INTRODUCTION AND OVERVIEW

The Achenbach System of Empirically Based Assessment (ASEBA) is designed to facilitate assessment, intervention planning, and outcome evaluation among school, mental health, medical, and social service practitioners who deal with maladaptive behavior in children, adolescents, and young adults. The ASEBA rating forms contain items for assessing an individual's competencies and problems as reported by different informants, including parents, parent surrogates, teachers, and day care providers. Forms are also available for rating direct observations in group settings, for rating problems observed and reported during clinical interviews, and for adolescents and young adults to report on their own behavior.

The ASEBA forms provide multiple perspectives on an individual's functioning for standardized assessment and communication between practitioners from various disciplines. The forms and profiles also provide standardized documentation for practitioners' decisions about interventions and referrals. ASEBA forms are fully compatible with other assessment and diagnostic procedures, while providing valuable information not available through other procedures.
THE EMPIRICALLY BASED APPROACH

The empirically based approach to scale development is a hallmark of the ASEBA. This approach can be characterized as working "from the bottom up." That is, it starts with data on numerous items that describe particular behavioral and emotional problems. Informants such as parents, teachers, or the individuals being assessed use standard forms to rate each item on a scale for how true it is over a specific period, such as the past 6 months. Multivariate statistical analyses (such as principal components or factor analyses) are then applied to item scores obtained for large samples of clinically referred individuals to identify sets of problems that tend to occur together. These co-occurring problems constitute syndromes in the literal sense of "things that go together." Scores on the items that compose each syndrome are summed to obtain a total score for the syndrome, which reflects the degree to which an individual manifests the features of the syndrome.

The syndromes are then normed by using data from large samples of non-referred individuals. Raw scores for each syndrome are converted to T scores and percentiles that indicate the individual's standing on each syndrome scale relative to the normative sample. On most of the instruments, separate norms are provided for each gender and for different age ranges. The T scores and percentiles enable users to judge the severity of problems embodied in each syndrome—that is, the degree to which the problem scores for an individual deviate from normal scores found for individuals of the same age and gender.

In addition to syndrome scores, ASEBA profiles provide raw scores, T scores, and percentiles for groupings of syndromes designated as Internalizing and Externalizing, as well as for Total Problems. Internalizing includes emotional problems such as withdrawal, anxiety, depression, and somatic complaints, while Externalizing includes aggressive and delinquent behavior. The Internalizing and Externalizing scales were derived through factor analyses of scores on the syndrome scales.

To facilitate comparisons of reports from different informants, ASEBA computer scoring programs provide cross-informant comparisons of problem scales scored from parents, teachers, and adolescents' self-ratings, as well as from young adults' self-ratings and ratings by young adults' significant others.

Top-Down versus Bottom-Up Assessment

The empirically based approach to assessment and scale development has the advantage of not being dependent on preconceived notions of psychopathology or clinical impressions that often vary across practitioners. This "bottom-up" approach differs from "top-down" approaches that depend on a
priori categorical diagnoses or classifications of problem patterns. The American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV; 1994) and the World Health Organization's *International Classification of Diseases* (ICD-10; 1992) are examples of top-down approaches to assessment. The DSM-IV and ICD-10 diagnostic categories were developed through negotiations among panels of experts who selected the target disorders and defined their symptoms and other descriptive characteristics. The presence or absence of each disorder is usually determined by interviewing referred individuals and/or their significant others (e.g., parents). If the symptoms and conditions required for a disorder are reported, then the individual is said to have the disorder. If the required number of symptoms or conditions are not reported, then the individual is said not to have the disorder even if some symptoms are reported. The ten categories of disabilities defined in the U.S. special education law—the Individuals with Disabilities Education Act (IDEA; Public Law 101-476, 1990; Public Law 105-17, 1997)—are other examples of a top-down classification system.

The empirical identification of syndromes does not involve any assumptions about whether the syndromes reflect diagnostic categories, like the diagnoses of the DSM-IV and ICD-10, nor does it involve assumptions about causes or the developmental course of particular syndromes. Instead, the name of each empirically based syndrome is a descriptive label of the problems it represents, such as Withdrawn or Aggressive Behavior. Scores on the syndromes provide starting points for investigating problem patterns, as reported by various informants. The problem patterns manifested by individual children can then be compared to the patterns that were previously identified in large clinical samples.

In addition to the problem scales, various ASEBA forms provide competence and adaptive scales for scoring an individual's strengths and positive aspects of functioning. Competence scales for children and adolescents assess activities, social involvement, and school performance. The ASEBA profiles thus serve as focal points for assessing the problems and competencies of individual children, communicating with other people about them, targeting interventions, and evaluating outcomes. The next section describes details of each of the currently available ASEBA forms and scoring profiles.

**NATURE OF THE TEST**

For children and adolescents, the ASEBA provides rating forms that can be completed by parents or parent surrogates, youths aged 11 to 18, teachers and day care providers, clinicians conducting interviews, and observers of behavior in group settings (e.g., school classrooms). For young adults aged 18 to 30, the ASEBA provides rating forms for obtaining their own self-ratings.
TABLE 10.1
Forms in the Achenbach System of Empirically Based Assessment

<table>
<thead>
<tr>
<th>Name of form</th>
<th>Filled out by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Behavior Checklist for Ages 1½−5 (CBCL/1½−5)</td>
<td>Parents and surrogates</td>
</tr>
<tr>
<td>Caregiver-Teacher Report Form for Ages 1½−5 (C-TRF)</td>
<td>Daycare providers and preschool teachers</td>
</tr>
<tr>
<td>Child Behavior Checklist for Ages 4−18 (CBCL/4−18)</td>
<td>Parents and surrogates</td>
</tr>
<tr>
<td>Teacher’s Report Form for Ages 5−18 (TRF)</td>
<td>Teachers</td>
</tr>
<tr>
<td>Youth Self-Report for Ages 11−18 (YSR)</td>
<td>Youths</td>
</tr>
<tr>
<td>Young Adult Behavior Checklist for Ages 18−30 (YABCL)</td>
<td>Parents, surrogates, and spouses</td>
</tr>
<tr>
<td>Young Adult Self-Report for Ages 18−30 (YASR)</td>
<td>Young adults</td>
</tr>
<tr>
<td>Semistructured Clinical Interview for Children and Adolescents (SCICA)</td>
<td>Interviewers</td>
</tr>
<tr>
<td>Direct Observation Form (DOF)</td>
<td>Observers</td>
</tr>
</tbody>
</table>

and ratings from people who know them well, such as parents, spouses, and close friends. ASEBA forms can be used for initial assessments as well as for reassessments to monitor change and evaluate outcomes. Table 10.1 summarizes key features of ASEBA forms and scoring profiles. Each of these is described in the next sections.

**Parent and Parent Surrogate Forms**

Because children seldom seek mental health services for themselves, mental health practitioners must obtain data about their functioning from others who know the children. It is a natural part of the intake process for practitioners to request information about child clients from the adults who are responsible for them. ASEBA forms filled out by parents can be routinely used to document parents’ views of their children’s functioning.

**Child Behavior Checklist for Ages 1½−5 (CBCL/1½−5)**

The CBCL/1½−5 (Achenbach & Rescorla, 2000) is a 4-page form to be completed by parents or parent surrogates for children ages 1½ to 5. The first two pages contain 99 specific problem items, plus one open-ended item. For each item, the respondent is asked to circle 0 if it is not true of the child, 1 if it is somewhat or sometimes true, and 2 if it is very true or often true, based on the child’s functioning during the preceding 2 months. Respondents are also asked to describe any additional problems, illnesses, and disabilities that the child has; what concerns them most about the child; and the best things about the
child. Pages 3 and 4 of the CBCL/1½–5 contain the Language Development Survey (LDS) to be completed for all children under age 3, as well as for children over age 3 who are suspected of having language delays. Page 3 asks questions about the child’s birth history and ear infections, languages spoken in the home, and any family history of language problems. Page 3 also asks the respondent to report the child’s best multiword phrases. On page 4, the respondent is asked to circle the child’s spontaneous vocabulary words from a list of 310 words that are among the first learned by most children. The CBCL/1½–5 can be completed by most people in about 10 to 15 minutes.

Ratings of the CBCL/1½–5 problem items are scored on a standardized profile for boys and girls. The profile provides scores for Total Problems, Internalizing, Externalizing, and 7 syndrome scales: Emotionally Reactive, Anxious/Depressed, Somatic Complaints, Withdrawn, Sleep Problems, Attention Problems, and Aggressive Behavior. The syndromes were derived from factor analyses of forms completed for 922 boys and 806 girls aged 1½ to 5 who had been referred to clinical settings or who scored above the median for Total Problems in a 1999 U.S. national sample and five other general population samples (for details, see Achenbach & Rescorla, 2000). In addition to the syndrome and broad scores, the CBCL/1½–5 also provides scores for five DSM-oriented scales. These scales (Affective Problems, Anxiety Problems, Pervasive Developmental Problems, Attention Deficit Hyperactivity Problems, and Oppositional Defiant Problems) are composed of items judged by experienced psychiatrists and psychologists to be consistent with DSM-IV diagnostic categories. The DSM-oriented scales are a new feature of the ASEBA scoring profiles. The CBCL/1½–5 LDS provides raw scores and percentiles for average length of the child’s multiword phrases and for number of spontaneous vocabulary words, based on norms for ages 18–35 months. The CBCL/1½–5 scales were normed on 700 children who had not been referred for mental health or special education services in the past 12 months.

Child Behavior Checklist for Ages 4–18 (CBCL/4–18)

The CBCL/4–18 (Achenbach, 1991b) is the original ASEBA instrument on which other forms have been modeled. It is a 4-page form to be completed by a parent or parent surrogate for children ages 4 to 18. On the first two pages, parents provide information for 20 social competence items, covering their child’s sports participation, hobbies and activities, social organizations, jobs and chores, friendships, relationships with other people, ability to play and work alone, and school functioning. In addition, page 2 provides open-ended items for describing illnesses and disabilities, what concerns the parent most about the child, and the best things about the child. Parents’ reports of their child’s favorite activities, the degree and quality of the child’s involvement in
activities, friendships, and the best things about the child provide practitioners with details of the child's strengths for discussion in clinical interviews with the parents and child.

On pages 3 and 4 of the CBCL/4-18, parents rate their child on 118 specific problem items, such as Acts too young for age, Cries a lot, Cruel to animals, Gets in many fights, Sets fires, and Unhappy, sad, or depressed. Open-ended items are also provided for the respondent to add if the child has physical problems without known medical cause, and/or other problems that are not specifically described on the CBCL. Each item is rated on a 0-1-2-point scale similar to the CBCL/1-5, based on the child's functioning during the preceding 6 months. The CBCL/4-18 can be completed by most parents in about 15 to 20 minutes.

The CBCL/4-18 is scored on separate profiles for boys and girls for ages 4 to 11 and 12 to 18. The profile provides scores for Total Competence, 3 competence scales (Activities, Social, and School), plus Total Problems, Internalizing, Externalizing, and 8 syndrome scales (Withdrawn, Somatic Complaints, Anxious/Depressed, Social Problems, Thought Problems, Attention Problems, Delinquent Behavior, and Aggressive Behavior). The syndrome scales were derived from principal components analyses of forms completed by parents for 4455 children referred for mental health services. The CBCL/4-18 profile was normed on a U.S. nationally representative sample of 2368 children ages 4 to 18.

Young Adult Behavior Checklist (YABCL)

The YABCL (Achenbach, 1997) is designed to assess young adults ages 18 to 30 on the basis of reports by parents, parent surrogates, spouses, and others who know them well. It contains 105 specific problem items, plus 13 socially desirable items. Each item is rated on a 0-1-2-point scale, based on the preceding 6 months. Many of the YABCL problem items are similar to items on the CBCL/4-18. The YABCL can be used to assess young adult parents of children who are receiving services, as well as young adults who are receiving services themselves. It can also be used to assess progress and outcomes for young adults who were previously assessed with the CBCL/4-18. The YABCL can be completed in about 10 minutes.

The YABCL is scored on separate profiles for males and females for ages 18-30. The profile provides scores for Total Problems, Internalizing, Externalizing, and 8 syndromes (Anxious/Depressed, Withdrawn, Somatic Complaints, Thought Problems, Attention Problems, Intrusive, Aggressive Behavior, and Delinquent Behavior). The YABCL syndromes were derived from principal components analyses of 1532 males and females who were either referred for mental health services or who received Total Problems scores at or above the median of a national sample. The profile was normed on 1064 young adults drawn from follow-up studies of the CBCL/4-18 national sample. Because the CBCL/4-18 and the YABCL both have norms for age 18,
users can decide which is the more appropriate form for a particular 18-year-old. The CBCL/4–18 is usually more appropriate for 18-year-olds who live with parents and attend high school, while the YABCL is more appropriate for 18-year-olds who live apart from their parents or no longer attend high school.

Self-Report Forms

As children approach adolescence, they develop better cognitive ability to observe and reflect on their own behavior. To obtain individuals' own views of their competencies and problems, the ASEBA includes self-report forms for youths ages 11 to 18 and young adults ages 18 to 30.

Youth Self-Report (YSR)

The YSR (Achenbach, 1991d) is a self-rating form for youths ages 11 to 18. It requires a mental age of 10 years and fifth-grade-level reading skills. (If reading skills are below fifth-grade level, the YSR can be read aloud to the respondent.) The YSR has most of the same social competence and problem items as the CBCL/4–18, but the items are stated in the first person. Sixteen CBCL/4–18 problem items considered inappropriate to ask youths were deleted and replaced with 16 socially desirable items that enable respondents to say something favorable about themselves. The favorable items are omitted from the Total Problem score. The remaining 102 YSR specific problem items all have counterparts on the CBCL/4–18 and 90 have counterparts on the Teacher's Report Form (TRF) described later. The YSR takes about 15 to 20 minutes to complete.

The YSR is scored on separate profiles for boys and girls ages 11 to 18. The profile provides scores for Total Competence and 2 competence scales (Activities and Social), plus Total Problems, Internalizing, Externalizing, and 8 syndrome scales comparable to those scored on the CBCL/4–18. The YSR syndrome scales were derived from principal components analyses of forms completed by 1272 youths referred for mental health services. The YSR profile was normed on 1315 nonreferred youths drawn from the same U.S. nationally representative sample used to norm the CBCL/4–18.

Young Adult Self-Report (YASR)

The YASR (Achenbach, 1997) is a self-rating form for young adults ages 18 to 30. The YASR has 110 specific problem items and 14 socially desirable items. Most of the problem items are similar to those on the YABCL, except that they are stated in the first person. In addition, the YASR has substance use items and adaptive functioning items that are scored on separate scales. The adaptive functioning items tap relations with friends and family, functioning in
educational and job situations, and relations with spouse or partner, if relevant. The YASR can be completed in about 15 to 20 minutes.

The YASR is scored on separate profiles for males and females ages 18 to 30. The profile provides scores for Total Problems, Internalizing, Externalizing, and 8 syndromes comparable to those on the YABCL. The YASR syndromes were derived from principal components analyses of 1455 males and females who were referred for mental health services or who received Total Problem scores at or above the median of a national sample. The profile was normed on 1059 young adults drawn from the same sample used to norm the YABCL.

**Teacher or Caregiver Forms**

Many children who are referred for mental health services also have problems in school or day care settings. When feasible, it is often helpful for mental health practitioners to request parents' permission to obtain information from teachers or day care providers. ASEBA forms for obtaining teacher and caregiver reports include many of the same items as forms for parents and parent surrogates, but also include items that are specific to school and day care settings. By obtaining data from teachers or day care providers, practitioners obtain perspectives on children's functioning that differ from those of parents. These different perspectives enable practitioners to identify both similarities and differences in how a child appears to adults who play different roles in the child's life and see the child in different contexts. Reports by teachers or caregivers can also reveal strengths, problems, and other aspects of children's functioning that may not be evident to parents or evident in clinical settings.

