

# The Behavior Assessment System for Children

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Bedecked in a long flowered dress, Anna came skipping through the clinic door, smiling from ear to ear, with her pigtails flopping side to side. She was full of energy, had trouble taking her gaze off her own reflection in the observation mirror, and was immediately conversant with the examiner. During the parent interview, her mother explained that Anna had difficulty paying attention in school, daydreamed, and sometimes did not complete schoolwork. Despite being generally a happy child, Anna was easily upset and this tendency sometimes interfered with cooperative play with friends. Her mother said she was worried that Anna's standardized reading scores were well below that of her older sister at her age and was concerned that she might suffer from attention-deficit/hyperactivity disorder (ADHD). Anna's older sister had always been one of the top students in her class. Her mother reported that it was difficult to avoid comparisons of her daughters, which she said were often "inevitable."

The results of Anna's evaluation revealed scores in the average range on the Wechsler Intelligence Scale for Children—Third Edition (WISC-III Verbal IQ = 97; WJSC-III Performance IQ = 91) with achievement commensurate with these estimates of cognitive ability (WJ-R Reading Composite = 99; WJ-R Math Composite = 93). Anna's mother and father re-

ported some attentional difficulties on the Behavior Assessment System for Children that fell in the borderline range (mother's BASC-PRS T-score = 63; father's BASC-PRS T-score = 61). However, when her mother was queried using the ADHD module of the Structured Interview for the Diagnostic Assessment for Children, Anna's symptoms did not meet criteria for diagnosis under the fourth edition of *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV; American Psychiatric Association, 1994). In addition, although her teacher reported some daydreaming in class during the interview, she did not report any elevations in Attentional Problems on the BASC (TRS T-score = 56), instead endorsing items on the Anxiety scale approaching clinical significance (TRS T-score = 69). No elevations were apparent on the Achenbach Teacher Report Form, which combines anxious and depressed symptoms in a single Anxious/Depressed scale (T-score = 50). Although still in the second grade, Anna had perfect grades in school and exhibited no behavioral problems at home or in school. Her teacher also reported that Anna had good social skills relative to her peers (TRS Social Skills T-score = 61) and average scores on other Adaptive composite scales (BASC TRS T-scores: Leadership = 57; Adaptability = 51; Study Skills = 59). Such be-

havioral strengths are unexpected in children with ADHD. On the Parenting Stress Index Anna's mother reported elevated levels of stress associated with Anna's moods, distractibility, and acceptability.

Anna did not meet criteria for ADHD diagnosis under DSM-IV; however, her mother had valid concerns regarding her ability to remain focused on academic tasks and to follow through on chores at home. The evaluation results revealed subclinical elevations in attention problems and possibly emergent anxiety that warranted continued monitoring, reevaluation within a year, and low-level behavioral interventions but did not cross the categorical threshold for ADHD diagnosis. The clinician recommended that Anna be seen again in a year to evaluate her academic progress and short-term family therapy to address behavioral problems and expectations regarding Anna's performance relative to that of her sister.

#### **DIMENSIONAL ASSESSMENT WITH THE BEHAVIOR ASSESSMENT SYSTEM FOR CHILDREN**

Every clinician has experienced the quandary of children such as Anna who present with problem symptoms that nevertheless do not warrant DSM diagnosis: a child who cannot sit still but manages to make average grades in school, a child who seems to cry at the least provocation but does not meet criteria for mood disorder, a child who appears withdrawn but does not exhibit other identifiable difficulties. Behavior rating scales, such as those included in the Behavior Assessment System for Children (BASC), provide dimensional information on whether this child lies at the low or high range of the behavioral continuum. Because many or most highly prevalent disorders of childhood represent extremes of a continuum (Fergusson & Horwood, 1995; Scahill et al., 1999) (e.g., some children are more or less anxious, sad, social, inattentive, or active than others), diagnosis and treatment are highly dependent on determining that child's location on the continuum relative to other children at his or her developmental level. Dimensional approaches ensure that children with subthreshold impairments can be monitored. Thus, elevations or a pattern of subclinical scale elevations can be a red

flag to the clinician that the child may not meet categorical criteria but is still experiencing impairment in particular domains that require tracking over time (Cantwell, 1996).

#### **BRIEF HISTORY**

The BASC represents a blend of traditional behavioral methods and contemporary cognitive-behavioral approaches. At one time, behavioral assessment only dealt with clearly observable, overt behavior. With the rise of popularity of cognitive behaviorism throughout the 1980s, reports of covert behavior such as thoughts, feelings, and desires have come to be included as a significant component of behavioral assessment (e.g., Kratochwill, Sheridan, Carlson, & Laseck, 1999). However, in the use of self-reports of internal or otherwise unobservable phenomena, behavioral assessment does not draw deep-seated psychodynamic inferences nor does it seek determinants of character; the responses are viewed directly for what they represent—samples of behavior and reports of the frequency or occurrence of specific behaviors. In contrast to early conceptualizations of the behavioral assessment paradigm, however, clinicians do now recognize the appearance of chronic, long-standing characteristics such as anxiety and locus of control that generalize beyond highly specific settings. In fact, many traditional measures in use by psychologists are now used as components of behavioral assessments but with lower levels of inference involved in the interpretation of the results. (See Ramsay, Reynolds, & Kamphaus, 2002, for a review of the many different methods of behavioral assessment.) This chapter discusses the BASC, which offers practitioners a practical tool kit with complementary scales and interviews for assessing both positive and negative behaviors across home and school settings, using different informants and methods for measuring behavior. Interpretation and synthesis of multisource information is simplified through co-normed scales consistent across age levels and teacher and parent forms. Thus, use of the full Assessment System can capitalize on empirically supported strengths in raters, such as the general superiority of teachers to rate attention and hy-

peractivity (Loeber, Green, & Lahey, 1990; Verhulst, Koot, & Van der Ende, 1994); of children to report on their own internal moods such as depression or anxiety (Bird, Gould, & Staghezza, 1992), and of parents to describe their child's behavior specifically and differentially (Daniel, 1993). The provision of comprehensive, unique information using a variety of measurement techniques and sources is a strength of the system (Adams & Drabman, 1994). The BASC also offers a structured developmental history form to place behavior in context and an efficient Systematic Observation System (SOS) to allow for the real-time coding of classroom behaviors by trained observers.

