

# Foreword

Over the past two decades, the assessment of Attention-Deficit/Hyperactivity Disorder (AD/HD) has evolved into a sophisticated balance of science and clinical judgement essential for arriving at reliable and valid diagnostic decisions. Because of the precarious mix of clinical and empirical skill needed to evaluate children with this disorder, diagnostic practice in this area has been found wanting by many critics. In fact, a 1998 National Institutes of Health consensus panel concluded that “existing diagnostic treatment practices ... point to the need for improved awareness by the health service sector concerning an appropriate assessment, treatment, and follow-up. A more consistent set of diagnostic procedures and practice guidelines is of utmost importance” (p. 21). Drs. Arthur D. Anastopoulos and Terri L. Shelton have designed a book that addresses this need.

A number of themes are highlighted throughout the text. Perhaps the most important is that the assessment guidelines set forth in this book represent a balance between science and practice. The authors account for the realities of clinical practice in an age of managed care while challenging clinicians to heed the lessons of empirical research. Although the use of empirically based assessment procedures may at times fly in the face of cost constraints (e.g., systematic evaluation of medication effects), the authors present a strong argument for them. Further, they call upon their vast clinical experience to provide concrete suggestions for translating research findings into effective evaluations. Anastopoulos and Shelton are not afraid to address the thorny issues that clinicians often face in evaluations, such as inconsistencies in and incompleteness of assessment data. Indeed, incomplete and inconsistent data are the rule rather than the exception, and the authors provide excellent ways to face this challenge.

A second theme pervading the text is an emphasis on not only the content of AD/HD evaluations (*which* assessments should be done), but also on the process used to conduct them (*how* assessments should be done). The authors guide the clinician/researcher through the assessment process step by step, while avoiding a cookbook approach. Stated differently, flexibility in the assessment process is not only allowed for, but it is stipulated by a variety of factors, such as the

age of the client and the nature of the practice setting. Anastopoulos and Shelton don't advocate for a single approach to assess individuals with AD/HD, but instead set forth a way to comprehensively plan for and carry out evaluations under a range of circumstances. This emphasis on process is a unique and valuable contribution to the clinical practice literature. In particular, Anastopoulos and Shelton offer clear guidelines for the commonsense application (and re-ordering) of *DSM* criteria when interpreting assessment data, information unavailable in any other text of which I am aware.

A third theme is the multimethod, multi-informant approach. The authors comprehensively review and describe many common assessment procedures, which will be of enormous value to clinicians and researchers operating in a fast-changing environment characterized by the ongoing proliferation of new measures for assessing AD/HD and related disorders. Reasoned, thoughtful recommendations concerning these measures are given to aid clinicians in making informed choices from among the dizzying array of possibilities.

A fourth theme is that the assessment's usefulness does not end with diagnosis. It is also essential for planning and evaluating treatment. Given the heterogeneity of symptomatic presentation and functioning in this population, clinicians must avoid a "one-size-fits-all" approach to treatment design. The authors provide specific guidelines to aid in selecting treatments.

Once interventions are implemented, one must collect data to determine whether they have led to behavioral changes and whether they should be discontinued or modified, and a flexible set of procedures for doing so comprehensively is included. In keeping with their balance of content and process, the authors examine treatment evaluation in detail. For example, they look at treatment integrity, a critical element that must not be ignored, due to the abysmally low rate of treatment adherence typically seen in clinical practice. Case studies are woven into the text to show how assessment data can be used for treatment planning and outcome evaluation.

A fifth theme is the influence of individual and environmental variation and diversity. Age, gender, and ethnicity can have substantial effects on the content, process, and interpretation of assessment data. Also, very few children referred to clinics are purely AD/HD. The authors address this issue of comorbidity in a straightforward and detailed fashion. Symptom assessment in an environmental context is ingrained in the discussion of using assessment data to tailor the treatment to the particular child, family, and system involved. Thus, inherent in the book's philosophy is an understanding of the inextricable link between assessment and treatment.

A final major theme is that responsible assessment practice requires clinicians to collaborate effectively with parents, children, and schools. I know of no other text that offers such clear and extensive information on providing oral and written feedback. How we interact with parents and children is critical to how well they understand the diagnosis and how motivated they are to participate in the treatment.

Clinicians and researchers working with the AD/HD population will find this text invaluable. Drs. Anastopoulos and Shelton are scientist-practitioners

of the highest order, and the expertise they share with us here will greatly enhance assessment practice, and ultimately, treatment outcome, for children and adolescents with AD/HD.

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# Preface

Professional interest in the topic of Attention-Deficit/Hyperactivity Disorder (AD/HD; American Psychiatric Association, 1994) has increased dramatically over the past decade. Nowhere is this more evident than in scientific journals, where literally hundreds of AD/HD-related articles have appeared. Further evidence of this increased interest is found in many recently published pediatric and child psychology texts, which now routinely include chapters dealing with AD/HD. Along with these trends, there has been a rapid proliferation of professional texts, practitioner guidebooks, and self-help books on the topic, as well as an increase in the number of instructional and informational videotapes available for personal and professional use.

