

Early Childhood Measurement and Evaluation Tool Review

Early Childhood Measurement and Evaluation (ECME), a portfolio within CUP, produces *Early Childhood Measurement Tool Reviews* as a resource for those who conduct screening, assessment, and evaluation. To learn more about ECME and CUP, provide feedback, or to access additional reviews, visit our website at www.cup.ualberta.ca or email us at cup@ualberta.ca

Beck Depression Inventory 2nd Edition (BDI-II)

Measurement Areas and Purpose:

The Beck Depression Inventory – Second Edition (BDI-II) is a 21-item self-report instrument designed to assess the severity of depression in **adults and adolescents aged 13 years and older**. The BDI-II was designed to act as an indicator of depressive symptoms based on diagnostic criteria in the *DSM-IV*. According to the authors, the 21 items in the BDI-II are representative of the *DSM-IV* criteria for depression.

Length and Structure:

Administration of the BDI-II is usually completed in 5-10 minutes; the BDI-II is a paper and pencil completed questionnaire and can be self administered or presented orally.

The tool consists of 21 items that are self-rated on a 4-point scale ranging from 0 to 3. Total raw scores can range from 0 to 63, and are then converted into descriptive classifications based on cut scores. Total score of 0-13 is considered minimal range, 14-19 is mild, 20-28 is moderate, and 29-63 is severe.

Materials:

The publisher classifies the BDI-II as a “C-Level” qualification that is targeted to institutions with personnel possessing masters and doctorates of psychology or education, and/or have licensure in a relevant area of assessment with one of the following provincial or national organizations: the Canadian Psychological Association (CPA), the Canadian Register of Health Service Providers in Psychology (CRHSPP), the Canadian Association of School Psychologists (CASP), the American Psychological Association (APA), the American Speech-Language-Hearing Association (ASHA) or the National Board for Certification in Occupational Therapy.

The BDI-II kit is available from the publisher for CDN \$140. The kit includes the manual and 25 record forms. Additional record form packs are available from the publisher.

Accessibility:

The BDI-II is available in the English and Spanish languages, and has been translated into other languages such as Xhosa, Dutch, French, German, and Persian. Since the BDI-II is a non-standardized instrument, normative data are not provided in the BDI-II manual.

Administration, Scoring, and Interpretation:

According to the BDI-II manual, administration and scoring can be completed by paraprofessionals that are familiar with the guidelines for testing in the American Psychological Association's *Standards for Educational and Psychological Testing*. The authors caution that scores must only be interpreted by professionals with appropriate clinical training and experience, since depression is sometimes associated with suicidal risk in psychiatric patients. The test is easy to administer, easy to score, and moderately difficult to interpret based on the clinician's experience and interpretation considerations in the manual.

Subscales:

The BDI-II is a single-scale test that is intended to measure all aspects of depressive symptoms based on diagnostic criteria in the *DSM-IV*.

Documentation:

The manual included in the BDI-II kit contains specific procedures for administration, scoring, and a short section on interpretation. The manual also has extensive sections discussing the instrument's psychometric properties and various forms of validity and reliability.

Reliability:

The BDI-II manual discusses several kinds of reliability measures that were developed based on two samples. The first was a clinical sample of 500 outpatients from various psychiatric institutions in the United States, consisting of 317 (63%) women, and 183 (37%) men, ages 13 to 86 years. The sample consisted of four ethnicities: White (91%), African American (4%), Asian American (4%), and Hispanic (1%). The second sample was comprised of 120 college students; 56% were female and 44% were male.

Internal Consistency: An analysis of internal consistency yielded a Cronbach's alpha of .92 for the outpatients and .93 for the students. Item-total correlations were performed on the scores of both samples, yielding significant correlations (at the .05 level) for both groups on all items. For the clinical group, item-total correlations ranged from .39 (Loss of Interest in Sex) to .70 (Loss of Pleasure); the student sample's item-total correlations ranged from .27 (Loss of Interest in Sex) to .74 (Self-Dislike). Other academic studies (see Steer & Clark, 1997; Whisman, Perez, & Ramel, 2000; Wiebe & Penley, 2005) have demonstrated similar internal consistency coefficients in the .89 to .93 range.

Test-retest Reliability: A sub-sample (26 patients) of the clinical sample was retested with the BDI-II one week after the first administration. The test-retest reliabilities were calculated, and yielded an average correlation of .93.

