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Comorbid Mood and Anxiety Disorders and Severity of Posttraumatic Stress Disorder Symptoms in Treatment-Seeking Veterans

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Abstract

Objective—Comorbidity is the rule and not the exception among veterans with posttraumatic stress disorder (PTSD). Examining comorbidities in a veteran population allows us to better understand veterans' symptoms and recognize when mental health treatment may need to be tailored to other co-occurring issues. This paper evaluates comorbid mood and anxiety disorders and PTSD symptom severity in a large sample of veterans from multiple eras of service, including the recent wars in Iraq and Afghanistan.

Method—The current study used data from veterans who sought treatment for PTSD at a VA PTSD Clinical Team from 2005 to 2013. Veterans were assessed for PTSD, mood, and anxiety disorders using a structured clinical interview and completed self-report symptom measures as part of the PTSD clinic intake procedure. A total of 2460 veterans were evaluated, and 867 met diagnostic criteria for PTSD.

Results—Veterans with PTSD were significantly more likely than those without PTSD to be diagnosed with social anxiety disorder and obsessive-compulsive disorder, but significantly less likely to be diagnosed with depression. In addition, veterans who had at least one comorbid diagnosis in addition to PTSD reported significantly higher PTSD symptom severity than veterans with PTSD alone. PTSD symptom severity also varied by era of service.

Conclusion—These results suggest that among veterans seeking treatment for PTSD, comorbid mood and anxiety disorders may be associated with greater severity of PTSD symptoms. Future work is needed to determine the impact of specific comorbidities on trauma-focused treatment outcomes.

Keywords

PTSD; posttraumatic stress disorder; depression; comorbidity; veterans

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Individuals with posttraumatic stress disorder (PTSD) often suffer from comorbid mental health conditions (Gallagher & Brown, 2014). The National Epidemiologic Survey on Alcohol and Related Conditions found that among those who met criteria for full PTSD, 59% met criteria for another anxiety disorder diagnosis, 35.2% met criteria for a Major Depressive Disorder diagnosis, and 46.4% met criteria for a comorbid alcohol or drug use disorder (Pietrzak et al., 2011; Wisco et al., 2014). Similarly high rates of comorbid mood and anxiety disorders with PTSD were found in the National Comorbidity Survey Replication, and 43.6% of individuals in this sample had 3 or more other diagnoses in addition to PTSD (Elhai, Grubaugh, Kashdan, & Frueh, 2008). High rates of comorbidity are consistently found in treatment-seeking populations (e.g., Brady et al., 2000; Brown et al., 2001; Foa et al., 2005) and among returning veterans (Kehle et al., 2011) as well. While PTSD comorbidities are common and widely acknowledged, less research has explored how PTSD and these co-occurring conditions impact each other in symptom presentation. Few studies examine the relationship between the presence of comorbid diagnoses and severity of PTSD symptoms, and research on mood and anxiety comorbidities and PTSD severity in veterans is particularly limited in scope.

Veterans are especially at risk for developing PTSD due to their exposure to trauma, and comorbid conditions are common in this population as well. An estimated 30% of Vietnam veterans and 10% of Gulf War veterans develop symptoms of PTSD (Smith et al., 2008), and a large study of deployed military found that 15.6 to 17.1 percent of veterans returning from Iraq and 11.2 percent of veterans returning from Afghanistan met criteria for PTSD (Hoge et al., 2004). PTSD can develop months or years after deployment as well, so these are likely underestimates for veterans of the Iraq and Afghanistan wars.

Depression is especially common in veterans with PTSD, with estimates suggesting that 68% of veterans with a current PTSD diagnosis also had a diagnosis of major depressive disorder (Grubaugh, Long, Elhai, Frueh, & Magruder, 2010; Magruder et al., 2005). While this sample of individuals with PTSD was relatively small ($n = 90$), other studies in civilians have replicated at least a 50% comorbidity rate between lifetime PTSD and depression (Elhai et al., 2008; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). The overlap in diagnostic criteria between PTSD and major depressive disorder, including anhedonia, sleep problems, and problems with concentration (Elhai, Carvalho, Miguel, Palmieri, Primi, & Frueh, 2011), suggest that this high level of comorbidity between PTSD and depression may be an artifact of current diagnostic methods, rather than true psychiatric comorbidity, but studies of both veterans and civilians have found comorbidity between PTSD and depression even after removing overlapping symptom items from consideration (Grubaugh et al., 2010; Elhai et al., 2008).