Following closely on the heels of this shift within professional circles is the recent surge of media interest in AD/HD. At the local level, AD/HD has been the focus of countless newspaper stories and radio talk shows. Periodically, it has also been in the national spotlight, including coverage by *Time*, *Newsweek*, the *Wall Street Journal*, *60 Minutes*, *20/20*, *Dateline*, *PBS*, the *Today Show*, *Good Morning America*, and *Sally Jesse Raphael*.

With all that has been written and said about AD/HD, one might legitimately question why anyone would want to write yet another book on the topic. Our reasons for doing so are as follows.

First, as we thought about the written material currently available to assist students and professionals in their clinical work, it occurred to us that something very important was missing. There were indeed many journal articles, book chapters, and professional texts dealing with AD/HD assessment. Many included relatively detailed descriptions of the various procedures for conducting an evaluation. A few recommended which procedures to use, and some even went so far as to explain how one might interpret the results. None, however, provided specific guidelines on how to *integrate* or *interpret* the type of clinical data that usually emanates from an AD/HD evaluation—that is, individual case data—drawn from multiple sources, procedures, or both.

Finding nothing that dealt systematically with the *process* of conducting AD/HD assessments, we developed our own set of interpretive guidelines. Such guidelines have served us well in our clinical practice. Moreover, they have

proven to be exceptionally valuable teaching tools. We have routinely shared this assessment knowledge with the many child health-care professionals and educators to whom we have provided consultation over the years. We have also regularly disseminated this information during our clinical supervision of students, including graduate students in clinical psychology, psychology interns, postdoctoral fellows in child psychology, fellows in child psychiatry and pediatrics, and residents in psychiatry, pediatrics, and family practice. Our efforts have been well received, leading us to believe that we have developed an effective way of teaching professionals how to conduct AD/HD evaluations, whether for the purpose of establishing a diagnosis, generating treatment recommendations, or assessing treatment outcome.

Several other considerations also influenced our decision to write this text. For example, we have repeatedly heard parents, teachers, and child health-care professionals voice their concerns about the inconsistent manner in which AD/HD is assessed. Some have expressed discontent with what they perceive as the underidentification of this disorder, which can lead to delays in initiating treatment. Others have been concerned with the overidentification of this disorder, which can result in children and adolescents receiving special-education services or being placed on stimulant medication after being mistakenly identified as having AD/HD. Such a concern has also been evident in the media. Recent allegations have surfaced suggesting that exceedingly high numbers of children and adolescents are being identified as having AD/HD in order to justify controlling their behavior with medication. Although there is little basis for such claims, there is merit in considering some of the clinical and ethical issues inherent in them. Foremost among these issues is the notion that proper treatment flows from accurate diagnoses.

In our opinion, both overidentification and underidentification stem in large part from the highly variable manner in which AD/HD is evaluated. Thus, by making an assessment text available to independent practitioners and students in training, we hope to promote greater uniformity in the delivery of AD/HD assessment services.

This need for greater consistency is especially critical in view of events that have transpired over the past decade. In September of 1991, the United States Department of Education put forth a policy clarification memorandum, indicating that children with AD/HD may qualify for special education and related services under P.L. 94-142/Part B of the Individual with Disabilities Education Act (IDEA) or through Section 504 of the Federal Rehabilitation Act of 1973. Thus, proper identification of students with AD/HD is of tantamount importance to school systems, whose ever-diminishing budgets make it increasingly more difficult to provide special-education services. Another major event was the arrival of the *Fourth Edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric Association, 1994)*, which, among other things, brought with it new criteria for establishing an AD/HD diagnosis. Although far more specific than the criteria set forth previously, the *DSM-IV* guidelines for AD/HD still leave much room for subjectively interpreting how they should be employed.

Our concern for establishing diagnostic uniformity is by no means limited

to clinical matters. We also contend that greater adherence to a common set of diagnostic guidelines will go a long way toward reducing the variability in subject selection so often found in AD/HD research. Some studies define AD/HD on the basis of teacher-completed child behavior ratings, whereas others define it exclusively on the basis of parental responses to interview questions. What this has led to, of course, is the proverbial “apples and oranges” problem. The more similar the diagnostic tools and criteria employed in AD/HD studies, the more similar will be the participants across studies. Such uniformity would greatly facilitate cross-study comparisons, thereby allowing for more-rapid accumulation of scientific knowledge.