#### SYSTEMATIC MEASUREMENT OF BEHAVIORAL STRENGTHS AND WEAKNESSES

The BASC represents a departure from many typical rating scales in that it provides normatively referenced information on the child's adaptive behaviors or strengths as reported by parents, teachers, and the children themselves. The lack of positive behavioral dimensions in the past has been a key limitation of behavior rating scales (e.g., see Kratochwill et al., 1999). Not only are these behaviors indicators of the child's functional status, many states mandate that they be included in a diagnostic assessment of learning disabilities or emotional and behavioral disorders. Without the ability to reference the child to his or her peers on these dimensions, the practitioner must rely solely on subjective narrative reports of caregivers and teachers or his or her own one-time impression of the child in the clinic. In addition, the inclusion of positive items counterbalances negatively worded items, mitigates against response sets (Kamphaus & Frick, in press), and provides the child's caregivers and teachers the opportunity to report favorably about the child. Thorpe, Kamphaus, Rowe, and Fleckenstein (2000) found that scores on the Adaptive Composite scale of the BASC, which includes adaptability (response to change in environment), study skills, social skills, and leadership subscales, predicted children's behavioral and academic status in school as many as 2 years later. The Adaptive composite was as good or better than

the Externalizing and Internalizing Composite scores in predicting children's school adjustment, adding complimentary predictions above and beyond these traditional indicators. These findings and others (e.g., diSibio, 1993) strongly support the standardized measurement of adaptive behaviors in making predictions regarding future prognosis (Thorpe et al., 2000). In Anna's case her mother and teacher's report of good adaptive skills on the BASC Parent Rating Scale (BASC-PRS) and the BASC Teacher Rating Scale (BASC-TRS) suggested little functional impairment in these domains, which is vital information in making diagnostic determinations.

#### EFFECTIVE DIFFERENTIAL DIAGNOSTIC TOOL

The range of behavioral dimensions assessed by the BASC aids in making a differential diagnosis of specific categories of a disorder as denoted in the DSM-IV (American Psychiatric Association, 1994). The BASC rating scales are constructed to provide separate information on Attention Problems and Hyperactivity as well as separate information on Depression and Anxiety. This delineation allows for a better differential diagnosis and is particularly useful in making decisions regarding inattentive, hyperactive, or combined subtypes of ADHD that have very different implications for treatment (Doyle, Ostrander, Skare, Crosby, & August, 1997; Vaughn, Riccio, Hynd, & Hall, 1997). In Anna's case, her teacher's report of elevations on anxiety reached significance on the BASC but not on the Achenbach Child Behavior Checklist (CBCL) Anxious/Depressed subscales, perhaps due to the blending of these two constructs. In addition, although her mother reported elevations only on the Attention subscale of the BASC, she did not report problems on the Hyperactivity subscale ( $T$ -score = 47), suggesting that Anna's difficulties were restricted to attentional lapses. With the exception of item-level analysis, no differentiation of the two behaviors was possible using Achenbach CBCL, which provided a single Attention Problems subscale ( $T$ -score = 68) and also includes items relating to impulsivity. Research supports the advantage of the BASC subscales in ac-

curately discriminating children with primary inattentive type from combined type (Vaughn et al., 1997).

COMPLIANCE WITH FEDERAL/STATE EDUCATIONAL ASSESSMENT REQUIREMENTS

The BASC offers clinicians working in school settings or treating children with learning problems or behavioral problems an array of important measurement and assessment techniques to target these problems and to comply with standards for behavioral analysis necessary for tailoring individualized education plans (IEPs) to students with special needs as required under the Individuals with Disabilities Education Act (IDEA) (Flanagan, 1995). A unique School Problems composite on the BASC-TRS provides clinicians with well-normed information regarding that child's adjustment in a school setting. The BASC SOS facilitates effective functional behavioral analysis, also required in recent revisions to IDEA, as well as an easy-to-use method for tracking changes in frequency and duration of such behaviors over time. The BASC ADHD Monitor provides a shortened format for monitoring changes in Attention and Hyperactivity subsequent to medication and or targeted behavioral interventions. These components are described more fully later in the chapter. Components of the BASC also assess aspects of the federal definition of Emotional Disturbance (Flanagan, 1995; Reynolds & Kamphaus, 1992). In their review, Sandoval and Echandia (1994) call the BASC "one of the most useful and sophisticated of all the new measures available to those wishing to assess school-age children" (p. 425).

Referring back to Anna's case, the BASC-TRS was used to reevaluate her school behavior 3 months later. The results, presented here, revealed both consistency and stability on the majority of scales as well as sensitivity to change. While Anna's scores on Attention Problems scaled were identical to the earlier evaluation and her elevations on the Anxiety subscale are still apparent, her teacher's report at follow-up reveals a sharp increase in somatic complaints, suggesting that Anna's school performance concerns might be manifesting as physical ailments.

Scores in bold are composites that represent an overall index of their component subscales.

Anna's Case		
	BASC-TRS T-scores	
	Oct. 1999	Jan. 2000
Hyperactivity	44	44
Aggression	41	43
Conduct Problems	43	43
<b>Externalizing Problems composite</b>	<b>42</b>	<b>43</b>
Anxiety	69	62
Depression	41	46
Somatization	46	64
<b>Internalizing Problems composite</b>	<b>52</b>	<b>59</b>
Attention Problems	56	56
Learning Problems	61	53
<b>School Problems composite</b>	<b>59</b>	<b>55</b>
Atypicality	52	57
Withdrawal	51	48
<b>Behavior Symptoms Index</b>	<b>51</b>	<b>52</b>

COMPONENTS AND USES

The BASC is a multimethod, multidimensional approach to evaluating the behavior and self-perceptions of children ages 2½-18 years, and includes its new variant, the BASC ADHD Monitor (Kamphaus & Reynolds, 1998). The original BASC is *multimethod* in that it has five components, which may be used individually or in any combination:

- The *Teacher and Parent Rating Scales (TRS and PRS)*, which are separate instruments that gather descriptions of the child's observable behavior at home, in the community, and at school.
- The *Self-Report of Personality (SRP)*, which the child uses to describe his or her behaviors, emotions and self-perceptions.
- The *Structured Developmental History (SDH)*, which is used to collect biographical, demographic, historical, and developmental information from parents or other primary caregivers, and which can serve as the basis for a parent interview.

- The *Student Observation System (SOS)*, a form for recording and classifying directly observed classroom behavior.

The BASC components not only provide different sources of information but, in fact, use different methods, a factor important to assessing generalizability of results and validation in diagnosis. The SRP, which can be used with children from 8 to 18 years of age, provides an introspective report of behavior, feelings, attitudes, and cognitions. The BASC-TRS and -PRS provide holistic summaries of that child's "typical" behavior on an array of positive and negative indicators as seen through the eyes of behavioral experts specific to the child in question. The SOS provides direct observation and counting of behavior, believed by many to be the sine qua non of behavioral assessment (e.g., see Ramsay, Reynolds, & Kamphaus, in press, Ch. 1, for a review). The SDH helps provide a context for the presenting problem and provides for a structured interview as an additional method of assessment.

