Does Size really matter? A multisite study of competing diagnostic criteria

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Does size really matter? A multisite study of competing diagnostic criteria

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Introduction

Clinicians and researchers are becoming increasingly aware of the difficult decision that they are likely to be making within the next years; deciding between the use of two rather different descriptions of the posttraumatic stress disorder (PTSD) diagnosis. The Diagnostic and Statistical Manual of Mental Disorders 5th edition (DSM-5), which describes PTSD as a diagnosis comprised of 20 symptoms belonging to four symptom clusters, and the World Health Organization’s proposed 11th revision of the International Classification of Diseases (ICD-11) set for release in 2018 in which PTSD is comprised by only 6-7 symptoms belonging to three symptom clusters. Numerous studies have supported the latent structure of PTSD according to different models of the DSM-5 and the ICD-11 proposal. The few studies investigating the ICD-11 and the DSM-5 in the same populations appear to suggest that the ICD-11 model may result in better fit than the DSM-5 based models. At the same time, there is also a tendency for ICD-11 to produce lower estimated PTSD prevalence rates than the DSM-5 criteria, which may ultimately affect who is offered treatment. Of note, it is important to stress that there is a lack of studies investigating the latent structure of the ICD-11 and DSM-5 models in the same populations using appropriate measurements of both the ICD-11 and the DSM-5 PTSD. At the same time, it is important to investigate this in different trauma populations as previous research suggest that differences in prevalence rates may only exist following specific types of traumatic exposure.

The aim of the present study was to investigate the latent structure of different ICD-11 and DSM-5 models of PTSD in three different trauma populations and compare the estimated diagnostic rates of PTSD based on the DSM-5 and the ICD-11, respectively.

Method

Confirmatory factor analyses (CFA) were used to test DSM-5 and ICD-11 based models of PTSD symptoms (see table 1 and 2) across data from a total of 4,656 participants drawn from 3 Danish samples using the PTSD Checklist-5 and the ICD-11-TQ. Furthermore, differences in diagnostic rates based on the two systems were compared using the z-test, while Cohen’s kappa coefficient (k) were used to measure the level of agreement in diagnosis between the ICD-11 and the DSM-5.

Results

The CFA results of the alternative models of the ICD-11 and the DSM-5 symptoms of PTSD are presented in Table 3 and 4. Among the university sample, the DSM-5 (14.3%) generated significantly higher rates of PTSD compared to the ICD-11 (8.0%) (Z = 8.64, SE = .01, P < .001). Agreement between the two systems was moderate (Kappa = .60, SE = .02, P < .001). No statistically significant difference between rates of DSM-5 (16.4%) and ICD-11 (17.5%) PTSD was observed within the pain sample (Z = -0.47, SE = .02, P = .682). Despite there being no significant differences in diagnostic rates, agreement across systems was moderate (Kappa = .60, SE = .05, P < .001). Within the military sample, rates of PTSD according to DSM-5 (9.5%) were almost twice that of ICD-11 (5.5%), but the difference was not statistically significant (Z = 1.24, SE = .03, P = .107). Agreement between the two systems was moderate (Kappa = .68, SE = .13, P < .001).

Table 3. Model fit statistics for the alternative models of PTSD in PTSD samples.

<table>
<thead>
<tr>
<th>Model</th>
<th>University Sample (n = 1524)</th>
<th>Pain Center South, Odense University Hospital (n = 124)</th>
<th>Danish Veteran Centre, Ringe (n = 164)</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-factor model</td>
<td>551.006</td>
<td>900.000</td>
<td>1300.000</td>
</tr>
<tr>
<td>Two-factor model</td>
<td>210.156</td>
<td>500.000</td>
<td>700.000</td>
</tr>
<tr>
<td>Three-factor model</td>
<td>112.123</td>
<td>1000.000</td>
<td>1200.000</td>
</tr>
<tr>
<td>Two-factor model</td>
<td>112.123</td>
<td>1000.000</td>
<td>1200.000</td>
</tr>
<tr>
<td>Three-factor model</td>
<td>112.123</td>
<td>1000.000</td>
<td>1200.000</td>
</tr>
</tbody>
</table>

Discussion

The CFA results indicated excellent fit of the ICD-11, whereas the DSM-5 model was amongst the poorest fitting of all models tested in each sample. In relation to the diagnostic rates the DSM-5 produced a significantly higher rate of PTSD than the university students but not the pain patients or soldiers. However, the Kappa values were only moderate across all samples suggesting that there were still significant differences between who met the diagnostic criteria. Thus, the extant results are generally consistent with existing research. Of note, the present study only concerns PTSD and not more complex traumatic responses as dissociative PTSD (D-PTSD) or Complex PTSD (C-PTSD). Thus, in order to fully compare the two diagnostic systems, the entire diagnostic picture needs to be included.

Conclusion

Although, the results of the two diagnostic systems cannot be directly compared per se, the shortened ICD-11 PTSD model appears to provide a simpler and satisfactory description of PTSD responses compared to the DSM-5. However, in many ways the DSM-5 can be said to be a multidimensional disorder, whereas the ICD-11 PTSD is clearly not. Thus, it is important that future studies of differences between ICD-11 and the DSM-5 also includes symptoms of C-PTSD and D-PTSD.