Military Medicine

May 2004

Prevalence of In-Service and Post-Service Sexual Assault among Combat and Noncombat Veterans Applying for Department of Veterans Affairs Posttraumatic Stress Disorder Disability Benefits

By Maureen Murdoch, MD, MPH, et al*

Objective: To describe the prevalence of in-service and post-service sexual assault among combat and noncombat veterans seeking Veteran's Affairs disability benefits for posttraumatic stress disorder (PTSD). Methods: Cross-sectional survey of 4,918 veterans. Results: Surveys were returned by 3,337 veterans (effective response rate, 68%). Among men, 6.5% of combat veterans and 16.5% of noncombat veterans reported in-service or post-service sexual assault. Among women, 69% of combat veterans and 86.6% of noncombat veterans reported in-service or post-service sexual assault. Conclusions: Reported rates of sexual assault were considerably higher among veterans seeking Veteran's Affairs disability benefits for PTSD than historically reported rates for men and women in the general population. In this population, male gender and veterans' combat status should not dissuade clinicians from screening for sexual traumas.

Introduction

Posttraumatic stress disorder (PTSD) is a chronic, disabling condition caused by witnessing or being involved in a horrifying trauma, such as combat or sexual assault. Symptoms include intrusive, recurrent recollections of the trauma; heightened autonomic reactivity; sleep disturbances; impaired concentration and memory; and "numbing" symptoms characterized by anhedonia, restricted emotional affect, social detachment, and isolation. Physical health is also adversely affected. ²⁻⁶

Sexual assault is common among female veterans⁷⁻¹³ and, with combat, is among the most potent known predictors of PTSD. ^{9,10,14,15} However, despite a high prevalence of sexual assault among women veterans, they are less likely than men to receive a diagnosis of PTSD. ¹⁶⁻¹⁸ Wilier and Grossman ¹⁶ speculated that this may be because Veteran's Affairs (VA) clinicians consider combat-related PTSD to be the "prototypical presentation of this disorder."

If cultural biases among VA clinicians automatically attribute PTSD symptoms to combat and fail to consider other traumas' contributions to PTSD, such as sexual assault, this could have deleterious consequences for some veterans' ultimate recovery. For example, effective cognitive-behavioral treatments for PTSD involve careful assessment of an individuals' traumatic

experiences followed by systematic exposure to traumatic memories in a safe environment.¹⁹ In the case of rape, therapy also involves challenging maladaptive, rape-related cognitions and beliefs.²⁰

Combat veterans are stereotypically perceived as heroic, strong, and above all, hypermasculine. Such attributes are antithetical to the victim's role and are particularly antithetical to the role of the sexual assault victim, who is stereotypically perceived as weak, ineffectual, and feminine. Although women and men commonly experience guilt and shame in response to sexual assault, masculine gender socialization (e.g., social stigma against vulnerability, weakness, and homosexuality) may lead to an overwhelming sense of powerlessness and shame among male combat veterans who are also sexual assault victims. Such feelings could silence men's disclosure of sexual traumas and limit their emotional and cognitive processing of traumatic events. Thus, a victims' failure to disclose these additional, potent traumatic experiences and a clinicians' failure to ask about them-and to hence inadequately address them in therapy-could result in treatment failures.

Fontana et al.¹⁴ showed that experiencing sexual harassment or abuse mediated the association between women's combat exposures and PTSD symptoms and independently contributed to men's PTSD symptoms in a sample of Somali peacekeepers. Although the high prevalence of sexual assault among female veterans has been well described, ^{7-9,11-13,27,28} few studies have examined the prevalence of sexual assault among male veterans or combat veterans. ^{7,11,29} Inadequate information about combat veterans' sexual trauma experiences could contribute to inaccurate stereotypes of sexual assault victims and, by extension, to the underdetection of clinically important events. This study's goal was to describe the prevalence of sexual assault among combat and noncombat veterans using a nationally representative sample of compensation-seeking men and women. The study is a secondary analysis of data collected to examine gender disparities in VA awards for PTSD disability benefits. ¹⁸