In comorbid PTSD and depression, evidence suggests that civilians with PTSD and comorbid depression and/or anxiety may have more severe PTSD symptoms and greater functional impairment (Hruska et al., 2014; Momartin et al., 2004; Spinhoven et al., 2014). Veterans with comorbid PTSD and depression were also found to have more severe PTSD symptoms than veterans with PTSD alone (Gros, Price, Magruder, & Frueh, 2012). However, the sample of veterans used in this study were recruited from a database of veterans who had presented to Veterans Affairs (VA) primary care clinics who were not

specifically seeking treatment for PTSD. While this look at a broader veteran population is valuable, further investigation is needed to examine symptomology and severity in veterans seeking treatment for PTSD, as these individuals are the ones receiving treatment that must address their PTSD and other symptoms. Given the sheer number of veterans seeking treatment for PTSD both inside and outside the VA Health System, examination of comorbidity in a treatment-seeking veteran population can inform policy and resource allocation as we boost currently disseminated treatment models to include comorbidity and expand training of providers in how to effectively work with these patients.

Anxiety disorders are also highly comorbid with PTSD in veteran populations. In a sample of 86 veterans diagnosed with PTSD, 73.3% had another anxiety disorder diagnosis (Magruder et al., 2005). Within this sample, 39.3% of these veterans had a comorbid generalized anxiety disorder diagnosis, 37.4% had a comorbid panic disorder diagnosis, 22.1% had a comorbid social anxiety disorder diagnosis, and 12.8% had a comorbid obsessive-compulsive diagnosis (Gros, Frueh, & Magruder, 2011; Gros, Magruder, & Frueh, 2013; Kashdan, Frueh, Knapp, Hebert, & Magruder, 2006; Milanak, Gros, Magruder, Brawman-Mintzer, & Frueh, 2013). Veterans with PTSD and comorbid panic disorder or comorbid social anxiety disorder had more severe PTSD symptoms than veterans with PTSD alone (Gros et al., 2011; Kashdan et al., 2006). Notably, veterans in these studies were recruited from a master list of veterans who had been seen in VA primary care, and were not specifically seeking treatment for PTSD or other mental health diagnoses. In addition, data were collected between 1999 and 2002; thus, the results of these studies may not reflect rates of comorbid mood and anxiety disorders among veterans of the Iraq and Afghanistan wars. Further examination is needed to compare PTSD comorbidity among veterans from Iraq and Afghanistan to veterans of Vietnam and previous conflicts.

The present study aims to provide an updated and more complete picture of PTSD symptom severity and its relationship with comorbid anxiety and depressive disorders in veterans seeking treatment for PTSD across service eras. We used comprehensive structured interviews to examine PTSD comorbidities in a large treatment-seeking sample of veterans across all service eras. Based on previous findings, we hypothesized that veterans with PTSD would have a high burden of psychiatric comorbidity and that this comorbidity would be associated with greater severity of PTSD symptoms.

Method

Participants

Veterans who sought treatment for PTSD at a VA Healthcare System PTSD Clinical Team between 2005 and 2013 were asked to complete a series of questionnaires at their intake evaluation. Informed consent was not obtained, as these questionnaires were part of the standard PTSD clinic intake procedure. Only unique cases were included in the dataset; when veterans presented to the PTSD clinic multiple times between 2005 and 2013, only data from their first completed intake were included. Veterans were also asked to provide demographic information in their clinical evaluation. Clinicians recorded the veterans' responses for gender, race, age, marital status, employment status, and era of military service. Three eras of military service were defined: Vietnam-era veterans (37.1% of the

sample), post-Vietnam and Operation Desert Storm veterans (30%), and veterans of the Operation Enduring Freedom/Operation Iraqi Freedom (OEF/OIF) era who served in Iraq and/or Afghanistan (31.1%). Veterans who served after the Vietnam War (including those who served in Desert Storm) but before the recent Iraq and Afghanistan conflicts were collapsed into a single group due to sample size and in accordance with existing literature (Yoder et al., 2012). Veterans from earlier eras such as the Korean War were not included in this analysis due to insufficient sample size (1.7%). Procedures were approved by the facility's Human Subjects Review Committee.