For these reasons, we decided that there was ample justification for adding another AD/HD professional text to the market. We do not wish to suggest that our assessment approach is *the* correct or only way to assess AD/HD. There are many possible avenues for conducting such evaluations. At the same time, our extensive experience over the past 15 years has afforded us a unique perspective on an extremely complicated process. As part of this experience, we have regularly consulted with experts in the field on extremely difficult and challenging cases. We have also routinely utilized findings from the AD/HD research literature to guide us in our clinical work. The end result is that we have been able to identify useful interpretive guidelines, including those for handling the inconsistencies that commonly arise in our assessment data. This clinical insight combined with what we know from the pertinent research literature has proven indispensable—not only in our diagnostic formulations, but also in our efforts to develop and implement clinically appropriate AD/HD interventions.

Because this approach to assessment has worked so well for us and for those with whom we have worked, we would like to share it with others in the field. The overall goal of this text, therefore, is to provide child health-care professionals and educators with a comprehensive set of practical, case-oriented, yet empirically based, guidelines for evaluating children and adolescents who exhibit symptoms of AD/HD. These guidelines may be used not only for diagnostic purposes, but also for treatment planning and for the ongoing evaluation of treatment outcome. Being process-oriented in nature, this text should be useful not only to seasoned practitioners wishing to sharpen their clinical skills, but also to students just learning such skills, including those in psychology, psychiatry, social work, counseling, education, pediatrics, neurology, and family practice medicine.

Our approach to evaluating children and adolescents with AD/HD is very much grounded in the scientific method of hypothesis testing. In this same spirit, we encourage our readers to put this approach to test in their own clinical practice. Our hope, of course, is that what has worked so well for us will do the same for them. This in turn should serve to enhance the quality of care that we all strive to provide for the many children and adolescents whose lives are affected by AD/HD.

Arthur D. Anastopoulos  
Terri L. Shelton

May 17, 2000





# 1

## Diagnostic Criteria: A Historical Perspective

*“Isn’t this just the disorder of the 90s?”*

In any professional presentation on the topic of Attention-Deficit/Hyperactivity Disorder (AD/HD; American Psychiatric Association, 1994), there is a good chance that the above question, or one like it, will arise from the audience. Depending on the nature and tone of the presentation, one answer might be, “That’s right, it is the disorder of the 90s—the 1990s, the 1890s, the 1790s,” and so on. The point is, AD/HD is not a new clinical phenomenon. It is, however, a relatively new diagnostic label to describe individuals who display developmentally inappropriate levels of inattention, impulsivity, and/or hyperactivity.

From the early 1960s until the mid 1980s, children displaying many of these same behavioral features might have been labeled as having Minimal Brain Dysfunction, Hyperkinetic Reaction of Childhood, or Attention Deficit Disorder with Hyperactivity. Even earlier, these same children may have received other diagnostic labels, including Minimal Brain Damage Syndrome and Hyperkinetic Impulse Disorder.

Given the large number and variety of terms that have been applied to what is now known as AD/HD, it is no wonder that confusion about this disorder so often exists—not only in the mind of the general public, but within professional circles as well. Adding to this confusion is the fact that there is no universally agreed upon set of criteria for diagnosing AD/HD. Within North America, child health-care professionals and educators have traditionally followed the guidelines set forth by the American Psychiatric Association (APA), whereas in other parts of the world, the classification system of the World Health Organization (WHO) has been adopted. As a first step toward clarifying some of these diagnostic issues, this chapter reviews the major historical events that have shaped the evolution of AD/HD within the United States and Canada. This is followed by a detailed description of the current APA criteria for establishing an AD/HD diagnosis. Although it is beyond the scope of this text to present the worldwide

historical events that have helped to shape thinking on this matter, readers need a better understanding of how the current North American system differs from that used elsewhere. Therefore, also included is a brief description of the WHO diagnostic criteria.

## PREVIOUS DESCRIPTIONS AND LABELS

### Earliest Account

The first published case reports of children exhibiting AD/HD-like difficulties appeared in the mid-1800s. Not until the turn of the century, however, was any attempt made to view such problems scientifically. In what is often credited as the first such attempt, Still (1902) described a group of children whose behavior was characterized by symptoms of inattention and overactivity, began in early childhood, persisted over time, and deviated significantly from expectations for same-aged peers. As conceptualized by Still, these and similar problems reflected serious deficiencies in the “volitional inhibition” of behavior, as well as “defects in moral control” that presumably stemmed from underlying neurological factors.

### Etiologically-Based Descriptions

Around the time of the First World War, there was a large-scale outbreak of encephalitis. Most children who survived this epidemic displayed behavioral, emotional, or cognitive sequelae, including impaired attention span, impulse control, and motor activity regulation (Ebaugh, 1923). The fact that so many of these children displayed this particular pattern of behavioral symptoms led to the widespread use of the term Postencephalitic Behavior Disorder (Hohman, 1922) to describe their condition. This provided further support for the notion that underlying neurological deficiencies might be responsible for the childhood behavior problems that had been described by Still (1902).

Descriptions of children with similar behavioral features continued to appear in the clinical research literature over the next decade. Although the children were not necessarily the victims of encephalitis, or any other clearly defined neurological illness or injury, the prevailing belief was that such behavior problems were caused by underlying organic factors. Reflecting this thinking, Kahn and Cohen (1934) attributed the symptoms to brain stem damage and labeled the condition Organic Driveness.

