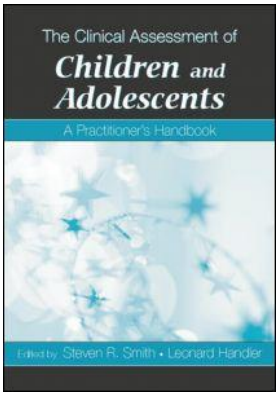

The Clinical Assessment of Children and Adolescents: A Practitioner's Handbook

Steven R. Smith, Leonard Handler

Behavior Assessment System for Children – Second Edition

Publication details
https://www.routledgehandbooks.com/doi/10.4324/9781315827308.ch18
Randy W. Kamphaus, Meghan C. VanDeventer, Amber Brueggemann, Melissa Barry
Published online on: 11 Aug 2006

CHAPTER

18

BEHAVIOR ASSESSMENT SYSTEM FOR CHILDREN—SECOND EDITION

Randy W. Kamphaus, Meghan C. VanDeventer, Amber Brueggemann, and Melissa Barry
University of Georgia

This chapter is devoted primarily to the important clinical task of interpreting the scale scores derived through the administration of the Behavior Assessment System for Children–Second Edition (BASC–2). The BASC–2 manual is exhaustive in its treatment of administration, scoring, validation, norming, Spanish form development, and numerous other important issues. Given this resource, it seems best to prepare this chapter with the distinct aforementioned focus on making diagnostic and treatment decisions based on the considerable validity evidence associated with individual scales. After a brief overview of BASC–2 components and applications, the scales of the teacher (TRS), parent (PRS), and self-report (SRP) are discussed in the context of the considerable amount of available research that supports interpretation efforts.

OVERVIEW OF THE BASC–2

> The BASC–2 is a multimethod, multidimensional system used to evaluate the behavior and self-perceptions of children and young adults aged 2 through 25 years. (Reynolds & Kamphaus, 2004, p. 1)

Components

The BASC–2 is considered a *multimethod* instrument because of the inclusion of five separate components that allow clinicians to obtain information in a number of ways from multiple sources and settings. The use of an integrated, multimethod assessment system helps to reduce threats to validity that would be present if only one type of assessment were used (Reynolds & Kamphaus, 2004).

These components include

- A parent rating scale (PRS) that gathers descriptions of the child's observable behavior
- A teacher rating scale (TRS) that gathers descriptions of the child's observable behavior
- A self-report scale (SRP) on which the child or young adult can indicate his or her emotions and self-perceptions
- A structured developmental history (SDH) form that allows the clinician to gather information on the child's background history
- A student observation system (SOS) for recording and classifying directly observed classroom behavior

The PRS and TRS are divided into three age-appropriate forms: a preschool form (ages 2–5), a child form (ages 6–11), and an adolescent form (ages 12–21). The SRP has four separate forms, divided by age: an interview form (ages 6–7), a child form (ages 8–11), an adolescent form (ages 12–21), and a college form (ages 18–25). Across forms, the item content varies to reflect developmental changes in the manifestation of various disorders, and how children and young adults tend to think about themselves and their behavior.

See the BASC–2 manual (Reynolds & Kamphaus, 2004) for a wealth of information concerning the psychometric properties of the measures, including internal consistency, test-retest and interrater reliability, scale intercorrelations, correlations with other measures, multitrait-multimethod validity, as well as profiles of specific clinical groups. A Spanish version of the BASC–2 SRP, SDH, and PRS is also available.

Dimensional Classification

The BASC–2 utilizes a quantitative, *multidimensional* approach to classification rather than a qualitative, *categorical* approach. The categorical approach to classification views diagnosis as dichotomous (one either has the disorder or not) and does not consider subsyndromal pathology (Cantwell, 1996). A well-known example of the application of the categorical approach is the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2000). In the *DSM-IV-TR*, the presence of a specific number of marker symptoms or deviant signs defines the disorder. This type of classification fails to take the severity of symptomatology into account. For example, the *DSM-IV-TR* does not distinguish between mild and severe ADHD; rather, an individual either has ADHD or does not.

The dimensional approach, on the other hand, views traits as distributed dimensionally in the population, thus allowing for the assessment of "severity," subsyndromal pathology, and normal variation. A *trait* can be defined as a characteristic feature of mind or character. Because psychological traits cannot be directly perceived through the senses, these traits are referred to as "latent." Rating scales, such as the BASC–2, are indicators or "estimates" of latent traits. The BASC–2 measures multiple dimensions, or traits, including personality and behavioral problems, emotional disturbances, and positive traits such as adaptability.

Applications

The BASC–2 was designed to assist in the differential diagnosis and educational classification of a variety of emotional and behavioral disorders of children, as well as the development of treatment plans (Reynolds & Kamphaus, 2004). Although the multimethod, mul-

tidimensional nature of the BASC–2 provides a large, varied store of information, we recommend an integrative approach to assessment. An *integrative approach* emphasizes the collection of many data sources in order to consider context, search for hypotheses that can be corroborated by more than one source of data, make the most parsimonious conclusions, and support conclusions with scientifically based theory and research (Kamphaus, 2001). Therefore examiners are encouraged to integrate BASC–2 results with other information, such as face-to face interviews and test scores, that has been collected as part of a full evaluation.

Clinical Diagnosis and Educational Classification. The range of dimensions assessed with the BASC–2 helps clinicians to make differential diagnoses of specific categories of disorder, such as those found in the DSM-IV, as well as general categories of problems, such as those addressed by the Individuals with Disabilities Education Act (IDEA, 2004). Because of its dimensional nature as well as its sensitivity, the BASC–2 is also able to identify children at the subsyndromal level of psychopathology. These children do not reach the threshold for a categorical diagnosis, but may still be affected by behavioral and emotional problems.

