increasing Numbers of Veterans

- There are currently 22 million living veterans in the US (VA, 2012)
- 2.6 million veterans have been deployed to Iraq and/or Afghanistan since 9/11
- Roughly one million more will be leaving military service in the next five years (VA, 2012)
Increasing PTSD among OEF/OIF/OND Veterans

- 2007 study measured PTSD and Depression among OEF-OIF veterans post-deployment and 6 months later (Milliken et al., 2007)
  - Six months later, half of those with PTSD symptoms improved
  - But there were twice as many new cases of PTSD
- 2009 San Francisco VAMC study shows that PTSD diagnoses among OEF-OIF veterans rose from 0.2% to 21.8% (Seal et al., 2009)
- Diagnoses of PTSD in active servicemen and servicewomen increased 567% from 2003-2008 (Department of Defense, MSMR, November 2010)
- PTSD emerges over time: more are coming
Increasing Numbers of Veterans with PTSD in the VHA
Increasing OEF/OIF/OND Veterans in VHA with PTSD Diagnosis 2002-2012
Combat Exposure and PTSD

- Combat exposure increases PTSD (Kulka et al., 1990; Prigerson et al., 2002)
- High war zone stress associated with greater levels of PTSD, both current and lifetime, than low and moderate war zone stress in Vietnam era veterans (Jordan et al., NVVRS, 1991)
- Up to 58% of soldiers in heavy combat
- 50-75% of POWs and torture victims
The Problem of Repeated Deployments

• This is now the longest war in American history, with the most repeated deployments
• Repeated deployments wear down resiliency
• 36% of servicemen and women have been deployed twice or more (Department of Defense, 2008)
• More than 400,000 servicemen and women have been deployed at least 3 times (Rosenbloom, 2013)
• 50,000 servicemen and women have had at least four deployments (Army Secretary John McHugh, testifying before Congress, 3/21/12)
Repeated Deployments Increase PTSD

- Mental health problems increase with repeated deployments: 14.3% of those with one deployment, 21.8% of those with two, and 32.5% of those with three or four (Mental Health Advisory Team-VII, 2011)
- Army soldiers deployed twice have 1.6 times greater chance of developing PTSD than those deployed once (Reger et al., 2009)
- Active duty military with PTSD may be sent back into combat
- Shorter dwell times increase risk of PTSD (MacGregor et al., 2012)
Frequency of Mental Disorders among OEF/OIF/OND Veterans Seen at VAMCs since 2002

- 804,704 (an increase of 121,183, or 17.7%, last year) Iraq and Afghanistan veterans seen at VAMCs between 1st Quarter FY 2002 and 2nd Quarter FY 2012
- 52.8% diagnosed with mental health disorders
- Of those diagnosed with MH disorders:
  - 53.8% have PTSD
  - 41.9% have Depression
  - 36.9% have Anxiety Disorders
  - 26.3-38.7% have Substance Use Disorders

VHA, 2012
# Frequency of Mental Disorders among OEF/OIF/OND Veterans Seen at VAMCs since 2002

<table>
<thead>
<tr>
<th>Disease Category (ICD code)</th>
<th>Total Number of OEF/OIF/OND Veterans*</th>
<th>Change since Q4FY11</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTSD (ICD-9CM 309.81)</td>
<td>250,242</td>
<td>20.8%</td>
</tr>
<tr>
<td>Depressive Disorders (311)</td>
<td>194,503</td>
<td>24.5%</td>
</tr>
<tr>
<td>Neurotic Disorders (300)</td>
<td>171,530</td>
<td>27.3%</td>
</tr>
<tr>
<td>Tobacco Use Disorder (305.1)</td>
<td>149,926</td>
<td>20.1%</td>
</tr>
<tr>
<td>Affective Psychoses (296)</td>
<td>117,260</td>
<td>24.1%</td>
</tr>
<tr>
<td>Alcohol Abuse (305.0)</td>
<td>58,316</td>
<td>23.4%</td>
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<tr>
<td>Alcohol Dependence Syndrome (303)</td>
<td>55,897</td>
<td>26.6%</td>
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<tr>
<td>Non-Alcohol Abuse of Drugs (ICD 305.2-9)</td>
<td>40,147</td>
<td>30.1%</td>
</tr>
<tr>
<td>Drug Dependence (304)</td>
<td>30,198</td>
<td>31.4%</td>
</tr>
<tr>
<td>Specific Nonpsychotic Mental Disorder due to Organic Brain Damage (310)</td>
<td>29,713</td>
<td>14.1%</td>
</tr>
</tbody>
</table>