**Caregiver-Teacher Report Form (C-TRF) for Ages 1½–5**

The C-TRF (Achenbach & Rescorla, 2000) is a 2-page form to be completed by day care providers or preschool teachers for children ages 1½ to 5. The C-TRF has 99 specific problem items, most of which are the same as the CBCL/1½–5 items. However, some items unique to the C-TRF concern problems that are more apt to be observed in day care and preschool settings than at home. For each item, caregivers rate the child on a 0-1-2 scale for how true the item is now or within the past 2 months. The C-TRF takes about 10 minutes to complete.

The C-TRF is scored on separate profiles for boys and girls ages 1½ to 5. The profile provides scores for Total Problems, Internalizing, Externalizing, and 6 syndromes similar to those on the CBCL/1½–5 (Emotionally Reactive, Anxious/Depressed, Somatic Complaints, Withdrawn, Attention Problems, and Aggressive Behavior). The C-TRF syndromes were derived from factor analyses of 1113 children who were referred for mental health or special ed-
ucation services or who had Total Problem scores at or above the median for their gender in general population samples. The C-TRF profile also provides scores for the same 5 DSM-oriented scales as the CBCL/1½–5. The C-TRF profile was normed on 1192 boys and girls who had not been referred for services.

**Teacher's Report Form (TRF)**

The TRF (Achenbach, 1991c) is a 4-page form to be completed by teachers of children ages 5 to 18. On the first 2 pages, teachers provide information about the child's academic performance and school adaptive functioning. Teachers also rate the child's school performance using a 5-point scale ranging from 1 (far below grade level) to 5 (far above grade level) for each academic subject. For adaptive functioning, teachers rate the child on 7-point scales in four areas: how hard he/she is working, how appropriately he/she is behaving, how much he/she is learning, and how happy he/she is. Additional space is provided for optional reports of ability and achievement test scores and current services for the child. On pages 3 and 4 of the TRF, teachers rate the child on 118 specific problem items, of which 93 have counterparts on the CBCL/4–18. The remaining items concern school behaviors that parents would not observe, such as Difficulty following directions, Fails to carry out assigned tasks, and Disrupts class discipline. Teachers rate the child on a 0-1-2 scale for how true each item is now or within the past 2 months. The TRF can be completed by most teachers in about 15 to 20 minutes.

The TRF is scored on separate profiles for boys and girls ages 5 to 11 and 12 to 18. The profile provides scores for Adaptive Functioning, Academic Performance, Total Problems, Internalizing, Externalizing, and 8 syndrome scales comparable to those scored on the CBCL/4–18 and YSR. The TRF Attention Problems scale can also be scored on Inattention and Hyperactivity-Impulsivity subscales for evaluations of these particular types of problems (see Achenbach, 1996; Achenbach & McConaughy, 1996, 1997). The TRF syndrome scales were derived from principal components analyses of forms completed for 2815 children referred for mental health or special education services. The TRF profile was normed on 1391 children drawn from the same U.S. nationally representative sample used to norm the CBCL/4–18 and YSR.

**Direct Observation Form (DOF)**

The DOF (Achenbach, 1986) is designed for rating direct observations of school-aged children in group situations, such as in classrooms or at recess. During a 10-minute period, the observer writes a narrative description of the child's behavior in space provided on the DOF form. The observer also checks boxes to indicate whether the child is on-task at the end of each 1-minute interval within the 10-minute period. After completing the observation, the
observer rates the child on 96 specific problem items, using a 0-1-2-3-point scale for whether the item was observed during the 10-minute period. The DOF has 86 items that overlap with those on the TRF and 73 that overlap with those on the CBCL.

DOF ratings are scored on a combined profile for boys and girls ages 5 to 14. The profile provides a mean on-task score, and scores for Total Problems, Internalizing, Externalizing, and 6 syndrome scales (Withdrawn-Inattentive, Nervous-Obsessive, Depressed, Hyperactive, Attention Demanding, and Aggressive). The DOF syndrome scales were derived from principal components analyses of forms completed for 212 children referred for mental health or special education services. The profile was normed on 287 nonreferred children.

Because children's behavior may vary considerably from one occasion to another, at least three 10-minute samples of behavior on different days should be obtained. The DOF computer program can average all item and scale scores for up to six observation sessions. It then prints a profile based on the averaged scores. To compare a child's observed problems with those of other children in the same setting, the program can also print a profile of scores from one or two comparison children averaged over multiple occasions. DOF observations can be done by paraprofessionals such as teacher aides and child-care workers. The DOF is especially useful for documenting specific behaviors in classrooms and in other contexts such as group activities in residential facilities. Using the DOF, direct observers may detect behaviors that are not readily assessable by other means.

Semistructured Clinical Interview for Children and Adolescents (SCICA)

The SCICA (McConaughy & Achenbach, 1994) is a semistructured interview protocol for use by experienced clinical interviewers. Because it covers the topics typically included in initial clinical interviews, it is particularly well-suited for intake evaluations. The SCICA is also appropriate for special education evaluations of emotional and behavioral disorders (McConaughy, 1996, 2000; McConaughy & Achenbach, 1996). The SCICA protocol form provides instructions, open-ended questions, activities (e.g., kinetic family drawing), and tasks for screening fine- and gross-motor functioning. Additional questions for ages 13 to 18 cover somatic complaints, substance use, and trouble with the law. In columns provided on the protocol form, the interviewer separately notes observations of the child's behavior and the child's self-reported problems and responses. The SCICA takes from 60 to 90 minutes to administer, depending on whether brief achievement tests are included to assess the child's academic functioning.

After the SCICA is completed, the interviewer scores a set of 120 specific observation items that describe the child's behavior during the interview and
a second set of 114 items that describe the child’s self-reported problems. For ages 13 to 18, the SCICA rating form contains 19 additional self-report items. Each item is scored on a 0-1-2-3-point scale for whether the problem was observed or reported by the child during the interview.

The SCICA ratings are scored on a combined profile for boys and girls ages 6 to 12. The profile provides scores for Total Observations, Total Self-Reports, Internalizing, Externalizing, and 8 syndromes (Anxious/Depressed, Anxious, Family Problems, Withdrawn, Aggressive Behavior, Attention Problems, Strange, and Resistant). Scores on the Anxious/Depressed, Family Problems, and Aggressive Behavior scales are based on ratings of the child’s self-reported problems, while scores on the remaining 5 syndromes are based on the interviewer’s observations. The SCICA profile differs from other ASEBA profiles by providing scores that compare the individual to other clinically referred children instead of comparing the individual to nonreferred children from a normative sample. A revision of the SCICA in 2001 will offer scoring profiles for ages 6 to 11 and 12 to 18.

**TECHNICAL INFORMATION**

All the ASEBA profiles are available in hand-scored and computer-scored versions. Hand-scoring instructions and templates enable clinicians or clerical staff to score the forms in 10 to 15 minutes. Computer-scoring takes less time and has the additional advantages of providing cross-informant comparisons for instruments with comparable scales, such as the CBCL/4-18, TRF, and YSR. Prior to 1999, computer-scoring software was available only in DOS versions, which are described in the various manuals for the ASEBA forms. In fall 1999, Windows 95/98/NT software was released for generating new versions of the ASEBA profiles, as described in the next section.

**ASEBA Assessment Data Manager (ADM)**

The ASEBA Windows software contains modules for entering and scoring each rating form, plus an optional program for comparing multisource data. The program, called the Assessment Data Manager (ADM), provides a new way to manage ASEBA data. It coordinates data from multiple forms completed for each child, while also enabling users to link other data to ASEBA data. In fall 2000, ADM version 2.0 was released for ages 1½ to 30, including modules for entering and scoring the CBCL/1½–5, CBCL/4–18, C-TRF, TRF, YSR, YABCL, and YASR. A SCICA module will be released in 2001. Scoring and interpretation of ASEBA profiles are similar for each ASEBA form. In addition, there is an ADM module for scoring machine-readable scan forms (scan
module) and a module that enables parents, teachers, and youths to enter their own data (client-entry module). Interpretation of ASEBA profiles is described in a later section.

**Reliability of ASEBA**

The manuals for the various ASEBA forms report extensive research on the reliability of the ASEBA scales. Reliability data are summarized in this section for the 9 ASEBA instruments listed in Table 10.1.

**Test-Retest Reliability**

Test-retest reliability indicates the degree to which scale scores obtained from the same informants remain consistent over brief periods during which the subject's competencies or problems are not likely to change. The ASEBA forms for parents, teachers, and self-reports all showed strong test-retest reliabilities. For the CBCL/4–18, 1-week test-retest reliabilities were .87 for Total Competence, .93 for Total Problems, .89 for Internalizing, .93 for Externalizing, and .82 to .95 for the 8 syndrome scales, with an average $r$ of .89 across all scales. For the TRF, 15-day test-retest reliabilities were .93 for Adaptive Functioning and Academic Performance, .95 for Total Problems, .91 for Internalizing, .92 for Externalizing, and .82 to .96 for the 8 syndrome scales, with an average $r$ of .92 across all scales. For the YSR, 1-week test-retest reliabilities were .80 for Total Competence, .79 for Total Problems, .80 for Internalizing, .81 for Externalizing, and .47 to .81 for the 8 syndrome scales, with an average $r$ of .72 across all scales. For the CBCL/1½–5 and C-TRF showed comparable test-retest reliabilities, with average $r$s of .85 and .76, respectively, across all problem scales. The YABCL and YASR showed 1-week test-retest reliabilities of .87 and .84, respectively, averaged across all scales.

For the SCICA, test-retest reliabilities were obtained by McConaughy and Achenbach (1994) for a sample of 20 American children ages 6 to 12 and by Kasius (1997) for a sample of 35 Dutch children ages 6 to 16. In both samples, children were seen in counterbalanced order by two different interviewers over a mean interval of 12 days. Test-retest correlations were .81 to .89 for Total Observations, .73 to .84 for Total Self-Reports, .55 to .69 for Internalizing, .84 to .90 for Externalizing, and .54 to .87 for 7 of 8 SCICA syndromes. Only the Withdrawn syndrome showed a nonsignificant test-retest correlation ($r = .30$) in the American sample, suggesting that children varied from one time to the next on this dimension. This was not the case in the Dutch sample, where the reliability was $r = .87$. No significant differences in mean scores were found in either the American or Dutch sample from Time 1 to Time 2 on any SCICA scale. Although these samples were relatively small, the lack of time effects showed that the SCICA did not manifest the attenuation effects that have been found for structured diagnostic interviews (Jensen et al., 1995).
Interrater Reliability

Also important to know is the degree to which two comparable raters agree on scores on the same instrument. Evaluations of interrater agreement must take into account the relatively greater agreement that usually occurs between informants who have similar relationships with the subject (e.g., two teachers in the same classroom or two parents), in contrast to lesser agreement between informants who have different relationships with the subject or who see the subject in different situations (e.g., a parent versus a teacher). Accordingly, meta-analyses of 119 studies showed an average correlation of .60 for agreement between similar informants, in contrast to average correlations of .28 between different informants and .22 between different informants and children's self-ratings (Achenbach, McConaughy, & Howell, 1987).

In keeping with the meta-analytic findings, interrater agreement for ASEBA scores was highest for informants who had similar relationships with the subjects. Interparent agreement on the CBCL/4-18 was .79 for Total Competence and .76 for Total Problems, .65 for CBCL/1½-5 Total Problems, and .63 for YABCL Total Problems. Interrater agreement between two teachers on the TRF was .55 for Adaptive Functioning and .60 for Total Problems. Interrater agreement between pairs of caregivers and teachers on the C-TRF was .72 for Total Problems.

Cross-informant agreement between different types of raters on the ASEBA forms was also consistent with meta-analytic findings. Using data reported by Achenbach (1991a) for different gender and age groups, McConaughy (1993a) computed the following average rs for cross-informant agreement across scales of the CBCL/4-18, TRF, and YSR: .37 between parents and teachers, .38 between parents and youths' self-ratings, and .27 between teachers and youths' self-ratings. For the YACBL and YASR, the average r was .42 across all scales for parent ratings versus young adults' self-ratings (Achenbach, 1997).

Several studies have shown strong DOF interrater reliabilities between two observers of children in the same classroom, with average rs ranging from .86 to .92 for Total Problems and .83 to .90 for on-task scores (Reed & Edelbrock, 1983; McConaughy, Achenbach, & Gent, 1988; McConaughy, Kay, & Fitzgerald, 1998). There were also low to moderate significant correlations between DOF scores and scores on comparable scales of the CBCL/4-18 and TRF (Reed & Edelbrock, 1983; McConaughy et al., 1988).

Interrater reliabilities were obtained for SCICA raw scores from interviewers and videotape observers for an American sample (McConaughy & Achenbach, 1994) and a Dutch sample (Kasius, 1997). Interrater reliabilities were .52 to .61 for Total Observations, .58 to .79 for Total Self-Reports, .64 to .66 for Internalizing, .72 to .74 for Externalizing, and .45 to .85 for the 8 syndromes. Mean scores for interviewers were significantly higher than mean scores for videotape observers, suggesting that interviewer ratings may reflect more
awareness of problems than ratings from those that viewed videotapes. Finally, moderate significant correlations have been found between comparable scales of the SCICA and CBCL/4–18, TRF, and DOF for the same subjects (Kasius, 1997; McConaughy & Achenbach, 1994). The moderate correlations indicated that data obtained from the SCICA did not completely overlap with data obtained from other sources.

**Validity of the ASEBA**

Validity concerns the accuracy with which procedures measure what they are supposed to measure. Because the ASEBA aims to provide standardized descriptions of the competencies and problems of subjects as reported by different informants as well as to discover useful patterns of co-occurring problems, validity must be judged from multiple perspectives.

**Content Validity**

The ASEBA problem items were chosen to describe behavioral and emotional problems that might be related to referral of subjects to mental health or other types of services. Content validity was demonstrated by significant differences between matched samples of clinically referred and nonreferred subjects for most problem items on each of the ASEBA forms. Referred children scored significantly higher than nonreferred children on 113 of 118 CBCL/4–18 problem items, 112 of 118 TRF items, 95 of 102 YSR items, 91 of 99 CBCL/1½–5 items, and 80 of 99 C-TRF items, as reported in the respective manuals. Because the items for allergies and asthma did not discriminate referred from nonreferred children, they are not included in the Total Problem scores for the CBCL/4–18 and YSR. All but 1 of the 105 YABCL and 110 YASR problem items discriminated clinically referred from nonreferred young adults.

**Criterion-Related Validity**

Criterion-related validity was tested by comparing matched samples of referred and nonreferred subjects on each of the CBCL/4–18, TRF, and YSR competence and problem scales (Achenbach, 1991b, 1991c, 1991d). Referred children scored significantly higher than nonreferred children on all CBCL/4–18 and YSR problem scales, and on all TRF problem scales except Somatic Complaints. Referred children scored significantly lower than nonreferred children on all CBCL/4–18 competence scales and all YSR competence scales except Activities. Referred children also scored lower than nonreferred children on the TRF academic performance and adaptive functioning scales. Referred preschool children scored significantly higher than nonreferred children on all CBCL/1½–5 and C-TRF problem scales (Achenbach & Rescorla,
Referred young adults scored significantly higher than nonreferred young adults on all YABCL and YASR problem scales (Achenbach, 1997).

The criterion-related validity of the DOF was demonstrated in studies showing significant differences on DOF scales between children with behavioral disorders and matched controls in the same classroom (Reed & Edelbrock, 1983), between children with different behavior problem profile types (McConaughy et al., 1988), between teacher-identified children with attention-deficit/hyperactivity disorder (ADHD) and controls, and between ADHD Inattentive and Hyperactive/Impulsive subtypes (Skansgaard & Burns, 1998). The DOF also showed significant differences between children at-risk for behavioral or emotional problems whose parents and teachers participated in a primary prevention program and matched controls whose parents and teachers did not participate in the program (McConaughy, Kay, & Fitzgerald, 1999, 2000).