Before accepting BASC–2 scores as valid representations of client functioning, one must examine the numerous threats to valid measurement, including failure to pay attention to the item content, carelessness, an attempt to portray oneself in a highly negative (malingering) or positive (minimization) light, lack of motivation to respond truthfully, or poor comprehension of the items. The BASC–2 provides examiners with several Validity Indexes to aid in the judgment of the quality of a completed form. The F, or "fake bad" index, is a measure of the respondent's tendency to be excessively negative about his or her self-perceptions and emotions. The L, or "fake good" index, measures a child's tendency to give an extremely positive picture of himself or herself. Last, the V index gives a basic check on the validity of scores in general. This index consists of four or five nonsensical or highly implausible items that, if agreed with, would indicate invalidity. Examiners can also examine the congruence of findings across examiners and contexts and patterns of responding.

After examining validity, clinicians should take a number of steps in utilizing the BASC–2 for assessment and classification (Kamphaus & Frick, 2002):

1. Assess core constructs/symptoms as well as severity of these symptoms (BASC rating scales: TRS, PRS, SRP). Identify all scales with *T* scores in the at-risk range and confirm the importance of each with available evidence.
2. Assess age of onset (SDH), developmental course (SDH), and multiple contexts (SDH, SOS, and rating scales)
3. Rule out alternative causes for elevated *T* scores, such as environmental stressors or invalid ratings (SDH, rating scales)
4. Rule in comorbidities or, in other words, the possibility of multiple problems/pathologies (SDH, rating scales)

Treatment/Intervention Planning and Evaluation. The BASC–2 can also be utilized as a valuable tool for treatment planning and evaluation in the following capacity (Reynolds & Kamphaus, 2004):

1. Define target behaviors via history (SDH), interviews, rating scales (PRS, TRS, SRP), and observations (SOS)

2. Establish baseline adjustment with the use of rating scales and/or observations
3. Assess intervention/treatment effectiveness with a minimum of three rating scales and/or observations
4. Adjust interventions/treatment based on findings

Self-Report of Personality

The Self-Report of Personality (SRP) is a broadband personality inventory consisting of a mixed item-response format. Some of the items require a *True/False* response, whereas others ask for a rating on a four-point scale of frequency, ranging from *Never* to *Almost Always*. The four-point scale, new on the BASC–2, adds reliability and improves measurement at the extremes of the score range. The SRP, which takes about 20 to 30 minutes to complete, has three forms: child (ages 8–11), adolescent (ages 12–22), and young adults attending a postsecondary school (ages 18–25). The latter College form is new to the BASC–2. These levels overlap considerably on scales and item content; the Child and Adolescent forms have identical composite scores: School Problems, Internalizing Problems, Inattention/Hyperactivity, Personal Adjustment, and an overall Composite score titled the Emotional Symptoms Index (ESI). The College level form retains all of these composites, except for School Problems.

Interpretation of the SRP

Interpretation of Scale Scores. The clinical scales measure maladjustment, and high scores on these scales represent negative characteristics. *T* scores ranging from 60 to 69 are considered At Risk, and scores of 70 or higher are considered Clinically Significant. The BASC–2 forms containing a particular scale are noted in parentheses.

- Alcohol Abuse (SRP-COL) measures the tendency to use alcohol in ways that could lead to impairment of functioning in academic and other settings. The items on this scale are better suited for assessing substance use patterns rather than for surveying patterns of alcohol use that are not associated with impairment. For this reason, high scores on this scale warrant further inquiry and possible additional evaluation for alcohol abuse or other substance abuse problems.
- Anxiety (SRP-C, A, COL) examines generalized fears, nervousness, and worry that typically are irrational and poorly defined in the mind of the individual. It is possible, however, that an individual with anxiety problems will not acknowledge them on an anxiety scale or even during an interview, because of a repressive coping style that is characterized by denial of symptoms. Gil (2005), for example, found that children with irritable bowel syndrome who were classified as "repressors" by a defensiveness scale composed of item content very similar to the SRP L Index, did not acknowledge symptoms such as anxiety, depression, or anger, even when other data showed that such problems may be present. Therefore, it may be wise to use information from other informants to assess for the presence of anxiety, anger, or depression when the L scale is elevated.
- Attention Problems (SRP-C, A, COL) assesses the tendency to report being highly distracted and unable to concentrate. This scale was designed for use in diagnosing the presence of the core symptoms of Attention Deficit/Hyperactivity Disorder (ADHD)

as found in the *DSM-IV-TR*. Prepublication known-group validation evidence for samples of children who have been diagnosed with ADHD (Reynolds & Kamphaus, 2004) has demonstrated that attention problems *T* scores of 58 and above on the SRP-C and scores of 57 or greater on the SRP-A indicate ADHD. A mean *T* score of 61 was obtained by a sample of children who were diagnosed with Bipolar Disorder. Attention problems also seem to be symptomatic of the Autism Spectrum Disorders (ASD), with the adolescent clinical sample in the BASC–2 manual producing a mean *T* score of 58. It seems prudent then to consider an even mildly elevated attention problems score as indicating risk for various forms of child and adolescent maladjustment.

