

INTERNAL CONSISTENCIES OF THE ORIGINAL AND REVISED BECK DEPRESSION INVENTORY

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Studied internal consistencies of the 1961 and 1978 versions of the Beck Depression Inventory in two different samples of psychiatric patients. The alpha coefficient for the 598 inpatients and outpatients who were administered the 1961 version was .88, and the alpha coefficient for the 248 outpatients who were self-administered the 1978 version was .86. The patterns of corrected item-total correlations were also similar, and it was concluded that the internal consistencies of both versions were comparable.

Although the Beck Depression Inventory (BDI) (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) has been used to assess the intensity of depression in over 500 published clinical studies (Steer, Beck, & Garrison, in press) and has been evaluated psychometrically within a wide variety of psychiatric and normal populations (Beck & Beamesderfer, 1974, pp. 151-169; Mayer, 1977, pp. 358-425), it is sometimes forgotten that there are two versions of the BDI. The 1961 instrument was revised in 1978 (Beck, Rush, Shaw, & Emery, 1979) to present clearer statements more amenable to self-administration and to permit simpler scoring. The revised form eliminated the alternate ways of asking the same questions that were employed in the 1961 edition and avoided the use of double negative statements. Although the 1978 version has received popular acceptance since its introduction 5 years ago, no comparative study about the internal consistencies of the two versions has appeared in the psychological literature.

The purpose of the present study was to evaluate the internal consistencies of the 1961 and 1978 versions of the BDI to ascertain whether both versions' internal consistencies were comparable.

METHOD

Subjects

The patients administered the 1961 version were drawn from the 606 persons whom Beck (1972) had sampled from the 975 consecutive admissions to the inpatient and outpatient services of two Philadelphia hospitals during the 1960s. The present study of 598 patients was restricted only to those patients out of the 606 who had answered all of the BDI's 21 questions. The restricted sample was 60.9% female and 64.7% Caucasian. The modal age category (32.4%) was 25-34 years, and 47.0% had completed high school. The sample was composed of 66.0% outpatients and 34.0% inpatients. Diagnostically, there were a variety of subgroups, the two largest were schizophrenic reactions (28.2%) and psychoneurotic depressive reactions (25.3%).

The sample self-administered the 1978 version of the BDI represented 248 consecutive admissions to the Center for Cognitive Therapy in Philadelphia between June 1978 and July 1979. The outpatients were 50.3% female and 93.6% Caucasian. The mean educational attainment was 15.14 ($SD = 2.78$) years. The modal diagnosis was depressive neurosis (55.2%), and 76.7% reported past treatment for an affective disorder.

Instrument

The 1961 (Beck et al., 1961) and 1978 (Beck et al., 1979) versions of the BDI both contain 21-items, which are rated from 0 to 3 in terms of intensity. The ratings are

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summed to calculate total depression scores, which can range from 0 to 63. The symptoms and attitudes are (1) Mood; (2) Pessimism; (3) Sense of Failure; (4) Lack of Satisfaction; (5) Guilt Feelings; (6) Sense of Punishment; (7) Self-dislike; (8) Self-accusations; (9) Suicidal Wishes; (10) Crying; (11) Irritability; (12) Social Withdrawal; (13) Indecisiveness; (14) Distortion of Body Image; (15) Work Inhibition; (16) Sleep Disturbance; (17) Fatigability; (18) Loss of Appetite; (19) Weight Loss; (20) Somatic Preoccupation; and (21) Loss of Libido. As mentioned previously, the 1961 version was designed for administration by trained personnel and asked the respondents to describe "the way you feel today, that is, right now!" In contrast, the 1978 version was developed for self-administration and asked the respondents to describe "how you have been feeling for the past week including today." Importantly, the 1961 version was administered to both the inpatients and outpatients as soon as practical after admission by a trained technician, whereas the 1978 version was self-administered at the time of admission to the outpatient clinic.