Measures

Evaluating clinicians, including clinical psychologists, clinical social workers, psychology interns, and supervised advanced practicum students in psychology PhD programs, assessed veterans for a variety of psychiatric diagnoses using the Mini International Neuropsychiatric Interview (MINI; Sheehan et al., 1998). The MINI is a semi-structured clinical interview designed to assess for Axis I diagnoses using DSM-IV TR criteria. The reliability and validity of the MINI is well established (see Lecrubier et al., 1997; Sheehan et al., 1997 for a detailed examination). Veterans were assessed for PTSD as well as comorbid diagnoses of depression, panic disorder, social anxiety disorder (SAD), generalized anxiety disorder (GAD), and obsessive-compulsive disorder (OCD). Individuals with comorbid alcohol and substance use disorders, personality disorders, and psychotic disorders were not included in the current analysis, as these veterans were typically immediately discharged from the PTSD clinic and referred to substance use clinics or serious mental illness clinics in the facility. Veterans without PTSD (as assessed by the MINI) were included in the analysis as a comparison group. These veterans were included in order to compare comorbidity profiles of veterans with PTSD to those without PTSD, as many trauma-exposed veterans experience other types of mental health problems.

PTSD symptoms were further assessed via the PTSD Checklist-Civilian Version (PCL-C; Weathers et al., 1994). The PCL-C is a 17-item self-report measure that assesses the severity of PTSD symptoms and has demonstrated good reliability and validity in a variety of trauma samples. Scores range from 17 to 85 and higher scores indicate greater severity of PTSD symptoms. PCL data from veterans without PTSD were included in the analyses as an indication of whether differences in self-reported PTSD symptom severity reflected genuine differences in PTSD severity or served as a marker of overall distress. The PCL has been commonly used in studies of veteran comorbidity to examine symptom severity (Gros et al., 2011; Gros et al., 2012; Ikin, Creamer, Sim, & McKenzie, 2010; Kashdan et al., 2006; Magruder et al., 2004; Magruder et al., 2005; Milanak et al. 2013; Walter, Barnes, & Chard, 2012).

Data Analysis

Descriptive analyses were used to characterize psychiatric diagnosis and comorbidity rates. Chi square tests and ANOVAs were used to investigate differences among diagnostic groups in comorbidity rates and PTSD symptom severity. The sample was also stratified by service era so that symptom severity and comorbidity profiles could be examined separately by era.

Results

Demographics and rates of PTSD and other diagnoses are displayed in Table 1. Among the 2,460 veterans in the present sample from whom data was collected, 87% had valid diagnostic information available ($n = 2151$). Demographic variables were also examined by era. Given the observed differences in race and gender, we adjusted for these variables in subsequent analyses. Forty percent of those veterans met criteria for PTSD; the remaining 60% of veterans who did not meet criteria for PTSD ($n = 1284$) formed a comparison group for purposes of severity analysis. Of those with PTSD, 64% ($n = 557$) had at least one comorbid depression or anxiety disorder diagnosis, and 36% ($n = 310$) were diagnosed with PTSD only. While many veterans had more than one comorbid diagnosis, no significant differences in outcomes were found among veterans who had varying numbers of comorbid diagnoses.

Table 2 displays rates of mood and anxiety disorder diagnoses for those who had a PTSD diagnosis and those who did not ($n = 2151$). There were significant differences between these two groups in diagnostic rates for depression, SAD, and OCD. Veterans with PTSD were less likely than those without PTSD to be diagnosed with depression, χ^2 (1, $N = 2151$) = 20.46, $p < .001$. Veterans with PTSD were more likely than those without PTSD to be diagnosed with SAD, χ^2 (1, $N = 2151$) = 4.82, $p = .03$ and OCD, χ^2 (1, $N = 2151$) = 6.94, $p = .01$. No significant differences were found between groups for rates of panic disorder, χ^2 (1, $N = 2151$) = 1.89, $p = .17$ and GAD, χ^2 (1, $N = 2151$) = 1.64, $p = .20$.