- Attitude to School (SRP-C, A) evaluates how children and youths perceive the utility of school, along with their feelings of alienation or dissatisfaction regarding school. Scores below 41 indicate relative satisfaction and comfort with school. High scores on this scale are often indicative of other clinical problems as well.
- Attitude to Teacher (SRP-C, A) evaluates how the respondent perceives teachers. It is noteworthy that neither this scale nor the Attitude to School scale is associated with specific clinical samples (Reynolds & Kamphaus, 2004), suggesting that children and youths with a wide variety of presenting problems and diagnoses may experience significant problems with schooling and relationships with teachers.
- Atypicality (SRP-C, A, COL) evaluates unusual thoughts and perceptions commonly associated with severe forms of psychopathology such as psychotic disorders. Given that psychotic disorders are relatively rare in childhood, elevations on this scale are more likely to be indicative of the presence of other problems or conditions that are characterized by unusual or developmentally inappropriate behaviors. In this regard, Atypicality scores have been found to be elevated for adolescents diagnosed with ASD (mean *T* score of 57) (Reynolds & Kamphaus, 2004).
- Depression (SRP-C, A, COL) examines feelings of unhappiness, sadness, negative affectivity, and dejection, as well as feelings that "nothing ever goes right." A score of 55 on the adolescent scale is indicative of depression, as demonstrated by validation evidence found in the BASC–2 manual (Reynolds & Kamphaus, 2004). Children with ADHD also tend to indicate depressive symptoms when filling out the SRP-C (Reynolds & Kamphaus, 2004). Baxter and Rattan (2004) found that a sample of males, aged 9–11, diagnosed with ADHD rated themselves significantly higher than a normative group on the Depression and Anxiety scales of the BASC. This scale has strong reliability, thus indicating that elevated scores should be evaluated carefully before they are interpreted as false positives.
- Hyperactivity (SRP-C, A, COL) measures the tendency to report being overly active, having trouble staying still, and other symptoms of the hyperactivity dimension of ADHD. Mean *T* scores of 57 for the SRP-C and 56 for the SRP-A were found for the ADHD clinical sample in the BASC–2 manual (Reynolds & Kamphaus, 2004). A mean *T* score of 59 on the SRP-A was found for the Bipolar clinical sample. Adolescents with ASD also indicated hyperactivity symptoms (mean *T* score of 58). The latter two findings for clinical samples provide evidence that elevations on this scale are associated with severe forms of psychopathology that are associated with more functional impairment.
- Locus of Control (SRP-C, A, COL) evaluates an individual's perceived control over his or her environment. High scores on this scale indicate a belief that external events or people are in control and may indicate a sense of helplessness on the part of the respon-

dent. Endorsing high levels of external control may indicate mild paranoia and could possibly induce anxiety or depression (Reynolds & Kamphaus, 2004). Children or youths may also express a sense of an external locus of control if they are rejecting of authority figures.

- School Maladjustment (SRP-COL) assesses perceived difficulties and lack of success in a postsecondary educational environment, including feeling overwhelmed and unmotivated. This scale is new to BASC–2 and specific to 18- to 25-year-olds enrolled in a post-secondary educational program. Inasmuch as the items on this scale are limited, high scores should trigger further assessment of educational performance and satisfaction.
- Sensation Seeking (SRP-A, COL) measures an individual's tendency to take risks and seek excitement. This scale was not associated with a specific disorder in the prepublication known group validity studies; however, when accompanied by low Anxiety scores, high Sensation Seeking scores may indicate a conduct-related disorder (Reynolds & Kamphaus, 2004). In general, sensation-seeking tendencies may be associated with a variety of presenting problems and diagnostic conditions. This finding indicates that this scale may be more useful for treatment planning than for making differential diagnostic decisions.
- Sense of Inadequacy (SRP-C, A, COL) evaluates an individual's perceptions of being unsuccessful at school and unable to meet goals, as well as low achievement expectations. As a moderate correlate of the Depression scale, it would not be uncommon for this scale to be jointly elevated with Depression. The school-related content is also useful for assessing the breadth of impairment, as indicated by impairment in school functioning that may be associated with depression or other disorders.
- Social Stress (SRP-C, A, COL) may be considered the inverse of the Interpersonal Relations adaptive scale in that it assesses feelings of stress and tension in interpersonal relations as well as feelings of being excluded. High scores on this scale are found in both children (mean *T* score of 55) and adolescents (mean *T* score of 57) with ASD (Reynolds & Kamphaus, 2004). This finding is consistent with the literature on ASD reflecting social relationships as a core deficit of this disorder (American Psychiatric Association, 2000).
- Somatization (SRP-A, COL) measures the tendency to cite minor physical complaints such as headaches, stomachaches, or queasiness as an expression of psychological distress. Depressed adolescents were found to have a mean *T* score of 56 on this scale (Reynolds & Kamphaus, 2004), as would be suspected given the known vegetative symptoms associated with depression.

In contrast to the clinical scales, adaptive scales measure positive adjustment, and low scores on these scales represent possible problem areas. *T* scores ranging from 30 to 39 are considered At Risk, and scores below 30 are considered Clinically Significant.

- Interpersonal Relations (SRP-C, A, COL) assesses the respondent's perceptions of his or her relationships with others, especially peers, and the degree of enjoyment derived from these relationships. Low scores on this scale are indicative of an ASD with mean *T* scores of 45 for the child version and 41 for the adolescent version, as well as Bipolar disorder with a mean *T* score of 44. In other words, for children with ASD this scale is a mirror image of the Social Stress scale. Given the lawfulness of the inverse

relationship among these scales, the lack of same should be suspect and may indicate the presence of a response set.

