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The DSM-5 social anxiety disorder severity scale: Evidence of validity and reliability in a clinical sample

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ABSTRACT

With DSM-5, the APA began providing guidelines for anxiety disorder severity assessment that incorporates newly developed self-report scales. The scales share a common template, are brief, and are free of copyright restrictions. Initial validation studies have been promising, but the English-language versions of the scales have not been formally validated in clinical samples. Forty-seven individuals with a principal diagnosis of Social Anxiety Disorder (SAD) completed a diagnostic assessment, as well as the DSM-5 SAD severity scale and several previously validated measures. The scale demonstrated internal consistency, convergent validity, and discriminant validity. The next steps in the validation process are outlined.

1. Introduction

In the fifth edition of the Diagnostic and Statistical Manual for Mental Disorders (DSM-5; APA, 2015), the American Psychiatric Association noted the limits of categorical diagnoses when assessing psychopathology (see Helzer et al. (2007) and Shear et al. (2007), for reviews). To address this, the manual and its supplementary materials provided guidelines for assessing disorder severity for each category of disorders. The integration of clinical judgment and scores on brief self-report scales specifically designed or selected for DSM-5 was recommended for several categories of disorders, including anxiety disorders (see LeBeau et al. (2015), for a review).

For assessing disorder-specific severity in adults, the DSM-5 Anxiety Disorders Workgroup developed self-report scales that are optimized for use in busy clinical settings. The scales are brief (10 items), freely available online (www.psychiatry.org/dsm5), and comprehensive in content. The scales share a core template that contains items assessing the three primary response components of anxiety outlined by Lang (1971) and elaborated upon by Rachman (1978). These three response components are 1) verbal/cognitive reports of subjective fear (e.g., "felt moments of sudden terror, fear, or fright"), 2) physiological reactivity (e.g., "felt a racing heart, sweaty, trouble breathing, faint, or shaky"), and 3) avoidance behavior (e.g., "left situations early or participated only minimally)." The scales are adapted for each disorder by utilizing different introductory statements and reference points throughout (e.g., "felt anxious, worried, or nervous *about social situations*").

With the exception of the Specific Phobia scale (which requires further revision), the DSM-5 anxiety scales demonstrated high internal consistency, unidimensionality, and convergent and discriminant validity in a sample of U.S. undergraduates (LeBeau et al., 2012). These findings were replicated using translated scales in large community samples in Germany (Knappe et al., 2013a), Brazil (DeSousa et al., in press), and the Netherlands (Bogels and Moller, in press). Examination of the German language scales in treatment-seeking populations with heterogeneous principal diagnoses revealed that in addition to demonstrating internal consistency, unidimensionality, and convergent and discriminant validity, the scales adequately classified the diagnostic status of patients and demonstrated sensitivity to change in symptoms over time (Beesdo-Baum et al., 2012; Knappe et al., 2013a, 2013b).

Despite the promising results of these initial validation studies, key limitations are present. First, the vast majority of data has come from translated scales administered to German patients. The degree to which these findings can be generalized to the original scales' validity in U.S. patients is unknown. Second, the few prior studies that have administered the scales to clinical samples administered all of the scales to participants with heterogeneous principal diagnoses, resulting in a small number of individuals completing the corresponding scale for their principal diagnosis. This has thus limited tests of convergent and discriminant validity. To date, the only data for the original English-language scales in clinical populations is limited to the demonstration of convergent validity between DSM-5 anxiety scale scores and clinician-

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assigned severity ratings for corresponding diagnoses in a small sample of treatment-seeking individuals presenting with heterogeneous principal diagnoses (LeBeau et al., 2012).

The present study examines the psychometric properties of the English-language version of the DSM-5 dimensional assessment of Social Anxiety Disorder severity (SAD-D) in a U.S. treatment-seeking sample diagnosed with SAD. Given that SAD is the most prevalent anxiety disorder and the third most prevalent mental disorder overall (Kessler et al., 2005), there is a need for valid and reliable scales that can be easily administered. We sought to replicate the findings from the German clinical samples, namely that SAD-D demonstrates high internal consistency, convergent validity, and discriminant validity in U.S. patients. Furthermore, we aimed to extend these findings by examining convergent validity with both clinician ratings of fear and avoidance in social situations and previously validated self-report measures of SAD symptomatology.

2. Method

2.1. Participants

Participants were 47 individuals seeking behavioral therapy for SAD at the Anxiety and Depression Research Center at the University of California, Los Angeles. The sample was predominantly female (55%), racially and ethnically diverse (53% Caucasian), and young (*M* age = 29.1). See Table 1 for a demographic profile of the participants.

