

Guiding Principles for the Diagnosis and Treatment of Attention Deficit/ Hyperactivity Disorder

Presented by

The Attention Deficit Disorder Association

Over the past two decades there has been an exponential increase of diagnosis and treatment research regarding Attention Deficit/ Hyperactivity Disorder (AD/HD), sometimes referred to as Attention Deficit Disorder (ADD). As clinicians and researchers have gained more experience working with AD/HD, it has become clearer that its impact on life is far greater than we had ever appreciated. AD/HD not only interferes with learning and behavior control in childhood, but, as a critical neurobehavioral condition, it can also profoundly compromise functioning in multiple areas throughout the life span. Research and clinical experience suggest that AD/HD difficulties can lead to significant educational, occupational, and family dysfunction and can be a significant contributor to a variety of health, social, and economic problems.

AD/HD is a highly prevalent, worldwide disorder estimated to affect 5-10% of children and 3-6% of adults^{1,2}. As more and more is written and broadcast about AD/HD, increasing numbers of adults and parents wonder whether AD/HD might be underlying the problems they or their children are experiencing.

As a national organization whose role is to educate and advocate for the needs of individuals with AD/HD, we talk with many people each month who are seeking help regarding the diagnosis and treatment of AD/HD. From these conversations, we know that most people first turn to their family physicians, pediatricians, or a mental health professional for help. We also know that the care they receive varies greatly, ranging from a brief office visit that ends with a prescription for medication to a thorough evaluation cooperatively conducted by the members of several disciplines. We are concerned that, paradoxically, AD/HD is both incorrectly diagnosed when it is not present and under diagnosed when it is present; AD/HD is both incorrectly treated and undertreated.

The ADDA *Guiding Principles for the Diagnosis and Treatment of AD/HD* represent an attempt to improve the overall health care of individuals who are affected by AD/HD and the health of their families. These *Guiding Principles* seek to define the elements of diagnosis and treatment which are essential in producing high quality care. The *Guiding Principles* should not be viewed as a diagnostic tool or a therapeutic cookbook. Rather, they represent a framework to help focus on understanding essential ingredients of diagnosis and treatment.

These *Guiding Principles* represent a synthesis of lay and professional literature, experiences of clinicians, and conversations with thousands of patients and families. ADDA, a consumer advocacy organization, intends for these *Guiding Principles* to serve as a step towards identifying the essential components of assessment and treatment of

AD/HD. We hope these principles will lead to improvement in the quality of life for everyone affected by AD/HD.

THE PRINCIPLES

1. Understand AD/HD as a problem of Executive Functions.

Recently, experts have reconceptualized the core AD/HD symptoms of inattention, impulsivity, and hyperactivity as being executive functions of the brain. Executive functions are higher-order, self-controlling cognitive functions which guide an individual's overall thoughts, emotions, and actions. They have been likened to the conductor of an orchestra: the conductor selects the musicians and music, rehearses the orchestra, and during the performance guides the musicians in performing and interpreting the music. If the conductor does a good job, the music sounds harmonious; if not, the music does not sound harmonious.

Everyone has difficulty with executive functions sometimes; persons with ADHD simply have much more difficulty with executive functions, on an ongoing basis. As a result, they often find themselves acting in ways that are inappropriate, inattentive, impulsive, and disorganized. This can cause them serious difficulty in school or work, in social relationships and in family relationships. AD/HD is thought to represent a developmental lag and inefficient operation of these crucial executive functions:

- * Inhibiting the impulse to respond so that thinking can guide action
- * Analyzing problems and coming up with effective solutions
- * Managing short-term working memory
- * Becoming and remaining organized
- * Focusing and starting on a task in a timely manner
- * Sustaining attention and effort until the task has been completed
- * Internally controlling emotions, motivation, and activity level
- * Using self-talk to guide our behavior

Many of these executive functions slowly develop as the individual moves through childhood and into adolescence and adulthood. Secondary education, college, the workplace, and adult relationships require efficient operation of all of these executive functions. Thus individuals with inefficiencies in the operations of these executive functions may not manifest clinical symptoms of AD/HD until adolescence or even adulthood. This may help explain why individuals without hyperactivity may not be diagnosed with AD/HD until late adolescence or adulthood. Until recently, many girls and women with AD/HD have fallen into this category of not being evaluated until late adolescence or adulthood.