The BASC is *multidimensional* in that it measures numerous dimensions of behavior and personality, including positive (adaptive) as well as negative (clinical) dimensions and both internalizing and externalizing problems. The BASC Adaptive scales include Social skills, Study skills, Leadership, and Adaptability from the standpoint of the child's parent or teacher and Interpersonal relations, Self-esteem, Self-reliance, and parental relations from the point of view of the child. The BASC assesses both overt and covert behavior along with attitudes, feelings, and cognitions as well as certain affective states (e.g., anxiety, depressed mood, and attributional states), giving a range of dimensions heretofore unavailable in a single system.

Scales were developed based on comprehensive theoretical and empirical considerations (Reynolds & Kamphaus, 1992) and represent a synthesis of what is known about developmental psychopathology (Sandoval & Echandia, 1994). In their review of technical qualities of the BASC, Sandoval and Echandia (1994) remark that "authors have set the standard for test construction for this kind of scale to be used with the childhood population"

### Teacher Rating Scales

The TRS has three forms with items designed for three age levels: preschool (2½–5), child (6–11), and adolescent (12–18). The forms contain descriptors of behaviors that the respondent rates on a 4-point scale of frequency, ranging from *Never* to *Almost always*. The TRS takes 10–20 minutes to complete, although teachers who are familiar with the TRS seldom require more than 10 minutes. Evidence for temporal stability and convergent validity (Merydith & Joyce, 1998) of the TRS has been presented.

The TRS assesses clinical problems in the broad domains of Externalizing Problems, Internalizing Problems, and School Problems. It also measures Adaptive Skills. Table 17.1 shows the scales for all levels of the TRS. The slight differences between levels are due to developmental changes in the behavioral manifestations of child problems. Nevertheless, scales and composites with the same name contain essentially the same conceptual content at all age levels, even though specific items change across age. Children simply do not show their problems the same way at all developmental levels. In addition to scale and composite scores, the TRS provides a broad composite, the Behavioral Symptoms Index (BSI) that assesses the overall level of problem behaviors.

While we recommend that a teacher know a child at least 4 to 6 weeks before using the TRS, a recent study found little difference between ratings of a new teacher and the previous year's teacher who had known the child for most of a school year. Hoover, Braver, Wolchik, and Sandler (2000) found that teacher ratings on the Teacher-Child Rating Scale (T-CRS; Hightower, 1986) were similar for a group of 240 elementary grade children who were part of a divorce intervention study. They concluded that neither the previous teachers' nor the current teachers' fall ratings were significantly different from the spring teachers' pretest ratings. Thus, school psychologists may elect to obtain ratings from either the previous or current teacher early in the fall of a new academic year.

The TRS may be interpreted with reference to national age norms (General, Female, or Male) or to Clinical norms. In addition, selected critical items may be

TABLE 17.1. Composites and Scales in the TRS and PRS

Composite/Scale	Teacher Rating Scales			Parent Rating Scales		
	Preschool	Child	Adolescent	Preschool	Child	Adolescent
<b>Externalizing Problems</b>	*	*	*	*	*	*
<i>Aggression</i>	*	*	*	*	*	*
<i>Hyperactivity</i>	*	*	*	*	*	*
<i>Conduct Problems</i>		*	*		*	*
<b>Internalizing Problems</b>	*	*	*	*	*	*
<i>Anxiety</i>	*	*	*	*	*	*
<i>Depression</i>	*	*	*	*	*	*
<i>Somatization</i>	*	*	*	*	*	*
<b>School Problems</b>		*	*			
<i>Attention Problems</i>	*	*	*	*	*	*
<i>Learning Problems</i>		*	*			
<b>Other Problems</b>						
<i>Atypicality</i>	*	*	*	*	*	*
<i>Withdrawal</i>	*	*	*	*	*	*
<b>Adaptive Skills</b>	*	*	*	*	*	*
<i>Adaptability</i>	*	*		*	*	
<i>Leadership</i>		*	*	*	*	*
<i>Social Skills</i>	*	*	*	*	*	*
<i>Study Skills</i>		*	*			
<b>Behavioral Symptoms Index</b>	*	*	*	*	*	*

Note. Italicized scales compose the Behavioral Symptoms Index. From Reynolds and Kamphaus (1992). Copyright 1992 by American Guidance Service, Inc. Reprinted by permission.

validity check in the form of an *F* ("fake bad") index designed to detect an excessively negative response set on the part of the teacher completing the rating. The BASC software programs also yield a Patterning validity index that assesses deviant patterns such as alternating between choices on a consistent basis. This validity index is not typically in question because teachers and parents have little incentive to complete a rating scale carelessly. The consistency index produced by the software is of greater value in that it detects agreement among highly similar items. By doing so this index assesses more subtle response bias or may detect unreliability of a specific rater.

### Parent Rating Scales

The PRS is a comprehensive measure of a child's adaptive and problem behaviors in community and home settings. The PRS uses the same four-choice response format as the TRS and also takes 10–20 minutes to complete. Like the TRS, the PRS has three

forms at three age levels: preschool, child, and adolescent. The age levels of the PRS are similar in content and structure. Table 17.2 shows the scale definitions of the PRS.

The PRS assesses almost all the clinical problem and adaptive behavior domains that the TRS measures. However, the PRS does not have a School Problems composite, nor does it include the two TRS scales that are best observed by teachers (Learning Problems and Study Skills).

The PRS offers the same norm groups as the TRS: national age norms (General, Female, and Male) and Clinical norms. Like the TRS, the PRS includes an *F* index, patterning, and consistency indexes as checks on the validity of the parent ratings and critical items that may signify behaviors that should be interpreted individually.

### Self-Report of Personality

The SRP is an omnibus behavioral and personality inventory specially designed for children and adolescents to report an array

TABLE 17.2. BASC TRS and PRS Definitions

Scale	Definition
Adaptability	The ability to adapt readily to changes in the environment
Aggression	The tendency to act in a hostile manner (either verbal or physical) that is threatening to others
Anxiety	The tendency to be nervous, fearful, or worried about real or imagined problems
Attention Problems	The tendency to be easily distracted and unable to concentrate more than momentarily
Atypicality	The tendency to behave in ways that are immature, considered "odd," or commonly associated with psychosis (such as experiencing visual or auditory hallucinations)
Conduct Problems	The tendency to engage in antisocial and rule-breaking behavior, including destroying property
Depression	Feelings of unhappiness, sadness, and stress that may result in an inability to carry out everyday activities (neurovegetative symptoms) or may bring on thoughts of suicide
Hyperactivity	The tendency to be overly active, rush through work or activities, and act without thinking
Leadership	The skills associated with accomplishing academic, social, or community goals, including, in particular, the ability to work well with others
Learning Problems	The presence of academic difficulties, particularly in understanding or completing schoolwork
Social Skills	The skills necessary for interacting successfully with peers and adults in home, school, and community settings
Somatization	The tendency to be overly sensitive to and complain about relatively minor physical problems and discomforts
Study Skills	The skills that are conducive to strong academic performance, including organizational skills and good study habits
Withdrawal	The tendency to evade others to avoid social contact