This presumption of an organic etiology was also apparent in the work of Strauss and associates (Strauss & Kephart, 1955; Strauss & Lehtinen, 1947). Based on research showing that inattention, impulsivity, and hyperactivity appeared more often among developmentally delayed children with brain damage than among developmentally delayed children without such damage, Strauss reasoned that any child exhibiting these behavioral difficulties probably

had brain damage. Hence, the term Brain-Injured Child Syndrome came into use, later evolving into Minimal Brain Damage Syndrome.

Although Strauss's assertions dominated the thinking of many in the field, not everyone shared this point of view. Birch (1964) in particular was very vocal in challenging the logic of attributing a causal role to brain damage, given that so many of the behavior-disordered children that he had studied showed no evidence whatsoever of organic involvement. Such challenges very likely influenced the thinking of Clements and Peters (1962), who began using the term Minimal Brain Dysfunction (MBD) to describe children who exhibited symptoms of inattention, impulsivity, and hyperactivity. This terminology was significant, because it reflected increasing disenchantment with the idea that brain *damage* was a major cause of AD/HD-like behavior. At the same time, this new label preserved the notion that the brain was somehow involved in the etiology of this disorder, albeit in a less well-defined role.

### Symptom-Based Descriptions

As is evident from the preceding discussion, the early history of AD/HD was replete with descriptive labels highlighting its presumed etiology. Yet despite their firm allegiance to an organic viewpoint, some researchers did not employ etiologically based terminology in their descriptions of children with AD/HD-like symptoms. Childers (1935), for example, emphasized hyperactivity features. So too did Levin (1938), who coined the phrase Restlessness Syndrome. Although Laufer and associates adhered strongly to the belief that AD/HD-like behavior resulted from damage to diencephalic structures, they nevertheless used such terms as Hyperkinetic Impulse Disorder (Laufer, Denhoff, & Solomons, 1957) and Hyperkinetic Behavior Syndrome (Laufer & Denhoff, 1957) to highlight what they saw as the cardinal features of this condition.

This emphasis on motor restlessness was also apparent in Chess's (1960) symptom-based description of the condition, which she referred to as Hyperactive Child Syndrome. Unlike many of her colleagues, Chess did not believe that brain damage was a major cause of these symptoms. She proposed instead that such behavioral difficulties might represent the extreme end of the normal variability that occurs within child populations.

### Formal Diagnostic Classification Era

From the time of Still's account until the early 1960s, no less than 10 diagnostic labels had been used to describe the behavior of children who today would probably be identified as having AD/HD. Having so many labels was not conducive to clinical research. A uniform system for categorizing children with AD/HD-type difficulties was clearly needed to ensure that researchers were investigating similar populations.

Although a formal system for classifying mental disorders was already available in the first edition of the *Diagnostic and Statistical Manual of Mental*

*Disorders* (*DSM-I*; APA, 1952), nowhere in *DSM-I* were there any developmentally appropriate guidelines for diagnosing child or adolescent problems. The absence of such guidelines was no accident; many in the field of psychiatry at that time did not believe that children had the psychological capacity—lacking superegos, as it were—to experience mental health problems.

As the 1960s unfolded, adherence to this viewpoint diminished with the increasing recognition that children and adolescents could indeed have psychiatric difficulties. This shift in thinking greatly influenced the development of the second edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-II*; APA, 1968), which for the first time included a section called “Behavior Disorders of Childhood and Adolescence.” A total of six child diagnostic categories appeared in this new section. Among these was the classification, Hyperkinetic Reaction of Childhood (or adolescence).

### The *DSM-II* Criteria

A description of Hyperkinetic Reaction of Childhood (code 308.0) appears in Table 1.1. It shows that its essential features were hyperactivity and inattention. Its inclusion in *DSM-II* was no surprise, given that children with these behavioral features had been described in the research literature for many years. Its name was also very much a product of the times, reflecting both the diminished etiological importance attached to brain damage (Birch, 1964; Clements & Peters, 1962) and the rapid ascendance of symptom-based descriptions, particularly with respect to motor restlessness (Chess, 1960; Laufer & Denhoff, 1957).

By today’s standards, the *DSM-II* guidelines for Hyperkinetic Reaction of Childhood would not be considered adequate diagnostic criteria. Especially problematic was their lack of specificity and detail, which increased the likelihood that professionals would disagree on when this diagnosis was warranted. Of additional concern is that the guidelines did not require the presence of impulsivity, which according to many experts in the field today (Barkley, 1998), is AD/HD’s hallmark feature.

Although limited, *DSM II*’s introduction of Hyperkinetic Reaction of Childhood was nevertheless the first time that uniform guidelines for identifying children with AD/HD-like features had appeared in a preeminent publication. As such, it afforded the first opportunity for using standardized diagnostic terminology.