The criterion-related validity of the SCICA was tested by comparing demographically matched samples of referred and nonreferred children (McConaughy & Achenbach, 1994). Referred children scored significantly higher than nonreferred children on all SCICA scales except Anxious, for which \( p = .09 \). In addition, children classified as having emotional or behavioral disorders (EBD) requiring special education services scored significantly higher than matched nonreferred children on the SCICA Anxious/Depressed, Withdrawn, Attention Problems, Strange, and Resistant syndromes, as well as on Externalizing, Total Observations, and Total Self-Reports (McConaughy & Achenbach, 1996). Combinations of SCICA, CBCL/4–18, and TRF scales produced exceptionally high classification rates for children with EBD versus nonreferred children, with misclassifications of only 3 to 4% in discriminant analyses.

**CLINICAL SIGNIFICANCE**

Besides reliability and validity, it is important to consider the clinical utility of assessment procedures. ASEBA aims to document, sharpen, and standardize descriptions of children's functioning as seen by different informants. The quantification of descriptive data enables practitioners to determine the degree of deviance indicated by each informant's reports and to measure change from one occasion to another, such as from pre- to postintervention. Empirically based data can contribute directly to case formulations, the choice of interventions, and the evaluation of outcomes. A growing body of research has documented biological and psychological correlates of ASEBA syndromes (Achenbach & McConaughy, 1997). Numerous studies have also demonstrated the applicability of empirically based procedures to many kinds of behavioral, emotional, and medical conditions; types of interventions; and outcome evaluations. Berube and Achenbach (2000) list over 3500
publications that report use of ASEBA forms in 50 different countries. ASEBA forms have also been translated into 60 languages.

Empirically based assessment can help practitioners answer many kinds of questions that arise in contexts such as managed care, school settings, mental health services, residential treatment, child custody and placement decisions, evaluations of child abuse, and delinquency adjudications. Empirically based assessment is also applicable to behavioral and emotional functioning associated with illness, physical disabilities, and mild mental retardation. For example, a particular case may raise questions simultaneously about child custody, placement, abuse, and delinquency adjudication. Another case may involve a child who is ill, mentally retarded, and has a physical disability. Because it is seldom possible to understand a child’s needs solely in terms of a single assessment question, ASEBA procedures can be integrated with other procedures to address multiple questions about children’s functioning. Procedures, sequences of assessment, and integration of findings can then be tailored to specific questions that need to be answered, as discussed by Achenbach and McConaughy (1997).

**Gender Differences**

One important assessment-related question concerns possible differences in particular kinds of problems when they occur in males versus females. For several forms, ASEBA’s gender-specific norms automatically take into account differences in problem and competence scores for males versus females. For example, males require higher raw scores than females to score in the borderline or clinically deviant ranges on the CBCL/4–18 Aggressive Behavior syndrome. This reflects the general tendency for males to show more aggressive behavior than females in normative samples. In contrast, the DSM-IV diagnosis of Conduct Disorder (CD) applies the same criteria equally to males and females, even though research has demonstrated significant gender differences for CD symptoms in nonreferred samples (Zoccolillo, 1993). On the CBCL/4–18, males also require higher raw scores than females to score in the borderline to clinical range on the Attention Problems syndrome. Females require higher raw scores than males to score in the borderline to clinical range on the Anxious/Depressed syndrome.

**Long-Term versus Short-Term Problems**

Another assessment-related question is whether a child’s behavioral and emotional problems reflect chronic long-term patterns, or acute or transient short-term problems. Short-term problems may reflect developmental changes or situation-specific reactions. Distinguishing between long-term
and short-term problems is often important for practitioners working in organizations that have long-term responsibilities to children, such as schools, health maintenance organizations (HMOs), or institutions. Such organizations need to tailor services depending on whether problems are acute or chronic. For example, research studies have suggested that adolescent-onset delinquent behavior may be specific to a particular developmental period and to particular environmental conditions (Moffitt, 1993). In contrast, aggressive behavior tends to be more stable and chronic across the life span (Achenbach, Howell, McConaughy, & Stanger, 1995a, 1995b; Stanger, Achenbach, & Verhulst, 1997).

Record reviews and parent interviews are often used to assess the duration of children's problems. In certain settings, ASEBA forms can also be administered over several intervals, such as every 2 months, 6 months, or 12 months, to assess whether problems are short-term or long-term. In mental health clinics and institutional settings, practitioners can administer ASEBA forms over regular intervals to monitor children's functioning during treatment. Similarly, ASEBA forms can be used to assess short- and long-term outcomes after termination of treatment or discharge from institutional placement. ASEBA forms can also be used to screen for behavioral and emotional problems at different intervals in settings such as schools and pediatric clinics.

Types of Interventions

Yet another assessment-related question is whether to implement interventions for identified problems on an individual basis (e.g., individual counseling), a small-group basis (e.g., small-group therapy for anxious children), or a large-group basis (e.g., social skills instruction). The ASEBA profiles can facilitate choices between individual and group interventions by helping practitioners identify children who all have similar problem patterns that can be addressed in group interventions. When children with similar profiles are identified in settings where group interventions are feasible, the profiles can guide the interventions. Following an intervention, the ASEBA forms can be readministered to evaluate outcomes by comparing the scale scores obtained by each child before and after the intervention. Settings that might utilize group interventions include schools, HMOs, residential treatment centers, psychiatric hospitals, and group homes.

When a child's adaptive functioning or home or school situation is very poor, questions arise about alternative placements. Along with information about the current environment, ASEBA profiles can be used to determine whether an individual's behavioral or emotional problems are severe enough to warrant alternative placements. Particular patterns of problems on the syndrome scale can also be examined to select placements that are best suited...
to a child's type of problems and treatment needs. This kind of information can be especially valuable in assessing needs for community mental health services, social services, and special education for emotional and behavioral problems.

**Compatibility with Other Assessment Procedures**

The ASEBA is compatible with other commonly used assessment procedures, including cognitive and achievement tests, family assessment, personality tests, developmental history interviews, medical examinations, and behavioral assessment. ASEBA forms can supplement other procedures with little cost or effort, while contributing data not likely to be obtained by other methods. Accordingly, Achenbach and McConaughy (1997) described a multiaxial model for assessment that includes parent reports, teacher reports, physical assessment, cognitive assessment, and direct assessment of the child. Various ASEBA forms are included in 3 of 5 assessment axes for different developmental age ranges.

**COMMON PATTERNS AND INTERPRETATION**

**Syndrome Scales**

Figure 10.1 shows the ADM-scored profile of syndrome scales for Sirena Johnson (not her real name) based on ratings by her mother on the CBCL/4–18. The profile displays each of the 8 CBCL/4–18 syndromes, with Internalizing syndromes on the left and Externalizing syndromes on the right side. Beneath the name for each syndrome is the total score (i.e., the raw sum of the “1” and “2” ratings for each item) followed by the T score and the percentile for the syndrome total score. Individual items that constitute the syndrome are listed below these three scores along with the rating for each item.

The profile also shows two broken lines that demarcate the borderline and clinical ranges for the syndrome scores. T scores from 67 (95th percentile) to 70 (98th percentile) are in the borderline clinical range, which indicates enough problems to be of concern, but not so many problems as to be clearly deviant from norms for the child's gender and age range. T scores above 70 are in the clinical range, which indicates clinical deviance from normative samples. To flag T scores that warrant attention, a “B” is printed to the right of scores in the borderline range and a “C” is printed to right of scores in the clinical range. Thus, according to the profile in Figure 10.1, Sirena scored in the borderline clinical range for Anxious/Depressed (T = 67) and Delinquent Behavior (T = 70), and in the clinical range for Aggressive Behavior (T = 82). This means that Sirena's mother was reporting more problems in these three areas than typically reported by parents of girls ages 12 to 18.
Figure 10.1
Total Problems, Internalizing, and Externalizing

In addition to the syndrome profile, the ADM produces a bar graph of the Total Problem, Internalizing, and Externalizing scores, as shown in Figure 10.2 for Sirena's CBCL/4-18. For these broad scales, T scores of 60 to 63 demarcate the borderline clinical range, while T scores above 63 demarcate the clinical range. As with the syndrome scales, broken lines on the profile show these cut points for the borderline and clinical ranges. These lower (less conservative) cut points are used for Total Problems, Internalizing, and Externalizing because these scales have more numerous and diverse items than do the syndrome scales. Figure 10.2 shows that Sirena scored in the borderline clinical range for Internalizing and in the clinical range for Externalizing and Total Problems compared to normative samples of girls ages 12 to 18. The right-hand side of the profile contains a list of other problems rated on the CBCL/4-18 that are not included in the syndrome scales. These other problems, except for Allergy and Asthma, are included in the Total Problems score.

Profile Types and Clinical T Scores

In the lower portion of the graphic display in Figure 10.2, scores for the CBCL/4-18 profile types are shown in boxes. The profile types are patterns that have been identified by cluster analyzing CBCL/4-18 profiles of syndrome scores obtained by children referred for mental health services (Achenbach, 1993). The left-hand box displays intraclass correlations (ICC) that indicate the degree to which an individual child's overall pattern of problems on the syndrome scales resembles profile types identified for the CBCL/4-18, TRF, and YSR. The right-hand box displays ICCs that indicate the degree to which a child's profile pattern resembles profile types that were identified only on the CBCL/4-18. An ICC above .444 indicates a significant association between an individual profile and a profile type. (An ICC of .444 is approximately equivalent to a Pearson r of .59.) With an ICC of .572, Sirena's CBCL/4-18 showed significant similarity to the Delinquent-Aggressive profile type.

Beneath the boxes that display the ICCs, the figure shows clinical T scores that indicate how Sirena's scores compare to large samples of clinically referred children of the same gender and age range. These scores, with a mean of 50 and standard deviation of 10, can be used to judge the similarity of a child's syndrome scale scores with scores from other clinically referred children. This is in contrast to the T scores in Figure 10.1 that compare the child's scores to normative samples. For Sirena, the clinical T scores indicated problems within 1 standard deviation of the means for clinical samples on 6 of 8 syndromes, but problems more than 1 standard deviation above the mean for Aggressive Behavior.
FIGURE 10.2
Other ASEBA Profiles

The ADM scoring system provides problem profiles similar to those shown in Figures 10.1 and 10.2 for each of the first 7 ASEBA forms listed in Table 10.1. In addition, profiles are provided for the CBCL/4–18 and YSR competence scales, the TRF academic performance and adaptive scales, and the YASR adaptive and substance use scales. Currently, computer-scored profiles for the DOF and SCICA are generated by separate DOS-based computer-scoring programs. An ADM module for the SCICA will be released in 2001.

ADVANTAGES AND DISADVANTAGES OF THE ASEBA

Advantages of ASEBA Forms and Profiles

The ASEBA offers several advantages for mental health providers, school psychologists, and other practitioners. First, the various rating forms provide quick and economical methods for obtaining information on children's competencies and problems. This efficiency in data gathering allows practitioners to devote more time to aspects of assessment that are not amenable to rating scales. For example, by having forms completed prior to interviews, practitioners can spend more time interviewing parents and teachers about aspects of their relationships and environments that may exacerbate or alleviate problems identified on the ASEBA forms. Second, the large pool of items on the ASEBA forms enables practitioners to assess a broad range of potential problems rather than focusing only on the most immediate or salient referral complaints. Third, the information obtained on the ASEBA forms is quantifiable and amenable to psychometric standards of reliability and validity, as discussed earlier. Fourth, the aggregation of individual items and scores into scales enables ASEBA users to organize diverse information into groupings of competencies and problem patterns. Fifth, the empirically based syndrome scales reflect patterns of co-occurring problems as reported by different types of informants. Sixth, the different but related ASEBA forms enable users to easily compare and integrate information reported by multiple informants across diverse situations.

Advantages of ASEBA ADM Software

The ADM modular software has several additional advantages for ASEBA users. First, the software provides improved, easy-to-read profiles, which can be output to a computer screen and to printers. Second, it produces narrative reports that can be imported to word processors and then integrated into user-generated documents. Importing the narrative reports can reduce the time required for writing psychological evaluation reports and clinical case
notes. Computer-generated reports can also help guarantee accuracy in citing scores for the various ASEBA scales and interpreting levels of deviance. Third, the ADM software provides cross-informant comparisons for up to 8 ASEBA forms per person. The cross-informant comparisons are especially useful for integrating information from multiple perspectives, as discussed later in this article. Fourth, the software provides extra fields for adding the user's own variables and provides a database for automatically storing ASEBA data. Finally, in settings such as community mental health centers, hospitals, and large school districts, the ASEBA scan forms and client-entry program facilitate more efficient collection and storage of data.

Disadvantages of the ASEBA

Although the ASEBA offers many advantages to practitioners, it is also important to be aware of its limitations. One limitation is that the ASEBA is not designed to dictate specific forms of treatments or placement recommendations. This limitation applies to most other assessment procedures as well. ASEBA forms are designed to describe and quantify an individual's competencies and problems as reported by multiple informants. Practitioners must then integrate ASEBA data with other information to develop appropriate interventions.

A second limitation is that ASEBA syndrome or broad problem scores may not be as useful as direct observations for identifying specific target behaviors for individual behavioral intervention programs (BIP). For a BIP, direct observations and functional assessment are usually employed to identify and select a small number of specific behaviors that can be targeted in interventions (Kratochwill, Sheridan, & Lasecki, 1999; Nelson, Roberts, & Smith, 1998). However, high scores on certain ASEBA syndromes can pinpoint patterns of problems, such as attention problems or aggressive behavior, that warrant further behavioral assessment. Within these broad areas, practitioners can then focus direct observations and functional analysis on specific behaviors, such as failing to complete assignments or getting into fights. These specific behavior problems can then become targets for BIPs. To develop a BIP, baseline data are collected on each target behavior prior to an intervention. During and after interventions, additional data are obtained to measure changes in the target behaviors (for detailed discussions of observational techniques, functional analysis, and designing BIPs, see Kratochwill et al., 1999; McComas, Hoch, & Mace, 2000; Nelson et al., 1998).

Finally, as indicated earlier, ASEBA syndromes do not directly correspond to classification systems such as the DSM-IV, the ICD-10, or special education disability categories. While the lack of correspondence to categorical classifications might be considered a limitation, it also has the advantage of encouraging careful clinical thinking and integration of ASEBA data with
other information for making diagnoses or disability determinations (see Achenbach & McConaughy, 1996; McConaughy, 1993b; McConaughy & Ritter, in press).

**RECOMMENDATIONS AND CASE EXAMPLE**

The case of 12-year-old Sirena Johnson, whose CBCL/4–18 profiles were shown earlier, illustrates the practical uses, interpretation, and integration of data from various ASEBA forms. Sirena was referred for a psychoeducational evaluation by her seventh-grade teachers who were concerned about her poor academic performance and possible emotional problems. When Sirena first arrived at Bailey Junior High School, she seemed shy and was hardly noticed. After her first month in school, however, her teachers began to worry about her appearance and attitude. Although she was an attractive girl, she often came to school in baggy, dirty clothes and seemed tired and “out of it.” Sometimes she missed classes with no excuse from home. Other times she left classes complaining of headaches and stomachaches, for which the school nurse could find no medical causes. As time went on, Sirena became increasingly moody and defiant, especially when confronted about missing assignments. On some days, she exploded for no apparent reason, which led to detentions in the principal’s office. Sirena seemed especially volatile in Mr. Marks’s math class. She was more cooperative in Ms. Lee’s English class, especially when she could choose her own reading materials and themes for writing assignments. When first-quarter grades were released, Sirena was failing or near-failing in 3 of her 5 courses. It was then that her teachers referred her to the school’s multidisciplinary team (MDT) for a psychoeducational evaluation. After discussing the situation with the school psychologist, Sirena’s mother, Martha Johnson, consented to the evaluation and agreed to complete the CBCL/4–18. Sirena’s math and English teachers completed TRFs, and Sirena completed the YSR prior to an appointment with the school psychologist for a clinical interview and cognitive assessment. The special educator also administered individual achievement tests to assess her current academic performance.

