Posttraumatic Stress Disorder in Female Veterans

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Disclaimer

The views presented are those of the speaker and do not necessarily reflect the position or policy of the Department of Veterans Affairs or the United States government.

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VA Health Services Research and Development
VA Women’s Health Strategic Healthcare Group
How Frequently Do Traumatic Events Occur to Men and Women?

**Lifetime Prevalence of Trauma Exposure in the General Population**

<table>
<thead>
<tr>
<th>Event</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Trauma</td>
<td>60.7%</td>
<td>50.2%</td>
</tr>
<tr>
<td>Accident</td>
<td>25.0%</td>
<td>13.8%</td>
</tr>
<tr>
<td>Natural Disaster</td>
<td>18.9%</td>
<td>15.2%</td>
</tr>
<tr>
<td>Physical Attack</td>
<td>11.1%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Physical Abuse</td>
<td>3.2%</td>
<td>4.8%</td>
</tr>
<tr>
<td>Rape</td>
<td>0.7%</td>
<td>9.2%</td>
</tr>
</tbody>
</table>

How Do Traumatic Events Impact People?

**Emotionally**
- Intense feelings that are difficult to contain
- Normal regulatory systems that promote homeostasis are overwhelmed
- Tendency towards all-or-nothing reactions

**Cognitively**
- Disrupts how we view the world (e.g., is it a safe place?)
- Disrupts how we view other people (e.g., are they trustworthy?)
- Disrupts how we view ourselves (e.g., am I powerless?)
- Tendency towards all-or-nothing thinking

**Physiologically**
- Body sensitized to threat
- Strong physiological reactions to perceived dangers
- Disrupted memory
How Do Traumatic Events Impact Veterans?

- Across a range of studies, Veterans with histories of trauma report:
  - More mental health problems
    - e.g., PTSD, anxiety, depression and substance abuse disorders
  - More physical health problems
  - More problems readjusting after discharge
What are the symptoms PTSD?

- **Reexperiencing**
  - e.g., intrusive recollections; distressing dreams; psychological distress and physiological reactivity to reminders

- **Persistent Avoidance and Numbing**
  - e.g., avoiding associated thoughts, feelings, conversations; avoiding activities, places or people that are reminders; feelings of detachment from others

- **Increased Arousal**
  - e.g., sleep problems; irritability or anger; hypervigilance

- **Distress and/or impairment in functioning**

From the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, American Psychiatric Association
How Common is PTSD?

• Lifetime prevalence of PTSD in the general population:
  • 5.0% (men) vs. 10.4% (women)\(^1\)
  • 4.0% (men) vs. 11.7% (women)\(^2\)

• Women have *twice to three times* the risk of a PTSD diagnosis, compared to men

\(^1\)Kessler, et al. 1995, *Archives of General Psychiatry*

Gender Differences in PTSD

• But … these estimates are impacted by the types of traumatic events that women vs. men are likely to experience

• Women are more likely to experience the events that are the most strongly associated with PTSD

**Conditional probability of developing PTSD**

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accident</td>
<td>6.3%</td>
<td>8.8%</td>
</tr>
<tr>
<td>Natural disaster</td>
<td>3.7%</td>
<td>5.4%</td>
</tr>
<tr>
<td>Physical abuse</td>
<td>22.3%</td>
<td>48.5%</td>
</tr>
<tr>
<td>Rape</td>
<td>65.0%</td>
<td>49.0%</td>
</tr>
</tbody>
</table>

Kessler, et al. 1995, *Archives of General Psychiatry*
Gender Differences in PTSD in Prior Military Cohorts

- **Vietnam Veterans** (Kulka et al., 1990)
  - Male Veterans at higher risk of PTSD diagnosis
  - 15.2% (men) vs. 8.5% (women)

- **Gulf War I Veterans** (Wolfe et al., 1999)
  - Female Veterans at higher risk of PTSD diagnosis
  - Immediately following deployment: 3% (men) vs. 8% (women)
  - Two years following deployment: 7% (men) vs. 16% (women)