TABLE 1.1. Diagnostic Criteria for  
Hyperkinetic Reaction of Childhood (or Adolescence)

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This disorder is characterized by overactivity, restlessness, distractibility, and short attention span, especially in young children; the behavior usually diminishes in adolescence.  
If this behavior is caused by organic brain damage, it should be diagnosed under the appropriate non-psychotic organic brain syndrome.

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### The *DSM-III* Criteria

Many clinicians and researchers chose not to embrace *DSM-II*'s guidelines. Some thought that the criteria were too vague to be of any practical value. Others were reluctant to let go of what they thought were more accurate, etiologically based accounts of this condition. At the forefront of this resistance was Wender (1973), who continued to use the term MBD.

Douglas (1972) was another prominent expert who had serious misgivings about the manner in which *DSM-II* characterized this disorder. What troubled Douglas was the primary importance that *DSM-II* placed on hyperactivity. Based on her own extensive research and that of others (Werry & Sprague, 1970), Douglas contended that the deficits in sustained attention shown by hyperkinetic children were equal to or greater than their motor restlessness.

So compelling was this contention that professionals increasingly came to regard inattention as the hallmark feature of the disorder. By the time the diagnostic criteria for Hyperkinetic Reaction of Childhood were being revised for the third edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-III; APA, 1980)*, a consensus had emerged that the name of this condition, as well as its defining features, should be modified to reflect this. The symptom-based label ultimately selected for the revised diagnostic category was thus Attention Deficit Disorder with Hyperactivity" (ADHD; APA, 1980).

A summary of the *DSM-III* guidelines for ADHD (314.01) in Table 1.2 illus-

TABLE 1.2. Diagnostic Criteria for Attention Deficit Disorder with Hyperactivity

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- A. **Inattention.** At least three of the following:
- (1) often fails to finish things he or she starts
  - (2) often doesn't seem to listen
  - (3) easily distracted
  - (4) has difficulty concentrating on schoolwork or other tasks requiring sustained attention
  - (5) has difficulty sticking to a play activity
- B. **Impulsivity.** At least three of the following:
- (1) often acts before thinking
  - (2) shifts excessively from one activity to another
  - (3) has difficulty organizing work (this not being due to cognitive impairment)
  - (4) needs a lot of supervision
  - (5) frequently calls out in class
  - (6) has difficulty awaiting turn in games or group situations
- C. **Hyperactivity.** At least two of the following:
- (1) runs about or climbs on things excessively
  - (2) has difficulty sitting still or fidgets excessively
  - (3) has difficulty staying seated
  - (4) moves about excessively during sleep
  - (5) is always "on the go" or acts as if "driven by a motor"
- D. Onset before the age of seven
- E. Duration of at least six months
- F. Not due to Schizophrenia, Affective Disorder, or Severe or Profound Mental Retardation
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trates this dramatic change in diagnostic criteria. Particularly noteworthy was *DSM-III*'s introduction of an impulsivity component. Although impulsivity had been acknowledged in earlier descriptions (Laufer et al., 1957), this represented the first time that it was given a prominent place alongside inattention and hyperactivity. Together with the other two primary features, impulsivity thus formed what is now regarded as AD/HD's "holy trinity."

Another important change was the order in which the criteria were addressed. As might be expected from the new name, the guidelines for meeting the inattention requirements of ADDH were placed ahead of those for hyperactivity. Less readily anticipated was that the impulsivity criteria also went before hyperactivity. That hyperactivity took a back seat to both inattention and impulsivity clearly signaled its declining importance in overall clinical presentation.

In addition to conceptual modifications, *DSM-III* introduced methodological changes to reduce subjectivity and thereby increase the reliability of this diagnostic category. The changes included listings of several behaviors as manifestations of each primary symptom. Also specified were minimum numbers of symptoms that had to be endorsed from each list to determine whether clinically significant levels of inattention, impulsivity, or hyperactivity were present. *DSM-III* further stipulated onset and duration criteria to highlight the chronic nature of this disorder. Following the precedent set by *DSM-II*, there was also a requirement for ruling out alternative explanations before establishing an ADDH diagnosis. Unlike its predecessor, *DSM-III* did not include organic brain syndrome on its list of exclusionary conditions. Instead, the list comprised several mental health conditions and developmental disorders, yet another indication of the diminished role of brain damage in the disorder's etiology.

Further attesting to the elevated importance of the inattention component was the appearance of a completely new diagnostic category, or *subtype*, known as Attention Deficit Disorder (ADD) without hyperactivity (APA, 1980). The *DSM-III* description of ADD (314.00) appears in Table 1.3. The classification was used for children who met all but the hyperactivity criteria for ADDH. Although the intent of the ADD category was to highlight the inattentiveness of such children, this category was not as pure a disorder of inattention as its name implied, because children meeting its criteria also had to display clinically significant impulsivity. We now know that the pairing of inattention with impulsivity does not accurately reflect how these primary symptoms cluster, but when ADD was first conceived, many viewed inattention and impulsivity as intertwined.