2. Evaluate and treat the whole person.

A comprehensive diagnostic protocol for AD/HD provides a description of the whole person. That is, it should seek to identify how a person's AD/HD symptoms interact and contribute to his or her physical and mental functioning, as well as his or her personality. Each person is unique, with unique strengths and weaknesses. Making a diagnosis based solely on "plugging" attentional symptoms into a diagnostic checklist, for example, is inadequate. After the complete person is considered, the role of AD/HD, if present, can be placed in its proper context. Treatment should be individualized to the clinical needs of each particular person.

3. AD/HD should be suspected but not presumed.

AD/HD is a common problem and may be suspected as a contributing factor whenever a child or an adult experiences problems in learning, self-control, addiction, independent functioning, social interaction, health maintenance, or organizing the tasks of daily life (e.g., paying bills, managing a household). AD/HD symptoms present across a wide spectrum--from extremely mild to extremely severe. The appropriate diagnosis of AD/HD can help clarify the presence of other physical, learning, and emotional disorders or may be present in combination with any number of these.

The professional will need to identify and address potentially coexisting conditions. These may include:

- Depression or Bipolar Disorder
- Anxiety Disorders
- Chemical and Behavioral Addictions
- Oppositional Defiant Disorder and Conduct Disorder
- Learning Disorders, including receptive and expressive language problems, reading and written language issues
- Psychotic Disorders
- Pervasive Developmental Disorders, including Autism, Asperger's Syndrome, and PDD-NOS
- Obsessive-Compulsive Disorder
- Personality Disorders
- Tic Disorders
- Hypo- and Hyperthyroidism and other hormonal disorders such as PMS and Menopause
- Sleep Disturbances
- Chromosomal Anomalies and other Congenital (Birth) Syndromes
- Brain Trauma
- Dementia

4. AD/HD may present at any age.

Research suggests that AD/HD is usually the result of neurobiological differences in the anatomy, physiology, and chemistry of the parts of the brain associated with attention, impulsive control, and the executive functions discussed earlier. These neurobiological

differences are usually inherited. Thus genes typically account for the presence of AD/HD characteristics. However, AD/HD characteristics may not become problematic until an individual begins to struggle to meet life's expectations. Thus the demands of the environment (school, home, workplace) determine when impairment results from having AD/HD characteristics. As a result, AD/HD can present clinically at any age and in any life domain. Children with a great deal of difficulty controlling physical activity level may become impaired early in their educational career when the school requires them to sit still and concentrate on their work. Individuals without such hyperactivity--but with a great deal of difficulty organizing and managing time--may not become impaired until much later in their lives.

Even though the symptoms of AD/HD may not impair an individual until later in life, some of these symptoms must be present since childhood or adolescence to make a positive diagnosis. Thus an early history of AD/HD symptoms is essential in making the diagnosis of AD/HD in an adult. Using third party interviews, transcripts, report cards, teacher comments, medical records, past psychoeducational testing, and other archival data, the evaluator should look for evidence of a childhood or adolescent onset of AD/HD symptoms. For those who have primarily inattentive AD/HD, the early symptoms may have taken the form of inner distractibility, mental restlessness, and daydreaming, thus requiring the evaluator to assess subjective experiences in addition to observable behaviors. It is also important to take into account factors that may have mitigated against impairment from AD/HD in childhood, such as high IQ and a highly supportive, well-structured, family environment.

AD/HD often negatively affects a person's educational achievements. Lack of school success can contribute to a variety of economic, social and life adjustment problems throughout a person's life. Educational functioning should be reviewed carefully. In children, adolescents, or adult students, a review of educational functioning should include administration of intelligence and achievement tests. However, it should be noted that success in the educational arena is not by itself a reason to rule out the diagnosis of AD/HD.

5. A comprehensive assessment is necessary for an accurate diagnosis.

AD/HD is complex and influences many aspects of a person's life. It can mimic and/or coexist with a variety of health, emotional, learning, cognitive, and language problems. An appropriate, comprehensive evaluation for AD/HD includes a developmental survey, a medical, educational, and behavioral history, evidence of normal vision and hearing, and recognition of any systemic illness. The diagnosis of AD/HD should never be made based exclusively upon rating scales, questionnaires, or tests. The evaluation should be designed to answer three basic questions: (1) Are a sufficient number of AD/HD symptoms to meet DSM-IV criteria present and causing impairment at the present time in the person's life?; (2) Have some of these symptoms been present before adulthood?; and (3) Is there any alternative explanation for the presence of these AD/HD-like symptoms? A thorough clinical interview reviewing the individual's current and past functioning is the central method of answering these three questions.