- Relations with Parents (SRP-C, A, COL) surveys the respondent's perceived importance in the family and the status of the parent-child relationship. Adolescents with Bipolar Disorder scored an average of 43 on this scale (Reynolds & Kamphaus, 2004).
- Self-Esteem (SRP-C, A, COL) assesses the respondent's sense of self-satisfaction. This scale may indicate risk of depression in adolescents, with the Clinical Depression adolescent sample of the BASC–2 manual scoring an average *T* score of 43. Kamphaus et al. (2003) found one SRP-C cluster from the BASC normative sample that was characterized by a lone low score on this scale. It could very well be that low self-esteem can exist in isolation for some children between 8 and 11 years of age; however, the importance of adequate self-esteem for successful development and adjustment cannot be underestimated, and low self-esteem in children and adolescents should not be ignored.
- Self-Reliance (SRP-C, A, COL) evaluates self-confidence and assurance in one's own ability to make decisions and solve problems. Adolescents with Bipolar Disorder scored an average of 43 on this scale (Reynolds & Kamphaus, 2004).

Interpretation of Composite Scores. The SRP Composites allow examiners to make more general or global interpretations about a respondent's self-perceptions and emotions. With the exception of Personal Adjustment, scores of 60–69 indicate At Risk and scores of 70 and above indicate Clinically Significant maladjustment. For Personal Adjustment, scores from 31 to 40 are in the At Risk category and scores 30 and below are in the Clinically Significant category.

- School Problems (SRP-C, A) is a broad measure of adaptation to school. Scales on this composite include Attitude to School, Attitude to Teachers, and Sensation Seeking (only SRP-A). As indicated above, school problems can be related to a variety of presenting problems and diagnoses.
- Internalizing Problems (SRP-C, A, COL) is a broad measure of inwardly directed distress. Scales on this composite include Atypicality, Locus of Control, Social Stress, Anxiety, Depression, Sense of Inadequacy, and Somatization (only SRP-A, COL). This scale was formerly known as the Clinical Maladjustment scale on the original BASC. Kamphaus, DiStefano, and Lease (2003) found an Internalizing cluster in the U.S. population with equal gender representation. The individuals in this cluster reported difficulty sustaining relationships with peers and low self-esteem.
- Inattention/Hyperactivity (SRP-C, A, COL) combines the Inattention and Hyperactivity scales in order to identify respondents at risk for an ADHD diagnosis. This composite also appears to be elevated for children and adolescents at risk for an ASD and adolescents with Bipolar Disorder (Reynolds & Kamphaus, 2004).
- Personal Adjustment (SRP-C, A, COL) evaluates problems with interpersonal relationships, self-acceptance, identity formation, and ego strength. Scales include Relations with Parents, Interpersonal Relations, Self-Esteem, and Self-Reliance. Individuals with low scores on this composite are more likely to have adjustment disorders and certain Axis II personality disorders (Reynolds & Kamphaus, 2004).
- Emotional Symptoms Index (SRP-C, A, COL) is the most global indicator of emotional disturbance composed of four scales from the Internalizing composite (Social Stress,

Anxiety, Depression, Sense of Inadequacy) and two scales from the Personal Adjustment composite (Self-Esteem and Self-Reliance). Elevated scores on the ESI will ALMOST ALWAYS signal the presence of serious emotional disturbance that is broad-based in its impact on the thoughts and feelings of the individual (Reynolds & Kamphaus, 2004).

- SAD Triad (SRP-C, A, COL) consists of three of the scales included in the ESI (Social Stress, Anxiety, and Depression) and represents significant emotional distress characterized by Depression with substantial tension.

Parent and Teacher Rating Scales

The Teacher Rating Scale (TRS) is a broadband measure of adaptive and problem behaviors that occur in the school setting. Behaviors are rated on a four-point scale of frequency from *Never* to *Almost always.* The TRS, which requires about 10 to 15 minutes for completion, has three forms: preschool (2–5 years), child (6–11 years), and adolescent (12–21 years). The TRS contributes five composites for children and adolescents, including Adaptive Skills, Behavioral Symptoms Index, Externalizing Problems, Internalizing Problems, and School Problems. The preschool form excludes the School Problems domain, for a total of four composites.

The Parent Rating Scales (PRS) provides a comprehensive measure of a child's adaptive and problem behaviors in the community and home environments. The PRS uses the same four-point scale as the TRS and requires about 10 to 20 minutes to complete. It also has three forms: preschool (2–5 years), child (6–11 years), and adolescent (12–21 years). The PRS composites are the same as those for the TRS, with the exception of School Problems.

Interpretation of the TRS & PRS

Interpretation of Scale Scores. The clinical scales measure maladjustment, and high scores on these scales represent negative characteristics. *T*-scores ranging from 60 to 69 are considered At Risk, and scores of 70 or higher are considered Clinically Significant.

