

Beck Depression Inventory (BDI)

Study Year 28

Fast Track Project Technical Report

Annette Lu/George McCabe

March 30, 2022

Citation

Instrument

Beck, A.T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961) An inventory for measuring depression. Archives of General Psychiatry, 4, 561-571.

Beck, A. T., Steer, R.A., & Garbin, M.G. (1988) Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. Clinical Psychology Review, 8(1), 77-100.

Report

Lu, A. and McCabe, G. (2022). Beck Depression Inventory (Fast Track Project Technical Report). Available from the Fast Track Project website: <http://www.fasttrackproject.org>

Measure Description

The Beck Depression Inventory (BDI) is a 21-item (c28fb01-c28fb21) measure that identifies characteristic attitudes and symptoms of depression experienced in the last 2 weeks. The total sum score has demonstrated high internal consistency among psychiatric patients ($\alpha=0.86$) and non-psychiatric subjects ($\alpha=0.81$; Beck, et al., 1961). It is used in both clinical and research practices for assessing depression.

Report Sample

This report provides descriptive statistics for the cohort 1 normative sample (original $n=387$). In addition, this report compares the means and frequencies for two additional samples: the high-risk control sample from cohort 1 ($n=155$) and the non-high-risk normative sample from cohort 1 ($n=308$). The non-high-risk normative sample excludes the high-risk normative participants who are also a part of the high-risk control sample ($n=79$). In year 28, 288 cohort 1 normative participants, 104 high-risk control cohort 1 participants and 234 non-high-risk normative participants completed at least part of the survey. The Beck Depression Inventory was completed by 286 normative participants, 104 high-risk control participants, and 232 non-high-risk normative participants in year 28.

Scaling

The BDI measure contains 21 items, each scored on a four-point scale from 0 to 3, with higher scores indicating greater feeling of the emotion. Items are scored as 'Did not feel emotion/behavior' (0), 'Somewhat felt' (1), 'Felt' (2), or 'Felt it greatly' (3).

c28fb01	Sadness
c28fb02	Pessimism
c28fb03	Past Failure
c28fb04	Loss of Pleasure
c28fb05	Guilty Feelings
c28fb06	Punishment Feelings
c28fb07	Self-Dislike
c28fb08	Self-Criticalness
c28fb09	Suicidal Thoughts or Wishes
c28fb10	Crying
c28fb11	Agitation
c28fb12	Loss of Interest
c28fb13	Indecisiveness
c28fb14	Worthlessness

c28fb15	Loss of Energy
c28fb16	Changes in Sleeping Pattern
c28fb16r	Recoded: Changes in Sleeping Pattern
c28fb17	Irritability
c28fb18	Changes in Appetite
c28fb18r	Recoded: Changes in Appetite
c28fb19	Concentration Difficulties
c28fb20	Tiredness or Fatigue
c28fb21	Loss of Interest in Sex

A total sum score was created by summing across the 21 items (c28fb01- c28fb21). BECK total sum score demonstrated high internal consistency within the normative sample ($\alpha = 0.94$). One additional categorical scale was created from the total sum score to distinguish different degrees of depression. With each increment in the magnitude of depression, there is a progressively higher mean score (Beck, et al. 1961). The Depression Category scale (bck28dep) is coded as follows:

- 0 for 'No symptoms' if the total sum score is 0;
- 1 for 'Normal ups/downs' if the total sum score is from 1 to 10;
- 2 for 'Mild mood disturbance' if from 11 to 16;
- 3 for 'Borderline clinical depression' if from 17 to 20;
- 4 for 'Moderate depression' if from 21 to 30;
- 5 for 'Severe depression' if from 31 to 40;
- 6 for 'Extreme depression' if total sum score is coded 41+.

Scales	Items	Description
bck28dep	c28fb01-15, c28fb16r, c28fb17, c28fb18r, c28fb19-21	Depression Category
bck28tot	c28fb01-15, c28fb16r, c28fb17, c28fb18r, c28fb19-21	Total Sum Score

Descriptive Statistics

Full Normative Sample:

		Full Normative Sample					
		Cronbach's alpha	N	Mean	SD	Min	Max
bck28dep*	BCK28 Depression Category		286	1.48		0	6
bck28tot	BCK28 Total Sum Score	0.94	286	8.68	10.26	0	52

*The standard deviation and Cronbach's alpha coefficient are not calculated for dichotomous scales.

Comparison of Non-High-Risk Normative and High-Risk Control Samples

There is no evidence of statistically significant differences between the high-risk control sample and the non-high-risk normative sample across the Beck Depression Inventory scales.

		Non-High Risk Normative			High Risk Control			t-test*/Chi Sq Results**		
		N	Mean	SD	N	Mean	SD	DF	t /chi sq	pval
BCK28dep	Depression Category	232	1.47	1.38	104	1.65	1.58	6	5.85	0.44
BCK28tot	Total Sum Score	232	8.53	10.37	104	10.35	11.66	334	-1.42	0.16

*If the null hypothesis of equal variances is rejected, the t-test estimates shown in the table assume unequal variances, otherwise the t-test results shown assume equal variances.

**Chi square tests are used to detect differences in dichotomous scales.