TABLE 1
Means, Standard Deviations, Corrected Item-total Correlations and Overall Alpha Coefficients for 1961 and 1978 Versions of the Beck Depression Inventory

BDI item	BDI version					
	1961			1978		
	<i>M</i>	<i>SD</i>	<i>r</i> tot.	<i>M</i>	<i>SD</i>	<i>r</i> tot.
1. Sadness	.97	1.03	.62	1.42	1.00	.62
2. Pessimism	.97	1.02	.62	1.31	.93	.55
3. Sense of Failure	1.25	1.09	.57	1.09	.96	.61
4. Dissatisfaction	1.00	.90	.63	1.63	.88	.53
5. Guilt	.89	1.05	.55	.95	.84	.53
6. Expectations of Punishment	.85	1.04	.43	.66	1.07	.50
7. Self-dislike	.94	.83	.52	1.51	.80	.37
8. Self-accusations	1.02	.80	.44	1.36	.79	.58
9. Suicidal Ideas	.58	.83	.54	.70	.68	.53
10. Crying	.91	1.11	.43	1.21	1.08	.40
11. Irritability	1.08	.88	.23	1.13	.75	.36
12. Social Withdrawal	.70	.91	.54	1.14	.87	.60
13. Indecisiveness	.79	.89	.57	1.42	1.02	.52
14. Body Image Change	.66	.96	.45	.92	1.01	.39
15. Work Difficulty	1.07	.89	.47	1.52	.85	.64
16. Insomnia	1.20	1.15	.41	1.14	.98	.28
17. Fatigability	1.01	.93	.48	1.27	.90	.50
18. Loss of Appetite	.75	1.01	.48	.68	.92	.38
19. Weight Loss	.73	1.07	.23	.33	.70	.14
20. Somatic Preoccupation	1.07	1.01	.31	.72	.82	.18
21. Loss of Libido	.84	1.04	.43	1.05	1.07	.40
Alpha coefficient		.88			.86	

Note.—*N* for 1961 version = 598, and *N* for 1978 = 248.

Data Analysis

The Statistical Package for the Social Science's subprogram, RELIABILITY, (Hull & Nie, 1981) was used to calculate the alpha coefficients and corrected item-total correlations for the 1961 and 1978 versions.

RESULTS

Table 1 presents the means, standard deviations, corrected item-total correlations, and overall alpha coefficients for the 1961 and 1978 versions of the BDI. As Table 1 indicates, the majority of the corrected item-total correlations for both versions were high ($> .50$), and all were significant beyond the .05 level. Only Weight Loss and Irritability in the 1961 version and Insomnia, Weight Loss, and Somatic Preoccupation in the 1978 version had low corrected item-total correlations $< .30$. The alpha coefficients for the 1961 and 1978 versions were .88 and .86, respectively, which suggested that both versions were internally consistent in measuring an underlying dimension of depression.

The mean 1961 and 1978 versions' total scores were 19.28 ($SD = 10.87$) and 23.16 ($SD = 9.55$), respectively. According to Beck (1972), the former sample was moderately depressed, whereas the latter sample was severely depressed. The mean difference (3.88) was significant ($t(844) = 5.16, p < .001$).

DISCUSSION

The 1961 and 1978 versions of the BDI were found to possess high levels of internal consistency, despite differences in the background characteristics of the samples, modes of administration, decades in which the samples were tested, and time frames that the patients were asked to describe. Obviously, a more definite design to test whether the two versions demonstrated significantly different psychometric properties would call for a cross-over design in which the same respondents were asked to complete both versions. A matched sample design in which respondents drawn from the same time cohorts also would be preferable to the current design. However, the present study does suggest that the 1978 revision of the BDI has a level of internal consistency with an outpatient psychoneurotic sample comparable to that presented by the mixed diagnostic sample of inpatients and outpatients upon which the 1961 BDI originally was validated.

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