Adults who were not diagnosed as having AD/HD in childhood may have made compensations to cope with their symptoms by adulthood; during a diagnostic evaluation, these symptoms may look milder than they really are. Such compensations might include the use of lists, a spouse who provides extensive organizational support, and even self-medication, such as the use of caffeine. The astute diagnostician must take these compensations into account and evaluate the extent to which the AD/HD symptoms would impair the individual were they not used.

6. The evaluation and treatment of AD/HD should be conducted by a qualified professional.

A qualified professional may be of one of the following disciplines: medicine, psychology, social work, professional counseling, or psychiatric nursing. Such professionals should first have the appropriate license or certification in the state in which they practice to permit them to diagnose and/or treat individuals with AD/HD. But a qualified professional not only has a license to practice but also has training and experience in the differential diagnosis and treatment of AD/HD.

There may be restrictions upon the discipline and credentials of the qualified professional under certain circumstances. If one is obtaining a diagnosis for submission to a university or a standardized testing service, it would be advisable to check that entity's requirements as to the credentials of the evaluator, the type of testing, and the contents of the report. If one is obtaining a diagnosis for use in an administrative or court proceeding, it would be advisable to seek an attorney's recommendations regarding the credentials of the evaluator, the type of testing, and the nature of the report.

7. Response to medication should not be used as the basis to diagnose AD/HD.

There are a number of reasons why an individual's response to a stimulant or other medication is not a valid indication of the presence or absence of AD/HD. First, stimulant medications work not only for people with AD/HD; individuals with other disorders or with no disorder may respond positively to stimulants, though not dramatically. Second, failure to respond to medication may be the result of an incorrect dosage or a personal non-responsiveness to that drug, rather than absence of AD/HD. Third, a positive response to medication may be the result of a placebo effect rather than a true indication of the presence of AD/HD. Fourth, the use of medication as a diagnostic tool may lead the physician to prematurely end the diagnostic process without considering disorders that coexist with AD/HD and jointly interfere with the individual's functioning.

8. Diagnosis should be based primarily upon the DSM-IV-TR AD/HD criteria.

In order to promote standardization, the diagnosis of AD/HD should be based upon the prevailing professional criteria for the diagnosis of mental conditions. At the present time, the prevailing criteria are contained in the Diagnostic and Statistical Manual of the

American Psychiatric Association--Fourth Edition--Text Revision, known as DSM-IV-TR². A number of professionals have justifiably criticized the DSM-IV-TR AD/HD criteria, noting several problems. In particular, the criteria are not adjusted for age, making them overly stringent in their published form for diagnosis of adults, e.g., adults will be underdiagnosed. Minor adjustments have been suggested in the professional literature; nonetheless, ADDA recommends that diagnosis be based primarily upon these criteria.

9. Diagnosis and treatment of AD/HD should involve others familiar with the person undergoing the evaluation.

When available, others significant to the patient, such as parents, spouses, teachers, and family members, should be involved to aid in proper diagnosis and treatment of AD/HD. These individuals can corroborate the patient's history and provide information and can be enormously helpful in the diagnostic and treatment process. When guided to better understand and accept AD/HD, they can also become positive supports for the person with AD/HD.

10. The goal of treatment is to help the individual lead a fulfilling and happy life, building upon his/her strengths and talents and compensating for impairments imposed by AD/HD. In order to achieve this goal, the individual must first achieve AD/HD symptom reduction and improvement in impairments which result from AD/HD and any associated conditions. Then the individual must identify his/her strengths and talents and find ways to incorporate them into daily life. Treatment should be comprehensive, often involving more than one discipline working cooperatively, and incorporating some of the following elements:

- Education about AD/HD--The individual and the family need to learn about AD/HD and understand how the symptoms impact various areas of life. The individual needs education in how to identify strengths and talents.
- Medication--Medication is currently the intervention with the greatest amount of research supporting effectiveness in adults with AD/HD.
- Lifestyle Changes--The individual with AD/HD needs to learn effective strategies for time management, organization, and the structuring of themselves to compensate for AD/HD symptoms; counseling, coaching, and/or psychotherapy can help promote these lifestyle changes. Such interventions must not only reduce AD/HD symptoms but also must help the individual pursue his/her talents and strengths. At present, Cognitive Behavioral Therapy is the only form of psychotherapy with research supporting its effectiveness in helping adults with AD/HD.⁵