Another *DSM-III* contribution was its creation of the subtype category Attention Deficit Disorder, residual type (ADD-RT; APA, 1980; Table 1.4). Although

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TABLE 1.3. Diagnostic Criteria for Attention Deficit Disorder without Hyperactivity

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The criteria for this disorder are the same as those for Attention Deficit Disorder with Hyperactivity except that the individual never had signs of hyperactivity (criterion C).

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TABLE 1.4. Diagnostic Criteria for Attention Deficit Disorder, Residual Type

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- A. The individual once met the criteria for Attention Deficit Disorder with Hyperactivity. This information may come from the individual or from others, such as family members.
  - B. Signs of hyperactivity are no longer present, but other signs of the illness have persisted to the present without periods of remission, as evidenced by signs of both attentional deficits and impulsivity (e.g., difficulty organizing work and completing tasks, difficulty concentrating, being easily distracted, making sudden decisions without thought of the consequences).
  - C. The symptoms of inattention and impulsivity result in some impairment in social or occupational functioning.
  - D. Not due to Schizophrenia, Affective Disorder, Severe or Profound Mental Retardation, or Schizotypal or Borderline Personality Disorders.
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it was not explicitly stated in *DSM-III*, the ADD-RT subtype seemed designed primarily for use with adolescents and adults, making it the first formal attempt to acknowledge that ADD features—in this case, inattention and impulsivity—might persist beyond childhood. Compared with the criteria for ADDH and ADD, the guidelines for ADD-RT were vague and unclear, thereby leaving them open to subjective interpretation. Such subjectivity notwithstanding, an interesting and unique aspect of the ADD-RT criteria was the requirement for social or occupational *impairment* resulting from the inattention and impulsivity symptoms.

From a historical perspective, the modifications that *DSM-III* made with respect to what had been known as Hyperkinetic Reaction of Childhood were dramatic, so dramatic in fact, that ADDH and its various subtypes bore little resemblance to their *DSM-II* predecessor. Especially noteworthy was *DSM-III*'s introduction of clearly delineated decision-making guidelines, which greatly facilitated clinical research and practice with this population. Of additional historical importance was the extent to which the new criteria influenced subsequent revisions of this diagnostic category.

### The *DSM-III-R* Criteria

When *DSM-III* was released, it was expected to remain in use until *DSM-IV* was developed. Unfortunately, problems surfaced in many of the clinical and research applications of *DSM-III*, so an interim diagnostic classification system was put together, leading to publication of the revised third edition (*DSM-III-R*; APA, 1987).

The diagnostic criteria for ADDH and its subtypes underwent revision as well. The end result was the creation of two new categories, Attention-Deficit Hyperactivity Disorder (ADHD; APA, 1987) and Undifferentiated Attention-Deficit Disorder (UADD; APA, 1987). Based solely upon a consideration of their names and assigned code numbers, ADHD (314.01) and UADD (314.00) certainly appeared to be the *DSM-III-R* versions of ADDH and ADD in *DSM-III*. In many

ways they were, but there were also many important conceptual and methodological differences between these disorders and their *DSM-III* counterparts.

The criteria for ADHD appear in Table 1.5. Unlike ADDH, ADHD did not employ separate symptom listings for inattention, impulsivity, and hyperactivity. Instead, it used a single list of 14 items, thereby addressing all three primary symptoms as a group. This was a direct by-product of an ongoing debate over how these symptoms clustered. Some believed that the three symptoms were distinct clinical entities and should therefore be dealt with accordingly, as had been done in *DSM-III*. Others viewed inattention–impulsivity as intertwined, distinct from hyperactivity. In contrast, factor analytic studies showed a clustering of impulsivity–hyperactivity, distinct from inattention (Achenbach & Edelbrock, 1983; Milich & Kramer, 1984). Because this situation was still unresolved prior to *DSM-III-R*'s release date, its unidimensional symptom listing approach remained in place pending further research.

Another way in which the criteria for ADHD and ADDH differed was in terms of their item content, especially for the hyperactivity component. For example, ADHD did not include *moves about excessively during sleep* or any other symptom pertaining to sleep disturbance, as had been the case for ADDH. It further redefined hyperactivity by including the symptom *often talks excessively*. This represented the first acknowledgement within the field that excessive verbal behavior could be a manifestation of hyperactivity.

TABLE 1.5. Diagnostic Criteria for Attention-Deficit Hyperactivity Disorder

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*Note:* Consider a criterion met only if the behavior is considerably more frequent than that of most people of the same mental age.