Means and standard deviations for PCL totals and PCL subtotals for all three diagnostic groups (no PTSD, PTSD only, and PTSD with at least one comorbid disorder) are displayed in Table 3. Compared to veterans without PTSD and those with PTSD alone, veterans who had at least one comorbid diagnosis in addition to PTSD had significantly higher total scores on the PCL-C, $F(1096, 2) = 36.70$, $p < .001$. This difference was consistent across all subscales of the PCL, all ps < .001:

Veterans who served in different eras experienced significantly different levels of severity of PTSD. Table 3 displays means and standard deviations for PCL totals and subtotals by era of service. Table 4 displays rates of comorbidity by service era. Across eras of service, there were significant differences in rates of any PTSD diagnosis, with Post-Vietnam/Desert Storm veterans having significantly higher rates of PTSD than the other two eras. Rates of comorbidity also differed significantly by era of service, with OEF/OIF veterans having significantly higher rates of comorbid conditions than Vietnam veterans but significantly lower rates than post-Vietnam/Desert Storm veterans. Specifically, OEF/OIF veterans had significantly higher rates of SAD, panic disorder, GAD, and OCD than Vietnam veterans, but significantly lower rates of these disorders than post-Vietnam/Desert Storm veterans. Rates of depression did not differ significantly by era of service.

Discussion

We examined rates of psychiatric comorbidity and PTSD symptom severity in a sample of 2460 veterans seeking PTSD treatment at a VA hospital and found that comorbidity profiles

significantly differed between those with and without PTSD. We also found that the presence of psychiatric comorbidity was associated with PTSD symptom severity. As expected, veterans with PTSD and comorbid conditions had more severe PTSD symptoms than veterans with PTSD alone across all three domains of the PCL. Furthermore, we found that type of comorbidity and PTSD symptom profile differed by era, even after controlling for differences in race and gender. These findings suggest that comorbidity may significantly impact veterans' experience of PTSD. Our results add to the literature on PTSD comorbidity by informing clinicians of the high rates of comorbid mood and anxiety disorders and associated increased severity of PTSD symptoms in veterans specifically seeking treatment in PTSD clinics. Providers should carefully attend to the presence of comorbidity during assessment, treatment planning, and treatment delivery.

A large percentage of veterans seeking treatment for PTSD in our study were not ultimately given a diagnosis of PTSD after their evaluation. While some of these veterans may have had subthreshold PTSD symptoms that did not meet criteria for a full PTSD diagnosis, the majority had trauma exposure and symptoms of depression or anxiety, which were identified by a brief 4-item screen in a primary care setting as needing further evaluation in a PTSD clinic. We attribute this high false positive rate to the VA setting and the high rates of trauma exposure combined with the measure which was designed to be highly sensitive rather than highly specific. In addition, a common public association between veteran mental health issues and PTSD may have biased both clinicians and veterans to give false positive responses to PTSD screening items.

Among veterans seeking treatment for PTSD, those diagnosed with PTSD were more likely to be diagnosed with SAD and OCD than veterans without PTSD, although they were not any more likely to have a panic disorder or GAD diagnosis. Studies of both civilians (McMillan et al., 2014) and veterans (Kashdan et al., 2006) have found an association between PTSD and SAD, so the increased likelihood of SAD diagnosis in veterans with PTSD is expected and likely generalizable across treatment-seeking and non-treatment seeking veteran samples. PTSD and OCD comorbidity has been much less thoroughly studied, with one study finding that depression and symptom overlap accounted for the comorbidity (Huppert et al., 2005) and another finding that patients with comorbid OCD and PTSD did not respond to behavioral treatment for their OCD (Gershuny et al., 2002). Neither study utilized a veteran sample. The one study that examined veterans found that 68.8% of participants with OCD also endorsed PTSD symptoms, although the sample size of veterans with OCD in this sample was only 16 participants (Gros et al., 2013). Thus, further research of comorbid PTSD and OCD should be conducted in this population.

