Underdiagnosis of PTSD and Substance Use Disorders in Hospitalized Female Veterans

Linda S. Grossman, Ph.D.
Janet K. Willer, Ph.D.
Jeffrey G. Stovall, M.D.
Sandra G. McRae, Psy.D.
Sarz Maxwell, M.D.
Rebecca Nelson, M.A.

Discharge diagnoses of 31 female veterans and 31 male veterans hospitalized at a large urban VA medical center were examined to elucidate possible biases in clinicians' diagnostic practices. Only one woman in the sample was diagnosed as having posttraumatic stress disorder, compared with seven men. All men given this diagnosis were combat veterans. Although about half of each group had a drug-positive urine screen on admission, only 11 women received a diagnosis of a substance use disorder, compared with 24 men. VA clinicians may need further training and experience assessing the presentation of PTSD and substance use disorders in women. (*Psychiatric Services* 48: 393–395, 1997)

*When this work was done, all the authors were affiliated with the Veterans Affairs Westside Medical Center in Chicago, where **Dr. Grossman** and **Dr. Willer** continue to be affiliated. **Dr. Grossman** is also associate professor in the department of psychiatry at the University of Illinois College of Medicine, 912 South Wood Street (M/C 913), Chicago, Illinois 60612. **Dr. Stovall** is director of outpatient clinical services at Community Health Link in Worcesier, Massachusetts, and assistant professor of clinical psychiatry at the University of Massachusetts Medical School in Worcester. **Dr. McRae** is a clinical psychologist at the readjustment counseling service at the Denver Veterans Center. **Dr. Maxwell** is a psychiatrist with the Center for Addictive Problems in Chicago. **Ms. Nelson** is affiliated with DePaul University in Chicago.* *Portions of this work were presented at the annual meeting of the American Psychiatric Association held May 20–25, 1995, in Miami, and the annual meeting of the American Psychological Association held August 11–15, 1995, in New York.*

The past decades have brought more women into the military, and increasing numbers of women are seeking psychiatric services at Veterans Affairs (VA) medical centers. However, VA medical centers typically treat male veterans, and women's mental health problems differ significantly from those of men in the general population.

Epidemiological research has shown that many psychiatric disorders, such as depression, eating disorders, and multiple personality disorder, occur more frequently among women than among men (1). Further, a larger proportion of women in the general population have histories of childhood sexual abuse than men (1), and women have higher rates of posttraumatic stress disorder (PTSD) (2). However, women in the general population have substantially lower rates of substance use disorders than men (3).

A previous study of female veterans found analogous gender differences in diagnoses received by veteran outpatients, with the notable exception of PTSD, which was diagnosed more frequently among male veterans (4). The study reported here was designed to document whether VA clinicians, accustomed to the psychiatric problems of men, diagnose hospitalized women and men differently.

Methods

We collected data from the medical records of all 31 female patients admitted to the psychiatric units at the VA Westside Medical Center, an urban VA hospital in Chicago, during the study period between April 1992 and April 1993. For comparison, 31 male patients admitted to the same units during the same time period were randomly selected. The ratio of women to men is 1:11 among veterans receiving care at the medical center. Because the patients were distributed among four attending psychiatrists and approximately eight residents, it is unlikely that the results were biased by the diagnostic practices of an individual clinician.

No significant gender differences were noted in age, education, domicile status, or parental or marital status. The mean age of both groups was 41 years, and the mean education level was 14 years. About half of each group had never been married. Eight of the women (26 percent) and 13 of the men (42 percent) were homeless when they were hospitalized. The groups differed significantly in ethnicity ($\chi^2=6.82$, df=2, $p<.05$). Nineteen women (61 percent) and 25 men (80 percent) were African American, 12 women (39 percent) and four men

Table 1

Psychiatric diagnoses and urine toxicology tests among 31 female and 31 male veterans receiving inpatient psychiatric care[1]