Methods

The Minneapolis VA Medical Center's Subcommittee for Human Studies reviewed and approved the study protocol. From an eligible pool of 4,918 representatively sampled veterans seeking VA disability benefits for PTSD, 1,654 men and 1,683 women returned a 20-page questionnaire, described in detail elsewhere.³⁰ The mean age of the sample was 48 years (SD = 13), and 73% were white. Men selected for the survey represented about 1.7% of the total population of men seeking compensation for PTSD between 1994 and 1998. Selected women represented 54% of the total female population. The distribution of men serving in different service periods was as follows: World War II, 14%; Korean Conflict, 6%; Vietnam Conflict, 75%; post-Vietnam Conflict, 3%; Gulf War, 4%; and post-Gulf War, 0.4%. The distribution of women was: before the Vietnam Conflict, 4%; Vietnam Conflict, 25%; post-Vietnam Conflict, 33%; Gulf War, 28%; and post-Gulf War, 12%.

We report the prevalence of in-service and post-service sexual assault for men and women after stratifying for their combat-exposure status. Combat exposure was measured using a modified, 22-item version of the Combat Exposure Index.³¹ Veterans scoring 1 or more were considered combat exposed. Veterans were considered to have been sexually assaulted if they said that

Prevalence of In-Service and Post-Service Sexual Assault among Combat and Noncombat Veterans Applying for Department of Veterans Affairs Posttraumatic Stress Disorder Disability Benefits

someone had attempted to or had successfully forced them to have sex against their will. Veterans' in-service sexual assault status was assessed with three questions from the criminal sexual misconduct subscale of the Sexual Harassment Inventory³² plus a fourth question about in-service sexual assault unrelated to work. These four questions identified veterans' inservice sexual assault status with an accuracy of 91% in a small internal validation study (N = 9).³⁰ Veterans' post-service sexual assault status was determined using a single survey item from an adaptation of the Life Stressor Checklist.³³

Results

As reported elsewhere, 94% of males and almost 30% of females experienced at least some combat exposure, and 4% of males experienced an in-service sexual assault compared with 71% of females. Table I shows that a strikingly large percentage of women reported post-service sexual assault regardless of their combat exposure status. Men without combat exposure had more than twice the prevalence of in-service sexual assault compared with combat-exposed men. However, even among men with combat exposure, the percentage reporting sexual assault was extremely high.

Discussion

Among male combat veterans seeking VA disability benefits for PTSD, the prevalence of sexual assault was approximately five to nine times higher than that reported by males in the general population; among female combat veterans seeking VA disability benefits for PTSD, sexual assault prevalence was about 3 to 10 times higher. For veterans in our sample without combat exposure, the prevalence of sexual assault among the males was 13 to 24 times higher than that reported by general populations of males, and the prevalence among females was 3 to 12 times higher. Overall, the females in our sample reported a prevalence of sexual assault almost two to three times higher than that reported by psychiatrically ill civilian females. These estimates are undoubtedly low because we did not ask veterans about childhood or preservice sexual assault. In work by Smith and colleagues, for example, 88% of men reporting rape said their assault had occurred before combat.

For men, sexual assault prevalence was somewhat greater post-service than In-service, whereas for women, the opposite was true. Rape victims commonly describe a loss of belief in the justness of the world⁴¹ and in their self-efficacy after assault;⁴² however, this loss appears to be particularly profound for service women assaulted by comrades-in-arms whom in common cause swore to uphold their country's peace and safety.⁴³ Among females, at least one study suggests that in-service sexual stress may be more "pathogenic" for FTSD than post-service sexual stress,¹⁰ and multiply traumatized female veterans with at least one in-service trauma have more psychiatric symptoms than female veterans without in-service trauma.²⁷ Whether this holds true for men is uncertain, but it seems reasonable that men experiencing in-service sexual assault might develop comparable beliefs about loss, safety, and betrayal.

In 1999, the VA mandated that all veterans, regardless of sex, be screened for military sexual trauma. As a result, more than 40,000 men and women have been identified as having experienced military sexual trauma. However, compliance with the Directive has been uneven.

Prevalence of In-Service and Post-Service Sexual Assault among Combat and Noncombat Veterans Applying for Department of Veterans Affairs Posttraumatic Stress Disorder Disability Benefits

At our own facility's mental health clinics, for example, only about one-third of recently seen patients were screened for military sexual trauma.

