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TEST REVIEW

Critical Analysis of the Responsibility and Independence Scale for Adolescents

STEPHANIE L. BROOKE

The Responsibility and Independence Scale for Adolescents (RISA) is designed to assess adolescents' level of adaptive behavior on three scales, Adaptive Behavior Total, Responsibility, and Independence.

To determine eligibility for special services, many federal, state, and local agencies require the use of adaptive behavior scales (Coulter & Morrow, 1978). This is particularly true when eligibility concerns mental retardation.

> Mental retardation refers to significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behavior, and manifested during the developmental period. (Grossman, 1977, p. 11)

The American Association of Mental Deficiency (AAMD) requires the presence of two conditions: intellectual ability and adaptive behavior that are two or more standard deviations below the population mean based on standardized measures (Grossman, 1977). This is just one of the possible uses for adaptive behavior scales. The following represents a critique of an adaptive behavior scale for adolescents.

PURPOSE AND RECOMMENDED USE

The Responsibility and Independence Scale for Adolescents (RISA) is designed to measure adolescent (12 to 19 years of age) adaptive behavior. RISA has several recommended uses: diagnosis/placement for adolescents in special education, identification of adolescents at risk of adjudication, determination of release from special settings, planning programs, and training for courses in adaptive behavior. Additionally, RISA will enable researchers to define normal and maladjusted behaviors in the development of responsibility and independence.

DIMENSIONS THAT THE TEST PURPORTS TO MEASURE

Adaptive behavior is operationally defined as the "learned instrumental behavior that enables individuals to meet or exceed existing and changing demands in a range of social and behavioral situations" (Salvia, Neisworth, & Schmidt, 1990, p. 2). RISA measures adaptive behavior skills in the following areas: self-management, social maturity, social communication, domestic skills, money management, citizenship, personal organization, transportation skills, and career skills. Two factorially derived subscales, Responsibility and Independence, assess an adolescent's adaptive behavior:

Stephanie L. Brooke is a graduate of the Counselor Education Program at North Carolina State University, Raleigh.

Responsibility refers to a broad class of adaptive behaviors that meet social expectations and standards of reciprocity, accountability, and fairness and that enable personal development through self- and social management, age appropriate behavior, and social communication.

Independence refers to a broad class of adaptive behaviors that allow individuals to live separately and free from the control or determination of others and to conduct themselves effectively in matters such as domestic and financial management, citizenship, personal organization, transportation, and career development. (Salvia, Neisworth, & Schmidt, 1990, p. 2)

The responsible person is described as dependably trustworthy and as one who adheres to social rules. On the other hand, the independent person is characterized as an individual who makes sound decisions, plans and effectively deals with circumstances that may delay self-reliance.

ADMINISTRATION

The RISA is conducted in a standardized interview with the person most familiar with the adolescent (parent, guardian, spouse, or surrogate parent). The respondent provides a third person report of the validity of the adolescent's adaptive behavior. Lasting 30 to 45 minutes, the interview covers 136 questions designed to assess the adolescent's level of adaptive behavior. Although extensive training is not required to administer the RISA, interpretation requires the special expertise of school psychologists, educational diagnosticians, or counselors. Rapport with the respondent and the provision of a comfortable setting are essential. The authors provide training checklists and practice exercises for the potential administrator.

SCORING

The RISA is dichotomously (yes-no) scored by hand. Yes indicates usually or half the time, no indicates not at all or less than half the time, DK indicates that the respondent does not know, and NA is not applicable. All yes responses (score = *1*) are added for the Responsibility score and all yes responses for Independence are similarly added. For interpretation, raw scores are converted to standard scores and percentile ranks for each rounded age (the adolescent's age of his or her last birthday, unless the adolescent is 15 or fewer days from his or her next birthday). The Adaptive Behavior Total is derived from adding the Responsibility and Independence standard scores. The Standard Score Difference represents the difference between the larger standard score and the small standard score (large differences suggesting unequal development). The scoring sheet provides space for recording the raw, percentile, and standard scores along with confidence intervals for each score.