Diagnosis and test variable	Females		Males	
	N	%	N	%
Diagnosis				
Posttraumatic stress disorder[2]	1	3	7	23
Affective disorder	11	35	6	19
Psychotic disorder	14	45	13	42
Personality disorder	7	23	6	19
Substance use disorder[3]	11	35	24	77
Urine test variable				
Test ordered at admission	23	74	27	87
Test positive at admission	12	52	13	48
Test ordered during hospitalization[4]	4	13	17	55
Test positive during hospitalization[5]	3	75	2	12

[1] Some patients had more than one diagnosis.
[2] $\chi^2=3.59$, df=1, p=.058
[3] $\chi^2=9.45$, df=1, p<.001
[4] $\chi^2=10.37$, df=1, p<.001
[5] $\chi^2=4.08$, df=1, p<.05

(13 percent) were Caucasian, and two men (6 percent) were of Hispanic origin.

Patients' *DSM-III-R* diagnoses at discharge were categorized into psychotic disorders (schizophrenia and schizoaffective disorder), affective disorders, personality disorders, PTSD, and substance use disorders. All discharge diagnoses, including substance use disorders, were determined by clinical interviews with the treating psychiatrist. Because many patients had more than one diagnosis, the presence or absence of each diagnosis was analyzed separately.

Results

Table 1 shows the diagnoses received by the male and female veterans at discharge. Women were diagnosed significantly less often as having PTSD than were men. In fact, only one woman in the sample received a diagnosis of PTSD. Although twice as many women were diagnosed as having an affective disorder, the difference was not statistically significant, which may be an artifact of sample size. No gender differences were found in the diagnosis of psychotic disorders or personality disorders. However, significantly fewer women than men received diagnoses of substance use disorders. More than three-quarters of the men received these diagnoses, compared with approximately a third of the women. Our clinical experience with female veterans suggests that many who have affective and personality disorders also have PTSD.

Table 1 also presents data from urine toxicology tests ordered at admission and during hospitalization. Unit staff order tests if they suspect patients of substance use during their stay. At admission, tests were ordered as frequently for women as for men, and no gender difference was found in the frequency of positive results. However, significantly fewer urine tests were ordered for women during hospitalization, although the proportion of women with positive results during their stay was significantly higher than the proportion of men. Three of the four women had positive results, compared with only two of the 17 men.

Discussion and conclusions

Notably, only one female veteran among the 31 in the sample was diagnosed as having PTSD, and all the male veterans diagnosed with PTSD were combat veterans. Lifetime prevalence of PTSD among women in the general population has been estimated to be 12.3 percent, with a six-month prevalence rate of 4.6 percent (5). However, distressed women and samples of women in psychiatric settings often have markedly higher rates of PTSD. For example, a current diagnosis of PTSD was given to 58 percent of a sample of battered women (6), 18.9 percent of women experiencing marital distress (6), and 15.6 percent of women undergoing custody evaluations (7).

Previous research on female veteran outpatients found that two-thirds had experienced significant trauma, and that women experienced more interpersonal abusive trauma, whereas men experienced more combat trauma (4). Female veterans with PTSD report significantly higher rates of precombat abuse, and male veterans with PTSD report significantly more combat experience (8). One study estimated that 77 percent of hospitalized male veterans had endured severe childhood trauma (9). Taken together, these findings strongly suggest that VA clinicians may not always detect noncombat PTSD.

Noncombat PTSD among female veterans may not be identified for several reasons. Combat survivors may be more forthcoming about their trauma due to societal evaluations of their actions in the military as courageous and laudable. In contrast, female trauma survivors more likely experienced physical or sexual abuse and may feel shame or may fear others' reactions. Childhood sexual abuse has been shown to be associated with PTSD in women (6) and can result in symptoms similar to those of combat-related trauma. Direct questioning is generally needed to elicit abuse histories (10), which may not yet be common practice in VA facilities. Of course, the patient's clinical status should dictate the level of specificity of questioning that is appropriate during acute crisis periods.

Caution is advisable in interpreting the results of this study. Future research should use larger samples with validated structured interviews to control for diagnostic biases and to determine the true prevalence of PTSD among veterans.