- Aggression (TRS-P, C, A; PRS-P, C, A) assesses the tendency to do physical or emotional harm to others or their property. The scale includes verbal and physical aggression but gives greater weight to verbal, or relational, aggression because it occurs more frequently. A Clinically Significant Score represents highly disruptive behavior that will be of great concern to teachers and guardians (Reynolds & Kamphaus, 2004).
- Anxiety (TRS-P, C, A; PRS-P, C, A) measures symptomatic behaviors such as excessive worry, fears and phobias, self-deprecation, and nervousness. During childhood, somatization is a key symptom of anxiety disorders, so a combination of the Anxiety and Somatization scales may be more appropriate for determining whether a child meets diagnostic criteria (Reynolds & Kamphaus, 2004). Baxter and Rattan (2004) also found that both parents and teachers rated a sample of males with ADHD, aged 9–11, significantly higher than a normative group on the Depression and Anxiety scales of the BASC.
- Attention Problems (TRS-P, C, A; PRS-P, C, A) focuses on the core inattention symptoms of ADHD and, when combined with the Hyperactivity scale, can distinguish between the three subtypes of ADHD (Predominantly Inattentive, Predominantly

Hyperactive, and Combined). Attention Problems measures the inability to maintain attention and the tendency to be easily distracted from tasks. The dimensional classification employed by the scale is especially useful, because subclinical problems have been found to cause impairment (Scahill et al., 1999). Children diagnosed with ADHD received a mean score of 61 on the TRS and a mean score of 65 on the PRS (Reynolds & Kamphaus, 2004).

- Atypicality (TRS-P, C, A; PRS-P, C, A) measures a child's tendency to behave in ways that are considered odd or strange. A score in the At Risk range and above could elicit a number of interpretations, such as a psychotic disorder, immaturity, developmental delay, or behavioral or emotional disorders. It is important to interpret this score very carefully, keeping developmental level in mind. Mean Atypicality scores for children diagnosed with ASD were 71 on the TRS and 75 on the PRS (Reynolds & Kamphaus, 2004).
- Conduct Problems (TRS-C, A; PRS-C, A) assesses socially deviant and disruptive behaviors that are characteristic of Conduct Disorder. This scale is not used for the preschool level, as these behaviors rarely occur at that age. Be aware that elevated scores may also occur on other scales, such as Learning Problems and Depression, because of the factors involved in Conduct Disorder. This scale is similar to the Aggression scale but has a greater focus on antisocial and rule-breaking behavior rather than behaviors directed against others. Conduct Problems may also be evident in depressive disorders, as illustrated by the Clinical Depressive Disorders sample's mean *T*-score of 79 on the PRS-C and 69 on the PRS-A (Reynolds & Kamphaus, 2004).
- Depression (TRS-P, C, A; PRS-P, C, A) is mainly written as quoted statements designed to identify dysphoric mood, suicidal ideation, withdrawal from others, and self-reproach in the target child. In the clinical sample, individuals diagnosed with depression disorders had mean *T*-scores of 80 on the PRS-C, 76 on the PRS-A, and 65 on the TRS-A (Reynolds & Kamphaus, 2004). As noted above, children with ADHD have also been found to have elevated TRS and PRS Depression scale scores (Baxter & Rattan, 2004).
- Hyperactivity (TRS-P, C, A; PRS-P, C, A) examines the hyperactivity and impulsivity symptoms associated with ADHD. The hyperactivity scale has specific questions regarding interrupting others, poor self-control, inability to wait one's turn, and fiddling with things. This scale has been shown to be qualitatively different from the attention aspect of ADHD through confirmatory factor analysis. The clinical sample means for those diagnosed with ADHD were 66 on the PRS-C, 64 on the PRS-A, and 61 on both the TRS-C and TRS-A (Reynolds & Kamphaus, 2004).
- Learning Problems (TRS-C, A) is a screener for academic difficulty and possible Learning Disabilities. This scale samples information from teachers regarding the child's reading, writing, spelling, and mathematics. Scores in the At Risk range indicate that a follow-up of academic skills is warranted. It is important to note that this scale has a strong relationship with academic achievement outcomes for elementary school children (Hartley, 1999; Oehler-Stinnett & Boykin, 2001). Clinical sample means for those diagnosed with a Learning Disability were 62 on the TRS-C and 61 on the TRS-A (Reynolds & Kamphaus, 2004).
- Somatization (TRS-P, C, A; PRS-P, C, A) assesses the child's verbal complaints regarding physical ailments when there is no true physical cause. Elevated scores on this scale are associated with internalizing disorders, such as Anxiety and Depression (Abelkop,

2001). Adolescents diagnosed with Depressive Disorders had a mean *T*-score of 68 on this scale (Reynolds & Kamphaus, 2004).

- Withdrawal (TRS-P, C, A; PRS-P, C, A) focuses on the child's avoidance of others and diminished interest in participating in social situations. This scale has been shown to examine a core symptom of Autism and Mental Retardation (Reynolds & Kamphaus, 1992). In addition, slightly elevated scores on this scale are associated with Depression, neglect, and rejection. The clinical sample means for those diagnosed with ASD were 73 on both PRS-C and-A, 71 on TRS-C, and 66 on TRS-A (Reynolds & Kamphaus, 2004).

The Adaptive scales measure positive adjustment, and low scores on these scales represent possible problem areas. *T*-scores ranging from 30 to 39 are considered At Risk, and scores below 30 are considered Clinically Significant.