**Parent Report**

Figures 10.1 and 10.2 showed the pattern of Sirena’s problems, as reported by her mother on the CBCL/4–18. The profiles indicated severe internalizing and externalizing problems, with borderline clinical scores on the Anxious/Depressed and Delinquent Behavior syndromes and a clinical range score on the Aggressive Behavior syndrome. On the CBCL/4–18 competence scales (not shown in the figures), Sirena scored in the normal range on the Activities scale, in the clinical range on the Social scale, and in the borderline range.
on the School scale. Her Total Competence score was in the clinical range. On the competence scales, low scores indicate poor functioning, whereas on the problem scales, high scores indicate poor functioning. (For Total Competence, T scores from 37 to 40 [10th to 16th percentiles] are in the borderline range and T scores below 37 [below the 10th percentile] are in the clinical range. For the Activities, Social, and School scales, T scores of 30 to 33 [2nd to 5th percentiles] are in the borderline range and T scores below 30 are in the clinical range [below the 2nd percentile].) Ms. Johnson reported that although Sirena liked some sports and performed some chores at home, she had no hobbies, belonged to no social organizations, had only one close friend, and did things with friends outside of school less than once a week. Ms. Johnson's ratings of Sirena's school performance were also low, consistent with reports of poor grades from her teachers.

**Teacher Reports**

On their TRFs, Mr. Marks and Ms. Lee both scored Sirena in the clinical range for Adaptive Functioning (T < 37; < 10th percentile), reflecting low ratings of how hard she was working, how appropriately she was behaving, how much she was learning, and how happy she was compared to typical pupils in the same classes. On the TRF problem scales, Mr. Marks's ratings produced Total Problems, Internalizing, and Externalizing scores in the clinical range, while Ms. Lee's ratings produced a clinical range score for Internalizing and borderline clinical scores for Externalizing and Total Problems. On the TRF syndrome scales, both Mr. Marks and Ms. Lee scored Sirena in the borderline clinical range for Somatic Complaints and Anxious/Depressed, while Mr. Marks also scored her in the borderline clinical range for Delinquent Behavior and Aggressive Behavior. These results indicated that both teachers reported more internalizing problems than are typically reported by teachers of girls ages 12 to 18, but that Mr. Marks reported more severe externalizing problems than Ms. Lee. Both teachers scored Sirena below clinical cut points on the TRF Attention Problems syndrome and the Inattention and Hyperactive/Impulsive subscales, indicating that Sirena was not manifesting unusually high attention problems.

**Sirena's Self-Ratings**

On the YSR, Sirena’s ratings of her competencies produced clinical range scores on the Total Competence and Social scales, but a normal range score on the Activities scale. These YSR scores were similar to the competence scores obtained from Ms. Johnson's CBCL/4–18. On the YSR problem scales, Sirena’s self-ratings produced a clinical range score for Externalizing, but normal range scores for Internalizing and Total Problems. Sirena scored herself
in the clinical range on the Delinquent Behavior scale and in the borderline clinical range on the Aggressive Behavior scale. These high scores indicated that Sirena acknowledged more delinquent and aggressive behavior than is typical for 11- to 18-year-old girls. Sirena’s scores on all other YSR scales were in the normal range, although she did endorse several items on the Anxious/Depressed scale as “sometimes or somewhat true,” including I think about killing myself. She also scored I worry a lot as “very true or often true.”

Cross-Informant Comparisons

To provide a visual comparison of profile scores from multiple informants, the ADM computer program prints side-by-side scores for each of the 89 items that are similar across the CBCL/4–18, TRF, and YSR syndrome scales. Figure 10.3 shows the item comparisons for Ms. Johnson’s CBCL/4–18, the TRFs completed by Sirena’s teachers, and Sirena’s YSR. By examining the cross-informant printout, the practitioner can quickly identify the items on which most informants agree and those on which reports vary. For Sirena, the school psychologist could see that all four informants, including Sirena, endorsed 6 items on the Aggressive Behavior scale (argues, demands attention, mood changes, talks too much, teases, and temper). However, Ms. Lee (TRF2) reported fewer problems on the Aggressive Behavior scale than the other informants. In addition, Ms. Johnson and both teachers endorsed 6 items on the Anxious/Depressed scale (lonely, feels worthless, nervous, fearful, self-conscious, and sad), while Sirena endorsed 4 of these same problems plus others on the same scale. Headaches, nausea, and stomachaches on the Somatic Complaints scale were reported by the two teachers and Sirena, but not Ms. Johnson.

In addition to the item-by-item comparisons, the ADM program computes and prints Q correlations between scores by pairs of informants on the 89 common items, as shown in Figure 10.4. The correlations obtained for each pair of informants are then compared to correlations obtained for large reference samples of the same types of informants—for example, pairs of parents and teachers. As shown in Figure 10.4, the printout indicates whether the correlations obtained for each informant pair were below average, average, or above average compared to the reference group. Using this information, the school psychologist could see that although the four informants did not always score each item the same way, their level of agreement was generally average to above average compared to reference samples of similar informant pairs.

Figure 10.5 shows the ADM printout of bar graph comparisons for Sirena’s total scores on each of the 8 syndrome scales. This display makes it easy for practitioners to compare scale scores across informants. Figure 10.5 shows that Sirena’s teachers were the only ones to score her in the borderline clinical range for Somatic Complaints, but that her teachers and her mother...
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<td>001</td>
<td>12</td>
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<td>002</td>
<td>12</td>
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<td>Classroom Teacher (F)</td>
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**CBC TRF TRF YSR**

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<th>TRF</th>
<th>YSR</th>
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<td>65.Want Talk</td>
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<td>69.Secretive</td>
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<td>0</td>
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<td>102.Not Energy</td>
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**IV. Social Problems**

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<th>TRF</th>
<th>YSR</th>
</tr>
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<td>1</td>
</tr>
<tr>
<td>12.Lonely</td>
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<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>13.Confuse</td>
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<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>14.Odd</td>
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<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>31.Perfect</td>
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<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>33.Unloved</td>
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<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>34.OutToGet</td>
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<td>0</td>
<td>0</td>
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<tr>
<td>35.Wordless</td>
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<td>0</td>
<td>0</td>
<td>1</td>
</tr>
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<td>45.Nervous</td>
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<td>0</td>
<td>0</td>
<td>1</td>
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<tr>
<td>52.Shy</td>
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<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>71.Secretive</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>80.Struggles</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>103.Sad</td>
<td>0</td>
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<td>112.Worries</td>
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<td>0</td>
<td>0</td>
<td>1</td>
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**VIII. Delinquent Behavior**

<table>
<thead>
<tr>
<th>Item</th>
<th>CBC</th>
<th>TRF</th>
<th>TRF</th>
<th>YSR</th>
</tr>
</thead>
<tbody>
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<td>5.ActOppSex</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>18.HarmSelf</td>
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<td>0</td>
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<td>1</td>
</tr>
<tr>
<td>29.Fears</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>30.Forget</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>36.Accidents</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>44.Blame</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>46.Twitch</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>55.Overweight</td>
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<td>0</td>
<td>1</td>
</tr>
<tr>
<td>58.PicksSkim</td>
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<td>0</td>
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<td>1</td>
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<tr>
<td>79.SpeechProb</td>
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<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>83.StoleUp</td>
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<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>91.ThinksSuicide</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tbody>
</table>

**FIGURE 10.3**

Windows-scored cross-informant comparisons of problem item scores for Sirena Johnson. From the cross-informant comparison-problem items common to the CBCL/TRF/YSR. Copyright 1999 by T. M. Achenbach, University of Vermont, 1 South Prospect St., Burlington, VT 05401-3456, http://Checklist.uvm.edu. Reprinted from permission of the author.
### Q Correlations Between Item Scores

<table>
<thead>
<tr>
<th>Forms</th>
<th>Informants</th>
<th>Cross-Informant Agreement</th>
<th>Reference Group 25th %ile</th>
<th>Mean</th>
<th>75th %ile</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBCI x TRF2</td>
<td>Biological Mother x Classroom Teacher {F}</td>
<td>Average</td>
<td>0.13</td>
<td>0.07</td>
<td>0.19</td>
</tr>
<tr>
<td>CBCI x TRF3</td>
<td>Biological Mother x Classroom Teacher {M}</td>
<td>Above average</td>
<td>0.43</td>
<td>0.07</td>
<td>0.19</td>
</tr>
<tr>
<td>CBCI x YSR4</td>
<td>Biological Mother x Self</td>
<td>Average</td>
<td>0.34</td>
<td>0.22</td>
<td>0.33</td>
</tr>
<tr>
<td>TRF2 x TRF3</td>
<td>Classroom Teacher {F} x Classroom Teacher {M}</td>
<td>Above average</td>
<td>0.65</td>
<td>0.29</td>
<td>0.43</td>
</tr>
<tr>
<td>TRF2 x YSR4</td>
<td>Classroom Teacher {F} x Self</td>
<td>Average</td>
<td>0.10</td>
<td>0.08</td>
<td>0.17</td>
</tr>
<tr>
<td>TRF3 x YSR4</td>
<td>Classroom Teacher {M} x Self</td>
<td>Above average</td>
<td>0.29</td>
<td>0.08</td>
<td>0.17</td>
</tr>
</tbody>
</table>

**FIGURE 10.4**


scored her in the borderline clinical range for Anxious/Depressed. Ratings by Sirena, Ms. Johnson, and Mr. Marks also produced high scores on Delinquent Behavior and Aggressive Behavior, whereas Ms. Lee's ratings were much lower on these scales. The ADM cross-informant program also prints a separate bar graph display for cross-informant comparisons of Internalizing, Externalizing, and Total Problems scores plus the ICCs for the cross-informant profile types (not shown). Along with the visual displays of syndrome profiles for each ASEBA form, the cross-informant bar graphs can be especially useful for presenting and summarizing evaluation results in MDT meetings.

### Clinical Interview with Sirena

The school psychologist administered the SCICA to further assess Sirena's emotional and behavioral functioning and her own views of her problems, feelings, and life circumstances. Sirena was generally cooperative during the SCICA and answered most questions, though she was initially reluctant to discuss her feelings. As the interview progressed, she became more open, acknowledging feelings of worthlessness, worrying about her poor school performance, and feeling sad and lonely much of the time. She was candid about getting into trouble at school and sometimes in the community. She reported frequent arguments with her mother and with her math teacher, Mr. Marks, whom she felt did not like her. She also reported associating with kids in the neighborhood who shoplifted, but felt that she had no real close friends and seemed unsure of how to make friends. For much of the SCICA, Sirena appeared sad and apathetic, though her mood brightened when she discussed her interests in animals and natural science. She was occasionally restless and fidgeted with her clothing, but her conversation was generally logical and coherent.

On the SCICA profile, Sirena scored above the 80th percentile for self-reported problems on the Anxious/Depressed and Aggressive Behavior
FIGURE 10.5

syndromes. Since SCICA scores are based on a clinical sample rather than a normative sample, Sirena's high scores on these two scales indicated more problems than most other clinically referred 6- to 12-year-old children. Sirena scored near the 50th percentile on the SCICA Family Problems, Attention Problems, and Withdrawn syndromes, indicating problems typical of other clinically referred children. Much lower scores on the SCICA Anxious, Strange, and Resistant syndromes indicated fewer problems on these scales than most other clinically referred children.

**Conclusions and Recommendations for Sirena**

Cognitive testing indicated that Sirena had average overall intelligence, but high average verbal ability. Individual achievement testing indicated low average to average academic skills. The tests revealed no signs of specific learning disabilities that might account for Sirena's poor performance in school, although she lacked some basic math skills. In contrast, the combined results from the various ASEBA profiles indicated severe emotional and behavioral problems compared to normative and clinical samples. The ASEBA profiles were especially useful in demonstrating the severity of Sirena's internalizing problems, as well as her highly aggressive behavior.

Based on the results of the comprehensive evaluation, the MDT recommended that Sirena and Ms. Johnson seek individual and family counseling from the local community mental health agency. In addition, the MDT determined that Sirena qualified for special education services under the IDEA category of emotional disturbance (ED). A behavioral incentive plan was initiated at school, along with remedial services in math and accommodations in other classes to improve homework completion. A behavior modification program, coordinated between home and school, was also implemented to reduce aggressive behavior.

Sirena's low scores on the CBCL/4–18 and YSR Social scale suggested limited social involvement. Her teachers and mother all reported that she did not get along with other children. To address these problems, Sirena was enrolled in small-group sessions, led by the school psychologist, that focused on coping strategies and making friends with nondelinquent peers. The MDT also capitalized on Sirena's love for animals by arranging an after-school job at the local humane society. With the agreement of Ms. Johnson, the MDT planned to administer the CBCL/4–18, two TRFs, and the YSR again at the end of the school year to evaluate Sirena's progress.

**INSIGHTS FROM EXPERIENCE**

**Special Education Evaluations of ED**

The example of Sirena Johnson illustrated the use of ASEBA forms in a case that originated from teacher referrals for a psychoeducational evaluation. In
school settings, the ASEBA forms can be used to evaluate emotional and behavioral problems as well as adaptive functioning and social competencies. The ASEBA forms are particularly useful for special education evaluations of ED, as defined in the IDEA (Achenbach & McConaughy, 1997; McConaughy, 1993a, 1993b; McConaughy & Achenbach, 1999; McConaughy & Ritter, in press). The IDEA specifies the following characteristics as indicative of ED: (a) an inability to learn that cannot be explained by intellectual, sensory, or other health factors; (b) an inability to build or maintain satisfactory interpersonal relationships with peers or teachers; (c) inappropriate types of behavior or feelings under normal circumstances; (d) a general pervasive mood of unhappiness or depression; or (e) a tendency to develop physical symptoms or fears associated with personal or school problems. To qualify as having ED, a child must show 1 or more of these 5 characteristics, and there must be evidence that the characteristic(s) has been exhibited over a long period of time and to a marked degree, and adversely affects educational performance.

Along with other data, scores on the ASEBA profiles can be used to assess whether a child's patterns of problems fits the IDEA definition of ED. For example, borderline to clinical range scores on the CBCL/4–18, TRF, and/or YSR Anxious/Depressed syndromes would show supporting evidence of the ED characteristic, a pervasive mood of unhappiness, especially if most informants endorsed items such as Unhappy, sad, or depressed and Feels worthless, as was true in Sirena's case. Similarly, borderline to clinical range scores on the Withdrawn and Social Problems syndromes would show supporting evidence of the ED characteristic, inability to build or maintain relationships, while borderline to clinical range scores on the Aggressive Behavior syndrome would show evidence of inappropriate behavior or feelings under normal circumstances.

After identifying particular patterns of problems that are characteristic of ED, the practitioner can use ASEBA norms and the borderline and clinical cut points to judge whether the problems meet the IDEA severity criterion of marked degree. Finally, low scores on the CBCL/4–18 School scale, TRF Adaptive Functioning, TRF Academic Performance, and low DOF on-task scores can be combined with findings from academic assessment to demonstrate whether the child's emotional and behavioral problems are having adverse effects on educational performance.