SOURCE OF ITEMS

The items represent close ended questions (yes-no) and cover two functional areas. The first is Responsibility, which includes items on self-management, social maturity, and social communication. The second is Independence, which comprises items on domestic skills, money management, citizenship, personal organization, transportation skills, and career skills.

A table of specifications was constructed using materials from the National Education Association (1918), Maslow (1954), Gross (1978), and Halpern et al. (1979) indicating capabilities of successful adults (cited in Salvia, Neisworth, & Schmidt, 1990). This resulted in 150 items. The authors stated that the standardization item pool of 250 items was based on the responses of several hundred interviews. The demographics of the people interviewed and the content of the interview was not presented.

The authors used two-stage cluster sampling (communities and schools/agencies) to select adolescents from a variety of geographic regions, socioeconomic levels, and other demo-

graphic categories. A total of 70 communities were selected by stratified random sampling on the dimension of geographic region, community size, community educational attainment, income, employment status, and occupational type. In the second stage, site coordinators were trained to select representative sites in both public and private institutions serving each socioeconomic section of the community. Details of the training were not provided. Adolescents were then selected at random resulting in a sample of natural mothers (84%), natural fathers (13%), and female guardians (2%), although some were male guardians, spouses, or other caregivers (1%). The demographic characteristics of the respondents were not presented. Each age group was weighted to bring it into correspondence with the 1980 U.S. Census.

VALIDITY

Responsibility and Independence were extracted from the national standardization sample. For Independence, 1,000 adolescents were selected from the national normative sample. After coding performances on each item, retention of items occurred on the basis of their point-biseral correlation with the Adaptive Behavior Total. To examine item performance across ages, the number of adolescents passing each item at each age was calculated. Items were retained if they showed no retracing (mean at each age is equal to or greater than the mean at preceding ages). Additionally, items that showed consistent increments from the group with the lowest total scores to the group with the highest total scores were retained. Items were screened for potential ethnic bias using the partial correlational method. This process resulted in the elimination of 140 items. The same criteria was used in the extraction of Responsibility. The content validity evidence is strong and thorough.

Criterion-related validity was not strong. The RISA was compared to the Scales of Independent Behavior (SIB) and the Vineland Adaptive Behavior Scale (VABS). Correlations were presented on the subscales of RISA, SIB, and VABS. The correlation coefficients ranged from .10 to .55. This suggests moderate to low correlations with tests that also measure adaptive behavior.

There are also concerns about the construct validity presented in the manual. Pearson product-moment correlation coefficients between age and Responsibility, Independence, and the Adaptive Behavior Total were reported as .12, .55, and .48. This indicates a moderate correlation between age and score, with the least amount of correlation between age and Responsibility. Theoretically, adaptive behavior should increase with age, yet the RISA shows only moderate support for the relationship between age and adaptive behavior.

The authors state the Responsibility and Independence account for 80% of the variance when submitted to factor analysis. The standardized rotated factor loadings for each group on both factors were strong. Yet, item analysis revealed that some individual items were not good discriminators. For example, item 5 (Independence item), correlates .26 with Responsibility and .29 with Independence. The question reads, "Does [adolescent's name] have a supply of foods used frequently?" Obviously, elements of both factors are present in this item. Similarly, item 19 (Independence item) correlates .26 with Responsibility and .30 with Independence. The question reads, "Does [adolescent's name] wait for sales to buy unnecessary items that are usually too expensive?" Another Independence item (number 68), correlates .34 with Responsibility and .37 with Independence. It reads, "Does

[adolescent's name] use road maps to assist in travel?" There are additional Independence and Responsibility items that appear to correlate with both factors.

The authors assert that there is a lack of racial and ethnic differences by the mean scores earned by members of various racial groups. The groups differ by 5.8 standard score points, and no group mean is more than three points below the standardization mean of 100. The criteria for racial-ethnic group is unclear. For instance, the authors state that Hispanic status was tabulated separately from race, which means that a White Hispanic adolescent's scores were presented in both the mean for Whites and the mean for Hispanics. Additionally, the number and mean age of adolescents within each of these groups is not reported.