N = 464,685

*Not including PTSD from VA’s Vet Centers or data from Veterans not enrolled for VA health care

Cumulative from 1st Quarter FY 2002 through 4th Quarter FY 2012
Military Trauma in Women

- 2/3 of female OIF veterans report at least one combat experience (Milliken et al., 2007)
- 38% of OIF servicewomen are in firefights, and 7% report shooting at an enemy (Hoge et al., 2007)
- OIF servicewomen handle human remains more often than servicemen: 38% vs. 29% (Hoge et al., 2007)
- 21% of female veterans of Iraq and Afghanistan have been diagnosed with PTSD (VA, 2010)
The Catalyzing Effects of Trauma

Traumatic Experiences → Mental Health Problems → Substance Abuse Problems → Criminal Behavior → Health Problems → Employment Problems → Relationship Problems

Mental Health Problems

Substance Abuse Problems

Criminal Behavior

Health Problems

Employment Problems

Relationship Problems
PTSD and Substance Use Disorders in Veterans
Co-occurrence of PTSD and Substance Abuse

Co-occurring disorders are the rule rather than the exception.

(SAMHSA, 2002)
Most Prevalent Disorders besides PTSD among Vietnam Veterans

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Male</strong></td>
<td>Alcohol Abuse</td>
<td>Alcohol Abuse</td>
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<tr>
<td></td>
<td>Alcohol Dependence</td>
<td>Alcohol Dependence</td>
</tr>
<tr>
<td></td>
<td>Generalized Anxiety D/O</td>
<td>Generalized Anxiety D/O</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Antisocial Personality D/O</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td>Depression</td>
<td>Generalized Anxiety D/O</td>
</tr>
<tr>
<td></td>
<td>Generalized Anxiety D/O</td>
<td>Depression</td>
</tr>
<tr>
<td></td>
<td>Alcohol Abuse</td>
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</tr>
<tr>
<td></td>
<td>Alcohol Dependence</td>
<td>Alcohol Dependence</td>
</tr>
</tbody>
</table>

Kulka et al., NVVRS, 1988
Most Common Substances Abused by Veterans

- Alcohol
- Marijuana
- Crack cocaine
- Heroin
- Anxiolytics
- Opiate painkillers
Co-occurrence of PTSD and SUDs

- PTSD and substance abuse co-occur at a high rate
  - 20-40% of people with PTSD also have SUDs (SAMHSA, 2007)
  - 40-60% of people with SUDs have PTSD
- Substance use disorders are 3 times more prevalent in people with PTSD than those without PTSD
- The presence of either disorder alone increases the risk for the development of the other
- The combination results in poorer treatment outcomes
Co-Ocurring PTSD and SUDs Make Each Other Worse

- Substance abuse exacerbates PTSD symptoms, including sleep disturbance, nightmares, rage, depression, avoidance, numbing of feelings, social isolation, irritability, hypervigilance, paranoia, and suicidal ideation.
- People who drink or use drugs are at risk for being retraumatized through accidents, injuries, and sexual trauma.
Rates of SUDs in Vietnam Veterans with PTSD

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>Lifetime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Abuse/Dependence</td>
<td>22%</td>
<td>75%</td>
</tr>
<tr>
<td>Drug Abuse/Dependence</td>
<td>6%</td>
<td>23%</td>
</tr>
</tbody>
</table>

Kulka et al., NVVRS, 1988