Assessment of ADHD

The ASEBA forms, along with other procedures such as structured diagnostic interviews, can be very useful in assessment of ADHD, as defined by the DSM-IV. The ASEBA Attention Problems scale contains many items similar to the symptoms of inattention and hyperactivity/impulsivity required for DSM-IV diagnoses of ADHD. In addition, the TRF Inattention and Hyperactivity-Impulsivity subscales provide scores that can be used in conjunction with other data to judge whether children exhibit the Inattentive,
Hyperactive-Impulsive, or Combined type of ADHD (Achenbach, 1996; Achenbach & McConaughy, 1997). As with evaluation of ED, the norms and cut points on the ASEBA syndromes facilitate judgments about the severity of attention problems, as reported by parents and teachers.

The ASEBA Attention Problems scores can be integrated with symptom reports from structured diagnostic interviews and other test data to formulate a diagnosis of ADHD and its subtypes. Thus, while the ASEBA Attention Problems syndrome is not synonymous with the DSM-IV diagnosis of ADHD, it can add important normative information, obtained efficiently and at low cost, for making such a diagnosis (for details of ADHD assessment, see Barkley, 1990 and DuPaul & Stoner, 1994). Likewise, scores on other ASEBA syndromes can facilitate DSM-IV diagnoses that are descriptively similar, such as ASEBA Anxious/Depressed scores for DSM-IV diagnoses of Dysthymia or Major Depression, and ASEBA Aggressive Behavior and Delinquent Behavior scores for diagnoses of conduct disorder or oppositional defiant disorder (Achenbach & McConaughy, 1996).

Screening for Problems and Communication among Professionals

The ASEBA forms can also be used to screen for emotional and behavioral problems even when such problems are not the stated reason for referral. For example, when a teacher refers a child for evaluation of learning disabilities, the TRF can be used to screen for other problems such as anxiety, attention problems, depression, social problems, or aggressive behavior. If some TRF problem scores fall in the borderline or clinical range, then the evaluation plan can be broadened to include the CBCL/4–18, YSR, DOF, and/or the SCICA, as deemed appropriate.

Because the ASEBA forms are widely used by mental health and medical practitioners as well as school practitioners, they can facilitate communication across these professions. The profiles scored from the ASEBA forms provide a common language among professional groups who use them. For example, in Sirena Johnson's case, the school psychologist who conducted her initial psychological evaluation could forward scored ASEBA profiles (with appropriate consent) to professionals in the community mental health center who were to provide individual and family interventions. Various professionals involved in a case can also use follow-up ASEBA profiles to communicate with each other about changes in an individual's functioning, as discussed below.

Evaluation of Progress and Outcomes

After appropriate periods of time, the ASEBA forms can be readministered to monitor progress and evaluate individual outcomes. By comparing broad
scores and syndrome scores from Time 1 to Time 2, the practitioner can determine specific areas where problems have declined and other areas where they may have remained the same or increased. These comparisons can help determine where interventions need to be altered to produce desired results. Similar changes in competence or adaptive scores can be used to target areas of strength. After interventions have been completed, the ASEBA forms can be administered again in several months to assess outcomes. High problem scores on outcome evaluations may indicate need for further or different interventions.

Mental health and school professionals may also be involved in evaluating the effects of particular programs on groups of clients as well as on individual clients. The ASEBA forms can easily be incorporated into plans for group outcome evaluation, as has been done in some large mental health programs (e.g., Greenbaum et al., 1996). To conduct program evaluations, it is important to assess clients' preservice functioning as well as to examine scores for functioning after implementation of services. ASEBA forms can be used for both pre- and postassessment. To determine whether any improvements in scores can be attributed to the program itself, it is also important to assess a comparison group of clients who did not receive the program or who received a different program. Comparison of pre- and posttreatment scores on the ASEBA scales can then determine whether those who received Program A improved more than those who received Program B or no service. Because long-term effects of certain interventions may differ from immediate effects, it is desirable to repeat the ASEBA at longer intervals to determine if initial improvements continue. McConaughy, Kay, and Fitzgerald (1999, 2000) described this approach in their evaluation of 1- and 2-year outcomes of a school-based prevention program for elementary-aged children at-risk for emotional and behavioral problems.

CONCLUSION

The ASEBA is a family of standardized rating forms for evaluating an individual's problems and competencies, assessed from multiple perspectives. Because an individual's behavior is likely to vary from one situation to another, no one perspective can completely capture the full range of functioning. The ASEBA thus offers practitioners cost-effective forms for multi-perspective assessment, as well as empirically based scoring profiles for organizing assessment information. The ADM computer-scoring programs and modules offer additional methods for comparing information across informants and producing narrative reports that can be imported into evaluation reports. The well-demonstrated reliability and validity of the ASEBA warrants confidence in individual assessment findings. In addition, a vast ASEBA research base of over 3500 studies in 50 countries has enriched our understanding of the
patterns and developmental course of psychopathology from early childhood through the transition to young adulthood.

References
Achenbach, T. M. (1993). Empirically based taxonomy: How to use the syndromes and profile types derived from the CBCL/4-18, TRF, and YSR. Burlington, VT: University of Vermont, Department of Psychiatry.


Few people would question the importance of social competence in the overall development and adjustment of children and adolescents. The ability to interact successfully with peers and significant adults is one of the most important aspects of a child's development. Moreover, the degree to which children and youth are able to establish and maintain satisfactory interpersonal relationships, gain peer acceptance, make friendships, and terminate negative or pernicious interpersonal relationships defines social competence and predicts adequate long-term psychological and social adjustment (Kupersmidt, Coie, & Dodge, 1990; Parker & Asher, 1987).

Social competence is also important because it is a component in the development of a variety of childhood disorders such as oppositional, defiant, and conduct disorders. For example, the development of oppositional, defiant, and antisocial behavior begins early in life and is stable over time (Kazdin, 1987). Oleweus (1979) found that aggressive antisocial behavior was as stable as measures of intelligence over 1-year ($r = .76$) and 5-year ($r = .69$) intervals for boys with antisocial behavior patterns. Developmentally, antisocial behavior begins early in life (2–3 years) and continues throughout the school years (Patterson, DeBaryshe, & Ramsey, 1989). School entry is a particularly critical period for children having early-onset difficulties in social behavior. Reid and Patterson (1991) suggested that many children exhibiting antisocial behavior patterns before school entry will continue coercive and aggressive behavior patterns with peers and teachers upon school entry and
beyond. Without early identification and intervention, this behavior pattern will be maintained throughout their school careers and into adulthood. When children come to school with an oppositional, antisocial style of interacting, they fail to acquire and perform appropriate social skills in school and other settings.

Additionally, social competence is important for students demonstrating significant deficits or delays in cognitive, academic, and emotional/behavioral functioning. Such students may be classified into one of several so-called high-incidence disability groups specified in the Individuals with Disabilities Education Act (IDEA, 1997). These groups include students with specific learning disabilities, emotional disturbance, mild mental retardation, and attention-deficit/hyperactivity disorder (ADHD), all of whom are eligible for special education and related services as “Other Health Impaired” or under Section 504 of the Rehabilitation Act of 1973.

Psychologists, special educators, and other professionals who deal with children and youth on a consistent basis clearly require the knowledge and ability to conceptualize and assess social skills. This chapter presents readers with practical information and strategies for the conceptualization and assessment of social skills in children and youth. Before discussing specific assessment instruments and procedures, this chapter provides a brief discussion of the theoretical and empirical background on social competence. The theoretical work discussed has guided much of the development of assessment instrumentation. This chapter also includes some common patterns of social skills functioning and interpretative hypotheses of these patterns. Finally, a case study illustrates the assessment of social skills and gives intervention recommendations based on this assessment information.

THEORETICAL AND EMPIRICAL FOUNDATIONS

Definitional Issues

A recent comprehensive review of definitions of social skills by Merrell and Gimpel (1998) indicated that there were 15 definitions that have been used in the literature. Gresham (1986, 1998a) suggested that, although there are numerous social skill definitions, three general definitions or conceptualizations can be distilled from the literature on children’s social skills.

One definition can be termed the peer-acceptance definition, which defines a person as socially skilled if peers accept him or her. This definition was featured in the work of many prominent researchers in the child development literature (Asher & Hymel, 1981; Gottman, 1977; Ladd, 1981; Oden & Asher, 1977). The major drawback of a peer-acceptance definition is that it does not identify what specific behaviors lead to peer acceptance.

Another definition—termed the behavioral definition—defines social skills
as behaviors that increase the likelihood of being reinforced and decrease the likelihood of being punished or extinguished contingent upon one's social behavior. This definition has historically been endorsed by researchers operating from an applied behavior analytic or behavior therapy perspective (Bellack & Hersen, 1979; Foster & Ritchey, 1979; Strain, 1977; Strain, Cooke, & Apolloni, 1976). The major disadvantage of this definition is that it does not ensure that the behaviors identified are in fact socially significant behaviors that result in socially important outcomes. In other words, merely increasing the frequency of certain behaviors that are identified a priori as "social skills" does not establish the social validity of those behaviors (Wolf, 1978).

A third definition of social skills, based on the work of McFall (1982), has been termed the social validity definition. According to this definition, social skills are specific behaviors or behavior patterns that predict or otherwise result in important social outcomes for children and youth (Gresham, 1983, 1998b). Socially important outcomes represent outcomes that treatment consumers consider important, adaptive, and functional (Hawkins, 1991; Wolf, 1978). In short, socially important outcomes are those outcomes that make a difference in terms of an individual's functioning or adaptation to societal expectations. Socially important outcomes may include peer acceptance and friendships (McConnell & Odom, 1986; Newcomb, Bukowski, & Patee, 1993; Parker & Asher, 1987), teacher and parental acceptance (Gresham, 1992, 1998b; Gresham & Elliott, 1990; Merrell, 1993; Walker & McConnell, 1995a, 1995b), and school adjustment (Gresham & MacMillan, 1997; Hersh & Walker, 1983; Walker, Irvin, Noell, & Singer, 1992).

The social validity definition also distinguishes between the concepts of social competence and social skills. In this view, social skills are specific behaviors that an individual exhibits to perform competently on a social task. Social competence is an evaluative term based on judgments that a person has performed a social task competently. These judgments may be based on opinions of significant others (e.g., teachers, parents, and peers), comparisons to explicit criteria (e.g., number of social tasks correctly performed), and/or comparisons to a normative sample. In short, the social validity definition considers social skills to be specific behaviors that result in judgments about those behaviors (McFall, 1982).

### Social Competence and Social-Behavioral Expectations in School

Schools are generally accessible to all children, their parents, and teachers, thereby making it an ideal place for teaching and refining students' social behavior. Schools are a microcosm of society and a place where students and adults work, play, eat, and live together for 6 hours per day, 5 days per week, and at least 180 days per year. By grade 5, children will have spent a minimum
of 5400 hours in school (Gresham, 1997). During this time, children are exposed to literally hundreds of thousands of social interactions with peers and adults. As such, schools are a major socializing institution in society. For many children, school entry represents a particularly difficult period, putting them at-risk for problems in peer social interactions and relationships.

One way of understanding how children are considered at-risk for social competence difficulties is to examine the social behavior standards expected or set by significant others in the environments in which children function. For example, the standards, expectations, and tolerance levels that teachers hold for students' social behaviors influence teaching behaviors as well as peer interactions in classrooms (Hersh & Walker, 1983). Brophy and Good (1986) indicated that students perceived as being brighter or more competent receive more teacher attention, are given greater opportunities to respond, are praised more, and are given more verbal cues during teaching interactions than students perceived as being less competent.

Most teachers would consider a behavioral repertoire to be indicative of successful adjustment if: (a) academic performance (e.g., listening to teacher, completing tasks, and complying with teacher directions) is facilitated, and (b) disruptive or unusual behaviors challenging the teacher's authority and disturbing the classroom ecology (e.g., cheating, stealing, or deflecting the teacher) are absent (Gresham & Reschly, 1988; Hersh & Walker, 1983). Most students with high-incidence disabilities (e.g., specific learning disabilities, emotional disturbance, mild mental retardation, and ADHD) are considered problematic based on difficulties in their "teachability." Teachability represents a pattern of social behavior that Hersh and Walker (1983) call a model behavior profile expected by most teachers. Many, if not most, students with high-incidence disabilities probably were referred originally for assessment and placement into special education based on substantial deviations from this model behavioral profile.

Walker et al. (1992) presented a useful empirically based conceptual model of interpersonal social-behavioral competence for school settings (see Figure 11.1). This model describes both adaptive and maladaptive teacher and peer social-behavioral domains and outcomes. The adaptive teacher-related adjustment behaviors operationalize the model behavior profile described above and results in teacher acceptance and school success. The maladaptive domain is characterized by behaviors that disturb the classroom ecology and result in teacher rejection, school failure, and referral to special education.

The social behaviors in the adaptive peer-related adjustment domain are substantially different from those in the teacher-related adjustment domain. These behaviors are essential for the formation of friendships and peer acceptance (e.g., cooperation, support, and assistance of peers), but have little to do with classroom success and teacher acceptance. The maladaptive behaviors in this domain are likely to result in peer rejection or neglect (e.g., disruption, starting of fights, and bragging), but share many similarities with
The maladaptive behaviors in the teacher-related maladaptive domain. This model of social-behavioral functioning is essential for understanding the referral process and the goals and outcomes of social skills interventions, and predicting the outcomes of attempts to include all students with disabilities in general education classrooms.

**Taxonomy of Social Skills**

A great deal of empirical research has focused on developing a taxonomy or dimensional approach to classifying maladaptive behaviors. Achenbach has developed a reliable and valid classification system of externalizing and internalizing behavior patterns that are reflected in teacher, parent, and student rating scales (Achenbach, 1991a, 1991b, 1991c). McConaughy (see Chapter 10) discusses these instruments in greater detail. Quay and Peterson (1987) developed a similar taxonomy using the Behavior Problem Checklist.
More recently, Reynolds and Kamphaus (1992) developed the Behavioral Assessment System for Children (BASC), which uses a dimensional approach that emphasizes maladaptive behavior patterns in children and adolescents.

A recent synthesis by Caldarella and Merrell (1997) provided another taxonomy in a review of 21 investigations using 19 social skills rating scales or inventories. Studies in this synthesis of factor analytic research included 22,000 students ranging from 3–18 years of age with about equal gender representation across studies. Teacher rating scales were used in approximately three-quarters of the studies, with parent- and self-report measures being used in about 19 percent of the studies. Peer sociometrics were used in about 5 percent of the studies.

Table 11.1 presents Caldarella and Merrell's taxonomy, which includes five broad social skills domains: (a) peer relationships, (b) self-management, (c) academic, (d) compliance, and (e) assertion skills. This taxonomy provides useful directions for selecting target social skills for more in-depth assessment and intervention. A number of these social skill domains have been used in published social skills curricula and intervention programs (Elias & Clabby, 1992; Elliott & Gresham, 1992; Goldstein, 1988; Walker, McConnell, Holmes, Todis, Walker, & Golden, 1983). Caldarella and Merrell point out that their taxonomy is useful because it: (a) provides a nomenclature to refer to typical social skill patterns, (b) identifies a profile of social skill dimen-

### Table 11.1

<table>
<thead>
<tr>
<th>Domain</th>
<th>Number of studies</th>
<th>Percentage of studies</th>
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</thead>
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<td>52.38%</td>
</tr>
<tr>
<td>Self-Management</td>
<td>11</td>
<td>52.38%</td>
</tr>
<tr>
<td>Academic</td>
<td>10</td>
<td>47.62%</td>
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<td>Compliance</td>
<td>8</td>
<td>38.09%</td>
</tr>
<tr>
<td>Assertion</td>
<td>7</td>
<td>33.33%</td>
</tr>
</tbody>
</table>

sions on which students may have relative strengths and weaknesses, (c) can be used to design interventions to teach social skills, (d) can be used to measure the outcomes of social skills interventions, and (e) can facilitate theory development concerning the causes, prognosis, and responsiveness of students to social skill intervention procedures.