Interestingly, although depression was the most common comorbid diagnosis with PTSD, veterans with PTSD were less likely to have a depression diagnosis than veterans without PTSD. One possible explanation of this finding is that the brief screening measures of PTSD used at our VA hospital to make referrals to PTSD specialty clinics might be well-suited to detecting general distress and mental health symptoms in veterans but may not be specific enough in their brief form to isolate PTSD symptoms. With the overlap in some symptoms of depression and PTSD, such as negative affect, emotional numbing, and loss of interest in activities, providers outside of mental health specialty fields may be less able to differentiate

the two diagnoses. Primary care providers might also equate trauma and PTSD without further examining re-experiencing symptoms or avoidance behavior. Our results may also be clinician-driven, in that clinicians may feel pressured to assign another diagnosis to veterans who do not meet criteria for PTSD but are interested in receiving mental health treatment for their distress. The results of our study are limited by these referral patterns and may not generalize to all veteran treatment centers, as different PTSD clinics use different referral criteria.

We found that the presence of a comorbid mood or anxiety disorder in addition to PTSD was associated with greater PTSD symptom severity across all symptom clusters compared to those with PTSD alone. Our results expand upon the findings of Ikin et al. (2010) in their exploration of comorbidity in Korean War veterans, in which comorbid depression and PTSD were associated with more severe symptoms, impaired quality of life, and reduced life satisfaction. With a broader treatment-seeking sample of veterans and the use of both clinician and self-report measures, our results can further build on previous studies of veteran PTSD comorbidity. However, the directionality of this effect cannot be determined as our study was non-experimental, and several potential explanations could fit this finding. First, the presence of additional psychiatric disorders could exacerbate symptoms of PTSD. For example, an avoidant attentional bias in depression could contribute to avoidance behavior and therefore worsen PTSD symptoms (Hauschildt et al., 2013). More severe depression would then potentially lead to more severe PTSD. PTSD could also exacerbate preexisting mental health conditions, or common risk factors could explain the frequency of this comorbidity. Future research should continue to explore how comorbid mood and anxiety disorders affect or are affected by PTSD. Additional research on comorbid anxiety is especially needed.

Finally, the overall diagnostic picture differs across different eras of veterans seeking PTSD treatment. Veterans who served after the Vietnam War and/or in the Desert Storm era reported the most severe PTSD symptoms. Veterans who served in this era were also more likely to have a comorbid anxiety diagnosis (but not depression) than other era veterans. However, based on this study alone, we cannot determine whether this is due to more severe PTSD and increased comorbidity in post-Vietnam and Desert Storm veterans, or if veterans from this era with less severe symptoms are less likely to seek PTSD treatment compared to veterans who served in other eras (and thus only more severe post-Vietnam/Desert Storm cases presented to our clinic). Additionally, we cannot be certain that these differences are due to era of service instead of age. Although grouped by age rather than year of service, a previous study found that younger veterans had more severe PTSD symptoms than older veterans; the youngest veterans in this study were likely from the Desert Storm era as data were collected before the Iraq and Afghanistan wars (Magruder et al., 2004). Our study builds upon previous work by comparing the comorbidity and PTSD severity of veterans of Iraq and Afghanistan with veterans of earlier conflicts.

Differences in PTSD comorbidity profiles have potential implications for PTSD treatment. Multiple studies have found that comorbid depression impedes treatment response, either in the rate of symptom remission or in presence of higher overall symptoms at both pre- and post-treatment in veterans (Walter et al., 2012; Sripada et al., 2017) and non-veterans

(Galatzer-Levy et al., 2013; Stein et al., 2012), although another study of veterans receiving PTSD treatment did not find an influence of depression on outcome (Richardson et al., 2014). Similarly, comorbid anxiety also adversely affected PTSD treatment response in a non-veteran sample (Tarrier, Sommerfield, Pilgrim, & Faragher, 2000). Although comorbid symptoms of anxiety and depression often decrease with PTSD treatment (e.g., Liverant, Suvak, Pineles, & Resick, 2012), emphasizing different components of existing evidence-based treatments for PTSD based on symptom profiles may improve treatment outcomes. Targeting depressive cognitions early in treatment, for example, may help produce sudden gains in depression symptoms (Tang, DeRubeis, Beberman, & Pham, 2005); sudden gains in depression symptoms predicted better outcomes in one PTSD treatment study (Keller, Feeny, & Zoellner, 2014). Understanding differences between different eras of veterans may also provide important information. For example, since OEF/OIF veterans appear to exhibit less avoidance than veterans of other eras, they might require less exposure than other veterans and could potentially complete treatment faster. Since PTSD treatment-seeking post-Vietnam/Desert Storm veterans have more re-experiencing symptoms, clinicians might need to address nightmares and sleep issues more thoroughly in their treatment. Additional research into PTSD treatment modifications and their effects on veterans of various eras would likely be fruitful.

