



Measurement and Evaluation in Counseling and Development

October 1995

volume 28 number 3

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The Official Publication of
THE ASSOCIATION FOR ASSESSMENT IN COUNSELING
A Division of the American Counseling Association

TEST REVIEW

Depression and Anxiety in Youth Scale

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The Depression and Anxiety in Youth Scale (DAYS; Newcomer, Barenbaum, & Bryant, 1994), used to screen children and adolescents (6 to 19 years of age) for depression and anxiety, is composed of three parts: (a) Student Self-Report scale (Scale S); (b) Teacher Rating scale (Scale T); and (c) Parent Rating scale (Scale P).

The Depression and Anxiety in Youth Scale (DAYS; Newcomer, Barenbaum, & Bryant, 1994) is designed to screen for single symptoms of depression and anxiety. Based on criteria from the *Diagnostic and Statistical Manual of Mental Disorders*, third edition, revised (DSM-III-R; American Psychiatric Association [APA], 1987) for major depressive and overanxious disorders, DAYS is used to provide greater evidence of pathological levels of depression or anxiety or both. DAYS has been used for research purposes to validate other tests, to evaluate affective education programs on students' levels of depression and anxiety, and to determine family conditions that contribute to a student's level of depression or anxiety. Not only can DAYS screen for single symptoms of these disorders, the scale can also identify depression and anxiety syndromes. The authors stress that DAYS cannot be used as the sole diagnostic criterion for depression or anxiety.

DAYS is designed to assess depression and anxiety for children and adolescents between the ages of 6 and 19. The test manual reports that administration is appropriate for groups as well as for individuals. The authors do not recommend use of the test for people who have reading comprehension below the third-grade level unless the items are read to them. Students with severe attention deficit disorders, low levels of cognitive abilities, communication disorders (including non-English-speaking children), or serious hearing impairment, should not be administered Scale S (Newcomer et al., 1994).

DIMENSIONS THAT THE TEST IS INTENDED TO MEASURE

DAYS is composed of three scales: The Student Self-Report scale (S scale), the Parent scale (P scale), and the Teacher scale (T scale). Scale S primarily measures the individual's thoughts and feelings with respect to anxiety and depression. The scale contains 22 items: 11 measure depression and 11 measure anxiety. A 4-point Likert scale denotes the frequency and severity of each item. Behavioral symptoms of depression and anxiety are measured through scale T and scale P. Scale T contains 20 true-false items that indicate the presence or absence of a behavior or attribute associated with depression (13 items) and anxiety (7 items). The items in this scale are directly related to the learning process. Scale P contains 28 items in a true-false format. In addition to measuring depression (13 items) and anxiety

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(8 items), the authors state that scale P measures social maladjustment (7 items). "The items that comprise Scale P call for judgments about attitudes and behaviors that affect most school-related behavior, but that also encompass more global aspects of children's lives." (Newcomer et al., 1994, p. 6)

ADMINISTRATION

Generally, the S scale takes 15 to 20 minutes to administer. The test can be administered individually or in groups. When used with lower level readers, the group size should not exceed four. For the P and T scales, 5 minutes is required for administration.

To ensure that DAYS is given in a standard manner, specific administration procedures are outlined in the manual. In addition, examiner qualifications for administering the S scale include familiarity with testing procedures and knowledge of depression and anxiety symptoms. The authors think that school psychologists, social workers, or guidance counselors are most qualified to administer the S scale. Very little specialized training for administration is required of parents or teachers.

DAYS can be administered to people ranging in age from 6 to 19 years. The authors believe that those students who are able to understand the meaning of the items and have at least a third-grade reading level are the most qualified to take this instrument. DAYS requires English communication skills; therefore, it may be inappropriate for those students who have had limited exposure to the U.S. educational system.

NORM GROUPS

DAYS was standardized in the English language. The normative sample for the S scale includes 2,176 participants ranging in age from 6 to 19 years and residing in 12 states in the North, South, East, and West. No information is presented on whether the participants were tested individually or in groups. The T scale was completed on 1,285 students by teachers residing in 9 states. The P scale was completed on 1,286 students by parents residing in 6 states. Demographic characteristics are presented for each sample. The authors found that the DAYS normative group resembles the population of the U.S. and constitutes a representative sample. Overall, the demographic characteristics of the participants are clearly outlined. The sample may not be representative because participants volunteered to be in the study. Also, it is not clear whether the sample included only typical learners or evaluated special education students.