- Activities of Daily Living (PRS-P, C, A) screens for adaptive behavior related to acting in a safe manner, performing simple daily tasks, and organizing tasks. This scale may be useful for determining the least restrictive environment for intervention. Scores in the At Risk range and below suggest deficits associated with Mental Retardation, lower-functioning Autism Disorder, and other severe disorders. Based on the clinical samples, one can expect *T*-scores of about 35 for individuals with Mental Retardation and about 37 for those with motor impairments (Reynolds & Kamphaus, 2004). This is a new scale to the BASC–2 and is available only on the PRS. In the clinical sample, individuals diagnosed with ASD received a mean *T*-score of 33 on the PRS-C and 31 on the PRS-A.
- Adaptability (TRS-P, C, A; PRS-P, C, A) assesses the temperament variable associated with the ability to adjust to changes in routine, shift from one task to another, and share toys or possessions with other children. Low adaptability scores suggest significant risk and should lead to further evaluation. In the clinical sample, individuals diagnosed with Bipolar Disorder received a mean score of 36 on the TRS-C and -A, 36 on the PRS-C, and 30 on the PRS-A (Reynolds & Kamphaus, 2004).
- Functional Communication (TRS-P, C, A; PRS-P, C, A) examines a child's ability to communicate in ways others can easily understand. This scale is classified as a primary aspect of adaptive-behavior functioning (Doll, 1953; Kamphaus, 1987). Questions in this scale include rudimentary and complex expressive-communication skills, receptive-communication skills, and written skills. Children who score in the At Risk range should be reevaluated in order to rule out an adaptive behavior deficit. It is also important to note that Functional Communication is a new scale introduced in the BASC–2. In the clinical sample, individuals diagnosed with Mental Retardation received mean *T*-scores of 31 on the PRS-C, 29 on the PRS-A, 32 on the TRS-C, and 39 on the TRS-A. In addition, clinical sample means for those individuals diagnosed with ASD were 30 on the PRS-C and 28 on the PRS-A (Reynolds & Kamphaus, 2004).
- Leadership (TRS-C, A; PRS-C, A) assesses leadership potential and school adaptation. Some items are related to Social Skills items, whereas others include cognitive skills associated with problem solving. On this scale, individuals diagnosed with Mental Retardation received mean *T*-scores of 36 on the PRS-C, 34 on the PRS-A, 38 on the TRS-C, and 43 on the TRS-A. Clinical sample means for individuals with ASD were 34 on the PRS-C and 33 on the PRS-A (Reynolds & Kamphaus, 2004).
- Social Skills (TRS-P, C, A; PRS-P, C, A) examines interpersonal forms of social adaptation, such as complimenting others and offering assistance when needed. Social skills

have been shown to be a key aspect of adequate adaptation and to be necessary in the development of children (Doll, 1953). In addition, the Social Skills scale often distinguishes between children with Autism and Mental Retardation, as the former group is more socially impaired. Clinical sample means for those individuals diagnosed with ASD were 34 on the PRS-C, 38 on the PRS-A, 38 on the TRS-C, and 44 on the TRS-A (Reynolds & Kamphaus, 2004).

- Study Skills (TRS-C, A) focuses on metacognitive problem solving, achievement motivation, and organizational skills. This scale has a strong relationship to the School Problems composite, which suggests that it plays an important role in assessing school adaptation. Clinical sample means for individuals diagnosed with Mental Retardation were 35 on the TRS-C and 40 on the TRS-A (Reynolds & Kamphaus, 2004).

Interpretation of Composite Scores. The TRS and PRS Composites allow examiners to make more general or global interpretations with respect to how an individual is perceived by parents and teachers. With the exception of Adaptive Skills, scores of 60–69 indicate At Risk and scores of 70 and above indicate Clinically Significant maladjustment. For Adaptive Skills, scores from 31 to 40 are in the At-Risk category, and scores 30 and below are in the Clinically Significant category.

- Adaptive Skills (TRS-P, C, A; PRS-P, C, A) is a broad indicator of the characteristics of adaptive behavior that are important for functioning across environments, such as emotional expression and control, daily living skills, communication skills, and other adaptive skills. This composite is composed of Adaptability, Activities of Daily Living (PRS only), Functional Communication, Social Skills, Leadership, and Study Skills (TRS only).
- Behavioral Symptoms Index (TRS-P, C, A; PRS-P, C, A) provides a measure of the overall level of problem behavior consisting of the Hyperactivity, Aggression, Depression, Attention Problems, Atypicality, and Withdrawal scales. The BSI provides an estimate of the general level of functioning or presence of impairment for an individual with a diagnosed condition (Reynolds & Kamphaus, 2004).
- Externalizing Problems (TRS-P, C, A; PRS-P, C, A) is a broad measure of "undercontrolled" disruptive-behavior problems, such as aggression, hyperactivity, and delinquency (Achenbach & Edelbrock, 1978). This composite includes the Hyperactivity, Aggression, and Conduct Problems scales. Externalizing problems are generally more stable throughout an individual's life span than internalizing problems and, consequently, are associated with a less favorable prognosis (Robins, 1979).
- Internalizing Problems (TRS-P, C, A; PRS-P, C, A) measures "overcontrolled" behavior problems, such as those measured in the Anxiety, Depression, and Somatization scales (Achenbach & Edelbrock, 1978). Although these behaviors are not as disruptive in the classroom, they can still have a substantial negative effect on child adjustment, such as peer relationships (Kamphaus, DiStefano, & Lease, 2003).
- School Problems (TRS-C, A) focuses on academic difficulties, such as motivation, attention, and learning problems. This composite consists of the Attention Problems and Learning Problems scales. A high score on this composite reflects the possibility of low levels of academic achievement. In addition, school problems can be indicative of a variety of problems or diagnoses, including both internalizing and externalizing disorders.

SAMPLE CASE

Sarah is a 10-year-old female referred by her parents for a psychological evaluation because of her apparent low self-esteem, depressed mood, and angry outbursts. Sarah's parents reported that she does well in school academically and excels in mathematics, but they are concerned that Sarah often appears depressed and irritable and expresses feelings of inadequacy. Sarah often remarks that she is "fat and ugly" and that the world would be better off without her. Her teachers reported that Sarah tends to misinterpret the behavior of her peers and does not appear to have many friends. She is very fearful of new situations and becomes unreasonably upset with changes in routine or if things do not go her way.