One of the main purposes of the test is to determine mental status (retardation or learning disability) and juvenile delinquency. The validity evidence is questionable. A table is presented that displays the means and the standard deviations for the following groups: mild mental retardation (N=18), moderate to severe mental retardation (N=18), learning disabled (N=68), and juvenile offenders (N=12). Because ages of the mentally retarded groups are not presented, it is difficult to ascertain if the scores are indeed two or more standard deviations below the national standardized sample. The mean scores for the learning-disabled group are misleading. The Total Adaptive Behavior score equals 90.62, which appears closer to the norm. In actuality, this mean falls within the Black adolescents score range from 91.72 to 102.48 (Using r=.90 as reported and the equation for standard error of measurement as indicated in the manual). The Black adolescents earned the lowest Adaptive Behavior Total of 97.10 (SEM=5.38). With the information presented in the manual, a Black child could be classified as learning disabled. More information is needed. Specifically, guidelines for interpretation for each of these groups is essential.

RELIABILITY

The RISA's reliability was measured in terms of internal consistency and stability. For each age (12 to 19 years), corrected split-half correlations were reported on the subscales. Both the weighted and unweighted samples were used to show that there was little difference between the groups. Every weighted coefficient exceeded .90 with the exception of Responsibility at age 14. Standard error of measurements were reported for each age as well. Again, the group of 14-year-olds showed the most variability.

Using a sample of 119 adolescents in three age ranges—12/13 (N=40), 15/16 (N=45), and 18/19 (N=45)—test-retest data was presented. With an interval of one to 13 days, test-retest reliability exceeded .90. The demographics of the sample were not presented. Sample sizes were small. Additionally, there is no way to tell from the evidence presented if the RISA would be reliable with a group of 14 or 17 year olds.

The largest concern is of interrater reliability. No evidence of this is presented in the manual. Given that this test may involve subtle discrimination, it is important, as indicated in testing standard 2.8, that inter-rater agreement be presented (AERA, APA, NCME, 1985).

OVERALL EVALUATION

The RISA is unique in that it is designed specifically for adolescents and measures responsibility, a factor that other adaptive behavior tests do not measure. Additionally, it seems to have a variety of uses, from diagnosis, placement, training, and research. The testing manual is clear and contains graphics for each item. The ad-

ministration and scoring procedures are clear.

One of the strengths of the RISA is an empirically based procedure of item generation and selection that provides support for its content validity. A large sample, 2,400 participants, was used. The evidence presented was extensive. Additionally, the items seem to adequately cover the domain of adaptive behavior, as indicated in the test specifications.

The largest problem with the RISA is that no attempt was made to control for the response style of answering yes to the items. According to testing standard 3.15, personality measures that are used for selection and placement should include evidence of the susceptibility of scores to faking or the presentation of an unduly favorable image (AERA, APA, NCME, 1985). Perhaps a lie scale would be helpful in this case. Also, the use of dichotomous scoring is limited. The Likert scale may be more informative or the use of a dual rating system which indicates the frequency and severity of the behavior may be more helpful. Other adaptive behavior scales such as the Adaptive Behavior Inventory for Children (Mercer & Lewis, 1977), SIB (Bruininks et al., 1984), and the VABS (Sparrow et al., 1984) utilize this method of scoring.

Also, there is no evidence of interrater reliability. This is a potential source of error variance. Except for some individual items, the internal consistency ratings were strong and clearly indicated that items were loaded on one of the two factors, Responsibility or Independence. Test-retest reliability indicated high reliability over a short interval, but neglected to report this information on the 14 and 17 year olds. The stability of scores over a longer interval is not known.

Content validity was particularly strong, yet evidence for criterion-related validity and construct validity was questionable. With respect to criterion validity, correlations with similar tests were low to moderate. It would be interesting to see if the RISA correlates with the adolescents view of self or a professional's (teacher/counselor's) view of the person. Guidelines are required for the interpretation of scores for special populations (Juvenile Offenders, Retarded Individuals, and Learning Disabled Adolescents). This would facilitate score interpretation. When working with racial groups, caution is required in the interpretation of RISA scores. The authors support this point because some racial groups vale behavior, such as dependence on the family; this is contrary to the RISA operational definitions.

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