**Classification of Social Skills Deficits**

An important aspect of social skills assessment that has clear relevance for designing interventions is an accurate classification of the specific type(s) of social skill deficits a child may have. Gresham (1981a, 1981b) first distinguished between social skill *acquisition* and *performance* deficits. This distinction is important because it suggests different intervention approaches in remediating social skills deficits and may indicate different settings for carrying out social skills training (e.g., pullout groups versus contextually based interventions in naturalistic settings). A third type of social skill deficit may be called a *fluency* deficit, in which a child may know how to and wants to perform a given social skill, but executes an awkward or unpolished performance of that social skill. A fluency deficit in this sense is similar to readers who can accurately decode words, but render slow, dysfluent reading performances.

Social skill *acquisition deficits* refer to the absence of knowledge for executing a particular social skill even under optimal conditions. Social *performance deficits* represent the presence of social skills in an individual's behavioral repertoire, but the failure to perform these skills at an acceptable level in particular situations. Acquisition deficits can be thought of as "Can't do" or skill deficits whereas performance deficits are "Won't do" or motivational deficits. Fluency deficits stem from a lack of exposure to a number of competent models for particular social behaviors, from lack of practice, or from inadequate behavioral rehearsal of newly taught or infrequently used social skills.

Gresham and Elliott (1990) extended this social skills classification model to include the notion of *competing problem behaviors*. In this classification scheme, two dimensions of behavior—social skills and competing problem behaviors—are combined to classify social skills difficulties. Competing behaviors can include internalizing or overcontrolled behavior patterns (e.g., anxiety, depression, or social withdrawal) or externalizing behavior patterns (e.g., aggression, impulsivity, disruption). Figure 11.2 presents this social skills classification model.

The two-dimensional social skill deficit classification model depicted in Figure 11.2 is pivotal in linking assessment results to interventions for social skills deficits. It is inappropriate to teach a social skill to children who already have that skill in their repertoires (i.e., children with a performance deficit). Similarly, intervention procedures designed to increase the performance of a social skill (e.g., prompting or reinforcement) are not efficient in remediating acquisition deficits. Finally, children with fluency deficits do not require that
a skill be taught nor require antecedent/consequent procedures to increase the frequency of a behavioral performance. Instead, these children require more practice (i.e., opportunities to respond) and rehearsal (repetitions) of the skill for adequate and socially effective behavioral performances.

### SOCIAL SKILLS ASSESSMENT METHODS

A variety of methods have been used to assess the social skills of children and youth, and many of these methods can provide useful information regarding the prosocial and competing problem behaviors. The tactic taken in this chapter is to focus on behavioral assessment procedures for assessing social skills. Although behavioral assessment shares many of the same methods with so-called traditional assessment, these two approaches differ dramatically in the assumptions they make about behavior, its "causes" or controlling variables, and the use of assessment information for treatment planning and evaluation.

Social skills assessment takes place in five major stages of the assessment/intervention sequence: (a) screening/selection, (b) classification, (c) target behavior selection, (d) functional assessment, and (e) evaluation of intervention. Gresham (1995) identified 12 major goals of social skills assessment, and these can be found in Table 11.2. Like all behavioral assessment methods, social skills assessment methods can be broadly classified as indirect and direct (Gresham, 1998a; Gresham & Lambros, 1998). Indirect behavioral assessment methods assess behavior that is removed in time and place from its actual occurrence. Examples of these methods include interviews, ratings by others, peer assessment methods, and analogue role-play measures. Direct measures assess behavior at the time and place of its actual occurrence and include naturalistic observations of social behavior (e.g., classroom and playground) and self-monitoring strategies.

Behavior rating scales are highlighted in this chapter because of their efficiency, economy, and validity in assessing key aspects of students' social behaviors. However, behavior rating scales cannot be used in isolation to ob-

<table>
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<tr>
<th>Competing behavior</th>
<th>Acquisition</th>
<th>Performance</th>
<th>Fluency</th>
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<tr>
<td>Present</td>
<td>Acquisition deficit</td>
<td>Performance deficit</td>
<td>Fluency deficit</td>
</tr>
<tr>
<td>Absent</td>
<td>Acquisition deficit</td>
<td>Performance deficit</td>
<td>Fluency deficit</td>
</tr>
</tbody>
</table>

**FIGURE 11.2**
TABLE 11.2
Goals of Social Skills Assessment

- Identify social skills strengths
- Identify social skills acquisition deficits
- Identify social skills performance deficits
- Identify social skills fluency deficits
- Identify competing problem behaviors
- Conduct functional assessment
- Determine the social validity of specific social skills for treatment consumers
- Select target behaviors for intervention
- Develop intervention strategies based on assessment information
- Select appropriate outcome measure(s)
- Evaluate effects of intervention
- Assess generalization of effects

tain a complete picture of a child or adolescent's social behavior. For this reason, I describe two additional social skill assessment methods: (a) functional assessment interviews, and (b) naturalistic observations of social behavior.

Functional Assessment Interviews

A functional assessment interview (FAI) has four primary goals: (a) to identify and define social skills difficulties, (b) to assist in the differentiation of social skill acquisition, performance, and fluency deficits, (c) to identify competing problem behaviors that interfere with acquisition, performance, and/or fluency, and (d) to obtain preliminary information regarding the possible functions of behavior. A functional assessment of behavior seeks to identify the functions or causes of behavior. This information is valuable because, once a behavioral function is identified, specific intervention strategies based on behavioral function can be prescribed.

Fundamentally, behavior may serve two functions: (a) to obtain something desirable (e.g., social attention, preferred activities, or material objects), and (b) to avoid, escape, or delay something undesirable or aversive (e.g., difficult tasks, social activities, or interruption of preferred activities). These two functions describe the processes of positive and negative reinforcement, respectively. For example, a child's social withdrawal behavior may serve to increase the frequency of adult and/or peer promptings to join an ongoing activity (i.e., the behavior may serve a social attention or positive reinforcement function). In contrast, social withdrawal may serve to allow a child to terminate social interactions with peers (i.e., it may serve an escape or negative reinforcement function).
Professionals conducting social skills assessments and interventions often work from a consultation framework in which they garner information about children's social behavior from third parties such as teachers and parents. During the initial stages of assessment, it is extremely important for interviewers to obtain as precise information as possible from these third parties to assist in a functional assessment. For example, a teacher might say, "Hank does not fit into the group very well," or "Don doesn't get along well with others." Although these statements may be true, they are not particularly informative regarding the exact nature of the social skill deficit, much less the functional assessment of behavior.

Persons conducting FAIs should engage in the following: (a) eliciting from the interviewee a specific, precise description of social skill deficits and competing problem behaviors, (b) formulating a tentative description of environmental conditions surrounding socially skilled and competing problem behaviors, and (c) evaluating the effects of social skills interventions in terms of measurable behavior change. The above steps also can be described as problem identification, problem analysis, and problem evaluation, respectively (Gresham, 1998a). Table 11.3 presents an example of a semistructured functional assessment interview that can be used to assess social skills for children and youth. For more specific and comprehensive information concerning FAIs, readers should consult the texts by Bergan and Kratochwill (1990) and O'Neill, Horner, Albin, Storey, Sprague, & Newton, (1997).

**Naturalistic Observations of Social Behavior**

Systematic behavioral observations represent one of the most important social skills assessment methods. Observational data are very sensitive to treatment effects and should be included in all social skills assessment and intervention activities. Although there are a variety of elaborate coding systems available for naturalistic observations of social behavior, I recommend that recording procedures be kept as simple as possible. Four factors should be considered in using systematic behavioral observations: (a) operational definitions of behavior, (b) dimension of behavior being measured, (c) number of behaviors assessed, and (d) number of observation sessions.

The first and most important step in collecting social skills observational data is to have an operational definition of the social behavior being measured. Operational definitions should describe the specific verbal, physical, temporal, and/or spatial parameters of behavior or environmental events (Gresham, Gansle, & Noell, 1993). Operational definitions should be clear, objective, and complete (Kazdin, 1984).

Walker and Severson (1992) provide a good example of an operational definition for the social skill of participation: "This is coded when the target child is participating in a game or activity (with two or more children) that has a clearly specified and agreed upon set of rules. Examples would be: kickball,
### TABLE 11.3
Semistructured Functional Assessment Interview for Social Skills

#### A. PROBLEM IDENTIFICATION

1. What social skills are of most concern to you?
2. Please provide a clear, specific definition of the behaviors that concern you.
3. Do you see these behaviors as being primarily acquisition deficits ("Can't do"), performance deficits ("Won't do"), or fluency deficits ("Needs more practice")?
4. Approximately how often do you see these behaviors occurring? How often would you like them to occur?
5. What, if any, competing problem behaviors interfere with the acquisition, performance, or fluency of the desired social skills? Provide a definition of these behaviors.
6. About how often do these behaviors occur?
7. Are there activities or times of the day when these social skills are less likely? More likely?
8. Are there activities or times of the day when the competing problem behaviors are more likely? Less likely?
9. Is the desired social skill more likely to occur with some peers than others? Describe these typical social interactions.
10. How does the child's failure to perform the desired social skill affect other children? How does it affect you?

#### B. PROBLEM ANALYSIS

11. When the child performs the social skill, what happens? What do you do? What do peers do?
12. When the child performs the competing problem behavior, what happens? What do you do? What do peers do?
13. What purposes (functions) do you think the competing problem behavior serves for the child (social attention, task avoidance/escape, access to preferred activities)?
14. Does the child engage in competing problem behaviors that achieve the same results as the socially skilled behavior? Are the competing problem behaviors equally or more functional in obtaining reinforcement?
15. If competing problem behaviors are equally or more functional, are they more efficient and reliable in achieving that function? That is, do the competing problem behaviors achieve the same reinforcement more quickly and more consistently that the socially skilled alternative behavior?
16. Are the competing problem behaviors associated with the presence of a specific stimulus (e.g., person, place, thing, time of day) or are they associated with the presence of many stimuli and situations?
17. What are some situations or activities in which the desired social skill could be taught or facilitated using incidental teaching?
18. Describe how you might teach or facilitate the social skill in these situations or activities.
19. Are there peers in the classroom who might be recruited to assist in teaching or facilitating the desired social skill?
20. Do you think the desired social skill would be best taught in a small group outside of the classroom? Why or why not?

(continues)
Table 11.3—Continued

21. What types of strategies could you implement to decrease the competing problem behaviors? Describe how you might use these.

22. What aspects of the proposed intervention do you like the most? Why? Which do you like the least? Why?

23. Which aspects of the proposed intervention would be easiest to implement? Why? Which aspects of the proposed intervention would be the most difficult to implement? Why?

24. Here are some ways in which we could change the intervention. Do these changes make the intervention easier to implement? What additional changes would you recommend?

25. Do you think this intervention is likely to be effective? Why or why not?

C. PROBLEM EVALUATION

26. Describe how you think the intervention worked.

27. What behavior changes did you observe? Did these changes make a difference in the child's behavior in your classroom? How? In other settings? How?

28. Is the child's behavior now similar to that of average or typical peers? If not, do you think continued use of the intervention would accomplish this goal? Why or why not? How long do you think this might take if we continued the intervention?

29. How satisfied are you with the outcomes of this intervention ("Not Satisfied," "Somewhat Satisfied," "Satisfied," or "Very Satisfied")? If not satisfied or somewhat satisfied, what kinds of behavior changes would make you satisfied or very satisfied?

30. Would you recommend this intervention to others? Why or why not? What aspects of this intervention would you change before recommending this intervention to others?

Example: Four-square, dodgeball, soccer, basketball, tetherball, hopscotch, and so forth. Nonexamples include tag, jump rope, follow the leader, and other unstructured games" (pp. 23–24).

An efficient way of formulating an operational definition is though the functional assessment interview described in the previous section. Recall that the main purpose of an FAI is to obtain a clear and objective definition of target behaviors. Behavior rating scales (to be described in greater detail below) should be used to identify general areas of concern and normative levels of functioning in social skill and competing problem behavior domains. The FAI can be used to operationally define behaviors that most concern teachers and/or parents. Finally, direct observations of these behaviors in naturalistic settings (e.g., classroom or playground) are collected as direct measures of social behavior and to conduct descriptive functional assessment information.

Social behavior can be described and assessed along the behavioral dimensions of frequency, temporality, and quality. Frequency, or how often a social behavior occurs, is often used as an index of social competence. This, however, can be misleading: How often a person exhibits a social behavior may not predict important social outcomes such as peer acceptance (Gresham, 1983). Some social skills can be clearly defined as problems because
they occur at low frequencies. Examples include saying "please," "thank you," and "excuse me," or asking permission to get out of one's seat in class or before leaving home.

Some social skills may be more appropriately measured using temporal dimensions of behavior such as duration, latency, or interresponse times. Examples of social skills that can be measured by duration are durations of social interactions with others, amount of time engaged in cooperative play, or the ratio of positive to negative social interactions. One easy way to assess the duration of social skills is to start a stopwatch when the child begins the behavior and stop it when the child is not engaged in the behavior. This process continues throughout the observation session. The duration is then calculated by dividing the elapsed time on the stopwatch by the total time observed and multiplying by 100, thereby yielding a percent duration.

Walker, Colvin, and Ramsey (1995) strongly recommend the use of duration recording of alone and negative social behavior on the playground for students demonstrating an antisocial behavior pattern. Alone means when a child is not within 10 feet of another child, is not engaged in any organized activity, and is not exchanging social signals (verbal or nonverbal) with any other children. Negative social behavior can be defined as when a child is displaying hostile behavior or body language toward peers; attempting to tease, bully, or otherwise intimidate others; reacting with anger or rejection to the social bids of peers; or displaying aggressive behavior with the intent to harm or force the submission of peers.

Antisocial children spend more time alone and are more negative in their social interactions than are non-antisocial students. Surprisingly, however, antisocial and non-antisocial students have not been found to differ in their durations of total positive social behaviors (Walker, Colvin, & Ramsey, 1995; Walker & Severson, 1992). Based on playground recording, if a student spends between 12% and 15% of the time in solitary activity ("alone") and engages in negative social interactions 10% or more of the time, he or she is at risk for antisocial behavior (Walker, Colvin, & Ramsey, 1995).

A particularly important aspect of social behavior is the quality of the behavior. In fact, it could be argued that the most important aspect of what makes a behavior "socially skilled" is its quality and not its frequency or temporal dimensions. Quality of social behavior, however, must be judged by others. This can be accomplished by exposing judges to videotaped or in vivo samples of a social behavior and having them rate its quality. This process is similar to what is being measured by behavior rating scales except that the measurement is direct rather than indirect and is based on a more limited sample of behavior.

Some children and adolescents have social skills deficits and competing problem behaviors limited to one or two behaviors. Other children exhibit multiple social skills deficits and competing problem behavior excesses, thereby presenting an unmanageable number of behaviors to assess.
An important decision assessors must make is how many behaviors to observe. This decision is influenced by the nature and severity of the child's social competence difficulties as well as by the degree of teacher and/or parent concern with each behavioral excess or deficit.

Some teachers and parents may list as many as 5 to 10 behaviors that they consider problematic. Although some children will display 10 or more problem behaviors and/or social skills deficits, not all of these behaviors are independent. Some behaviors are subsets of a larger class or category of behavior that share certain similarities. These larger categories, known as response classes, describe a class or category of behaviors that share similarities (topographical response class) or are controlled by the same environmental events (functional response class).

For example, a topographical response class of "social withdrawal" might include behaviors such as sulking, standing alone on the playground, walking away from peers, and ignoring social bids from peers to join in games or activities. Although these behaviors may appear different, they may belong to the same response class and the operational definition of social withdrawal would include all of the behaviors. In this example, social withdrawal could be measured using the duration recording procedure described earlier. Practitioners should determine which behaviors are and are not members of specific response classes for observational purposes and for conceptualizing social skills interventions.