Parent and teacher ratings on the BASC–2 consistently revealed significant problems with Depression, Anxiety, Withdrawal, and Aggression (see Figure 18–1). One teacher also indicated elevated scores on the Somatization scale. As discussed earlier, both Withdrawal and Somatization have been found to be related to internalizing disorders such as depression (Abelkop, 2001). Adaptability scores were also significantly low, indicating that Sarah exhibits inflexible behavior and is unable to adapt to new situations. Teacher ratings indicated that Sarah engages in behaviors that are considered strange or odd and generally seems disconnected from her surroundings. This behavior is exemplified by acknowledgments of items such as "Seems out of touch with reality," "Does strange things," "Babbles to self," and "Says things that make no sense."

The SRP-C scores provide an in-depth picture of Sarah's thoughts and feelings about herself and others, as well as her overall adjustment (see Figure 18–1). Sarah's ratings on the BASC–2 SRP indicated significant concerns in the areas of School Problems, Internalizing Problems, Emotional Symptoms Index, and Personal Adjustment. Sarah dislikes school intensely and finds her teachers to be unfair, uncaring, and overly demanding. Sarah reports feelings that she has little control over events in her life. She acknowledged feeling isolated and lonely, feeling excessive worry, and feeling sad and misunderstood. Sarah's ratings also indicate a negative self-image, in terms of both personal and physical attributes. Moreover, Sarah appears to have a number of unusual thoughts and perceptions and reported hearing voices in her head that no one else can hear.

The clinicians involved in this case concluded that Sarah's symptoms are consistent with depression, anxiety, and low self-esteem. Issues of anger and hostility are also present. Sarah appears to have chronic doubt about her ability to do well in social situations and on academic tasks, indicating that she is afraid of mistakes, failure, and embarrassment. Sarah tends to cope with these feelings by avoiding tasks that are difficult, withdrawing from group situations, engaging in negative self-talk, and, when directly confronted, reverting to physical aggression and acting out behavior. Sarah is perceived by others as showing characteristics of depression and even recognizes these feelings of sadness, despair, loneliness, hopelessness, and ineffectiveness in coping.

CONCLUSIONS

The BASC, and its successor the BASC–2, has been the fortunate recipient of an ever-expanding research base. It has been used in studies ranging from child cancer to juvenile diabetes, ADHD (Pineda et al., 2005), and a published case study of a child with toxic manganese exposure from drinking water (Woolf, Wright, Amarasiriwardena, & Bellinger, 2002). A relatively extensive BASC research bibliography may be found at the publisher's web

Psychometric Summary for Sarah

BEHAVIOR ASSESSMENT SYSTEM FOR CHILDREN, SECOND EDITION - PARENT RATING SCALES CHILD VERSION (BASC-2 PRS- C)

The BASC 2-PRS is a questionnaire that is filled out by parents in order to assess the behavior problems, emotional problems, and social competence for their children. The BASC 2-PRS yields T-Scores with a mean of 50 and a standard deviation of 10. On the Clinical Scales, scores from 60-69 indicate developing or potentially significant problems while above 70 indicate significant problems. On the Adaptive Scales, scores from 31-40 indicate developing or potential problems while those below 30 are considered significantly low.

	Mother	
Scale	**T Score**	**Percentile**
Clinical Scales		
Hyperactivity	54	72
Aggression	64*	91
Conduct Problems	37	3
Anxiety	79**	99
Depression	85**	99
Somatization	44	33
Atypicality	54	76
Withdrawal	71**	96
Attention Problem	45	37
Adaptive Scales		
Adaptability	32*	5
Social Skills	44	28
Leadership	44	29
Activities of Daily Living	42	20
Functional Communication	55	66
Composites		
Externalizing Problems	52	66
Internalizing Problems	74**	98
Behavioral Symptoms Index	66	93
Adaptive Skills	42	21

Note. * indicates a possible problem. ** indicates a significant problem.

FIGURE 18–1. Psychometric Summary for Sarah.

BEHAVIOR ASSESSMENT SYSTEM FOR CHILDREN, SECOND EDITION - TEACHER RATING SCALES CHILD VERSION (BASC-2 TRS-C)

The BASC 2-TRS is a questionnaire completed by teachers to obtain ratings of adaptive skills and behavior and emotional problems of students. The BASC 2-TRS yields T-Scores with a mean of 50 and a standard deviation of 10. On the Clinical Scales, scores from 60-69 indicate developing or potentially significant problems while those above 70 indicate significant problems. On the Adaptive Scales, scores from 31-40 indicate developing or potentially significant problems while those below 30 are considered significantly low.

	Teacher #1		Teacher # 2	
Scale	**T Score**	**Percentile**	**T Score**	**Percentile**
Clinical Scales				
Hyperactivity	61*	87	52	69
Aggression	61*	88	61*	88
Conduct Problems	54	76	52	70
Anxiety	89**	99	76**	98
Depression	98**	99	74**	96
Somatization	62*	89	58	84
Attention Problems	48	46	42	26
Learning Problems	58	80	52	66
Atypicality	69*	94	66*	92
Withdrawal	76**	98	60*	85
Adaptive Scales				
Adaptability	25**	1	37*	11
Social Skills	45	33	47	40
Leadership	44	31	47	40
Study Skills	45	33	57	69
Functional Communication	49	40	46	30
Composite Scores				
Externalizing Problems	59	85	55	77
Internalizing Problems	91**	99	74**	97
School Problems	53	67	47	41
Behavioral Symptoms Index	74**	97	61*	88
Adaptive Skills	40*	17	46	35

Note. * indicates a possible problem. ** indicates a significant problem.