*Note.* The PRS does not include TRS composite scales of Learning Problems, Study Skills, or School problems. From Reynolds and Kamphaus (1992). Copyright 1992 by American Guidance Service, Inc. Reprinted by permission.

of thoughts, feelings, and behaviors relevant to psychological and interpersonal adjustment. The SRP, which takes about 20–30 minutes to complete, consists of a list of True/False statements to be completed by the child or adolescent. The two forms, one for children (ages 8–11) and one for adolescents (ages 12–18), have considerable overlap in scales, in structure, and in individual items. Both levels have identical composite scores: School Maladjustment, Clinical Maladjustment, Personal Adjustment, and an overall composite score, the Emotional Symptoms Index (ESI). The child level (SRP-C) has 12 scales and the adolescent level

posites (see Table 17.3). Unlike the BSI for the rating scales, the ESI is composed of both negative (clinical) scales and positive (adaptive) scales whose scoring has been reversed, because these are the scales that load highest on a general psychopathology factor.

Like the rating scales, the SRP may be interpreted with reference to national age norms (General, Female, and Male) or to Clinical norms. Special indexes are incorporated to assess the validity of the child's responses: the *F* index, patterning index, consistency index, the *L* ("fake good") index for the SRP-A only, and the *V* index designed to detect invalid responses due

TABLE 17.3. Composites and Scales in the SRP

Composite/Scale	Child	Adolescent
<b>Clinical Maladjustment</b>	*	*
<i>Anxiety</i>	*	*
<i>Atypicality</i>	*	*
<i>Locus of Control</i>	*	*
<i>Social Stress</i>	*	*
<i>Somatization</i>	*	*
<b>School Maladjustment</b>	*	*
<i>Attitude to School</i>	*	*
<i>Attitude to Teachers</i>	*	*
<i>Sensation Seeking</i>	*	*
<b>Other Problems</b>		
<i>Depression</i>	*	*
<i>Sense of Inadequacy</i>	*	*
<b>Personal Adjustment</b>	*	*
<i>Relations with Parents</i>	*	*
<i>Interpersonal Relations</i>	*	*
<i>Self-Esteem</i>	*	*
<i>Self-Reliance</i>	*	*
<b>Emotional Symptoms Index</b>	*	*

Note. Italicized scales compose the Emotional Symptoms Index. From Reynolds and Kamphaus (1992). Copyright 1992 by American Guidance Service, Inc. Reprinted by permission.

to poor reading comprehension, failure to follow directions, refusal to respond seriously to the task, or poor contact with reality. Table 17.4 lists scale definitions of the SRP.

### Structured Developmental History

The SDH is an extensive history and background survey that may be completed by a clinician during an interview with a parent or guardian, or may be completed as a questionnaire by a parent, either at home or in the school or clinic.

The SDH systematically gathers information that is crucial to the diagnostic and treatment process. Many developmental events and medical or related problems in the family may have an impact on a child's current behavior. The SDH structures the gathering of the child and family history, both social and medical. Because it is comprehensive, the SDH should be an asset to any evaluation of a child, whether or not other BASC components are used. Areas

addressed in the SDH are noted in Table 17.5.

### Student Observation System

The SOS is a form for recording a direct observation of the classroom behavior of a child. The SOS uses the technique of momentary time sampling (i.e., systematic coding during 3-second intervals spaced 30 seconds apart over a 15-minute period) to record a wide range of children's behaviors, including positive behaviors (such as teacher-student interaction) as well as negative behaviors (such as inappropriate movement or inattention).

The BASC SOS may be used appropriately in regular and special education classes. It can be used in the initial assessment as part of the diagnostic process. It can also be used repetitively to evaluate the effectiveness of educational, behavioral, psychopharmacological, or other treatments.

### Forms

The TRS, PRS, and SRP forms come in two formats: handscoring or computer entry. The handscoring forms are printed in a convenient self-scoring format, allowing them to be scored rapidly without using templates or keys (requiring about 5 minutes each to score after practice with the forms). Each form includes a profile of scale and composite scores. The computer entry forms, which are simpler one-part forms, are designed to allow the user to key item responses into a microcomputer in about 5 minutes.

### Computer Software

A microcomputer program, BASC Plus, is available that offers on-line administration of the TRS, PRS, and SRP and computer scoring of a completed computer-scored or handscored form. The manual for BASC Plus explains how to use the program to administer, score, and report the TRS, PRS, and SRP. It includes additional interpretive text and a listing of target behavior not available on other computer programs. The BASC Enhanced ASSIST program offers users a simpler computer program that produces all possible scores, a graphical display



TABLE 17.4. SRP Scale Definitions

Scale	Definition
Anxiety	Feelings of nervousness, worry, and fear; the tendency to be overwhelmed by problems
Attitude to School	Feelings of alienation, hostility, and dissatisfaction regarding school
Attitude to Teachers	Feelings of resentment and dislike of teachers; beliefs that teachers are unfair, uncaring, or overly demanding
Atypicality	The tendency toward gross mood swings, bizarre thoughts, subjective experiences, or obsessive-compulsive thoughts and behaviors often considered "odd"
Depression	Feelings of unhappiness, sadness, and dejection; a belief that nothing goes right
Interpersonal Relations	The perception of having good social relationships and friendships with peers
Locus of Control	The belief that rewards and punishments are controlled by external events or other people
Relations with Parents	A positive regard toward parents and a feeling of being esteemed by them
Self-Esteem	Feelings of self-esteem, self-respect, and self-acceptance
Self-Reliance	Confidence in one's ability to solve problems; a belief in one's personal dependability and decisiveness
Sensation Seeking	The tendency to take risks, to like noise, and to seek excitement
Sense of Inadequacy	Perceptions of being unsuccessful in school, unable to achieve one's goals, and generally inadequate
Social Stress	Feelings of stress and tension in personal relationships; a feeling of being excluded from social activities
Somatization	The tendency to be overly sensitive to, experience, or complain about relatively minor physical problems and discomforts

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of results, and item responses, but does not allow on-line administration.

### General Norms

The General norms are based on a large national sample that is representative of the general population of U.S. children with regard to sex, race/ethnicity, clinical or special education classification, and, for the PRS, parent education. These norms are subdivided by age and, therefore, indicate how the child compares with the general population of children that age. For many applications, these norms (combining females and males) will be the preferred norms, and they are recommended for general use.