Limitations

While our study benefits from a large, diverse, treatment-seeking sample, there are a few limitations that may affect our findings. First, due to the clinic structure at this VA Hospital, we were unable to include individuals with substance use disorder in our sample. Given that comorbid substance use is typically high among individuals with PTSD (e.g., Pietrzak et al., 2011), this is a signifiant limitation of the current paper, which considers only mood and anxiety comorbidities. A second limitation is the method of diagnostic assessment used in this study. All staff members and trainees who provided diagnostic impressions were master's level clinicians or above who had received specialty training in the assessment of PTSD. These diagnostic impressions, based on the MINI along with patient self-report, represent an improvement over the assessments conducted in most clinical settings. However, given that this dataset comes from a treatment-seeking clinical sample and not a clinical trial, information on fidelity and interrater reliability is not available.

The use of a self-report measure to examine PTSD symptom severity is another limitation of this study; in fact, the mean PCL score for the group without PTSD is above recommended cutoffs for probable PTSD. Thus, this group likely contains some individuals with subthreshold PTSD. While this does not serve as an ideal control group for the current study, the nature of this sample (individuals seeking treatment in a PTSD clinic) precludes equivalent data for individuals without current concerns of PTSD. Additionally, the use of a self-report measure of symptom severity, along with the use of a brief screening measure for referral to the PTSD clinic, may have inflated PTSD symptom scores due to lack of specificity (i.e., participants endorsed symptoms of increased negative affect that may alternatively be attributed to depression). The use of a clinical interview such as the Clinician-Administered PTSD Scale (CAPS; Weathers et al., 2013) would provide a better measure of symptom severity. However, the PCL has been used in many other published

studies of PTSD comorbidity and severity (Gros et al., 2011; Gros et al., 2012; Hoge et al., 2004; Ikin et al., 2010; Kashdan et al., 2006; Magruder et al., 2004; Magruder et al., 2005; Milanak et al. 2013; Walter et al., 2012). Notably, although PTSD symptom severity scores were significantly different across veterans without PTSD, with PTSD only, and with PTSD and comorbid mood and anxiety disorders, the differences between group means were relatively small. However, group differences in this study were similar in magnitude to those found in a previous veteran comorbidity study, which noted that even these modest differences were associated with worse quality of life and reduced life satisfaction (Ikin et al., 2010). Finally, veterans' length of service, age of PTSD onset, and level of exposure to traumatic stress were not analyzed in the current study and should be examined in future research on comorbidity and PTSD severity as potential covariates.

Conclusions

Psychiatric comorbidity and PTSD symptom severity was assessed in a sample of veterans seeking treatment for PTSD at a VA PTSD clinic; high rates of comorbidity were found for veterans with and without PTSD. This research is particularly relevant for clinicians who assess and treat veterans for PTSD and comorbid mood and anxiety disorders. In addition to obtaining a broader diagnostic picture of a PTSD treatment-seeking sample, exploring comorbidities in veterans seeking treatment for PTSD can provide important information regarding treatment planning, such as whether it is best to prioritize the primary disorder in treatment or to add elements into treatment that specifically address the comorbidities along with the primary disorder. Future work should investigate methods for optimizing treatment outcomes among individuals with PTSD and a high burden of psychiatric comorbidity.

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Clinical Impact Statement

Many veterans with posttraumatic stress disorder (PTSD) also have other psychological disorders, such as depression and anxiety. In this study, veterans at a PTSD clinic were evaluated for PTSD and mood and anxiety disorders. Veterans who had at least one diagnosis in addition to PTSD had more severe PTSD symptoms than veterans with PTSD alone. Veterans from different eras of service also had different symptom profiles. It is important to understand the impact of being diagnosed with a mood or anxiety disorder in addition to PTSD to tailor treatment to the individual.

