Attention Deficit Hyperactivity Disorder (ADHD) is a disruptive behavior disorder characterized by inattention (e.g., difficulty concentrating on schoolwork) and/or impulsivity (e.g., frequently interrupting conversations or activities) and/or overactivity (e.g., difficulty remaining seated when required to do so) that are well beyond what is expected and appropriate for a given child’s gender and age. Approximately 5% of school-aged children in the United States have ADHD.

Children ultimately diagnosed with ADHD typically first exhibit symptoms during the preschool or early elementary school years. The symptoms are highly likely to continue throughout the child’s life. Boys are about three times more likely to be diagnosed with ADHD than are girls.

There are three subtypes of ADHD: problems only with inattention and concentration (ADHD Predominantly Inattentive Type), problems only with hyperactivity and impulsivity (ADHD Predominantly Hyperactive–Impulsive Type), and problems in both areas (ADHD Combined Type).

**Importance of Diagnosis**

Diagnosis is important for several reasons. First, determining whether a child has ADHD can help community service providers, such as physicians and clinical psychologists, communicate the child’s difficulties to parents and provide a direction for information gathering by the family.

Second, the diagnosis aids in identifying associated problem areas (e.g., conduct problems) as well as predicting potential outcomes (e.g., school drop-out) that could be targeted for prevention efforts. Most importantly, diagnosis should direct treatment efforts by pinpointing those interventions that are most likely to be effective.

**Approaches to Identifying ADHD-Related Behaviors**

No single test, questionnaire, or source of information (parent or teacher) is sufficient for the accurate diagnosis of ADHD. Current best practice in evaluating children for ADHD requires the use of multiple assessment methods and sources of information, including diagnostic interviews with parents and teachers, behavior rating scales completed by parents and teachers, direct observations of behavior in school or clinic settings, and review of available school records.

**Interviews.** Diagnostic interviews help to determine the degree to which a child’s behavioral symptoms are consistent with *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.) (DSM-IV-TR; American Psychiatric Association, 2000) criteria and also provide information regarding developmental, medical, and family histories.

**Ratings.** Behavior rating scales, such as the Behavior Assessment System for Children (Reynolds & Kamphaus, 1992), the Child Behavior Checklist (Achenbach, 1999), the ADHD Rating Scale—IV (DuPaul, Power, Anastopoulos, & Reid, 1998), or the Conners Rating Scales—Revised (Conners, 1997), allow for comparison of the frequency of ADHD-related behaviors to norms for a child’s gender and age group. These data are critical for determining the clinical significance of the ADHD symptoms.

**Observations.** Information derived from interviews and rating scales could be biased given the inherent subjectivity of these measures. Thus, direct observations of child behavior in classroom or clinic settings can serve as a reliability check on information derived from other sources. Observations should be conducted on several occasions and should sample the frequency of children’s task engagement (on-task behavior) as well as various off-task behaviors including both motor (e.g., out-of-seat) and vocal (e.g., talking-out) actions. It is particularly helpful to observe one or two classmates in addition to the target child in order to provide a context for the target child’s behavior (i.e., whether the child’s behavior is better or worse than his or her classmates).
**Academic skills.** Data regarding a child’s academic productivity, accuracy, and progress also should be collected through the examination of permanent products (e.g., completed written work) and administering periodic Curriculum-Based Measurement (CBM) probes.

**Formal tests.** Assessment instruments such as IQ tests, standardized achievement tests, or neuropsychological tests typically are not helpful for identifying students with ADHD. Also, no currently available physiological or medical measure is helpful diagnostically. However, psycho-educational and medical tests are helpful in ruling in or out other conditions (e.g., learning disabilities, mental retardation, allergies) that may be associated with ADHD-like behaviors.

**Recommended Process for Identifying Students With ADHD**

School-based evaluations of children suspected of having ADHD are best conducted in a five-stage process that is consistent with an educational decision-making model:

1. **Screen:** First, teacher ratings are obtained and a brief interview is conducted with the teacher to screen for the severity and frequency of possible ADHD symptoms.

2. **Multiple assessment methods:** If the findings of this screening are significant, then multiple assessment methods are used across sources and settings to document the child’s functioning across a number of areas. Assessment methods include a diagnostic interview with the child’s parent and/or teacher, behavior rating scales completed by parents and teachers, direct observations of classroom and playground behavior, and assessment of academic functioning.

3. **Classification and diagnosis:** The evaluation results are interpreted such that classification and diagnostic decisions can be made. Psychologists or physicians conducting these assessments must ensure that diagnostic decisions are made on the basis of criteria in the DSM-IV-TR while also considering alternative hypotheses for children’s inattentive, impulsive, and hyperactive behavior (e.g., symptoms caused by other emotional disorders or by inappropriate placement in the curriculum).

4. **Intervention design:** The evaluation of ADHD-related behaviors should lead to the design of effective interventions as well as a diagnosis. For example, school professionals should evaluate the environmental factors (e.g., peers laughing and paying attention to a child’s misbehavior) that might be motivating a child’s disruptive behavior through the use of Functional Behavior Assessment.

5. **Monitoring:** The child’s school behavior and academic performance are assessed on an ongoing basis to determine the success of and the need for changes in the intervention program.

**Link to Intervention Design**

Ultimately, assessment data should aid practitioners in deciding what interventions will be most effective for a specific student. Methods such as Functional Behavior Assessment are particularly suited for designing behavioral interventions, and methods such as CBM are particularly suited for academic interventions. Although these methods may not aid in diagnostic decision making (i.e., Does this student have ADHD?), they are critical for determining how best to address a student’s academic and behavioral difficulties. As such, procedures that directly link assessment data to treatment design must always be included when evaluating children suspected of having ADHD.

**Summary**

Given the myriad short- and long-term difficulties associated with ADHD, it is important that reliable and valid assessment methods be used for diagnosis and treatment planning. School-based data including teacher ratings, direct observations, academic performance assessment, and school records are critical for effective diagnosis. School personnel should be actively involved in all phases of the assessment process including screening, multi-method assessment, interpretation, intervention planning, and evaluation of intervention outcomes. It is assumed that linking assessment data to intervention design and evaluation will improve behavioral and academic outcomes for students with ADHD.

**Resources**


Website
Children and Adults With ADD—www.chadd.org
LD Online—www.ldonline.org

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