- A. A disturbance of at least six months during which at least eight of the following are present:
- (1) often fidgets with hands or feet or squirms in seat (in adolescents, may be limited to subjective feelings of restlessness)
  - (2) has difficulty remaining seated when required to do so
  - (3) is easily distracted by extraneous stimuli
  - (4) has difficulty awaiting turn in games or group situations
  - (5) often blurts out answers to questions before they have been completed
  - (6) has difficulty following through on instructions from others (not due to oppositional behavior or failure of comprehension), e.g., fails to finish chores
  - (7) has difficulty sustaining attention in tasks or play activities
  - (8) often shifts from one uncompleted activity to another
  - (9) has difficulty playing quietly
  - (10) often talks excessively
  - (11) often interrupts or intrudes on others, e.g., butts into other children's games
  - (12) often does not seem to listen to what is being said to him or her
  - (13) often loses things necessary for tasks or activities at school or at home (e.g., toys, pencils, books, assignments)
  - (14) often engages in physically dangerous activities without considering possible consequences (not for the purpose of thrill-seeking), e.g., runs into street without looking
- B. Onset before the age of seven.
- C. Does not meet the criteria for a Pervasive Developmental Disorder.
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In addition to these modifications, *DSM-III-R* stipulated that ADHD-like behaviors had to occur to a greater degree than would be expected of “most people of the same mental age,” meaning that it was no longer appropriate to arrive at either an ADHD or UADD diagnosis merely on the basis of the presence or absence of symptoms. To warrant diagnostic consideration, such symptoms had to be displayed to a degree that was *developmentally deviant*. Unfortunately, *DSM-III-R* did not give clear guidelines for determining developmental deviance, thus leaving it open to interpretation. Despite this limitation, the new mental-age requirement called attention to the need for assessing ADHD symptoms within a developmental framework—both for normal children and for those with developmental delays, which helped to ensure that only children with clinically significant behavioral difficulties would be diagnosed with ADHD or UADD. Conversely, it lessened the chance that normally functioning children would receive an erroneous diagnosis.

Following the precedent set by *DSM-II* and continued in *DSM-III*, the *DSM-III-R* criteria required ruling out certain alternative explanations before arriving at an ADHD diagnosis. Unlike its predecessors, however, *DSM-III-R* did not list affective disorder or mental retardation as rule-out conditions, instead paring its exclusionary list to a single developmental condition, Pervasive Developmental Disorder (PDD).

The other new *DSM-III-R* classification, UADD (Table 1.6), emphasized inattention. This characteristic alone suggested that UADD might be comparable to its *DSM-III* counterpart, ADD, but closer inspection showed that these disorders had less in common than their names implied. The most important difference between them was the way in which they addressed impulsivity: ADD required the presence of impulsivity, UADD did not. Not having an impulsivity requirement in its criteria made UADD a purer disorder of inattention.

Although this distinction set the stage for UADD to have a meaningful impact on the field, it did not occur for a variety of reasons. Foremost among these was that the diagnostic guidelines for UADD were extremely vague, making it hard to diagnose consistently. Also limiting its use were findings suggesting that UADD might have more in common with various anxiety disorders than with ADHD (Carlson, 1986; Lahey, Schaughency, Strauss, & Frame, 1984). As a result of this conceptual uncertainty, UADD was not presented alongside ADHD, as ADD had been alongside ADDH, but was instead relegated to a much

TABLE 1.6. Diagnostic Criteria for Undifferentiated Attention Deficit Disorder

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This is a residual category for disturbances in which the predominant feature is the persistence of developmentally inappropriate and marked inattention that is not a symptom of another disorder, such as Mental Retardation or Attention-Deficit Hyperactivity Disorder, or of a disorganized and chaotic environment. Some of the disturbances that in *DSM-III* would have been categorized as Attention Deficit Disorder without Hyperactivity would be included in this category. Research is necessary to determine if this is a valid diagnostic category and, if so, how it should be defined.

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less visible placement within a loosely defined portion of *DSM-III-R* known as “Other Disorders of Infancy, Childhood, or Adolescence.”

To the extent that ADHD and UADD replaced ADDH and ADD, one might have expected a counterpart to ADD-RT as well, but nowhere in *DSM-III-R* was there any classification even vaguely resembling ADD-RT. Elimination of this category did not imply that adolescents and adults could no longer receive a diagnosis pertaining to such problems. They still could, as long as they met criteria for either ADHD or UADD. Unfortunately, arriving at these diagnoses was not easily achieved.

In addition to this complication, there were other diagnostic difficulties associated with the new *DSM-III-R* categories. Especially problematic was *DSM-III-R*'s unidimensional symptom listing for ADHD. Although the criteria for this disorder stipulated that 8 of its 14 symptoms had to be present, there were no restrictions as to which combinations of the 3 primary symptoms might meet this requirement. Thus, some children could be labeled ADHD primarily due to inattentiveness, whereas others could be given the very same label due mainly to impulsivity or hyperactivity. Such discrepancies in clinical presentation greatly diminished this diagnostic category's reliability.