Table 1
Participant demographics and diagnostic profile ($n = 47$).

Age		
M = 29.1, *SD* = 6.6, *Range* = 18–46		
Gender	***N***	**%**
Female	26	55
Male	21	45
Race and Ethnicity		
White/Non-Hispanic	25	53
White/Hispanic	9	19
Asian	7	15
Other race not specified	5	11
Missing data	1	2
Relationship Status		
Married or partnered	12	26
Single	35	74
Educational Attainment		
High school graduate	5	11
Some college	9	19
College graduate	27	57
Post-graduate degree	6	13
Employment		
Currently employed	30	64
Currently unemployed	17	36
Diagnosis		
Social Anxiety Disorder	47	100
Major Depressive Disorder	10	21
Generalized Anxiety Disorder	10	21
Specific Phobia, any subtype	9	19
Dysthymia	5	11
Panic Disorder	5	11
Obsessive-Compulsive Disorder	2	4
Hypochondriasis	2	4
Number of Diagnoses		
1 (Social Anxiety Disorder only)	21	44
2	14	30
3	6	13
4	6	13

2.2. Method and measures

The following measures were completed prior to randomization to one of three conditions: 1) 12 sessions of individual cognitive behavior therapy (CBT), 2) 12 sessions of individual acceptance and commitment therapy (ACT), or 3) wait list control. First, the Anxiety Disorders Interview Schedule for DSM-IV (ADIS-IV; Brown et al., 2004) was administered by graduate students and highly trained research assistants who successfully completed a standardized training protocol and demonstrated inter-rater reliability on three consecutive interviews. As part of the ADIS-IV, interviewers rated participants' avoidance and fear on a scale from 0 ("none") to 8 ("extreme anxiety or avoidance") of 13 social situations (e.g., dating, public speaking). Scores for fear and avoidance of all 13 situations were summed to create a single interviewer-rated fear and avoidance score. All ADIS interviews conducted for the RCT were audio-recorded, and a subset (n = 22) was randomly selected for blind rating by a second interviewer. Inter-rater reliability on the principal diagnosis was 100%, and the intraclass correlation (ICC) for dimensional clinical severity ratings for SAD was 1.00 (100% agreement).

Following the interview, participants completed the 10-item DSM-5 SAD scale (SAD-D, described above) along with three additional validated self-report measures of social anxiety – the self-report version of the Liebowitz Social Anxiety Scale (LSAS-SR; Baker et al., 2002), the Social Phobia Scale (SPS; Mattick and Clarke, 1998), and the Social Interaction Anxiety Scale (SIAS; Mattick and Clarke, 1998) – and the depression subscale of the Mood and Anxiety Symptom Questionnaire (MASQ; Clark and Watson, 1995).

2.3. Statistical analyses

To examine internal consistency, Cronbach's alpha was calculated for the SAD-D scale. To assess convergent validity, a Pearson correlation was calculated between the total score of SAD-D measure and the conceptually similar measures – each of the three previously validated SAD self-report measures (LSAS-SR, SPS, and SIAS) and the interviewer-rated fear and avoidance of social situations. To assess discriminant validity, a Pearson correlation was calculated between the SAD-D measure and a conceptually distinct measure – the MASQ depression subscale. All statistical analyses were conducted using SPSS v21.

3. Results

The mean score on the SAD-D scale was 25.7 ($SD = 6.8$, $Range = 11–37$). Internal consistency was very high (Cronbach's alpha = 0.86). Convergent validity was demonstrated as total scores on SAD-D were positively and significantly correlated with the interviewer-rated fear and avoidance scores ($M = 108.9$, $SD = 26.7$; $r = 0.5$, $p < 0.01$) and each of the previously validated self-report scales: the LSAS-SR ($M = 87.2$, $SD = 20.9$; $r = 0.47$, $p < 0.01$), SPS ($M = 38.9$, $SD = 12.3$; $r = 0.55$, $p < 0.001$), and SIAS ($M = 25.7$, $SD = 6.6$; $r = 0.38$, $p < 0.05$). Discriminant validity was demonstrated by the non-significant relationship between the SAD-D scale and the MASQ general depression subscale ($M = 25.7$, $SD = 10.9$; $r = 0.3$, $p > 0.05$).

4. Discussion

The results of the present study provide evidence for the validity and reliability of the English-language version of the DSM-5 dimensional assessment of SAD severity (SAD-D) in treatment-