Beck Depression Inventory questionnaire

A brief history

The Beck Depression Inventory (BDI) is a 21-item self reporting questionnaire for evaluating the severity of depression in normal and psychiatric populations [1, 2]. Developed by Beck et al in 1961, it relied on the theory of negative cognitive distortions as central to depression [3]. It underwent major revisions in 1978; the BDI-IA and 1996; the BDI-II, both copyrighted [4]. The BDI-II does not rely on any particular theory of depression and the questionnaire has been translated into several languages. A shorter version of the questionnaire; the BDI Fast Screen for Medical Patients (BDI-FS) is available for primary care use. That version contains seven self-reported items each corresponding to a major depressive symptom in the preceding two weeks.

Description

The questionnaire was developed from clinical observations of attitudes and symptoms occurring frequently in depressed psychiatric patients and infrequently in non-depressed psychiatric patients [5]. Twenty-one items were consolidated from those observations and ranked 0-3 for severity. The questionnaire is commonly self-administered although initially designed to be administered by trained interviewers [3]. Self-administration takes 5-10 minutes. The recall period for the BDI-II is 2 weeks for (major depressive symptoms) as operationalized in the fourth edition of Diagnostic and Statistical Manual (DSM-IV).

Items

The BDI-II contains 21 items on a 4-point scale from 0 (symptom absent) to 3 (severe symptoms). Anxiety symptoms are not assessed but affective, cognitive, somatic and vegetative symptoms are covered, reflecting the DSM-IV criteria for major depression. Scoring is achieved by adding the highest ratings for all 21 items. The minimum score is 0 and maximum score is 63. Higher scores indicate greater symptom severity. In non-clinical populations scores above 20 indicate depression [6]. In those diagnosed with depression, scores of 0 –13 indicate minimal depression, 14 –19 (mild depression), 20 – 28 (moderate depression) and 29 – 63 (severe depression) [4].

Validity

Content validity of the BDI-II has improved following item replacements and rewording to reflect DSM-IV criteria for major depressive disorders. Mean correlation coefficients of 0.72 and 0.60 have been found between clinical ratings of depression and the BDI for psychiatric and non-psychiatric populations [3]. Construct validity is high for the medical symptoms measured by the questionnaire, $\alpha = 0.92$ for psychiatric outpatients and 0.93 for college students [7]. High concurrent validities have been demonstrated between the questionnaire and other measures of depression such as the Minnesota Multiphasic Personality Inventory-D, $r = 0.77$ [3]. Criterion validity of the BDI-II is positively correlated with the Hamilton Depression Rating Scale ($r = 0.71$) with a high one week test-retest reliability $r = 0.93$ (suggesting robustness against daily variations in mood) and an internal consistency of $\alpha = 91$ [4].

Key research

A Brazilian study (n= 1555) measured specific aspects of depression and found that the BDI discriminated highly for depressive symptomatology [8]. A chronic pain study (n = 1227) reported strong agreement between the BDI-FS and BDI-II with equal ability at detecting clinical change [9]. A coronary artery disease study (n= 804) found the BDI-II to be a better screening tool in predicting major mood disorders [10].

Availability and clinical use

The BDI-II is copyrighted. The rights are held by Harcourt Assessment Incorporated (Pearson Education plc), under contract from the author. A fee is required for the manual and record forms. This limits availability. In occupational health the BDI-II can be used as a screening tool to detect depression in normal populations or as a tool to assess symptom severity in clinical populations.

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References:

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