- **Bosnian Peacekeepers** (Adler et al., 2005)
  - No gender differences in PTSD symptoms
  - PTSD symptom scale means 26.85 (men) vs. 28.66 (women)

- Difficult to predict what we would see in terms of gender differences in veterans returning from Afghanistan and Iraq
Traumatic Experiences Among Women Veterans

- Experiences specific to military service:
  - Military sexual trauma (MST)
  - Combat trauma
- Experiences encountered in civilian life:
  - Childhood abuse
  - Sexual violence
  - Intimate partner violence
Military Sexual Trauma
What Is Military Sexual Trauma (MST)?

- Term for sexual assault or repeated, threatening sexual harassment occurring during military service

- Sexual Assault:
  - Unwanted physical sexual contact involving some type of coercion (e.g., physical force, threats of harm abuse of authority) and/or
  - When the victim does not or cannot consent (e.g., intoxication, cognitive impairment)

- Sexual Harassment:
  - Unwanted sexual experiences that occur in the workplace and
  - Create an intimidating, hostile or offensive working environment or
  - Cooperation with behaviors is a condition of employment or is used as the basis for employment decisions
How Frequent is Military Sexual Trauma?

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Veterans Health Administration users with a positive screen for MST</td>
<td>23.6%</td>
<td>1.2%</td>
</tr>
<tr>
<td># of Veterans Health Administration users with a positive screen for MST</td>
<td>72,497</td>
<td>55,491</td>
</tr>
</tbody>
</table>

Data from Fiscal Year 2012, provided by the VA Office of Mental Health Services Military Sexual Trauma Support Team
How Frequent is Sexual Assault in the Military?

- Among active duty personnel
- Asks about experiences within the last year
- In regards to unwanted physical sexual contact

- In 2010, 4.4% of women and .9% of men reported experiencing sexual assault within the last year
- This represents a decrease from the previous survey in 2006 (6.8% vs. 4.4% of women and 1.8% vs. .9% of men)
How Frequent is Sexual Harassment in the Military?

- Among active duty personnel
- Asks about experiences within the last year
- In regards to three types of behaviors consistent with sexual harassment

- 40% of women and 20% of men reported experiencing crude/offensive sexual behavior
- 22% of women and 5% of men reported experiencing unwanted sexual attention
- 8% of women and 2% of men reported experiencing some form of quid pro quo sexual coercion
- These also reflect general decreases from previous years’ surveys

DoD’s 2006 Gender Relations Survey of Active Duty Members
How Does MST Impact Veterans?

• A study of all Veterans using VA healthcare found that Veterans who experienced MST had a 3X increased risk for receiving a mental health diagnosis.

• Most frequently identified diagnoses included:
  • Anxiety disorders, including PTSD
  • Depression
  • Dissociative disorders
  • Eating disorders
  • Bipolar disorders
  • Substance use disorders
  • Personality disorders

How does MST Impact Veterans?

*Number of physical symptoms and conditions by reported sexual assault status, among female VA healthcare users*

Frayne et al. (1999) Journal of Women’s Health and Gender-Based Medicine
Military Sexual Assault Is A Particularly Severe Stressor

Study of Gulf War Veterans Deployment Experiences: Odds of Developing PTSD

<table>
<thead>
<tr>
<th></th>
<th>Sexual Assault (compared to those who did not experience sexual assault)</th>
<th>Heavy Combat (compared to those who did not experience heavy combat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>5x more likely</td>
<td>4x more likely</td>
</tr>
<tr>
<td>Men</td>
<td>6x more likely</td>
<td>4x more likely</td>
</tr>
</tbody>
</table>

Military Sexual Trauma Is A Particularly Severe Stressor

Among female users of VA healthcare

<table>
<thead>
<tr>
<th>Time of Sexual Trauma</th>
<th>OR Predicting PTSD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premilitary ST</td>
<td>1.32 (.60, 2.93)</td>
</tr>
<tr>
<td>Military ST</td>
<td>4.30 (2.30, 8.00)</td>
</tr>
<tr>
<td>Postmilitary ST</td>
<td>1.94 (.93, 4.03)</td>
</tr>
</tbody>
</table>

