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Sex Differences in PTSD Symptoms: A Differential Item Functioning Approach

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Objective: Evidence has suggested there are sex differences in posttraumatic stress disorder (PTSD) symptom expression; however, few studies have assessed whether these differences are due to measurement invariance. This study aimed to examine sex differences in PTSD symptoms based on the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM–5*) using differential item functioning (DIF). ***Method:*** Confirmatory factor analysis was conducted on the *DSM–5* model of PTSD, followed by a multiple indicators multiple causes (MIMIC) model to examine possible DIF using the PTSD Checklist for *DSM–5*. Data were analyzed from a Malaysian adolescent sample ($n = 481$) of which 61.7% were female, with a mean age of 17.03 years. ***Results:*** The results indicated the presence of DIF for 2 of 20 PTSD criteria. Females scored significantly higher on emotional cue reactivity (B4), and males reported significantly higher rates of reckless or self-destructive behavior (E2) while statistically controlling for the latent variables in the model. However, the magnitude of these item-level differences was small. ***Conclusion:*** These findings indicate that despite the presence of DIF for 2 *DSM–5* symptoms, this does not provide firm support for nonequivalence across sex.

Clinical Impact Statement
This study suggests that although sex differences were observed in 2 out of 20 posttraumatic stress disorder (PTSD) symptom criteria, the magnitude of these effects was small and may be the result of gender role stereotypes rather than a bias in diagnostic criteria. Given the paucity of studies examining sex differences in PTSD symptom expression based on the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.), more research is needed across different cultures and types of traumatic exposure before firm conclusions can be made.

Keywords: posttraumatic stress disorder, *DSM–5,* differential item functioning, gender differences, PTSD Checklist for *DSM–5*

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The *Diagnostic and Statistical Manual of Mental Disorders* (*DSM–5*: American Psychiatric Association, 2013) diagnosis of posttraumatic stress disorder (PTSD) has undergone significant changes in nosology, definition of a traumatic stressor, and the number and nature of symptom criteria (Weathers, 2017). Notably, the tripartite model was replaced with a four-factor model based on a large body of evidence from confirmatory factor analytic findings demonstrating that PTSD is better comprised of four rather than three dimensions (Yufik & Simms, 2010). The four symptom clusters are intrusions (Criterion B), avoidance (Criterion C), negative alterations in cognitions and mood (NACM; Criterion D), and alterations in arousal and reactivity (Criterion E). Additional modifications are reflected in the separation of the *DSM–IV* (American Psychiatric Association, 1994) Criterion C of active avoidance and emotional numbing into two separate clusters and the addition of three symptoms (blame, persistent negative emotions, and reckless or self-destructive behavior).

Support for the *DSM–5* four-factor model of PTSD has been evidenced from confirmatory factor analytic findings using different measures and across numerous trauma and community samples and cultures (Biehn et al., 2013; Contractor et al., 2013; Elhai et al., 2012; Tay, Jayasuriya, Jayasuriya, & Silove, 2017). More

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