- Changes in Work Function--Coaching, vocational counseling, and/or therapy are often needed to help the individual with AD/HD learn and utilize appropriate strategies to compensate for difficulties in the workplace.
- Higher Education Assistance--Coaching, tutoring, academic counseling, and/or educational accommodations are often needed to help the individual who is attending college or professional school overcome difficulties in the classroom and in study.
- Improved Interpersonal Relationships--Marital therapy and/or family therapy are often needed to help the individual with AD/HD repair relationship damage caused by AD/HD and to build fulfilling relationships.
- Improved Health Habits--The individual often needs to work to improve sleep, exercise, and eating behaviors;
- Improved Associated Psychiatric Conditions--The individual may need psychotherapy and/ or medication to overcome conditions that are comorbid to AD/HD, such as mood, anxiety, substance-abuse, and/or personality disorders.
- Medical Care--Coexisting medical conditions need to be treated.

11. Medication is the cornerstone of treatment for most patients with AD/HD.

For most individuals with AD/HD, medication is the cornerstone of an effective overall treatment regimen. Research has indicated that the stimulant medications (e.g., amphetamine and methylphenidate) and some non-stimulant medications (e.g., atomoxetine) can significantly ameliorate the symptoms of AD/HD. This sets the stage for the individual to then benefit from behavioral, psychological, educational, and coaching interventions. Medication, however, should not be initiated until a comprehensive evaluation has been completed and the diagnosis firmly established. The patient must be assessed for the presence of other coexisting psychiatric and medical conditions. Prioritizing which disorders are to be treated first is essential.

Before any drug treatments can be prescribed, the individual diagnosed with AD/HD needs to weigh the specific advantages and disadvantages of the proposed medications. Treatment needs to be individually tailored to best meet the requirements of a particular patient over the course of that patient's day. Successful medication treatment can level the neurologic playing field and assist adults with AD/HD to maximize their quality of life.

12. Practitioners should become familiar with current research and diagnostic tools; scientifically based diagnosis and treatment procedures are strongly recommended and preferred.

It is the responsibility of each professional involved in the evaluation and management of AD/HD to continually integrate the most up to date understanding of AD/HD into his/her repertoire of clinical skills. Improved understanding of the causes, diagnosis, and treatment of AD/HD developed from a review of the current literature will improve the quality of care. ADDA urges all professionals to become familiar with the latest standards and diagnostic tools for a comprehensive assessment of AD/HD as well as updated treatment methods.

Both the patient and the clinician need to know whether there exists a scientific basis for any claims made about diagnostic and treatment procedures. Emphasis should be given to data resulting from studies that are scientifically organized and controlled (i.e., double-blind, placebo-controlled studies published in peer reviewed professional journals). Recommendations and opinions based solely on undocumented or scientifically unsubstantiated claims should be viewed cautiously.

Summary

We hope that you have found these Guiding Principles for the Diagnosis and Treatment of Attention Deficit/ Hyperactivity Disorder useful. ADDA is committed to facilitating the process of disseminating information about the latest developments in the field of AD/HD through its conferences, publications, and websites.

NOTES

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Readers interested in more information about the diagnosis and treatment of AD/HD in adults should consult the following websites:

ADDA--Attention Deficit Disorder Association: www.ADD.org

American Academy of Family Practice: <http://www.aafp.org/>

CHADD--Children and Adults with Attention Deficit Disorder: www.chADD.org

NAPO--National Association for Professional Organizers: www.napo.net

National Resource Center on AD/HD: www.help4ADHD.org.

A Family AD/HD Resource: www.ADDresources.org

Online AD/HD Clinic & Professional Referral Listing: www.ADDconsults.com

Websites for women with ADHD: www.ADDmirablewomen.com;
www.ADDvance.com

ADDitude Magazine: www.ADDitudemag.com

Large ADHD website: www.ADD.about.com/health/add

One ADD Place: www.oneADDplace.com

Online ADHD Community & Newsletter: www.ADHDnews.com

Living with ADHD: www.livingwithADD.com

British ADHD Information site: www.ADDiss.co.uk

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1/29/06