Himmelfarb et al. (2006). *Journal of Traumatic Stress*
Particularities of the Military Context

• In the military…
  • The victim typically knows the perpetrator
  • The victim is often young
  • Risk is typically ongoing
    • Repeated, continuing exposure to the perpetrator
    • Given military hierarchy, victim may be dependent upon the perpetrator or his/her friends in many areas of life

• Thematic similarities to child sexual abuse and domestic violence
Particularities of the Military Context

• In the military…
  • High value is placed upon loyalty and teamwork
    • Taboo to divulge negative information about peers
    • Sexual trauma is that much more incomprehensible to victims
  • High value is played upon strength and self-sufficiency
    • Reduces social support available, increases likelihood of invalidating responses
    • Being a “victim” conflicts with desired identity

→ Increased sense of betrayal, being alone, helplessness, and entrapment
Trauma Among a New Generation of Women Veterans: Women in Combat
January 2013 DoD announces repeal of ban on women in ground combat roles

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
ACTING UNDER SECRETARY OF DEFENSE FOR PERSONNEL
AND READINESS
CHIEFS OF THE MILITARY SERVICES

SUBJECT: Elimination of the 1994 Direct Ground Combat Definition and Assignment Rule

We are fully committed to removing as many barriers as possible to joining, advancing, and succeeding in the U.S. Armed Forces. Success in our military based solely on ability, qualifications, and performance is consistent with our values and enhances military readiness. Today, women make up 15% of the U.S. military and are indispensable to the national security mission. In fact, thousands of women have served alongside men in Iraq and Afghanistan, and like men, have been exposed to hostile enemy action in those countries. However, many positions in our military remain closed to women because of the 1994 Direct Ground Combat Definition and Assignment Rule.

In February 2013, the Joint Chiefs of Staff, followed by the Secretary of Defense, directed the DoD to develop a policy to remove the barriers preventing women from serving in all positions. This policy was intended to be implemented by June 2013. After careful consideration, DoD has determined that the policy as directed is not in the best interest of our national security. Therefore, DoD is considering alternative approaches that will ensure our military is able to accomplish its mission and is consistent with our values as a nation.
THE REALITY ON THE GROUND...
IS THAT WOMEN HAVE BEEN SERVING IN COMBAT.

From Jezebel.com, January 24, 2013
Trauma Among a New Generation - Women in Combat

- In Afghanistan and Iraq women involved in a wide range of combat and combat support roles
- Barred from serving in direct ground combat positions
- These distinctions are less clear given guerrilla fighting with no clear front lines
  - 734 women wounded in action
  - 134 women killed in action
- Women’s combat experiences may be similar to the those of the all male infantry.
The Women at War Survey

- A mail survey of Afghanistan and Iraq Veterans designed to answer questions with particular relevance to women Veterans
  - N = 2344 (1207 women; 1137 men)
- Women over-sampled relative to their presence in Afghanistan and Iraq
- Men also sampled so that gender differences could be tested
- Measurement focused on the assessment of a wide range of deployment stressors and a number of mental health problems

Street, et al. (in press) *Journal of General Internal Medicine*
Combat-Related Deployment Stressors Among OEF/OIF Veterans

*Denotes significant difference between genders
Gender Differences in Mental Health Conditions

*Denotes significant difference between genders
Mental Health Consequences of Combat Exposure

- Extensive research with male Veterans has established the link between combat exposure and post-deployment adjustment difficulties like PTSD.

- Research is just now emerging about the relative impact of combat exposure on women Veterans vs. male Veterans.
  - Gender differences in PTSD in the general population aren’t replicated among OEF/OIF/OND Veterans.
  - Perhaps similarities in women’s and men’s military experiences override pre-existing vulnerabilities to develop PTSD.
Is Sexual Trauma Happening during Afghanistan and Iraq Deployments?

