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Psychometric Properties of the Persian Version of the Short Beck Depression Inventory with Iranian Psychiatric Outpatients

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with the total BDI score and clinician ratings. They assess the following symptoms and attitudes: depressed mood, pes-

Table 1: Means and standard deviations of BDI-17 items.

BDI-17 items	Mean (SD)
(1) Depressed mood/sadness	2.1 (1.2)
(2) Pessimism	2.0 (1.1)
(3) Sense of failure	2.1 (1.2)
(4) Lack of satisfaction/dissatisfaction	2.1 (1.2)
(5) Guilty feelings	2.1 (1.2)
(6) Self-hate/self-dislike	2.1 (1.2)
(7) Self-punitive wishes/self-harm	2.1 (1.2)
(8) Social withdrawal	2.1 (1.2)
(9) Indecisiveness	2.1 (1.2)
(10) Distorted body image/self-image	2.1 (1.2)
(11) Work inhibition/work disability	2.1 (1.2)
(12) Fatigability	2.1 (1.2)
(13) Loss of appetite	2.1 (1.2)
Total score	21.5 (11.5)

These results suggest good internal consistency. Correlations between BDI-17 scores and BSIS, BHS, DOS, K-10, and GHQ-15 appear in Table 2. All of the correlations were positive and statistically significant at the .05 level, indicating the measure's good construct validity.

Four factors were identified as the criteria for a factor analysis were evaluated using Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity. The KMO was .78, indicating the adequacy of the sample, and Bartlett's Test of Sphericity ($\chi^2 = 117.8$, $df = 7$, $p < .001$) showed that the factor analysis was justified. Using a Principal Component Analysis and Varimax Rotation with Kaiser Normalization three components with eigenvalues greater than one were extracted using SPSS (see Table 3). The scree plot also suggested three factors. Factor 1 (items 1–13) was labeled "Affective" and included items such as "I am so sad or unhappy that I can't stand it." Factor 2 (items 14–17) was labeled "Somatic/Vegetative" and included items such as "I get tired more easily than I used to." Factor 3 (items 18–20) was labeled "Cognitive/Loss of Functioning" and included items such as "I am worried that I am looking old or unattractive."

4. Discussion

The present study aimed to explore the reliability, validity, and factor structure of the Persian version of the BDI-17 with an Iranian clinical sample. The BDI-17 demonstrated good internal consistency and construct validity in this sample of Iranian psychiatric outpatients. The most commonly endorsed depressive symptoms were items 1 (depressed mood/sadness), 9 (indecisiveness), 3 (sense of failure), 12 (fatigability), 4 (lack of satisfaction/dissatisfaction), and 11 (work inhibition/work disability), respectively. Using the norms by Dadsetan and Mansour [15], 32% scored in the normal range, 48% were in the mild depression range, 15% were in the mild to average depression range, 3% were in the average depression range, and 2% fell in the severe depression range. These scores indicate that the participants

in this study reported higher level of depression symptom severity compared to previous studies [16, 17] that recruited nonclinical college student samples.

All correlations of the BDI-17 with the other measures that are conceptually related to depression were positive and statistically significant. In particular, the measures of suicide ideation, death obsession, general psychological distress, and mental health problems indicated moderate to strong correlations (ranging from .4 to .6) with the BDI-17. These correlations provide strong evidence for the BDI-17's construct validity with an Iranian clinical sample.

The present study identified three components of the BDI-17: Affective, Somatic/Vegetative, and Cognitive/Loss of Functioning. Thus, the construct of depression as measured by the BDI-17 in our sample comprised three dimensions, which is consistent with proposals for the multidimensionality of depression cross-culturally [18]. Our findings differ somewhat from Rajabi's [19] study, which obtained two factors in Iranian university students. In particular, eight

T : BDI- interitem correlations.

Item

.462 *

.508 * .3 1

.521 * .519 * .542 *

.453 * .581 * .421 * .012261 .65 * .23.37057 * .50. 41 * .02143 * .0

.556 * .573 * .497 .465 * .690 * Tf 0.22619.65 T23.592 Tm 0 Tc ()Tj /F7 1 Tf 0.6113 0 TD (.)Tj 5.94794(-)99.3

relatively small ($n = 52$), which limits the interpretations of the results and introduces the possibility of overestimating the magnitude of associations. In addition, the study findings may not generalize to other populations, such as psychiatric inpatients or outpatients from other medical clinics. Future research studies need to address these limitations by recruiting larger samples from diverse medical settings, such as primary care, specialty clinics, and inpatient units. Moreover, it will be beneficial to extend this research to other commonly used depression instruments and assess their psychometric properties in other countries in order to establish their cross-cultural validity.

Competing Interests

The authors declare that they have no competing interests.

References

- [1] A. T. Beck, C. H. Ward, M. Mendelson, J. Mock, and J. Erbaugh, "An inventory for measuring depression," *Archives of General Psychiatry*, vol. 4, pp. 563–571, 1961.
- [2] A. Beck, J. Rush, B. Shaw, and G. Emery, *Cognitive Therapy of Depression*, Guilford Press, New York, NY, USA, 1979.

- [] Y. Veisani, A. Delpisheh, K. Sayehmiri, and S. Rezaeian, "Trends of postpartum depression in Iran: a systematic review and meta-analysis," *Depression Research and Treatment*, vol. , Article ID , pages, .
- [] M. Dadfar and F. Bahrami, "Descriptive reports of integration of mental health into the Primary Health Care (PHC) system in one of the areas of Iran," *Archives of Iranian Psychiatry and Clinical Neuroscience*, vol. , no. , pp. - , .