Several of the scales of the TRS, PRS, and SRP show gender differences. Males tend to obtain higher raw scores on the Aggression, Conduct Problems, Hyperactivity, Attention

TABLE 17.5. Areas Addressed in the SDH

1. Person Answering Questions
2. Referral Information
3. Parents
4. Primary Caregivers
5. Child Care
6. Family History
7. Brothers/Sisters
8. Child's Residence
9. Family Relations
10. Pregnancy
11. Birth
12. Development
13. Medical History
14. Family Health
15. Friendships
16. Recreation/Interests
17. Behavior/Temperament
18. Adaptive Skills
19. Educational History
20. Additional Comments

Problems, and Learning Problems scales of the TRS and PRS and on the Sensation Seeking, Attitude to School, Attitude to Teachers, and Self-Esteem scales of the SRP. Females tend to score higher than males on the Social Skills, Study Skills, Leadership, and Depression scales of the TRS and PRS and on the Anxiety and Interpersonal Relations scales of the SRP. These differences in scores likely reflect real differences between males and females in the incidence of the indicated behavioral or emotional problems or strengths in adaptive skills.

For these gender differences to be reflected in the normative scores, a common set of norms must be used for both males and females. The General combined-sex norms serve this purpose. General norms answer the question: How commonly does this level of rated or self-reported behavior occur in the general population at this age? Using General norms, more males than females will show high *T*-scores on Aggression, for example, and more females than males will have high *T*-scores on Social Skills. The combined gender or general norms preserve any observed gender difference in the shape and level of the raw score distributions. This is appropriate, and the general norms should be used if one believes that boys and girls are in fact different on various behavioral characteristics (i.e., observed differences are not due to psychometric artifacts). For example, girls score higher than boys on the SRP Anxiety scale (a common finding in research on anxiety, e.g., see Reynolds & Richmond, 1985). In determining which set of norms to use, the clinician must answer the question, "Are girls more anxious than boys, or are they simply more willing to admit to symptoms of anxiety?" If the former is true, the general norms are more appropriate, but in the latter case, the gender-specific norms are the correct choice. Reynolds and Kamphaus (1992) recommend the use of the general norms, a decision with which we continue to concur, but the individual clinician may disagree and opt for the other norms. This allows the clinician more latitude than typically occurs on other behavioral and self-report scales.

### Female Norms and Male Norms

These norms are based on subsets of the General norm sample; each is representative

of the general population of children of that age and gender. The effect of using these separate-sex norms is to eliminate differences between males and females in the distribution of *T*-scores or percentiles. For example, although raw score ratings on the Aggression scale tend to be higher for males than females, use of separate-sex norms removes this difference and produces distributions of normative scores that are the same for both genders.

### Indexes of Validity and Response Set

Several indexes are provided to help the BASC user judge the quality of a completed form. Validity may be threatened by any of several factors including failure to pay attention to item content, carelessness, an attempt to portray a child in a highly negative or positive light, lack of motivation to respond truthfully, or poor comprehension of the items. Information on the development of these indexes and the setting of cutoff scores is provided in Reynolds and Kamphaus (1992).

### *F* Index

The *F* index, included on all of the BASC rating-scale and self-report forms, is a measure of the respondent's tendency to be excessively negative about the child's behaviors or self-perceptions and emotions. The *F* index was developed using traditional psychometric methods associated with Infrequency scales (e.g., see Reynolds, 2001).

On the PRS and TRS, the *F* index is scored by counting the number of times the respondent answered *Almost always* to a description of negative behavior or *Never* to a description of positive behavior. Because responses on the SRP are limited to *True* and *False*, items selected for that *F* index are either extremely negative items to which the child responded *True* or positive items to which the response was *False*. Items were selected for these scales that have a low probability of co-occurrence (i.e., they are seldom endorsed in concert with one another).

The TRS, PRS, and SRP record forms show what levels of *F* index scores are high enough to be of concern. Detailed guidance to interpretation of the *F* index is given in Reynolds and Kamphaus (1992).

## L Index

The *L* index, offered for the adolescent level of the SRP, measures an adolescent's tendency to give an extremely positive picture of him- or herself—what might be called “faking good.” The index consists of items that are unrealistically positive statements (such as “I like everyone I meet”) or are mildly self-critical statements that most people would endorse (such as “I sometimes get mad”). Individuals scoring high on this scale may also be giving the most socially desirable response or possibly are psychologically naive relative to their peers denying common, everyday problems or concerns. The SRP-A record form shows which *L* scores should be of concern.

## V Index

Each level of the SRP includes a *V* index made up of five or six nonsensical or highly implausible statements (such as “Superman is a real person”). The *V* index serves as a basic check on the validity of the SRP scores in general. If a respondent marks two or more of these statements as *True*, the SRP may be invalid.

## BASC ADHD MONITOR

The BASC ADHD Monitor fills a unique role in the assessment of children who are diagnosed with ADHD. The Monitor is the second step in an assessment regimen that is designed to enhance treatment planning and evaluation by thoroughly assessing the primary symptoms of ADHD on a continuing basis. Attention Problems and Hyperactivity constitute the core symptoms used by DSM-IV to define the ADHD syndrome (Kamphaus & Frick, in press). Problems in one or both of these areas are used to differentiate the three subtypes of ADHD: ADHD, predominantly inattentive type; ADHD, predominantly hyperactive-impulsive type; and ADHD, combined type.

Components of the original BASC system serve as the first step in the comprehensive assessment of children suspected of having ADHD. The BASC takes a broad sampling of child behavior to identify the full range of child problems, especially those that may

mimic the symptoms of ADHD. If the initial administration of the BASC reveals problems on the Attention Problems and/or Hyperactivity scales, the diagnosis of ADHD becomes a possibility. Of greater importance, however, is the necessity to use the BASC Teacher, Parent, and Self-Report Forms to rule out co-occurring problems, which can only be done with the initial use of a broad-based measure such as the BASC PRS or TRS (Kamphaus & Frick, in press). This process of ruling out other problems is particularly important for the diagnosis of ADHD, where so many comorbid disorders occur and where other disorders (e.g., childhood depression) may superficially appear to be ADHD. In fact, the use of narrow-band scales of inattention or hyperactivity may result often in overdiagnosis of ADHD.

The Monitor is concerned with treatment design for and evaluation of children with ADHD. The narrowly focused Monitor is designed to assess an expanded range of Attention Problems and Hyperactivity symptoms in a time efficient and practical manner. This additional detail allows the clinician to refine the diagnosis of ADHD and, of greater importance, to design a comprehensive treatment program aimed at reducing the core behavioral problems of inattention and hyperactivity. The Monitor also provides Internalizing and Adaptive Skills scales that further encourage comprehensive treatment planning and evaluation of treatment effectiveness by allowing clinicians to include these important constructs easily in the treatment plan.

The BASC SOS and BASC ADHD Monitor represent a coordinated multiple-step assessment system that allows the clinician to proceed from referral for ADHD to diagnosis, treatment design, and treatment evaluation with greater ease and precision. In order to achieve these assessment objectives, the Monitor utilizes information provided by parents, teachers, and a classroom observer to assess the constructs listed in Table 17.6.