• Asked specifically about stressors experienced during combat deployments to Afghanistan and Iraq

  • 51% of women and 11% of men reported some type of sexual harassment during deployment
  • 25% of women and 1% of men reported some type of sexual assault during deployment

Street et al. (In press). *Journal of General Internal Medicine*. 
Effects of Sexual Trauma During a Combat Deployment

- Sexual trauma in the context of combat operations may be more impactful than sexual trauma during peacetime
  - Additive effect of multiple types of trauma exposure
  - Generalized decreased sense of safety
  - Loss of pre-deployment support systems
  - Increased sense of betrayal by “brothers in arms”
Traumatic Experiences Not Specific to the Military Context
Traumatic Experiences Encountered as A Civilian

- Women Veterans are at increased risk of other types of trauma exposure as compared to both male Veterans and female civilians
  - Over half of women Veterans experienced premilitary physical or sexual abuse
  - Women veterans report more severe childhood abuse experiences (e.g., sexual abuse by a parent, longer duration)
  - Servicewomen are five times more likely than civilian women to be married to another service member, which may increase risk for intimate partner violence
Multiple Trauma Exposures

• Prior trauma can increase risk for later trauma
  • Trauma-related symptoms can interfere with self-protection mechanisms

• Prior trauma can impact how later traumas are experienced
  • Aftereffects of earlier trauma may impair ability to cope with later trauma
  • Later traumas seen as confirmation that the world is a bad and dangerous place
  • Effects of trauma appear to be dose-specific—the more traumas, the worse the outcome
Care for Trauma Survivors: Trauma-Informed Care and Trauma-Specific Care
Providing Trauma-Informed Care

• Can improve care provided across all settings.

• Reflects an understanding that most people have experienced traumatic life disruptions.

• Reflects an understanding that experiences of trauma impact multiple domains of well-being and functioning.

• Focuses on avoiding experiences that can be perceived as revictimizing.

• Designs services that are empowering and promote recovery.
Providing Trauma-Specific Care

• Trauma-specific care is typically provided in mental health settings

• Common components:
  • Ensuring current safety
  • Psychoeducation regarding the impact of trauma
  • Normalization of emotional and physical reactions
  • Promote a healthy and positive relationship with treatment provider
  • Promote engagement in treatment
Additional Common Components of Trauma-Specific Care

- Skills building to promote adaptive coping
  - Emotion regulation
  - Distress tolerance
  - Anxiety management
- Habituation to feared, but objectively safe situations
- Habituation to trauma memories
- Building a coherent trauma narrative
- Challenging beliefs that were formed or strengthened by the traumatic experience
Evidence-Based Psychotherapy for PTSD

“Evidence-based practice in psychology is the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences.”

American Psychological Association 2005 Policy Statement

- Therapies supported by “gold standard” research evidence
- These therapies are manualized, meaning they come with extensive therapist directions
- Short-term therapies, 10 – 14 sessions
- Cognitive Processing Therapy (CPT); Prolonged Exposure (PE)
The Impact of Treatment on PTSD Symptoms Among Sexual Assault Survivors

The Impact of Treatment on PTSD Symptoms Among Sexual Assault Survivors

But reducing PTSD symptoms is not the end goal…

- Individuals with reductions in PTSD symptoms are also likely to experience…
  - Reductions in comorbid conditions like depression and substance abuse
  - Improvements in physical health
  - Reductions in risk for retraumatization
  - Improved social relationships
  - Improved quality of life
In Closing…

• While my work focuses primarily on stressful events and negative mental health consequences, it’s important to keep the larger context in mind.
• There is no doubt that military service comes with challenges.
• But these women (and men) serve with pride and they serve because they chose to.
• They are strong, capable and resilient.
• And we should feel honored to serve them.
Thank you all for your interest in the well-being of all of our nation’s Veterans.

My contact information: amy.street@va.gov