Another consideration in using naturalistic observations is the number of times a child should be observed. The central issue here is the representativeness of observational data. That is, are the observations representative of the child's typical behavior in classroom, playground, or other settings? Based on observations of actual behavior, the observer infers that the observed behavior is representative of the child's typical behavior in that setting. Depending on the representativeness of the observational data, this inference may or may not be justified.

Observers cannot be present in classrooms or playgrounds every minute of every day. As such, observers must sample the behavior(s) of concern to obtain reasonable estimates of the baseline rates or durations of behavior. I recommend that observational data be collected for two to three sessions in the setting of concern (e.g., classroom or playground). These sessions should reflect the setting(s) of most concern to those referring the child for social skills assessment and intervention.

Additionally, social behaviors observed in naturalistic settings usually do not have a normative database against which to judge the severity of social skill deficits and competing behavioral excesses. To determine whether the observed behavior is a problem, one can compare the target child's behavior with another child's behavior that is not considered problematic. To accomplish this, choose a same-sex peer in the classroom and record the same behavior as the target child. This procedure allows the assessor to have a local "micro-norm," which can be used for comparison purposes.
Behavior Rating Scales

Ratings of social behavior by significant others such as teachers and parents represent a useful and efficient method of obtaining information in school and home settings. Behavior ratings can be used prior to FAIs to guide the direction and topics discussed in the interview. It should be noted that behavior ratings measure typical performances across a variety of situations over time rather than the actual frequencies of behavior at any given time (e.g., via direct observations of social behavior). Raters may also have their own idiosyncratic definitions of what constitutes a given social skill or problem behavior as well as their own notions of the relative frequency of behavior (e.g., "sometimes" versus "a lot").

Gresham and Elliott (1990) suggested that the following points be kept in mind when administering and interpreting data from behavior rating scales. First, ratings are summaries of observations of the relative frequency of specific behaviors. The precision of measurement with rating scales is relative, not exact, and needs to be supplemented with more direct methods of assessment.

Second, ratings of social behavior are evaluative judgments affected by the environment and a rater's standards for behavior. An individual's social behaviors may change depending on the situation and thus might be characterized as situationally specific rather than as traits or permanent characteristics of the individual (Achenbach, McConaughy, & Howell, 1987; Kazdin, 1979).

Third, the social validity of behaviors assessed and treated should be understood. The social validity of a behavior is reflected in the importance attributed to it by significant others in a child's environment.

Fourth, multiple raters of a child's social behavior may agree only moderately and, in some cases, very little. This reality is based on three factors: (a) many social behaviors are situationally specific, (b) all measures contain some degree of error, and (c) ratings scales use rather simple frequency response categories for quantifying behaviors that may range widely in their frequency, intensity, and duration.

Fifth, although many characteristics may influence social behavior, the child or adolescent's sex is particularly important (Gresham & Elliott, 1990). Sex is most consistently associated with differences in social behavior and therefore social skill ratings should be interpreted within a sex-relevant perspective.

REVIEW OF SELECTED SOCIAL SKILLS RATING SCALES

Although there are a number of social skills rating scales available, four are distinguished by having large national standardization samples, displaying
adequate to excellent psychometric properties in terms of reliability and validity, and being easily obtained from reputable test publishing companies. These rating scales are: (a) Walker-McConnell Scales of Social Competence and School Adjustment, (b) School Social Behavior Scales, (c) Preschool and Kindergarten Behavior Scales, and (d) Social Skills Rating System.

**Walker-McConnell Scales of Social Competence and School Adjustment (SSCSA)**

The SSCSA (Walker & McConnell, 1995a, 1995b) are social skills rating scales designed to be completed by teachers and other school professionals. An elementary version designed for children in grades K–6 and an adolescent version for students in grades 7 through 12 are commercially available. Table 11.4 shows the subscales for the elementary and adolescent versions of the SSCSA.

Both the elementary and adolescent versions of the SSCSA were standardized on a sample of over 2000 students representing the four geographic regions of the United States. Each item of the scales is rated on a 5-point Likert scale reflecting the relative frequency of the behavior ("1—Never occurs" to "5—Frequently occurs"). Each subscale shown in Table 11.4 is expressed as a T score (M = 10, SD = 3) and a total score is expressed as a standard score (M = 100, SD = 15). The manuals present extensive evidence for reliability and validity of the scales. Internal consistency reliabilities for the total scale range from .92 to .98 and test-retest reliabilities over a 3-week period range from .88 to .92. The manuals present a number of validity studies showing that the scales differentiate behavior-disordered and normal groups, antisocial and normal groups, and behaviorally at-risk and normal groups. Criterion-related validity evidence shows that the scales significantly correlate with a variety of criterion measures, including sociometric status, academic achievement, other social skills rating scales, and arrest rates in antisocial and at-risk groups.

The elementary and adolescent versions of the SSCSA are a relatively brief and user-friendly means of assessing social skills of students covering a wide age range. A particularly impressive aspect of the scales is their broad and rich research base, drawn from the authors' work at the University of Oregon. Two drawbacks of the scales are that they do not include problem behavior scales and they rely exclusively on teacher ratings.

**School Social Behavior Scales (SSBS)**

The SSBS (Merrell, 1993) is a 65-item teacher rating scale designed to measure two broad domains of social behavior: (a) social competence, and (b) antisocial behavior. The SSBS was standardized on a sample of 1858 children and adolescents in grades K–12. Although the four geographic regions
### TABLE 11.4
Scales and Subscales from Four Major Social Skills Assessment Instruments

<table>
<thead>
<tr>
<th>I. Social Skills Rating System (Teacher, Parent, and Student Ratings) (Gresham &amp; Elliott, 1990)</th>
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</thead>
<tbody>
<tr>
<td><strong>A. Total Social Skills Scale (30 items—Teacher; 40 items—Parent; 40 items—Student)</strong></td>
</tr>
<tr>
<td>1. Cooperation (10 items—Teacher, Parent, and Student)</td>
</tr>
<tr>
<td>2. Assertion (10 items—Teacher, Parent, and Student)</td>
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<td>3. Responsibility (10 items—Parent Only)</td>
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<td>4. Empathy (10 items—Student Only)</td>
</tr>
<tr>
<td>5. Self-Control (10 items—Teacher, Parent, and Student)</td>
</tr>
<tr>
<td><strong>B. Total Problem Behavior Scale (18 items)</strong></td>
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<tr>
<td>1. Externalizing (6 items—Teacher; 6 items—Parent)</td>
</tr>
<tr>
<td>2. Internalizing (6 items—Teacher; 6 items—Parent)</td>
</tr>
<tr>
<td>3. Hyperactivity (6 items—Teacher; 6 items—Parent)</td>
</tr>
<tr>
<td><strong>C. Academic Competence Scale (9 items)</strong></td>
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<tr>
<th>II. School Social Behavior Scales (Teacher Rating Only) (Merrell, 1993)</th>
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<tr>
<td><strong>A. Social Competence Scale (32 items)</strong></td>
</tr>
<tr>
<td>1. Interpersonal Skills (14 items)</td>
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<tr>
<td>2. Self-Management Skills (10 items)</td>
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<tr>
<td>3. Academic Skills (8 items)</td>
</tr>
<tr>
<td><strong>B. Antisocial Behavior Scale (33 items)</strong></td>
</tr>
<tr>
<td>1. Hostile-Irritable Behaviors (14 items)</td>
</tr>
<tr>
<td>2. Antisocial-Aggressive Behaviors (10 items)</td>
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<tr>
<td>3. Disruptive-Demanding Behaviors (9 items)</td>
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<tr>
<td><strong>A. Teacher-Preferred Social Behavior (16 items—Elementary Version)</strong></td>
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<tr>
<td><strong>B. Peer-Preferred Social Behavior (17 items—Elementary Version)</strong></td>
</tr>
<tr>
<td><strong>C. School Adjustment (10 items—Elementary Version; 15 items—Adolescent Version)</strong></td>
</tr>
<tr>
<td><strong>D. Empathy (9 items—Adolescent Version)</strong></td>
</tr>
<tr>
<td><strong>E. Self-Control (13 items—Adolescent Version)</strong></td>
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<tr>
<td><strong>F. Peer Relations (16 items—Adolescent Version)</strong></td>
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<tr>
<th>IV. Preschool and Kindergarten Behavior Scales (Teacher Rating Only) (Merrell, 1994)</th>
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</thead>
<tbody>
<tr>
<td><strong>A. Social Skills Scale (34 items)</strong></td>
</tr>
<tr>
<td>1. Social Cooperation (12 items)</td>
</tr>
<tr>
<td>2. Social Interaction (11 items)</td>
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<td>3. Social Independence (11 items)</td>
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<tr>
<td><strong>B. Problem Behavior Scale (42 items)</strong></td>
</tr>
<tr>
<td>1. Externalizing Problems (27 items)</td>
</tr>
<tr>
<td>a. Self-Centered/Explosive</td>
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of the United States were included in the standardization sample, it was not geographically representative of the U.S. population, with about 40 percent of the sample coming from the states of Oregon and Washington. It is not clear how (if at all) this might affect social skills ratings of children and adolescents.

Each item of the SSBS is rated on a 5-point Likert scale reflecting the relative frequency of the social behavior ("1—Never" to "5—Frequently"). Table 11.4 shows that the Social Competence Scale has 32 items distributed across three subscales and the Antisocial Behavior Scale has 33 items distributed across three subscales. The Total Social Competence and Total Antisocial Behavior Scores on the SSBS are expressed as a standard score (M = 100, SD = 15) and as percentile ranks.

The SSBS has adequate psychometric properties with internal consistency reliabilities ranging from .91 to .98 and test-retest reliabilities (3 weeks) ranging from .72 to .83 for the Social Competence Scale and .53 to .71 for the Antisocial Behavior Scale. The manual also presents a large number of studies demonstrating the criterion-related and construct validity of the scale. As Demaray et al. (1995) point out, the SSBS has adequate to excellent reliability; has sufficient evidence for content, construct, and discriminant validity; and is user-friendly due to its detailed technical manual.

### Preschool and Kindergarten Behavior Scales (PKBS)

The PKBS (Merrell, 1994) is a 76-item behavior rating scale that measures social skills and problem behaviors of children between the ages of 3–6 years old. The author indicates that the PKBS can be completed by teachers, parents, day care providers, or others who have sufficient exposure to a child’s behavior to provide accurate ratings. The PKBS was standardized on a normative sample of 2855 children from 16 states distributed across the four geographic regions of the United States. According to the author, the PKBS was specifically developed for preschool children and was not a downward extension of existing social skills rating scales. The basis of this claim is unclear given that many of the items on the PKBS are virtually identical to items on the Social Skills Rating System—Preschool Version (Gresham & Elliott, 1990).
Each item on the PKBS is rated on a 4-point Likert scale reflecting the perceived frequency of the social behavior ("0—Never" to "3—Often"). As shown in Table 11.4, the PKBS has two major scales: (a) Social Skills (34 items), which has three subscales, and (b) Problem Behavior (42 items), which has two subscales. Total scale scores for Social Skills and Problem Behaviors are expressed as standard scores (M = 100, SD = 15).

The manual presents extensive data about the technical adequacy of the scale. Internal consistency reliability estimates are .96 for the Total Social Skills Scale and .97 for the Total Problem Behavior Scale. Three-month test-retest reliability estimates are .69 for the Total Social Behavior Scale and .78 for the Total Problem Behavior Scale. The manual also reports a number of studies attesting to the construct, criterion-related, and discriminant validity of the scale.

**Social Skills Rating System (SSRS)**

The SSRS (Gresham & Elliott, 1990) is a broad, multirater assessment of students' social behaviors that can affect teacher-student relations, peer acceptance, and academic performance. The SSRS consists of three separate ratings forms for teachers, parents, and students (grades 3–12), and has three forms: Preschool (ages 3–5 years), Elementary (grades K–6), and Secondary (grades 7–12). The SSRS uses the teacher, parent, and student rating forms to sample three domains: social skills, problem behaviors, and academic competence. Although the SSRS focuses on a comprehensive assessment of social skills, it also measures problem behaviors that compete or interfere with the acquisition and/or performance of socially skilled behaviors. Moreover, the SSRS examines academic competence because poor academic performance and social behavior problems frequently occur together.

The number of items on the SSRS varies, depending on the rating form and level used. In general, the SSRS forms should take a rater no longer than 15–20 minutes to complete, with many raters taking considerably less time. Each item on the SSRS is rated on a 3-point scale ("0—Never," "1—Sometimes," "2—Very Often") based on the rater's perceived frequency of a certain behavior. In addition, all SSRS forms (except the Student Elementary form) employ a 3-point Importance rating scale for the Social Skills Scale. Behaviors are rated as 0 if they are perceived to be "Not Important," 1 if they are perceived to be "Important," and 2 if they are perceived to be "Critical." The Importance rating scale documents the behavior standards and expectations of teachers, parents, and secondary students, and identifies behaviors for intervention programs based on a social validity criterion (Wolf, 1978).

The SSRS assesses the following social skills domains: Cooperation, Assertion, Responsibility (Parent Form only), Empathy (Student Form only), and Self-Control. These domains are captured by the acronym CARES. Three of these domains are consistent across the teacher, parent, and student
TABLE 11.5
SSRS Social Skills and Problem Behavior Domains

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<tr>
<th>Domain</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperation</td>
<td>Behaviors facilitating academic performance and success</td>
<td>Follows classroom rules; complies with teacher instructions</td>
</tr>
<tr>
<td>Assertion</td>
<td>Behaviors involving initiation of social interactions or expression of opinions</td>
<td>Introduces self; questions rules that may be unjust</td>
</tr>
<tr>
<td>Responsibility</td>
<td>Behaviors related to following rules in home and community settings</td>
<td>Asks others for assistance; refuses unreasonable requests</td>
</tr>
<tr>
<td>Empathy</td>
<td>Behaviors that express understanding of another person's feelings</td>
<td>Listens to others; feels sorry when bad things happen to others</td>
</tr>
<tr>
<td>Self-Control</td>
<td>Behaviors that involve inhibition of impulses or negative behavior</td>
<td>Controls temper in conflict situations; responds appropriately to teasing</td>
</tr>
<tr>
<td>Externalizing</td>
<td>Behaviors representing undercontrolled or acting-out behavior pattern</td>
<td>Fights; bullies; argues; gets angry</td>
</tr>
<tr>
<td>Internalizing</td>
<td>Behaviors representing overcontrolled or inhibited behavior pattern</td>
<td>Lonely; anxious; easily embarrassed, likes to be alone</td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>Behaviors representing inattention, impulsivity, and overactivity</td>
<td>Easily distracted; interrupts others; moves excessively</td>
</tr>
</tbody>
</table>

The SSRS was standardized on a national sample of 4170 children and adolescents in grades 3 through 12, with equal numbers of boys and girls in the standardization sample. Preschool norms (ages 3–5 years) were constructed from a smaller tryout sample of children (N = 200). The standardization sample was stratified by race/ethnic groups and was slightly overrepresented by Blacks and Whites and underrepresented by Hispanics and other groups. The standardization sample was selected from the four geographic regions of the United States, with more children in the sample from the South and North Central regions and fewer children from the West and Northeast.

The SSRS provides extensive information about the psychometric properties of the scales. Internal consistency estimates for the Total Social Skills Scales range from .83 (Student Elementary/Secondary) to .94 (Teacher Pre-
Coefficient alphas for the Total Problem Behavior Scale range from .73 (Parent/Preschool) to .88 (Teacher/Elementary), with subscale alphas ranging from .57 to .89 (Mdn = .72). Coefficient alphas for the Academic Competence Scale were .95 for both the Elementary and Secondary teacher forms. Four-week test-retest reliabilities for the Total Social Skills Scale range from .68 (Student Form) to .87 (Parent Form). Social skill subscale stability estimates range from .52 to .88 (Mdn = .70). Stability estimates for the Total Problem Behavior Scale range from .65 (Parent Form) to .84 (Teacher Form), with subscale stability estimates ranging from .48 to .84 (Mdn = .66). The stability estimate for the Academic Competence Scale was .93.