Clinicians' time is scarce and the degree to which they prioritize screening activities over other patient care activities depends at least in part on whether they think a given patient will screen positive. 44 Inaccurate stereotyping of victims and little data about sexual assault's prevalence in certain subgroups could cause clinicians to assign combat veterans-particularly male combat veterans-a lower priority for sexual assault screening. Our data indicate that among combat veterans who have sought VA PTSD disability benefits, nearly 1 in 15 men experienced an inservice or post-service sexual assault and more than 2 in 3 women reported the same. We hope that greater awareness of these empirical base rates of sexual assault, at least among veterans seeking compensation for PTSD, will help counter common victim stereotypes and will promote sexual assault screening in VA mental health clinics.

Although clinical time pressures can be intense, screening for sexual trauma generally takes less than 1 minute and, when positive, can literally change a victim's life. The validation inherent in such screening has inspired many victims' transformation into intentional, self-actualized beings, for example. To improve clinicians' screening rates for sexual trauma, the Department of Veterans Affairs Employee Education System released a self-study guide in February 2004. Although the guide is primarily targeted to primary care providers, it is also of use to mental health professionals who may have little experience in treating sexual trauma. The guide is available to non-VA employees as well and describes successful screening strategies, potential barriers to screening, and follow-up treatment strategies (available at http://www.ees.aac.va.gov).

Given that sexual trauma is a risk factor for pTSD^{9,10,14,15} and that we exclusively studied veterans who had applied for PTSD disability benefits, it is unclear whether the high prevalence of sexual trauma found here would generalize to other veteran groups. However, there are more than 200,000 past or current PTSD disability applicants in the VA system.⁴⁶ They are a large and clinically important group in their own right, and many of them are currently receiving mental health services from the VA. As with noncombatants, clinicians should make a point of screening combat veterans for PTSD for experiences of in-service and post-service sexual assault and providers should account for such experiences when devising treatment plans.

References

- 1. American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, Ed 4. Washington, DC, American Psychiatric Association Press, 1994.
- 2. Engel C, Jr, Uu X, McCarthy B, Miller R, Ursano R: Relationship of physical symptoms to posttraumatic stress disorder among veterans seeking care for Gulf War-related health concerns. Psychosom Med 2000; 62: 739-45.
- 3. Friedman M, Schnurr P, McDonagh-Coyle A: Posttraumatic stress disorder in the military veteran. Psychiatr Clin North Am 1994; 17: 265-75.

- 4. Schnurr P, Spiro A, Paris A: Physician-diagnosed medical disorders in relation to FfSD symptoms in older male military veterans. Health Psychol 2000; 19: 91-7.
- 5. Beckham J, Moore S, Feldman M, Herlzberg M, Kirby A, Fairbank J: Health status, somatization, and severity of posttraumatic stress disorder in Vietnam combat veterans with posttraumatic stress disorder. Am J Psychiatry 1998; 155: 1565-9.
- Schnurr P, Friedman M, Sengupta A, Jankowski M, Holmes T: PTSD and utilization of medical treatment services among male Vietnam veterans. J Nerv Ment Dis 2000; 188: 496-504.
- 7. Martin L, Rosen L, Durand D, Stretch R, Knudson K: Prevalence and timing of sexual assaults in a sample of male and female US Army soldiers. Milit Med 1998; 163: 213-6.
- 8. Fraync S, Skinner K, Sullivan L, et al: Medical profile of women VA outpatients who report a history of sexual assault occurring while in the military. J Womens Health 1999; 8: 835-45.
- 9. Wolfe J, Sharkansky E, Read J, Dawson R, Martin J, Ouimette P: Sexual harassment and assault as predictors of FFSD symptomatology among US female Persian Gulf War military personnel. J Interpers Viol 1998; 13: 40-57.
- 10. Fontana A, Rosenheck R: Duty-related and sexual stress in the etiology of PTSD among women veterans who seek treatment. Psychiatr Serv 1998; 49; 658-62.
- 11. Baker D, Boat B, Grinvalsky H, Geracioti TJ: Interpersonal trauma and animal-related experiences in female and male military veterans: implications for program development. Milit Med 1998; 163: 20-5.
- 12. Coyle B, Wolan D, Van Horn A: The prevalence of physical and sexual abuse in women veterans seeking care at a Veterans Affairs Medical Center. Milit Med 1996; 161: 588-93.
- 13. Murdoch M, Nichol K: Women veterans experiences with domestic violence and with sexual harassment while they were in the military. Arch Fam Med 1995; 4: 411-8.
- 14. Fontana A, Litz B, Rosenheck R: Impact of combat and sexual harassment on the severity of posttraumatic stress disorder among men and women peacekeepers in Somalia. J Nerv Ment Dis 2000; 188: 163-9.
- 15. Kessler R, Sonnega A, Bromet E, Hughes M, Nelson C: Posttraumatic stress disorder in the National Comorbidity Survey. Arch Gen Psychiatry 1995; 52: 1048-60.
- 16. Wilier J, Grossman L: Mental health care needs of female veterans. Psychiatr Serv 1995; 46: 938-40.