Table 1

Demographics

Demographic	Total	Vietnam	Post-Vietnam/ Desert Storm	OEF/OIF	χ^2/F	*p*
	***n* = 2146**	***n* = 848**	***n* = 567**	***n* = 731**		
% Male	92.4	99.5	81.2	92.4	153.68	<.001**
% Caucasian	83.4	85.9	76.2	85.9	48.04	<.001**
% Employed (FT/PT)	34.5	22.3	36.1	68.0	137.39	<.001**
% Married	44.7	53.9	37.0	39.8	369.26	<.001**
Mean Age (SD)	46.9	62.1	44.9	30.6	2758.39	<.001**
PTSD	40.3	38.3	46.4	37.9	11.86	.003**
Depression	49.2	49.6	48.9	49.1	0.10	.95
SAD	7.9	5.5	9.9	9.2	11.10	.004**
Panic Disorder	12.1	8.4	15.9	13.4	19.88	<.001**
GAD	11.4	8.8	15.3	11.2	14.27	.001**
OCD	4.6	2.9	6.5	4.9	10.31	.006**
No diagnosis	21.5	24.1	17.1	21.9	29.44	<.001**
1 diagnosis	35.4	35.4	33.9	36.5	29.44	<.001**
2 diagnoses	28.3	29.3	28.5	26.8	29.44	<.001**
3 or more diagnoses	14.8	11.1	20.5	14.8	29.44	<.001**

** $p < .01$

Note: FT = full-time, PT = part-time

Table 2

Rates of Mood and Anxiety Disorders by PTSD Diagnosis

Diagnosis	**No PTSD *n* = 1284**	**PTSD *n* = 867**	χ^2	***p***
Depression	53.2%	43.3%	20.46	< .001**
SAD	6.9%	9.5%	4.82	.028*
Panic Disorder	11.3%	13.3%	1.89	.169
GAD	10.7%	12.5%	1.64	.201
OCD	3.6%	6.0%	6.94	.008**

* $p < .05$

** $p < .01$

Table 3

PCL Scores by Diagnostic Groups and by Era

Measure	No PTSD	PTSD Only	PTSD + 1 or more comorbid disorders			Vietnam	Post-Vietnam/ Desert Storm	OEF/OIF		
	M (SD)	*M (SD)*	*M (SD)*	*F*	*p*	*M (SD)*	*M (SD)*	*M (SD)*	*F*	*p*
PCL total *n* = 1075	57.7 (14.3)	60.7 (11.9)	64.9 (10.8)	36.70	< .001**	61.2 (12.9)	63.7 (12.3)	59.5 (12.5)	3.83	.02*
PCL subtotal: Re-experiencing *n* = 1079	16.8 (4.8)	17.8 (4.0)	19.0 (3.8)	29.83	< .001**	17.8 (4.3)	18.9 (4.2)	17.1 (4.3)	3.79	.02*
PCL subtotal: Avoidance *n* = 1074	22.5 (7.0)	23.6 (6.2)	25.8 (5.5)	29.50	< .001**	24.4 (6.4)	25.1 (6.0)	22.9 (6.4)	1.93	.15
PCL subtotal: Hyperarousal *n* = 1077	18.2 (4.6)	19.2 (3.9)	20.1 (3.5)	23.43	< .001**	18.8 (4.2)	19.7 (4.1)	19.5 (3.8)	5.01	.01*

*$p < .05$

**$p < .01$

Note: Era comparisons were conducted controlling for race (white vs. non-white) and gender.

Table 4

Rates of PTSD and Comorbid Mood and Anxiety Disorders by Era of Service, n = 2146

Diagnosis	Vietnam	Post-Vietnam/ Desert Storm	OEF/OIF	χ^2	*p*
% No PTSD	61.7	53.6	62.1	14.84	.005**
% PTSD alone	15.1	15.7	12.6	14.84	.005**
% PTSD + 1 or more comorbid disorders	23.2	30.7	25.3	14.84	.005**
% PTSD + Depression	16.8	19.6	16.7	2.35	.31
% PTSD + 1 or more Anxiety Disorders	10.9	21.0	14.8	27.52	<.001**

** $p < .01$