



A comparison of ICD-11 and DSM criteria for posttraumatic stress disorder in two national samples of U.S. military veterans



A B S T R A C T

Background: The proposed ICD-11 criteria for posttraumatic stress disorder (PTSD) differ substantially from the DSM-5. ICD-11 eliminated several PTSD symptoms thought to be nonspecific, with the goal of reducing psychiatric comorbidities. However, this change also results in a narrower PTSD definition that may fail to capture individuals with clinically significant PTSD. The purpose of the current study was to compare prevalence and psychiatric comorbidities of DSM (IV/5) and ICD-11 PTSD.

Methods: We evaluated concordance between DSM (IV/5) and ICD-11 PTSD diagnoses in a web survey of two nationally representative samples of U.S. military veterans ($n_s = 3517$ and 1484). Lifetime and past-month PTSD symptoms were assessed with the DSM-IV-based PTSD Checklist-Specific Stressor version and the DSM-5-based PTSD Checklist-5. Psychiatric comorbidities were assessed using MINI Neuropsychiatric Interview modules.

Results: A significantly greater proportion of veterans met criteria for lifetime and past-month PTSD under DSM-IV/5 than under ICD-11. 21.8–35.9% of those who met criteria under DSM IV/5 did not meet under ICD-11, whereas only 2.4–7.1% of those who met under ICD-11 did not meet under DSM-IV/5. Psychiatric comorbidities did not significantly differ between DSM-IV/5 and ICD-11.

Limitations: This study relied upon self-report measures of PTSD, distress/impairment, and psychiatric comorbidities.

Conclusions: The proposed ICD-11 criteria identify fewer PTSD cases than DSM-IV/5 without reducing psychiatric comorbidities. Veterans with clinically significant PTSD symptoms may not meet ICD-11 PTSD criteria, possibly affecting eligibility for healthcare, disability, and other services. The ICD-11 criteria could be revised to capture more PTSD cases before ICD-11 is published in 2018.

1. Introduction

Worldwide, two major diagnostic systems are commonly used: the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* (Association, 2013), presently in its fifth edition, and the *International Classification of Diseases (ICD)* (World Health Organization, 2012), presently in its tenth edition, with the eleventh slated for publication in 2018. Historically, DSM and ICD have defined most illnesses using similar criteria, facilitating comparisons. However, the forthcoming ICD-11 proposes a definition of posttraumatic stress disorder (PTSD) that diverges substantially from DSM-5. Specifically, DSM-5 requires at least one of five trauma-related intrusions, one of two avoidance, two of seven negative alterations in cognitions and mood, and two of six alterations in arousal and reactivity symptoms. ICD-11 requires trauma re-experiencing “in the present,” avoidance, and “persistent perceptions of heightened current threat.” The ICD-11 work group (Maercker et al., 2013) has defined this as at least one of two intrusion (nightmares or flashbacks), one of two avoidance (avoidance of thoughts/feelings or avoidance of external reminders), and one of two arousal symptoms (hypervigilance or exaggerated startle) (Cloitre et al., 2013), reducing the total number of symptoms to 6, compared with 17 in DSM-IV and 20 in DSM-5.

The stated goal of this change is to improve diagnostic accuracy and reduce psychiatric comorbidity by eliminating nonspecific symptoms (Maercker et al., 2013; Cloitre et al., 2013). Yet, this change also results in a narrower definition of PTSD that may have an unintended consequence—failing to identify individuals with clinically significant PTSD. A previous study of a convenience sample of 852 treatment-seeking U.S. veterans found that ICD-11 yielded significantly lower past-month prevalence (34.4%) than DSM-5 (38.7%), with 20.8% of individuals with DSM-5 PTSD not meeting under ICD-11 (Wisco et al., 2016a). Given the relatively high prevalence of PTSD in that sample (> 30% past-month prevalence, compared with contemporary estimates of < 5% past-month prevalence in the current U.S. veteran population (Wisco et al., 2014; Wisco et al., 2016b)), the results may not generalize to the broader U.S. veteran population. Indeed, even larger discrepancies between DSM-5 and ICD-11 definitions of PTSD have been reported in community samples (Wisco et al., 2016a; Hansen et al., 2015).

2. Method

To enhance generalizability, we evaluated concordance between DSM (IV and 5) and ICD-11 PTSD diagnoses using two contemporary, nationally representative samples of U.S. military veterans from the National Health and Resilience in Veterans Study (Wisco et al., 2014, 2016b). All data were collected online using a web survey. In the first cohort ($n = 3517$) (Wisco et al., 2014), we assessed lifetime and past-month symptoms using a DSM-

Table 1
Prevalence of PTSD according to DSM versus ICD-11.

	DSM-IV sample (n = 3517)							
	DSM-IV		ICD-11		Met under DSM-IV but not ICD-11		Met under ICD-11 but not DSM-IV	
	n	%	n	%	n	%	n	%
Lifetime PTSD	199	6.9	143	5.0	66	32.4	10	7.0
Past-Month PTSD	112	4.0	72	2.7	45	35.9	5	2.4
	DSM-5 Sample (n = 1484)							
	DSM-5		ICD-11		Met under DSM-5 but not ICD-11		Met under ICD-11 but not DSM-5	
	n	%	n	%	n	%	n	%
Lifetime PTSD	82	6.8	66	5.7	21	21.8	5	7.1
Past-Month PTSD	45	3.9	33	3.1	14	24.1	2	6.4

Note. PTSD = Posttraumatic Stress Disorder; DSM = Diagnostic and Statistical Manual of Mental Disorders; ICD-11 = International Classification of Diseases-11. Raw frequencies are reported. Percentages are weighted using post-stratification weights to be representative of the U.S. veteran population.