Strikingly, even though as many women veterans as men had street drugs in their urine at the time of ad-

mission, less than half as many women as men were diagnosed as having a substance use disorder. Further, fewer female patients were suspected of substance use during their stay, and the unit staff ordered significantly fewer urine toxicology tests for the women. However, the tests indicated that women were more likely than men to have been using drugs during hospitalization. These findings suggest that VA clinicians should be more attuned to the likelihood of substance use disorders among female veterans. Although in the general population more men than women use substances (3), this pattern may not apply to veterans, especially those with severe mental illness.

The VA is currently struggling to position itself to continue providing services to veterans in the face of increased competition for health care resources and the changing needs of the veteran population. One significant change is the growing number of women among veterans seeking psychiatric services. VA clinicians appear to be inexperienced in the questioning necessary to elicit a history of traumatic events other than combat. In addition, increased vigilance about potential substance use in women appears warranted. A diagnosis of a substance use disorder should be considered regardless of gender whenever an inpatient has a positive urine toxicology test. VA clinicians may need further training and experience in assessing PTSD and substance use disorders among women. ♦

Acknowledgment

This research was partly supported by grant 1R24MH54212-01 from the National Institute of Mental Health.

References

1. McGrath E, Keita GP, Strickland BR, et al (eds): Women and Depression: Risk Factors and Treatment Issues. Final report of the American Psychological Association's national task force on women and depression. Washington, DC, American Psychological Association, 1990
2. Helzer JE, Robins LN, McEvoy L: Posttraumatic stress disorder in the general population. New England Journal of Medicine 317:1630–1635, 1987
3. Robins LN, Helzer JE, Weissman MM, et al: Lifetime prevalence of specific psychiatric disorders in three sites. Archives of General Psychiatry 41:949–958, 1984
4. Willer JK, Grossman LS: A study of female veterans' mental health care needs. Psychiatric Services 46:938–940, 1995
5. Resnick HS, Kilpatrick DG, Dansky BS, et al: Prevalence of civilian trauma and posttraumatic stress disorder in a representative national sample of women. Journal of Consulting and Clinical Psychology 61: 984–991, 1993
6. Astin MC, Ogland-Hand SM, Colemen EM, et al: Posttraumatic stress disorder and childhood abuse in battered women: comparisons with maritally distressed women. Journal of Consulting and Clinical Psychology 63:308–312, 1995
7. Famularo R, Fenton T, Kinscherff R, et al: Maternal and child posttraumatic stress disorder in cases of child maltreatment. Child Abuse and Neglect 18:27–36, 1994
8. Engel CC Jr, Engel AL, Campbell SJ, et al: Posttraumatic stress disorder symptoms and precombat sexual and physical abuse in Desert Storm veterans. Journal of Nervous and Mental Disease 181:683–688, 1993
9. Triffleman EG, Marmar CR, Delucci KL, et al: Childhood trauma and posttraumatic stress disorder in substance abuse inpatients. Journal of Nervous and Mental Disease 183:172–176, 1995
10. Jacobson A, Richardson B: Assault experiences of 100 psychiatric inpatients: evidence of the need for routine inquiry. American Journal of Psychiatry 144:908–913, 1987

An Updated National Survey on Seclusion and Restraint

Wesley B. Crenshaw, Ph.D.
Kimberly A. Cain, M.A.
Paul S. Francis, Ph.D.

A survey of the use of seclusion and restraint during 1994 was conducted at 124 state psychiatric hospitals to update data from a survey of 108 such hospitals conducted for 1991. Rates of patients' placement in seclusion and restraint, hours spent in placement, and discrete incidents of seclusion and restraint were examined. The 1994 results were highly similar to those for 1991. Smaller hospitals providing acute care had higher rates of seclusion and restraint than their larger counterparts providing chronic care. Small positive correlations were found between seclusion and restraint and between the proportion of beds occupied by patients committed as criminally insane and the use of restrictive procedures. (*Psychiatric Services* 48:395–397, 1997)

Since we reported the results of a 1991 survey on restraint and seclusion (1), increased attention has been paid to restrictive practices in state-funded psychiatric inpatient facilities. To detect recent trends and validate our original data, we replicated the study for calendar year 1994.

The survey instrument was developed to gather information in seven areas and is available from the first