- 17. Grossman L, Wilier J, Stovallj, McCrae S, Maxwell S, Nelson R: Underdiagnosis of PTSD and substance abuse disorders in hospitalized female veterans. Psychiatr Serv 1997; 48: 393-5.
- 18. Murdoch M, Hodges J, Hunt C, Cowper D, Kressin N, O'Brien N: Gender differences in service connection for PTSD. Med Care 2003; 41: 950-61.
- 19. Foa E, Street G: Women and traumatic events. J Clin Psychiatry 2001; 62: 29-34.
- 20. Resick P, Schnicke M. Cognitive Processing Therapy for Rape Victims: A Treatment Manual. Newbury, CA, Sage Publications, 1993.
- 21. Miller L: Not just weapons of the weak: gender harassment as a form of protest for Army men. Soc Psychol Q 1997; 60: 32-51.
- 22. Rosen L, Weber J, Martin J: Gender-related personal attributes and psychological adjustment among US Army soldiers. Milit Med 2000; 165: 54-9.
- 23. Madriz E: Images of criminals and victims: a study on women's fear and social control. Gender Soc 1997; 11: 342-56.
- 24. Sattem L, Savells J, Murray E: Sex-roles stereotypes and commitment of rape. Sex Roles 1984; 11: 849-60.
- 25. Howard J: The "normal" victim: the effects of gender stereotypes on reactions to victims. Soc Psychol Q 1984; 47: 270-81.
- 26. Krause E, DeRosa R, Roth S: Gender, trauma themes, and FFSD: narratives of male and female survivors. In: Gender and PTSD. Edited by Klmmerling R, Ouimette P, Wolfe J. New York, Guilford, 2002.
- 27. Butterfield M, McIntyre L, Slechuchak K, Nanda K, Bastian L: Mental disorder symptoms in veteran women: impact of physical and sexual assault. J Am Med Women Assoc 1998; 53: 198-200.
- 28. Wolfe J, Stern A, Daley J, Zaslavsky A, Folsom Roper S, Wilson K: Changing demographic characteristics of women veterans: results from a national sample. Milit Med 2000; 165: 773-80.
- 29. Smith D, Frueh B, Sawchuck C, Johnson M: Relationship between symptom over-reporting and pre- and post-combat trauma history in veterans evaluated for PTSD. Depress Anxiety 1999; 10: 119-24.
- 30. Murdoch M, Hodges J, Cowper D, Fortier L, van Ryn M: Racial disparities in VA service connection for posttraumatic stress disorder disability. Med Care 2003; 41: 536-49.