INTERPRETATION OF SCORES

Normative scores for DAYS include raw scores, percentiles, and standard scores. The authors provide suggestions for the proper use and interpretation of each of these scores. Conversion tables are provided for each scale of DAYS. Using standard scores, a mean of 100 with a standard deviation of 15 was assigned to each of the three scales. The following cutoff points were assigned: severely depressed/anxious (145 and above), moderately depressed/anxious (130-144); mildly depressed/anxious (115-129), nonpathological/average levels (100-114), and nonpathological/average levels (99 and below). The cutoff points seem to be arbitrarily selected and were not based on the normative samples' scores. In

addition, guidelines are not provided for use with special education students, although the authors state that DAYS can be used on this population.

SOURCE OF ITEMS

The characteristics described in the *DSM-III-R* (APA, 1987) served as the source of the items for anxiety and depression. This list was submitted to five members of the psychiatric community who were experts in diagnosing pathological disorders. They were asked to select 60 statements (20 that characterize depression, 20 that characterize anxiety, and 20 that characterize both states). The authors selected those items that were most frequently assigned to one category. Interrater reliability data and the qualifications of the experts were not presented. Additionally, the authors use a social maladjustment scale, yet the source and verification of these items were not discussed.

METHOD OF VALIDATION

The authors state that content validity was built into the test by reviewing the *DSM-III-R* (APA, 1987) classifications and consulting professionals. Using item analyses, the authors eliminated items that did not discriminate between students who regard themselves as highly depressed or anxious and those who did not. Additionally, they eliminated items on the rating scales that did not discriminate participants with disorders from participants without disorders. Criterion related validity does not focus on the predictive capability of DAYS. The authors admit that the predictive capacity of the instrument has not been explored; yet, in the beginning of the manual, the authors state that "the student self-report score provides an initial indication of children or adolescents who may be or may become seriously depressed or anxious." (Newcomer et al., p. 4) Instead, the authors provide evidence that DAYS correlates with other depression indexes and teacher evaluations. Construct validity evidence focused on the discrimination among groups, correlation among DAYS scales, correlation with academic achievement, and variance in scores with age and sex.

VALIDITY AS DETERMINED BY THE AUTHOR

Content validity evidence, which was discussed previously, was strong for anxiety and depression. Items were retained on each scale that correlated with the total score (using a minimum cutoff of .30). Three item analyses were completed on the test using students from the typical learning environments as well as individuals from special education environments. Although the authors provide evidence of the instrument's validity, the source and validation of the social maladjustment items remain unclear.

As to criterion related validity, the authors compared DAYS with the Reynolds Child Depression Scale (Reynolds, 1986) and the Children's Manifest Anxiety Scale (Gittelman, 1985). Six different studies were conducted with various populations (typical learners, hospitalized adolescents, students with conduct disorders, teachers, and students with emotional impairments). The average correlation coefficient for these studies was reported to be .53, which provides moderate evidence of concurrent validity.

The authors present evidence of construct validity by demonstrating that DAYS discriminates among groups. Comparison of mean scores for a normative sample

and a group of students diagnosed as depressed, anxious, or both, showed that the samples with disorders scored significantly higher (.001). Also, 65% of the hospitalized sample rated themselves as depressed, whereas only 13% of the typical learners rated themselves as depressed. Sixty percent of the hospitalized sample self-rated as anxious, whereas only 16% of the normative sample self-rated as anxious. Analysis of variance performed on the raw scores of the three DAYS scales showed that students labeled as "emotionally disturbed" scored significantly higher ($p < .001$) than did special education students and typical learners (who scored the lowest of the three groups). Also, there was agreement among scales for students who self-rated as depressed or anxious. For teachers, the agreement rate was 52.6% for depression and 45% for anxiety for students with emotional disturbances, compared with 28.4% for depression and 16.5% for anxiety for the normative group. For parents, 87.5% agreed with the high self-rating for depression for children with emotional disturbances, compared with 34.1% of the parents of typical learners. Yet this did not hold true for anxiety where there was 25% agreement for the group with emotional disturbances and 27.9% for the typical learners. The authors attribute this to social maladjustment: 89%–91% of the parents rated their children with emotional disturbances as being socially maladjusted compared with 24.8%–31.4% of the parents of typical learners. "The strong diagnostic relationship between the social maladjustment factor and children's self-rating of depression and anxiety is the reason it was included in the test" (Newcomer et al., 1994, p. 33).