Few tests are designed in a manner that facilitates the repeated collection and dissemination of child information to treatment providers (Kratochwill et al., 1999). The Monitor is designed to meet the unusual practical demands dictated by the need for the repeated assessment of the core

TABLE 17.6. Multistep Assessment with the BASC, ADHD Monitor, and Student Observation System

Component	Scales
Parent Monitor	Attention Problems Hyperactivity Internalizing Problems Adaptive Skills
Teacher Monitor	Attention Problems Hyperactivity Internalizing Problems Adaptive Skills
BASC SOS	Response to Teacher/Lesson Peer Interaction Work on School Subjects Transition Movement Inappropriate Movement Inattention Inappropriate Vocalization Somatization Repetitive Motor Movements Aggression Self-Injurious Behavior Inappropriate Sexual Behavior Bowel/Bladder Problems

symptoms of ADHD. The original BASC is quite sensitive to behavioral changes in individual children and it may be used repeatedly to evaluate treatment effects (Conoley et al., 2001), particularly if a child is found to have multiple problems (e.g., ADHD, depression, anxiety, and conduct disorder) that cannot be fully assessed by the Monitor. In the case of ADHD and its subtypes, however, the Monitor is constructed to allow clinicians to evaluate treatment with greater focus and time efficiency.

The BASC ADHD Monitor is designed to:

1. *Provide accurate and frequent feedback to the prescribing physician.* The physician and other health care workers need accurate information to ensure that a child is receiving the most accurate psychotropic regimen and to adjust dosage. Information about the effects of medication on Hyperactivity, Attention Problems, Internalizing Problems, and Adaptive Skills can aid the physician in making crucial medical treatment decisions.

2. *Ensure that the ongoing assessment of ADHD problems is efficient, timely, and cost-effective.* Given the multiple time demands on parents, teachers, and others, little time remains to complete lengthy or unnecessarily complex rating scales that are not specifically targeted to the needs of the child with ADHD. On the other hand, the Monitor is designed to be adequately thorough in order to allow for the assessment of constructs in addition to the core dimensions of ADHD—Internalizing Problems and Adaptive Skills (Kamphaus & Frick, in press). All these assessment objectives must be achieved in an efficient way given the exigencies of health care. Accordingly, the Monitor is brief, yet it provides coverage of four important domains related to the functioning of the child with ADHD: Attention Problems, Hyperactivity, Internalizing Problems, and Adaptive Skills.

3. *Provide a system of devices that allows for input from multiple informants.* Teacher, parent, and clinician observations are all of potential importance for the treatment process, and communication among these individuals is crucial for effective treatment (Bender, 1997). Each Monitor form is designed to meet the specialized needs of each of these informants.

4. *Emphasize the assessment of specific behavioral outcomes in order to demonstrate accountability for services.* Increasingly, the effectiveness of child services is being challenged, thereby creating the need to assess outcomes. The Monitor assesses the DSM-IV criteria for ADHD and includes items that are written in clear behavioral terms. In addition, the Monitor software is designed to produce output that gives providers and administrators a clear indication of response to treatment. The Monitor is designed to provide clinicians with the information needed to adjust treatment whenever response to intervention is not optimal.

5. *Link assessment to treatment planning and evaluation.* The Monitor is designed to be practical enough to be considered central to the treatment process. Heretofore, physicians and other clinicians have often had difficulty acquiring the feedback needed to adjust treatment. The test and software design of the Monitor was guided throughout by the need to provide information relevant

to treatment. The selection of items and scales, test length, scoring and reporting systems, graphical output, and other Monitor characteristics were all guided by this central objective.

ADHD Monitor interpretation can take several forms depending on the instrument(s) used, theoretical orientation of the clinician, the nature of the evaluation questions posed, and other factors. It is also important to keep in mind that the Monitor is designed to create and evaluate treatment plans. Therefore, interpretation of the scales as diagnostic devices is of considerably lesser importance.

The initial step in evaluating monitor results is that the individual clinician asks whether or not significant change has occurred in response to treatment. For the Parent and Teacher Monitors four questions are generally posed:

1. Is treatment affecting symptoms of inattention?
2. Is treatment affecting symptoms of hyperactivity?
3. Is treatment affecting internalizing symptoms?
4. Is treatment affecting adaptive skills?

The questions related to change are multidimensional and parallel for the SOS, where one may be assessing change at either the item or scale level (discussed in the last half of this chapter). Keep in mind that when scores change, they may show deterioration in some areas, not just improvement. For example, as a child's symptoms of overactivity and inattention, come under control, comorbid symptoms of depression may become more prominent causing scores on the internalizing dimension to elevate.

Even if a significant change in T-scores is apparent there are additional questions to consider.

5. Which scales have changed?
6. Is there a temporal (and potentially causal) relationship between the delivery (or lack thereof) treatment and the observed change?
7. Is the change of "clinical significance"? In other words, regardless of the amount of T-score change are parents or teachers

reporting change that is adequate to reduce functional impairment in their eyes?

We think that establishing the temporal relationship between T-score change and delivery or withdrawal of treatments is of greatest importance. It is our experience that often this relationship is assessed via the speculation or supposition of the clinician. We think that a better way to draw a conclusion regarding the relationship of treatment to behavioral change is to conduct repeat assessments until the relationship is clear. For example, one could see a reduction in attention problems subsequent to the first month's administration of medication. While this change represents a hopeful sign, this pretest-posttest design is probably insufficient to draw such a conclusion definitively. A third set of Monitor ratings taken a few months later that show the same trend would provide more assurance that the conclusion that medication is having an effect is warranted. A set of ratings yielding more symptoms when the child is not taking medication in the summer months or some other time would lend further support for medication effectiveness. We often find that an additional brief assessment clarifies our conclusions to a much greater extent than prolonged theorizing based on more limited data.

Use of the BASC often precedes administration of the ADHD Monitor. There is, however, one important area of interpretive overlap between the BASC and the BASC ADHD Monitor Parent and Teacher Forms. A T-score baseline for treatment evaluation can be obtained from either set of measures. There are two administration scenarios that are most likely.

1. A clinician may administer either or both of the BASC Parent and Teacher Forms during the initial diagnostic evaluation. The obtained T-scores for the Hyperactivity, Attention Problems, Internalizing Problems, and Adaptive Skills scales may be entered into the BASC ADHD software and be used as the baseline against which subsequent administrations of the ADHD Monitor will be compared.
2. A clinician may administer either or both of the BASC ADHD Parent and Teacher

Monitor Forms during the initial diagnostic evaluation. The obtained *T*-scores for the Hyperactivity, Attention Problems, Internalizing Problems, and Adaptive Skills scales will then be used as the baseline against which subsequent administrations of the ADHD Monitor Forms will be compared.

