

Who Is More Likely to Develop PTSD? Women Have More Sexual Trauma; Men Have Greater Combat Exposure

Categorized in: [Department of Defense \(DoD\)](#), [July 2011](#), [PTSD,TBI](#), [Women's Health](#)



Paula P. Schnurr, Ph.D.

The ongoing conflicts in Iraq and Afghanistan are enabling researchers to learn more about a question that has plagued them for decades: Is there a difference between men and women who serve in the military when it comes to incidence of Post Traumatic Stress Disorder (PTSD)?

Unfortunately, the jury is still out, according to Paula P. Schnurr, PhD, research professor of psychiatry at Dartmouth Medical School, deputy executive director of the VA National Center for PTSD, and lead author of a ground-breaking study of women veterans and PTSD.¹ "My study was done because women had not been included historically in studies of treatments for all conditions," she says.

In terms of the general population, in samples of all types and studies outside of North America, women are more likely than men to have PTSD — in fact, a twofold increase, according to Schnurr. "One source of this difference is that men and women experience different types of traumatic events," she explains.

"For example, women are more likely than men to be victims of sexual violence, so they are more likely to have a PTSD-causing event. But, even when that is taken into account, women are more likely than men to have PTSD — although we do not have conclusive evidence of why."

Is the military different?

This difference may not apply in the military, however. "One interesting finding in meta analyses, prior to the current conflicts, confirm that this doubled rate does *not* apply in military samples. But the fact is that men and women, up until the current conflicts, had such different experiences in war zones," notes Schnurr. "Women had much less exposure to combat; they primarily had medical occupations."

Incidence of PTSD, she adds, might have to do with type of duty, or even the type of people involved. "Women who experienced sexual assault and not PTSD, and who were able to go through military training may simply be more resilient," she offers. "We did not have a good way to answer these questions until the current conflict, when women have more exposure to battle; it gives men and women comparable experiences in situations where they may be more likely to experience PTSD."

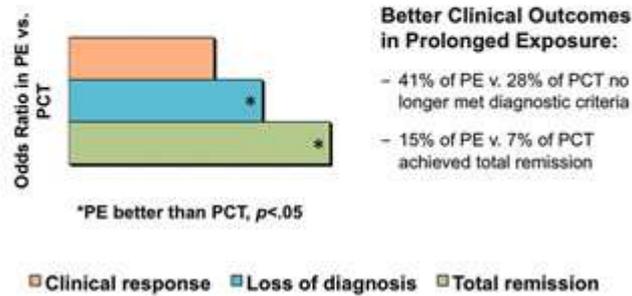
So far, however, the evidence has gone both ways, according to Schnurr. "There was a Rand Corporation study a couple of years ago that, when statistics were adjusted for background characteristics, women had more incidences of PTSD than one might have expected, given those other factors,"² However, she adds, a more recent study that was published this spring said that men and women were equally likely to develop PTSD; even when both have combat exposure, men still have more. But women are more likely to have trauma outside of the military."

In fact, wrote the authors, "Though it was hypothesized that combat-related stressors would demonstrate stronger negative associations with post-deployment mental health for women, only one of 16 stressor × gender interactions achieved statistical significance, and an evaluation of the clinical significance of these interactions revealed that effects were trivial. Results suggest that female Operation Enduring Freedom/Operation Iraqi Freedom servicemembers may be as resilient to combat-related stress as men."³

Another study supports that reviewing, showing that returning women veterans from OEF/OIF service had *lower* rates of PTSD than men.⁴ However, "the findings showed that women had more depression and men more alcohol abuse," adds Shira Maquen, PhD, assistant professor, University of California San Francisco Medical School, staff psychologist for the San Francisco VA Medical Center PTSD Program, and lead author of the study.

"The research seems to have contradictory findings, but I'm confident that, after further research, we will have better indications," notes Schnurr.

Effects of Prolonged Exposure and Present-Centered Therapy in Veteran and Active Duty Women



Schnurr et al., 2007

Maguen agrees. "Things will become clearer; as we move in time, there will be more studies," she says. One of the things that have been interesting in some recent studies is that they show that when it comes to rates of combat exposure in men and women the gap is decreasing; it could be that women will have greater and greater exposure to a factor that can increase the rates of PTSD."

She adds that the number of women's clinics within VA is growing and has grown in the past few years. "It's important if you work with women veterans that you be aware of these findings," Maguen says. "There's already a lot of good evidence-based treatment going on, and you have to be attuned to that."

A growing problem

Learning more about PTSD in both women and men in the military takes on greater importance in light of the increasing prominence of PTSD. "It is estimated that 6.8% of U.S. men and women will have PTSD at some point in their lives but that roughly 15% of returning veterans have PTSD; combat trauma is especially likely to lead to PTSD," says Schnurr.

"Even though it is now in the news all the time, it's important that it remain there, because it's a prevalent and serious disorder," she continues, adding that the current conflicts offer opportunities to not only conduct more research, but also conduct it in ways that haven't been done before. "Much of the research done since the diagnosis was established in the 1980's was done after the fact; researchers talked to people long after they were traumatized, so they had to rely on memories."