The SSRS provides extensive evidence for content, criterion-related, and construct validity of the scales. The manual reports several methods by which the construct validity of the scales was established, including group differences, correlations with other tests, factor analysis, and convergent/discriminant validity evidence. The SSRS manual and research studies published over the past 10 years in refereed professional journals provide additional validity evidence for the SSRS.

Summary

The SSRS offers several unique features to facilitate more comprehensive assessment and intervention services for children experiencing social behavior problems. It is the first social skills rating scale to provide norms based on a large, national sample of boys and girls ages 3 through 18. Furthermore, it is the first multirater (teacher-parent-student) scale focusing on the social skills of children. Finally, the SSRS is the first rating scale specifically designed to advance intervention planning. The inclusion of importance ratings of social skills, combined with the theoretical and practical information provided in the Assessment-Intervention Record, provides professionals with useful information needed for intervention planning.

COMMON PATTERNS AND INTERPRETATION HYPOTHESES

The SSRS potentially can yield a large number of social behavior patterns, given the number and type of raters completing the instrument, variability in scale and subscale patterns, and the age of the child being rated. For example, the Preschool SSRS has two scales (Social Skills and Problem Behavior), two raters (Teacher and Parent), and three levels (More, Average, and Fewer) yielding 12 possible profile combinations. At the subscale level, there are three Social Skill subscales (Cooperation, Assertion, and Self-Control)
and two Problem Behavior subscales (Externalizing and Internalizing), which are consistent across Teacher and Parent raters. The Responsibility subscale is only present on the Parent form. Including the three levels (More, Average, and Fewer), there are 21 possible combinations for the SSRS Preschool form.

A similar logic can be used to derive the potential profile combinations for the SSRS Elementary and Secondary level forms. Note that Student SSRS ratings are included on the Elementary and Secondary forms and only teachers rate the student's Academic Competence. Some children who are rated as having deficient social skills by their teachers on the SSRS will not be rated deficient by their parents or by themselves. Alternatively, a junior high English teacher might rate a student as having poor social skills and excessive externalizing behavior whereas the student's other teachers will not see his or her social behavior as particularly problematic. Some teachers may view the child's social skills difficulties as being acquisition or skill deficits, whereas other teachers might view these behaviors as performance deficits. Some ratings may not be confirmed by direct observation of social behavior in naturalistic settings. For example, a teacher may rate a child as having poor social skills but this rating may not be corroborated by observation of the child in classroom and playground settings.

The point to keep in mind when interpreting ratings from multiple sources is that there are several reasons for discrepancies between raters' judgments of behavior. These discrepancies do not necessarily mean that either source is invalid or erroneous. Reasons for discrepancies between raters might include: (a) true differences in exhibition of the behavior in school versus home settings (situational specificity of behavior), (b) different standards of behavior at home versus school (situational tolerance of certain behaviors), and (c) different task demands at home versus school (situational requirements for social behavior and academic work). Professionals also should be aware of some common biases in ratings such as "halo effects" (i.e., the presence of a salient behavior affecting the ratings of other behaviors) and measurement errors (e.g., unreliability and regression effects). The job of the assessor is to use various methods to collect additional information that will serve to confirm or disconfirm hypotheses about the nature and presumed causes of social skills deficits.

**RECOMMENDATIONS**

The following case study illustrates a comprehensive assessment of a child's social behavior using the procedures and concepts described in this chapter. The SSRS is used instead of the other rating scales discussed in this chapter because of its multirater and comprehensive nature. Note that other assessment instruments and procedures are used in this case study to demonstrate what information might be needed in a case such as the one presented.
CASE STUDY

Name: Donald M.  School: Newport Coast Elementary  Date: 12/17/99
Date of Birth: 12/5/91  Age: 8-0  Race: White  Teacher: Janet Duffy

Reason for Referral

Don was referred by his third-grade teacher, Mrs. Duffy, because of what she described as extreme difficulties in social behavior, poor peer relationships (including peer rejection), aggressive and impulsive behavior, and poor academic performance. Up until the time of this referral, Don had not been referred for special education evaluation or been retained in any grade. However, Mrs. Duffy indicated that Don had been suspended from school twice during the current academic year for his aggressive and oppositional behavior. Mrs. Duffy and the school principal indicated on the referral form that they wanted to have Don evaluated for possible classification as Emotionally Disturbed.

Assessment Procedures

Social Skills Rating System—Teacher
Social Skills Rating System—Parent
Social Skills Rating System—Student
School Archival Records Search (SARS)
Teacher's Report Form
Classroom and Playground Observations
Child Behavior Checklist (Parent)
Critical Events Index (Teacher)
Functional Assessment Interviews
Critical Events Index (Parent)

Assessment Results

Background Information

Initial background information on Don was collected by conducting a systematic search of his cumulative records using the School Archival Records Search (SARS), which codes data that are readily available in students' school records. The SARS search indicated that Don has a history of school disciplinary contacts throughout his school career beginning in the first grade. Some examples of reasons in his file for these disciplinary contacts include fighting on the playground, swearing and talking back to the teacher and principal, fighting on the playground, and leaving class and wandering the halls. Additionally, there were a number of negative comments in his file
such as "does not follow classroom rules," "is uncooperative in class," and "is oppositional and disrespectful."

Don's most recent group achievement test results on the Stanford Achievement Test (9th edition) showed the following percentile ranks: Total Reading, 26th percentile; Total Math, 30th percentile; Spelling, 10th percentile; and Total Language, 20th percentile. Don has only two school absences so far this year, does not receive Chapter I services, and has not been previously referred to the school study team for prereferral intervention or evaluation.

**Behavior Ratings**

Mrs. Duffy completed the Social Skills Rating System—Teacher (SSRS-T), the Teacher’s Report Form (TRF), and the Critical Events Index (CEI) on Don in order to get an estimate on his social skills and competing problem behaviors. On the SSRS-T, Don obtained the following scores: Total Social Skills = 70 (2nd percentile); Total Problem Behavior = 133 (>98th percentile); and Academic Competence = 80 (9th percentile). Don's subscale scores on the Social Skills Scale were uniformly low across the Cooperation, Assertion, and Self-Control domains. Within the Problem Behavior Scale, Don showed particularly high scores on both the Externalizing and Hyperactivity subscales, but not the Internalizing subscale.

On the TRF, Don showed a high score on the Externalizing scale (>98th percentile) but not the Internalizing scale. Within the Externalizing scale, Don showed extremely high scores on the Aggressive Behavior (98th percentile) and Attention Problems (98th percentile) subscales. On the CEI, a checklist of low-frequency, high-intensity salient problem behaviors, the teacher noted the following: "has tantrums," "physically aggressive with other children," "ignores teacher warnings or reprimands," and "makes lewd or obscene gestures."

Mrs. MacMillan, Don's mother, completed the following rating scales: the Social Skills Rating System—Parent, the Child Behavior Checklist (CBCL), and the CEI. On the SSRS-P, Don obtained the following scores: Total Social Skills = 80 (9th percentile) and Total Problem Behavior = 117 (87th percentile). In the Social Skills Scale, Don showed particularly low scores on the Responsibility and Self-Control subscales. On the Total Problem Behavior Scale, Don had elevated scores on the Externalizing and Hyperactivity subscales. This pattern was corroborated by the results of the CBCL, which showed higher scores (>90th percentile) on the Aggressive Behavior and Attention Problems subscales. On the CEI, Mrs. MacMillan checked the following behaviors as being problematic at home: "steals," "has tantrums," "ignores parental warnings or reprimands," and "explosive temper outbursts."

Don completed the Social Skills Rating System—Student form and obtained a Total Social Skills Scale standard score of 98, which is in the 50th percentile. The only area in which Don noted some weaknesses was on the
Empathy subscale, noting low frequencies of feeling sorry for others, understanding how friends feel, and listening to friends' problems.

Classroom and Playground Observations

Systematic behavioral observations of Don's behavior in both classroom and playground settings were conducted on two separate days in the same week (Tuesday and Thursday). In the classroom, two behaviors were observed for two sessions for a total of 53 minutes (27 minutes on Tuesday and 26 minutes on Thursday): (a) Academic Engaged Time (AET), which was defined as attending to materials and tasks, making appropriate motor responses (e.g., writing), and asking for assistance properly, and (b) Total Disruptive Behavior (TDB), which was defined as being out of seat without permission; noncompliance; hitting, biting, or choking other students; and/or screaming, yelling, cursing, or criticizing others. For comparison purposes, Mrs. Duffy nominated a boy she considered average in these behaviors. Both AET and TDB were measured using duration recording, which reflected the percentage of time Don engaged in each behavior over the two sessions. Don's AET was calculated to be 14% and his TDB was 22%; the comparison boy's were 75% and 0%, respectively.

Two behaviors were then observed on the playground the Wednesday of the week following the classroom observations for a total of 20 minutes: (a) Total Negative Social Interaction (TN), which was defined as hitting, biting, choking, screaming, threatening, and/or other behaviors that disturb ongoing play activities, and (b) Alone (A), which was defined as behaviors in which Don was not within 10 feet of another student, was not socially engaged, and was not participating in any activity with other students. The behaviors of the same comparison boy used in the classroom observations were again observed. Don's TN duration was 15% and his A duration was 18%; the comparison boy's durations were 0% and 3%, respectively.

Functional Assessment Interviews

A semistructured FAI was conducted with Mrs. Duffy to clarify the social skills deficits and competing problem behaviors indicated on the SSRS-T and to obtain an idea of the functions served by the competing problem behaviors. Mrs. Duffy identified the following social skills deficits as the most important to target for intervention: (1) "Controls temper in conflict situations with peers and adults," (2) "Cooperates with peers," (3) "Follows teacher's directions," (4) "Makes transitions appropriately," and (5) "Finishes classroom assignments within time limits." Two of these social skills (controlling temper and cooperating with peers) were viewed as acquisition deficits; the remaining three skills (following directions, making transitions, and finishing assignments) were viewed as performance deficits.
With respect to competing problem behaviors, the following behaviors were seen as most problematic and disruptive to the classroom environment:
(1) "Throws temper tantrums," (2) "Talks back," (3) "Acts impulsively," (4) "Argues," and (5) "Disturbs ongoing activities." Mrs. Duffy indicated that three of these behaviors (tantrums, arguing, and talking back) may serve a negative reinforcement function because they are most frequently exhibited in situations in which Don is required to perform academic tasks that he does not like (e.g., math calculation, language arts exercises requiring handwriting), thereby allowing him to escape task demands. The behavior of disturbing ongoing activities seemed to serve a social attention function in that Mrs. Duffy and Don's peers almost always responded in some way to this behavior. It is unclear from the FAI what particular function the impulsive behavior serves for Don.

A FAI was also conducted with Mrs. MacMillan via telephone to clarify her ratings on the SSRS-P, CBCL, and CEI in order to identify social skill acquisition and performance deficits and to determine possible functions that competing problem behaviors may be serving in the home for Don. Mrs. MacMillan identified the following behaviors as social skill or acquisition deficits: (a) "Controls temper," (b) "Ends disagreements calmly," (c) "Acknowledges praise," and (d) "Introduces self." The following behaviors were viewed as performance deficits: (a) "Requests permission to leave the house," (b) "Appropriately questions rules," (c) "Avoids trouble situations," and (d) "Cooperates with family."

Mrs. MacMillan viewed the following competing problem behaviors as the most problematic and disruptive in the home setting: (a) "Argues with others," (b) "Throws temper tantrums," (c) "Talks back to adults," (d) "Acts impulsively," (e) "Disturbs ongoing activities," and (f) "Disobeys rules." Mrs. MacMillan indicated that three of these behaviors (arguing, throwing temper tantrums, and talking back) seem to result in Don receiving a large amount of social attention from her, thereby serving a possible social attention (positive reinforcement) function. Two behaviors (disturbing activities and disobeying rules) seem to allow Don to avoid requests or demands his mother places on him (e.g., "Pick up your room," "Don't leave the house before completing your homework," "Leave your sister alone while she studies"). As in the teacher FAI, it was unclear what function impulsive behavior serves for Don.

**SUMMARY AND INTERPRETATION**

Donald MacMillan, an 8-year-old third-grade student, was referred for evaluation because of his difficulties in social behaviors and peer relationships, and his impulsive and aggressive behavior and poor academic performance.
Multimethod, multisource assessments showed that Don has extremely poor social skills functioning, based on both teacher and parent ratings on the SSRS, observations in the classroom and on the playground, school records, and a FAI with Don's teacher. Don, however, perceives his own social skills as being adequate, with the exception of empathy skills. The TRF and CBCL showed that Don has excessive amounts of Aggressive Behavior and Attention Problems, scoring at the 98th and 90th percentiles using teacher and parent ratings, respectively. Additionally, both teacher and parent CEI checklists show a number of serious and potentially harmful problem behaviors. This behavior pattern is consistent with what might be described as comorbidity of conduct disorder and attention-deficit/hyperactivity disorder.

Based on this pattern of behavior and the severity of his social skills deficits and behavioral excesses, Don is in need of intense intervention services. Recommendations for intervention services are found in the following section.

**RECOMMENDATIONS FOR INTERVENTION SERVICES**

1. An intensive behavioral intervention plan should be developed between the psychologist and Mrs. Duffy to address Don's social skills deficits and competing problem behaviors.

2. Specific intervention procedures for Don's escape-motivated behaviors (tantrums, arguments, and talking back) might be effectively addressed by reconsidering and revising the task demands for classroom academic assignments. For example, Mrs. Duffy indicated that Don dislikes tasks requiring handwriting and math calculation. As such, task requirements could be modified by having Don provide answers either verbally in a tape recorder or in a short-answer format. Math calculations could be reduced and supplemented with math word problem tasks. In addition, Mrs. Duffy might consider giving Don choices among activities and interspersing easier tasks with more difficult tasks.

3. Specific intervention procedures for Don's social attention-motivated behavior of disturbing ongoing activities might include differential reinforcement of incompatible behaviors (DRI) for staying in his seat and completing his assigned work, noncontingent attention of behavior delivered on a time-based schedule (e.g., every 5 minutes), and presentation of preferred activities in the classroom.

4. For the social skills acquisition deficits of controlling temper and cooperating with peers, it is recommended that Don be placed in a social skills training group designed to remediate acquisition deficits by using modeling, coaching, and behavioral rehearsal strategies.
Specific procedures for teaching these skills can be found in the *Social Skills Intervention Guide* (Elliott & Gresham, 1992), which teaches each social skill found on the SSRS.

5. For the performance deficits of following directions and making transitions, it is recommended that Mrs. Duffy use precorrection and incidental teaching strategies. For example, Mrs. Duffy could explain exactly what is required and what is going to happen prior to a given activity or transition. Also, when Don does not follow directions or appropriately make transitions, Mrs. Duffy could use these situations to prompt and reinforce correct performances of these skills.

6. To address Don's social skill acquisition and performance deficits and his competing problem behaviors, it is recommended that Mrs. MacMillan attend a parent training group that teaches fundamental knowledge and practical application of behavior change procedures.

7. Once the above intervention procedures are agreed upon, specific procedures for monitoring the integrity of the intervention plan and for evaluating the outcomes of these interventions should be developed by the psychologist and Mrs. Duffy.

8. If these intervention procedures are ineffective in bringing Don's behavior into acceptable levels, Don then should be considered for possible placement into a special education setting to receive more intensive intervention services.

References