It is important to establish a *T*-score baseline in a timely fashion regardless of the method used. In other words, we advise that a *T*-score baseline be collected during the evaluation phase and prior to implementation of treatment. The ADHD Monitor *T*-scores for Parent and Teacher rating scales serve as the most reliable indicator of behavioral change over time (see Kamphaus & Reynolds, 1998).

## SOS

### Functional Behavioral Assessment with the SOS

The SOS addresses some of the shortcomings inherent in the use of classroom observation techniques. Specifically, the SOS was developed to make practical the use of a momentary time-sampling procedure that adequately samples the full range of a child's behavior in the classroom (Reynolds & Kamphaus, 1992). Several characteristics of the SOS exemplify this effort, including the following:

1. Both adaptive and maladaptive behaviors are observed (see Table 17.1);
2. Multiple methods are used including clinician rating, time sampling, and qualitative recording of classroom functional contingencies;
3. A generous time interval is allocated for recording the results of each time sampling interval (27 seconds);
4. Operational definitions of behaviors and time-sampling categories are included in the BASC manual (Reynolds & Kamphaus, 1992); and
5. Interrater reliabilities for the time-sampling portion are high which lends confidence that independent observers are likely to observe the same trends in child's classroom behavior (Lett & Kamphaus, 1997).

These characteristics of the SOS have contributed to its popularity as a functional behavioral assessment tool. It is crucial, for example, to have adequate operational definitions of behaviors that, in turn, contribute to good interrater reliability. Without such reliability, clinicians will never know whether their observations are unique and potentially influenced by their own biases or idiosyncratic definitions of behavior.

We also think that it is central for observations to simultaneously account for a child's adaptive skills in the classroom. It is only by doing so that a clinician is able to recommend behaviors that should be targeted for instruction, intervention, or strengthening.

Specifically, the BASC SOS Parts A, B, and C, and other components, can contribute to the functional assessment of behavior from multiple perspectives:

- *Behavior Frequency.* SOS Part A ratings of "never observed," "sometimes observed," and "frequently observed." SOS Part B assesses frequencies by category of behavior problem and PRS and TRS ratings tally the frequency of behavior problems.
- *Behavior Duration.* SOS Part B ratings of percentage of time engaged in a particular behavior by category.
- *Behavior Intensity.* SOS Part A ratings of "disruptive." SOS Part B ratings of frequency by category.
- *Antecedent events to Behavior.* SOS Part C descriptions of teacher position, behavior and other variables that precede misbehavior.
- *Consequences of Behavior.* SOS Part C descriptions of teacher behavior, peer behavior, and other variables that follow a behavior.
- *Analysis of Behavior across Settings.* SOS observations made at various times of day and classroom setting. The PRS may be used for the assessment of behavior in the community and home environments.

Other components of the BASC, such as the PRS and TRS, may also be used as part of a functional behavioral assessment paradigm. Given the time-consuming nature of observations, it may be more practical to collect teacher ratings from classrooms

where an observation is not practical and parent ratings in order to assess differences across settings. Observations are central to the ongoing classroom problem-solving and consultation process that is frequently concerned with the ongoing assessment of a child's behavioral adaptation in school as is discussed next (additional functional behavioral assessment guidance may be obtained at [www.air.org/cecp/fbalproblembehavior/strategies.htm#direct](http://www.air.org/cecp/fbalproblembehavior/strategies.htm#direct)).

### Monitoring with the SOS

The SOS is the one component of the BASC ADHD Monitor that may be applied to all children regardless of their diagnosis or classification. In fact, we know of school districts that use the SOS and Monitor Software to evaluate progress toward TEP objectives, assess effects of prereferral intervention, and assess the effectiveness of various special education programming decisions. Some have used the SOS to assess the impact of social work or the services on classroom behavior. Perhaps more than any other BASC component, the SOS was specifically designed to serve the behavioral intervention and evaluation process in the classroom. We now discuss some possible scenarios and examples of applications of the SOS.

#### Medical Effects

Mary's parents are opposed to the use of medication with their child in spite of the fact that numerous behavioral (psychotherapy, play therapy, token economy, etc.) and educational interventions (peer tutor, after school tutor, summer school, preferential seating, etc.) have failed. The SOS may help such reluctant parents gauge the effects of pharmacological interventions on Mary's classroom behavior in a manner that they perceive as more objective than teacher ratings.

In this example an independent, perhaps even case-blind, observer may take SOS observations presomatic therapy, at two or more points after initiation of somatic therapy (perhaps in as few as a couple of weeks to a month after the initiation of medication such as methylphenidate which reaches therapeutic levels rather quickly) or when-

ever dosage or medication is changed. The BASC Monitor Software can then graph Part B (momentary time sampling) results that can be shared with parents, physician, or other service providers and caregivers. Specific behaviors from Part A can be graphed as well but we would expect individual behaviors to be less reliable indicators of change overall.

In this scenario it is crucial to be able to link somatic therapy to change. To do so, the SOS should be collected concurrently with changes in regimens. We think that the 15-minute time sampling is adequate for this purpose based on our experience and the fact that interobserver reliability did not differ for 15- or 45-minute observations (Lett & Kamphaus 1997). In addition, children receiving a variety of medications including psychostimulants, anxiolytics, antidepressants, and antipsychotic medications require careful monitoring of the effects of these drugs on classroom behavior.

#### IEP Objectives

Part A was designed specifically to enhance the development of IEP objectives. Behavior from Part A may then be tracked with the repeated rating of Part A and change graphed by Monitor Software. In fact, some statisticians who have expressed concern about the overreliance on significance testing have noted that graphing is one powerful alternative method for data analysis. We have noted how convincing a graph is to teachers, parents, and others.

We suggest, however, that the clinician observe using Part B prior to completing Parts A and C. We think that the vigilance required to complete the momentary time sampling ensures careful observation that leads to a more accurate rating of the behavior intervention plans in an ongoing fashion.

Finally, because 3 data points are advised to obtain a reliable trend line (Francis, Fletcher, Stuebing, Davidson, & Thompson, 1991), we recommend that, as a minimum, observations be collected at the outset of the school year (after the child has had 1 month to adjust to teachers, peers, etc.), at a midway point when it may be convenient to adjust intervention (certainly March or April of the academic year would be too

late), and just prior to the annual evaluation of IEP goals.

#### Prereferral Intervention

The evaluation of such intervention can occur in the same framework advised for the annual evaluation of IEP objectives but on a shorter timetable. Again, a minimum of 3 data points are advised even if the intervention is designed to be brief (e.g., 1 or 2 months). Consider the following example: Shane is a victim of physical abuse by his mother, resulting in his being placed in foster care for 3 months. At the same time his mother is receiving treatment. He is initiating routine counseling sessions at school for the first time. Shane also has a history of distractibility and truancy at school.

Shane's truancy could be tracked by event recording during this period, and the SOS could assess his classroom behavior during monthly intervals. SOS results could be of some additive value in assessing the value and the effects of the foster care placement and counseling on his classroom behavior.