The symptoms of PTSD can interfere with daily life for civilians, let alone for members of the military, Schnurr notes, explaining, "There are three types of symptoms. One is re-experiencing the trauma through unwanted memories or nightmares. Then, there's avoidance and numbing; the patient may change behaviors to avoid people or thoughts that remind them of the trauma. Instead of reaching out for help, they shut down. Finally, they can become keyed up and aroused, angry or irritable and lose sleep."

In addition to making it difficult to function in employment, marital or parental roles, PTSD can also lead to physical health problems. "This includes a variety of known medical conditions — especially but not exclusively cardiovascular problems," says Schnurr. "They may also include arthritis, rheumatism and perhaps even diabetes."

One study showed, for example, that "Across age strata, women with PTSD had more medical conditions and worse physical health status (physical functioning, role limitations due to physical problems, bodily pain, and energy/vitality scales) from the veterans than women with depression alone."⁵

Beyond the symptoms themselves, says Schnurr, PTSD presents a challenge because it is severe and persistent. "We do tend to recover, however, and most patients have symptoms that are gone or manageable within a month or so," she adds. In fact, she continues, some patients are able to function well enough to stay in their roles in the military; it is not necessarily a total disability. "Some in the military are still doing their jobs, while others are removed from duty — and then returned to duty, depending on when an individual who has been

removed from duty is ready to go back — but if you get treatment, you can make a good recovery,” Schnurr explains.

Treatments are effective

Fortunately, Schnurr notes, a number of therapies have proven effective for treating PTSD. For example, her own early research helped demonstrate the efficacy of prolonged exposure, a type of cognitive behavioral therapy. “In prolonged exposure, a patient is asked to vividly recount a traumatic event repeatedly until the patient’s emotional response decreases and to gradually confront safe but fear-evoking trauma reminders,”⁶ wrote Schnurr and her colleagues.

While the study focused on female veterans (in fact, the authors said to their knowledge it was “the first randomized clinical trial to assess PTSD treatment for active duty and veteran women”), Schnurr says “I don’t think there should be any difference [in treating men and women]; there is no strong evidence they react differently to treatment for PTSD. The more important principle is to ensure that patients have the opportunity to get evidence-based treatment and that their preferences are more taken into account concerning medication and psychotherapies. The dominant factor is to give them the access and opportunity to choose what they prefer.”

The results of Schnurr’s research were in turn used in a VA program overseen by the Office of Mental Health Services that has successfully trained more than 1,400 providers in PE therapy for the treatment of PTSD, and initial results indicate the value of evidence-based practice in treatment. Initial evaluation of the program showed an overall decline of an average of about 30% (20 points) in PTSD checklist scores among those completing treatment, according to an article in the *Journal of Traumatic Stress*.⁷ The paper also found provider rates of participation to be quite high; so far, 88% of training participants in the three-year-old program have either completed training or are currently participating in a training program.

References

1. Schnurr PP, Friedman MJ, Engel CC, Foa EB, et al. Cognitive Behavioral Therapy for Posttraumatic Stress Disorder in Women: A Randomized Controlled Trial. *JAMA*. 2007;297:820-830.
2. Adamson, D, Burnam A, Burns RM, Caldarone LB, et al. Invisible Wounds of War: Psychological and Cognitive Injuries, Their Consequences, and Services to Assist Recovery. Santa Monica, CA: RAND Corporation, 2008. <http://www.rand.org/pubs/monographs/MG720>.
3. Vogt D, Vaughn R, Glickman ME, Schultz M, et al. Gender differences in combat-related stressors and their association with post deployment mental health in a nationally representative sample of U.S. OEF/OIF veterans. *Journal of Abnormal Psychology*, May 30, 2011, No Pagination Specified. doi: 10.1037/a0023452
4. Maguen S, Ren L, Bosch JO, Marmar CR, and Seal KH. Gender Differences in Mental Health Diagnoses Among Iraq and Afghanistan Veterans Enrolled in Veterans Affairs Health Care. *American Journal of Public Health* 2010;100(12):2450-2456.
5. Frayne SM, Seaver MR, Loveland S, and Christiansen CL. Burden of Medical Illness in Women With Depression and Posttraumatic Stress Disorder. *Arch Intern Med*. 2004;164:1306-1312.
6. Schnurr PP, Friedman MJ, Engel CC, Foa EB, et al. Cognitive Behavioral Therapy for Posttraumatic Stress Disorder in Women: A Randomized Controlled Trial. *JAMA*. 2007;297:820-830.
7. Karlin BE, Ruzek JI, Chard KM, Eftekhari A, et al. Dissemination of Evidence-Based Psychological Treatments for Posttraumatic Stress Disorder in the Veterans Health Administration. *Journal of Traumatic Stress*, Vol. 23, No. 6, December 2010, pp. 663–673.