IV measure—the PTSD Checklist-Specific Stressor version (PCL-S). In the second cohort ($n = 1484$) (Wisco et al., 2016b), we used the DSM-5 version—PTSD Checklist-5 (PCL-5). Across all diagnostic classifications, trauma exposure, symptom duration \geq one month, and clinically significant distress or impairment related to PTSD symptoms were required. DSM-IV criteria were defined as endorsement (“moderately” or higher) of at least one of five re-experiencing, three of seven avoidance/numbing, and two of five hyperarousal symptoms. DSM-5 and ICD-11 criteria were defined using symptom counts described above. We assessed lifetime psychiatric comorbidities (major depression, social phobia, alcohol and drug use disorders) using MINI Neuropsychiatric Interview modules adapted for self-report (Sheehan et al., 1998). All percentages and statistics (McNemar chi-squares) are weighted using post-stratification weights to generalize to the U.S. veteran population (Wisco et al., 2014, 2016b).

3. Results

In the first sample (Wisco et al., 2014), a significantly greater proportion of veterans had DSM-IV than ICD-11 PTSD for lifetime, 6.9% vs. 5.0%, $\chi^2 = 43.0$, $p < .001$, and past-month, 4.0% vs. 2.7%, $\chi^2 = 40.3$, $p < .001$, diagnoses (see Table 1). The second sample (Wisco et al., 2016b) produced similar results—a significantly greater proportion of veterans had DSM-5 than ICD-11 PTSD for lifetime, 6.8% vs. 5.7%, $\chi^2 = 9.1$, $p = .002$, and past month, 3.9% vs. 3.1%, $\chi^2 = 7.1$, $p = .008$, diagnoses. Moreover, 21.8–35.9% of those who met criteria for PTSD under DSM-IV or DSM-5 did not meet under ICD-11, whereas only 2.4–7.1% of those who met criteria for PTSD under ICD-11 did not meet under DSM-IV or DSM-5.

Examination of 95% confidence intervals revealed no significant differences in lifetime psychiatric comorbidities between individuals with DSM-IV/DSM-5 versus ICD-11 PTSD. In the first sample, comorbidity rates were as follows (DSM-IV vs. ICD-11): depression (76.9% vs. 80.2%), social phobia (52.8% vs. 65.9%), alcohol use disorders (70.7% vs. 77.6%), drug use disorders (40.3% vs. 46.5%). In the second sample, rates were (DSM-5 vs. ICD-11): depression (43.6% vs. 45.9%), social phobia (23.8% vs. 25.0%), alcohol use disorders (71.3% vs. 76.2%), and drug use disorders (40.6% vs. 38.8%). We also examined comorbidities among individuals who met criteria for PTSD per DSM but not ICD-11 or vice versa. In the DSM-IV sample, comorbidities were (DSM but not ICD-11 PTSD/ICD-11 but not DSM PTSD): depression (67.5%/61.8%), social phobia (28.7%/24.2%), alcohol (62.1%/34.9%), drug use (33.9%/31.0%). In the DSM-5 sample, comorbidities were: depression (34.2%/53.7%), social phobia (15.2%/14.7%), alcohol (56.7%/74.9%), drug use (40.0%/10.1%).

4. Discussion

ICD-11 yielded significantly lower prevalence estimates than either DSM-IV or DSM-5, which yielded similar prevalence estimates to each other. Importantly, the individuals excluded under ICD-11 all endorsed clinically significant distress or impairment related to their PTSD symptoms. Our findings add to mounting evidence that ICD-11 identifies substantially fewer PTSD cases than DSM (Wisco et al., 2016a; Hansen et al., 2015), and suggest that the ICD-11 underestimates clinically meaningful distress and disability related to PTSD symptoms. Further, we found no evidence that the ICD-11 criteria reduced psychiatric comorbidities. Limitations of this study include the reliance upon self-report measures of PTSD, distress/impairment, and psychiatric comorbidities. The PTSD questionnaires were developed to measure DSM criteria, which describe symptoms somewhat differently than the ICD-11 (e.g., ICD-11 defines intrusions as re-experiencing “in the present”). Although we queried distress and impairment related to PTSD symptoms specifically, it is possible that individuals reported on distress or impairment related to conditions other than PTSD. Strengths of this study include the nationally representative sample, enhancing generalizability to the entire population of U.S. veterans.

Our findings suggest that, of the estimated 1.3 million U.S. veterans with a lifetime history of DSM-5 PTSD, over 280,000 (22%) would not meet ICD-11 criteria. These individuals might not have access to the same healthcare, disability benefits, and other important services that they would under DSM-5. It is also important to note that some individuals met criteria under ICD-11 but were missed by DSM-5, although this group is much smaller (5% compared with 22%). Individuals excluded under ICD-11 also had high rates of comorbidity and could potentially receive treatment for a comorbid condition instead of PTSD. However, treatment designed for a different condition may be ineffective for PTSD symptoms. To identify more PTSD cases, the ICD-11 could remove the requirement that re-experiencing be “in the present,” which had relatively poor reliability in the ICD-11 field trials (Keeley et al., 2016). Additionally, perceptions of current threat could be expanded to include more symptoms (e.g., sleep disturbance, concentration difficulty). Because the ICD-11 criteria are still under review, we hope that this study stimulates additional research on implications of narrowing the definition of PTSD.

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