- 31. Janes G, Goldberg J, Eisen S, True W: Reliability and validity of a combat exposure index for Vietnam veterans. J Clin Psychol 1991; 47: 80-6.
- 32. Murdoch M, McGovern P: Development and validation of the Sexual Harassment Inventory. Violence Vict 1998; 13: 203-16.
- 33. Wolle J, Kimmerling R, Brown P, Chrestman K, Levin K: Psychometric review of the Life Stressor Checklist-Revised. In: Measurement of Stress, Trauma, and Adaptation. Edited by Stamm B. Lutherville, MD, Sidran Press, 1996.
- 34. Norris F: Epidemiology of trauma: frequency and impact of different potentially traumatic events on different demographic groups. J Consult Clin Psychol 1992; 60: 409-18.
- 35. Resnick H, Kilpatrick D, Dansky B, Saunders B, Best C: Prevalence of civilian trauma and posttraumatic stress disorder in a representative national sample of women. J Consult Clin Psychol 1993; 61: 984-91.
- 36. Follette V, Polusny M, Bechtle A, Naugle A: Cumulative trauma: the impact of child sexual abuse, adult sexual assault, and spouse abuse. J Trauma Stress 1996; 9: 25-35.
- 37. Zlotnick C, Warshaw M, Shea M, Allsworth J, Pearlstein T, Keller M: Chronicity in posttraumatic stress disorder (PTSD) and predictors of course of comorbid PTSD in patients with anxiety disorders. J Trauma Stress 1999; 12: 89-100.
- 38. Hiley-Young B, Blake D, Aberg F, Rozynko V, Gusman F: Warzone violence in Vietnam: an examination of pre-military, military, and postmilitary factors in PTSD in-patients. J Trauma Stress 1995; 8: 125-41.
- 39. Bremner J, Southwick S, Johnson D, Yehuda R, Charney D: Childhood physical abuse and combat-related posttraumatic stress disorder in Vietnam veterans. Am J Psychiatry 1993; 150: 235-9.
- 40. Schulte J, Bell K, Polusny M, Naugle A, Giebenhain J, Ries B: Identifying hazardous correlates of alexilhhymic females: long-term implications for childhood sexual abuse. Presented at the Annual Meeting of the Association for the Advancement of Behavior Therapy, November 2002, Reno, NV.
- 41. Janoff-Bulman R. Shattered Assumption: Towards a New Psychology of Trauma. New York, Free Press, 1992.
- 42. Schwartz I: Sexual violence against women: prevalence, consequences, societal factors, and prevention. Am J Prev Med 1991; 7: 363-73.
- 43. Furey J: Women veterans issues, Part 1 : Developing PTSD sexual assault claims. In: C&P Training Operations Teleconference [video broadcast]. December 17, 1996.

- 44. Tudiver F, Drown J, Medved W, et al: Making decisions about cancer screening when the guidelines are unclear or conflicting. J Fam Pract 2001; 58: 682-7.
- 45. Wing D, Oertle J: The process of transforming self in women veterans with posttraumatic stress disorder resulting from sexual abuse. Int J Psychiatr Nurs Res 1998; 4: 463-73.
- 46. Murdoch M, Nelson D, Fortier L: Time, gender, and regional trends in the application for service-related PTSD disability benefits. 1980-1998. Milit Med 2003; 168: 662-70.

Guarantor: Maureen Murdoch, MD, MPH

*Contributors: Maureen Murdoch, MD, MPH^a; Melissa A. Polusny, PhD[§]; James Hodges, PhD[×]; Nancy O'Brien, MSW, LICSW[†]

^aCenter for Chronic Disease Outcomes Research and section General Internal Medicine, Minneapolis VA Medical Center and Department of Internal Medicine, University of Minnesota School of Medicine, One Veterans Drive (111-0), Minneapolis, MN 55417.

§Minneapolis VA Medical Center and Department of Psychiatry, University of Minnesota School of Medicine, Minneapolis, MN 55417.

*Division of Biostatistics, University of Minnesota School of Public Health, Minneapolis, MN 55414.

[†]Departments of Psychiatry and Psychology, Minneapolis VA Medical Center, Minneapolis, MN 55417.

Portions of this research were presented at the Health Services Research and Development 19th Annual Meeting, February 15, 2001, Washington, DC.

The views expressed in this article are those of the authors and do not necessarily represent the views of the Department of Veterans Affairs.

This manuscript was received for review in January 2003. The revised manuscript was accepted for publication in July 2003.

Acknowledgments

This research was supported by the Department of Veterans Affairs, Veterans Health Administration, Health Services Research and Development Service (Grant GEN97-002). Dr. Murdoch is a Clinician Investigator at the Center for Chronic Disease Outcomes Research, a VA Health Services Research and Development Center of Excellence.

Copyright © Association of Military Surgeons of the United States May 2004.