FIGURE 18–1. (*Continued*).

BEHAVIOR ASSESSMENT SYSTEM FOR CHILDREN, SECOND EDITION - SELF REPORT OF PERSONALITY CHILD EDITION (BASC-2 SRP-C)

The BASC 2-SRP is a self-report measure designed to evaluate the personality and self-perceptions of children. Two major syndromes make up the Emotional Symptoms Index: Personal Maladjustment and Clinical Maladjustment. In addition, a School Maladjustment Composite is comprised of Attitude to School and Attitude to Teacher. The BASC 2-SRP yields T-Scores with a mean of 50 and a standard deviation of 10.

On the Clinical Scales, scores from 60-69 indicate developing or potentially significant problems while those above 70 indicate significant problems. On the Adaptive Scales, scores from 31-40 indicate developing or potentially significant problems while those below 30 are considered significantly low.

	T-Score	Percentile
Clinical Scales		
Attitude to School	77**	99
Attitude to Teachers	83**	99
Atypicality	77**	99
Locus of Control	72**	97
Social Stress	72**	97
Anxiety	73**	98
Depression	63*	88
Sense of Inadequacy	56	76
Attention Problems	53	66
Hyperactivity	63*	88
Adaptive Scales		
Relations with parents	56	67
Interpersonal Relations	32*	7
Self-esteem	15**	1
Self-reliance	50	45
Composite Scores		
School Problems	84**	99
Internalizing Problems	72**	97
Inattention/Hyperactivity	59	82
Emotional Symptoms Index	71**	96
Personal Adjustment	34*	7

Note. * indicates a possible problem. ** indicates a significant problem.

FIGURE 18–1. *(Continued).*

site (agsnet.com). As is the case with all tests, the answer to one research question simply begets another, a process that should ever improve our use of BASC findings in clinical and research settings.

REFERENCES

Abelkop, A. S. (2001). Somatic complaints in young school children: The relationship with internalizing distress, behavior problems, academic achievement, and school adjustment. *Dissertation Abstracts International Section B: Sciences and Engineering, 62*(9-B), 4207.

Achenbach, T. M., & Edelbrock, C.S. (1978). The classification of child psychopathology: A review and analysis of empirical efforts. *Psychological Bulletin, 85*, 1275–1301.

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: Author.

Baxter, J., & Rattan, G. (2004). Attention deficit disorder and the internalizing dimension in males, ages 9–0 through 11–11. *International Journal of Neuroscience, 114*, 817–832.

Cantwell, D. P. (1996). Classification of child and adolescent psychopathology. *Journal of Child Psychology and Psychiatry, 37*, 3–12.

Doll, E. A. (1953). *The measurement of social competence: A manual for the Vineland social maturity scale.* Circle Pines, MN: American Guidance Service.

Gil, A. (2005). Repressing distress in childhood: A defense against health-related stress. *Child Psychiatry and Human Development, 36*, 27–52.

Hartley, M. M. M. (1999). The relationship among disruptive behaviors, attention, and academic achievement in a clinical referral sample. *Dissertation Abstracts International Section A: Humanities and Social Sciences, 60*(2-A), 0333.

Individuals with Disabilities Education Improvement Act (IDEA) of 2004, Pub. L. No. 108-446.

Kamphaus, R. W. (1987). Conceptual and psychometric issues in the assessment of adaptive behavior. *Journal of Special Education, 21*(1), 27–35.

Kamphaus, R. W. (2001). *Clinical assessment of children's intelligence* (2nd ed.). Needham Heights, MA: Allyn & Bacon.

Kamphaus, R. W., & Frick, P. J. (2002). *Clinical assessment of child and adolescent personality and behavior* (2nd ed.). Needham Heights, MA: Allyn & Bacon.

Kamphaus, R. W., DiStefano, C., & Lease, A. M. (2003). A self-report typology of behavioral assessment for young children. *Psychological Assessment, 15*(1), 17–28.

Oehler-Stinnett, J., & Boykin, C. (2001). Convergent, discriminant, and predictive validity of the Teacher Rating of Academic Achievement Motivation (TRAMM) with the ACTeRs-TF and the BASC-TRS. *Journal of Psychoeducational Assessment, 19*(1), 4–18.

Pineda, D. A., Aguirre, D. C., Garcia, M. A., Lopera, F. J., Palacio, L. G., & Kamphaus, R. W. (2005). Validation of Two Rating Scales for ADHD Diagnosis in Colombian Children. *Pediatric Neurology, 33*(1), 15–25.

Reynolds, C. R., & Kamphaus, R. W. (1992). *Behavior Assessment System for Children.* Circle Pines, MN: American Guidance Service.

Reynolds, C. R., & Kamphaus, R. W. (2004). *The Behavior Assessment System for Children* (2nd ed.). Circle Pines, MN: AGS.

Robins, L. N. (1979). Follow-up studies. In H. C. Quay & J. S. Werry (Eds.), *Psychopathological disorders of childhood* (2nd ed., pp. 483–513). New York: Wiley.

Scahill, L., Schwab-Stone, M., Merikangas, K. R., Leckman, J. F., Zhang, H., & Kasl, S. (1999). Psychosocial and clinical correlates of ADHD in a community sample of school-age children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 38, 976–984.

Woolf, A., Wright, R., Amarasiriwardena, C., & Bellinger, D. (2002). A child with chronic manganese exposure from drinking water. *Environmental Health Perspectives, 110*, 1–4.