#### Schoolwide Interventions

While recognizing the impracticality of using the SOS on a large scale, we do think that it could be used for sampling purposes. For example, one or two children deemed to be at risk for aggression could be sampled from each classroom to evaluate the effects of the school's violence prevention program. Good evaluation data are crucial for such programs as some evidence of iatrogenic effects have been noted.

The SOS is designed specifically for classroom-based intervention. SOS results then should not be considered when evaluating home-based intervention unless home and school-based interventions are linked. For example, a homebound reinforcement program may be used to improve behavior at school.

The SOS assesses the frequency of classroom behavioral problems. Consequently, SOS results from Parts A and B may be used to identify behaviors in need of intervention. Specifically, any behavioral problem that is exhibited or adaptive skill that is not exhibited becomes a potential candidate for intervention. Within these groups, problem

behaviors of higher frequency can be given priority for intervention. Analogously, low-frequency adaptive skills also become candidates for intervention.

The SOS is unique among Monitor components in that it allows clinicians to prioritize behaviors for classroom-based intervention. The SOS also measures the "bothersomeness" of a child's behavioral problems via the disruptive category of Part A. Often children display a number of behavioral problems making it difficult to prioritize behaviors for intervention (Schwanz & Kamphaus, 1997). The ratings of disruptiveness can be used to identify behaviors that should be targeted first for treatment.

### OTHER APPLICATIONS OF THE BASC

#### Longitudinal Outcome Research

Various components of the BASC are being used in longitudinal investigations to study the risk, onset, course, and progress of behavioral problems and psychopathology in childhood. Some studies have used the BASC as a measure of child outcomes or as the criterion variable of interest.

Nelson, Martin, Hodge, Havill, and Kamphaus (1999) used the BASC TRS and PRS as outcome criteria to assess the predictive validity of early temperament. Nelson and colleagues predicted that preschool temperament would predict later functional behavioral status as assessed by the BASC. Their hypothesis was supported. They found that three temperament constructs rated by parents at age 3 are associated with BASC-TRS-C ratings at age 8. The assessment of problems early in development via teacher ratings may indicate early risk. These and related findings have considerable impact for the support of early screening and targeted prevention. As teachers use the BASC-TRS, they become quite adept at completing the forms, commonly completing them in 10 or so minutes. A teacher can then complete the BASC-TRS-P for an entire class in about 3 hours. There are few such efficacious approaches to screening for children at high risk for the development of behavioral and emotional difficulties at prereading age levels. The BASC-TRS-P and the -PRS-P are well suited to efficient



screening for identification of high-risk children in the 2½- to 5-year age range.

CHAMPUS, the U.S. military civilian and retiree health care system, began a longitudinal study of adolescents placed in residential treatment centers (RTCs) in 1997. The study is under the direction of Dr. Richard Gaines. Although the data analyses are not yet complete, preliminary analyses and results are reported as being quite good. In this study, CHAMPUS was interested in predicting which adolescents referred for placement would actually benefit from the expensive RTC setting. Gaines (personal communication, 2001) reports that the BASC has been found to have "good predictive power" in this study, although details remain scant at this writing. We expect the BASC will continue to be used in such situations and that it will perform well due to its integrative development process (i.e., a combination of rational, theory-driven, and empirical methods).

Merydith (2000) used the BASC-TRS-A to assess the effects of violence prevention programs conducted in schools. On the basis of the TRS-A and principal's nominations, aggressive adolescents were identified for specific intervention programs. After treatment, the BASC scores showed substantial reductions in means for the treatment versus the control group on relevant scales—some exceeding a full standard deviation. These improvements are viewed as remarkable and suggest the TRS-A is sensitive to the effects of even brief intervention programs such as implemented here. The BASC has also been noted to be sensitive to interventions with Head Start children in the younger age range (see Reynolds & Kamphaus, 2002, for a review).

### Forensic Applications of the BASC

Reynolds and Kamphaus (2002) describe a variety of forensic or court-related applications of the BASC. They also note the many special features of the BASC that make it desirable in forensic settings. One key feature is the various validity scales on the BASC components and the ability to triangulate on behavior. An important factor for clinicians to consider in choosing instruments for forensic evaluations is the presence of scales designed to detect dissimula-

tion (Reynolds, 1997). Dissimulation is the act of making oneself (or in the case of rating scales, the person being rated) appear dissimilar or different in some way from one's actual state. In the legal arena, individuals may have much to gain by appearing to have more or fewer problems than actually exist. Almost any behavioral or emotional disorder can be the subject of dissimulation. As Sattler (1998) notes in his extensive review, dissimulation, especially negative dissimulation or malingering, is difficult to identify. Objective methods are absolutely necessary for the accurate identification of dissimulation and the BASC provides the clinician with one of the few sets of measures for children to detect such problematic responding.

Reynolds and Kamphaus' (2002) review many applications of the BASC in the forensic arena. They suggest the BASC is especially useful in child custody, personal injury (particularly when posttraumatic stress disorder, traumatic brain injury, or emotional pain and suffering are at issue), juvenile certification, determining the needs of adjudicated delinquents, and documenting the need for special educational services.

### SUMMARY

From its SOS to the suite of behavior rating scales, the BASC provides multiple methods for gathering important information for making accurate assessments of children suffering from a wide range of diagnostic as well as subthreshold developmental difficulties. In the absence of a specific diagnostic determination, the BASC provides the ability to determine a child's placement on a continuum of behavior relative to his or her peers, allowing clinicians to make judgments regarding probability of future problems. Because it provides a spectrum of information beyond that necessary for identifying clinical pathologies, the BASC is a useful instrument for professionals called on to make recommendations for children who require intervention plans tailored to both nurture their strengths and buttress their weaknesses. The BASC and other similar rating scales provide important dimensional information on profiles of child behavior that provide a more complete

understanding of a child who may suffer functional impairment but may not meet strict diagnostic criteria under DSM-IV. Children in hospital, school, special education, and other similar settings often fit this profile, requiring accommodations or services without meeting categorical criteria for diagnosis.

The BASC offers a variety of data gathering avenues for clinicians working in school settings who must comply with federal and state standards for educational assessment and monitoring of changes subsequent to intervention. Computerized programs and co-normed scales make cross-informant and multimethod information easy to compare, assimilate, and present to parents and educators. Importantly, the BASC allows clinicians to objectively assess a child's adaptive strengths relative to peers, filling a large gap in available behavioral measurement tools. The BASC ADHD Monitor is a timely and efficient method for measuring medication and behavioral intervention effects in children with ADHD and is the newest element of this comprehensive assessment system. The BASC rating scales have also been used effectively in research, providing sensitive, accurate measurement in a number of longitudinal studies and proven application in forensic evaluations.

## ACKNOWLEDGMENTS

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