Intercorrelation of DAYS reveals low correlations for the student's self-report and the teacher's rating of depression and anxiety. The authors argue that the literature reports that correlations between students' self-reports and adult ratings of depression and anxiety are low.

Using a sample of 100 typical learners, the authors found that students who earn better grades in school are less likely to report depression or anxiety. All coefficients were statistically significant and in the moderate range (.54 to .69). On the S Scale, the authors found that there were no statistically significant differences in depression scores for age or sex. On the anxiety factor, no differences were found for age, but girls rated themselves as significantly more anxious than did boys. Also, teachers tended to rate boys significantly higher in both depression and anxiety.

RELIABILITY

Reliability data were limited. Internal consistency reliability was calculated using coefficient alpha. The coefficient range was .61 to .91, which the authors assert meets the .30 requirement. No significance levels are discussed. One test-retest study was conducted with 84 typical learners. A 4-day interval was used. Additionally, the parent scale was not retested in this study. Reliability coefficients for students ranged from .70 for anxiety, .72 for depression, and .75 for the total score. Coefficients for teachers were .94, .96, and .97 respectively. Standard error of measurement values are provided for each subtest and age level. The values range from 4 to 9. Interrater reliability data are not presented in the manual.

DESIRABLE FEATURES

DAYS can be used as a screening tool to detect children who may be suffering from anxiety or depression. The S scale is compared with the P and T scales as

additional feedback about the child's emotional state. There is strong validity evidence presented in the manual, particularly content validity. Concurrent validity was moderate. In addition, many tables and guidelines are provided to assist score interpretation. The Profile and Report form is quite clearly organized.

UNDESIRABLE FEATURES

Given the way that the Student Scale is organized, the test taker is vulnerable to the acquiescence response set. All 22 items are set up in a negative format: "I feel sad," "I have bad dreams," and "I feel like crying," to mention a few. This format may produce an acquiescence response style. Also, for older students, the scale is subject to faking. These problems can be ameliorated by using a lie scale or rewording the test items (Anastasi, 1988). Although the P and T scales are worded in such a way that they avoid the acquiescence response set, they are limited in their true-false format. It would be more informative to use the Likert scale for the P and T Scales as well.

The reliability evidence is limited. Only one test-retest study was conducted. Interrater reliability evidence was not discussed. Additionally, the predictive capabilities of the test were not examined. Future editions of the manual might present additional evidence to support test-retest reliability by varying the time interval, using special education groups, and creating an alternate form of the test. Also, evidence of the predictive capacity of the test is needed.

OVERALL EVALUATION

At times, the test manual can leave the reader with many unanswered questions. Especially when looking at the empirical information, the authors seemed vague or did not include enough information. For instance, the authors use a social maladjustment component on the P Scale, yet no information is presented on how these items were selected or rated. The validity and reliability of these items remains questionable.

One of the strongest elements of the test is the thorough procedure used for item selection. The authors provide strong evidence of content validity for the depression and anxiety components. In addition, criterion related validity evidence was moderate. The T Scale had the lowest correlations with the S and P Scales. Sex differences were significant for the T Scale: teachers rated boys as being more depressed and anxious.

On the other hand, reliability data was limited. Only time sampling was considered. In addition, the examiners considered only typical learners and teachers. No reliability information is presented on the P Scale or with special education groups. Also, it is not known how strongly the professionals who rated the test items agreed with one another. Social maladjustment items were not submitted to the professionals. Internal consistency evidence was strong. The use of standard error scores was the only other mention of the test's variance. Future investigations might focus on providing evidence for test-retest reliability for parents and special education groups, interrater reliability, and the predicative capacity of the index.

Positively speaking, the test manual was well organized and follows the guidelines set forth for psychological testing (Anastasi, 1988; American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 1985). The test is easy to administer with

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the manual providing clear guidelines for the interpretation of scores. The Profile and Record form is clear and easy to use. The instrument can be used with confidence with typical learners; yet, it may not be reliable for special education groups. Also, the reliability of the P scale remains questionable, especially with respect to the social maladjustment items. Caution must be used with the S scale because test scores can be influenced by acquiescence response styles or faking.

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