Item-Option Characteristic Curves: The authors also plotted the relations between the clinical sample's total scores and their responses on each item. Generally, individual items show a linear relationship to total scores. However, the item curves may prove useful for exceptional cases, such as in cases of severe depression where outpatients were more likely to endorse "0" or "1" on the "Suicidal Thoughts" item, where they would normally be expected to endorse a "3." Accordingly,

the authors recommend that clinicians must interpret each item independently in relation to the total raw, and not rely upon the total score alone.

Validity:

The BDI-II includes an extensive section on test validity. According to the authors, the BDI-II item content was designed to address all aspects of depression based on criteria in the *DSM-IV*.

Convergent and Discriminative Validity: The manual discusses several validation studies to assess the BDI-II's similarity to other kinds of depression-related scales. The first study compared the BDI-II to the BDI-IA (Beck Depression Inventory First Edition-Revised) using outpatient samples of various sizes. According to Arbisi's (2001) review of the manual, "the correlation between the BDI-II and BDI-IA was quite high... [.93] ... suggesting that these measures yield similar patterns of scores..."

According to the authors of the BDI-II, score comparisons with other tools such as the Beck Hopelessness Scale (BHS) and Scale for Suicide Ideation (SSI) yielded correlations of .68 and .37 respectively. BDI-II scores were also positively correlated with the Beck Anxiety Inventory (BAI) at .60, the Revised Hamilton Psychiatric Rating Scale for Depression (HRSD-R) at .71, and the Revised Hamilton Anxiety Rating Scale (HARS-R) at .47.

The authors suggest that since the BDI-II is **more** positively correlated with the HRSD-R than the HARS-R, the BDI-II shows "robust discriminative validity between depression and anxiety." Further evidence for this claim was demonstrated by Steer, Ball, Ranieri, & Beck (1997) who demonstrated that the BDI-II was correlated more strongly with the SCL-90-R Depression subscale ($r = .89$) than the SCL-90-R Anxiety subscale ($r = .71$).

Specificity and Sensitivity: While the authors do not report the positive and negative predictive power for the tool based on a subsample of the clinical population (see the manual for demographic information), they suggest that the BDI-II provides good sensitivity and moderate specificity according to Arbisi (2001). Since the base rate for depression was relatively high in the clinical subsample, Arbisi cautions against the use of the manual's cut scores with non-psychiatric populations.

Publication Information:

The Beck Depression Inventory – Second Edition was developed by Aaron T. Beck, Robert A. Steer, and Gregory K. Brown. This review is based on the 2nd edition published in 1996 by The Psychological Corporation.

Materials Used for Tool Review:

- Manual
- Academic Reviews and Studies
- Publisher's website

References:

Publisher's website: www.harcourtassessment.com

- Arbisi, P.A. (2001). Review of the Beck Depression Inventory-II, in Plake, B. S., & Impara, J. C. (Eds.). (2001). *The fourteenth mental measurements yearbook*. Lincoln, NE: Buros Institute of Mental Measurements.
- Beck, A., Steer, R., & Brown, G. (1996). *The Beck Depression Inventory – Second Edition Manual*. San Antonio, TX: The Psychological Corporation.
- Dozois, D.J., Dobson, K., & Ahnberg, J.L. (1998). A psychometric evaluation of the Beck Depression Inventory-II. *Psychological Assessment, 10*(2), 83-89.
- Farmer, R.F. (2001). Review of the Beck Depression Inventory-II, in Plake, B. S., & Impara, J.C. (Eds.). (2001). *The fourteenth mental measurements yearbook*. Lincoln, NE: Buros Institute of Mental Measurements.
- Steer, R.A., Ball, R., Ranieri, W.F., & Beck, A.T. (1997). Further evidence for the construct validity of the Beck Depression Inventory-II with psychiatric outpatients. *Psychological Reports, 80*, 443-446.
- Steer, R.A., & Clark, D.A. (1997). Psychometric characteristics of the Beck Depression Inventory-II with college students. *Measurement & Evaluation in Counseling & Development, 30*, 128-136.
- Whisman, M.A., Perez, J.E., & Ramel, W. (2000). Factor structure of the Beck Depression Inventory-2nd ed. (BDI-II) in a student sample. *Journal of Clinical Psychology, 56*, 545-551.
- Wiebe, J.S., & Penley, J.A. (2005). A psychometric comparison of the Beck Depression Inventory-II in English and Spanish. *Psychological Assessment, 17*(4), 481-485.

How to cite this document:

This document was created by CUP and to cite this document use the following:

Community-University Partnership for the Study of Children, Youth, and Families (2011). *Review of the Beck Depression Inventory 2nd Edition (BDI-II)*. Edmonton, Alberta, Canada.