## CURRENT DIAGNOSTIC CRITERIA

### The *DSM-IV*

Although later than planned, the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; APA, 1994)* finally arrived in the spring of 1994. With its arrival came Attention-Deficit/Hyperactivity Disorder.

As can be seen in Table 1.7., AD/HD uses many of the same conceptual and methodological features that were a part of ADHD. For example, it encompasses the same 3 primary symptoms: inattention, impulsivity, and hyperactivity. Its symptom description for each bear close resemblance to the 14 items that had been listed for ADHD. Of additional importance is that AD/HD requires evidence of developmental deviance, again highlighting the importance of developmental factors in the assessment process. It also has the same onset criteria, the same duration criteria, and the same exclusionary requirement for ruling out PDD.

But there are also many new features. Among them is AD/HD's introduction of several new symptom descriptions, raising the total to 18 (9 inattention symptoms, 6 hyperactivity symptoms, and 3 impulsivity symptoms). In and of itself, this small increase in the number of symptoms available for consideration is not of any particular diagnostic significance. What is significant, however, is the manner in which this new total is organized and presented. Instead of being grouped together in a unidimensional listing, the items are subdivided into two groups. In one group are the 9 inattention symptoms, in the other are the remaining 9 hyperactivity-impulsivity concerns.

As noted, a similar two-group arrangement had been considered for *DSM-III-R*, but there was insufficient empirical evidence to justify its adoption at that

TABLE 1.7. Diagnostic Criteria for Attention-Deficit/Hyperactivity Disorder

- 
- A. Either (1) or (2)
- (1) **Inattention:** six (or more) of the following symptoms of inattention have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:
- (a) often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities
  - (b) often has difficulty sustaining attention in tasks or play activities
  - (c) often does not seem to listen when spoken to directly
  - (d) often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions)
  - (e) often has difficulty organizing tasks and activities
  - (f) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
  - (g) often loses things necessary for tasks or activities (toys, school assignments, pencils, books, or tools)
  - (h) is often easily distracted by extraneous stimuli
  - (i) is often forgetful in daily activities
- (2) **Hyperactivity-Impulsivity:** six (or more) of the following symptoms of hyperactivity-impulsivity have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:
- Hyperactivity
- (a) often fidgets with hands or feet or squirms in seat
  - (b) often leaves seat in classroom or in other situations in which remaining seated is expected
  - (c) often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)
  - (d) often has difficulty playing or engaging in leisure activities quietly
  - (e) is often “on the go” or often acts as if “driven by a motor”
  - (f) often talks excessively
- Impulsivity
- (g) often blurts out answers to questions before they have been completed
  - (h) often has difficulty awaiting turn
  - (i) often interrupts or intrudes on others (e.g., butts into conversations or games)
- B. Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years.
- C. Some impairment from the symptoms is present in two or more settings (e.g., at school [or work] and at home).
- D. There must be clear evidence of clinically significant impairment in social, academic, or occupational functioning.
- E. The symptoms do not occur exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder and are not better accounted for by another mental disorder (e.g., Mood Disorder, Anxiety Disorder, Dissociated Disorder, or a Personality Disorder).
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time (Achenbach & Edelbrock, 1983; Milich & Kramer, 1984). As more studies were done, it became increasingly clear that hyperactivity–impulsivity did cluster together, apart from inattention (Bauermeister, Alegria, Bird, Rubio-Stipec, & Canino, 1992; DuPaul, 1991; Edelbrock, 1991; Healey et al., 1993; Lahey et al., 1988). Such findings provided the additional justification necessary for including separate symptom listings in the new criteria for AD/HD.

Presenting the primary symptoms in this way allows for meaningful subtyping to occur. Although this had been possible in *DSM-III*, it was no longer just an option in *DSM-IV*. According to the new guidelines, *all* AD/HD diagnoses must now be accompanied by a subtyping distinction.

Appearing in Table 1.8. are the criteria for the three major subtype classifications in *DSM-IV*. What distinguishes one from another is whether the criteria for one, or from both, primary symptom lists are met. For example, if 6 or more symptoms from both lists are present, and if all other AD/HD criteria are met, AD/HD, Combined Type (314.01) is the diagnosis. Given that this new category encompasses numerous features of inattention, along with some combination of hyperactivity–impulsivity, it seems to be *DSM-IV*'s version of what had been ADHD in *DSM-III-R*.

Subtyping options also exist for situations wherein enough symptoms are present for one listing but not for the other. This might occur, for example, when there are 6 or more inattention symptoms, but fewer than 6 hyperactivity–impulsivity symptoms. When this situation arises, and all other AD/HD criteria are met, a diagnosis of AD/HD, Predominantly Inattentive Type (314.00) is in order. Given its emphasis on inattention, this particular category seems conceptually related to what *DSM-III-R* had termed UADD.

The other possible scenario that might unfold is when there are 6 or more hyperactivity–impulsivity symptoms but less than 6 inattention symptoms. Assuming that all other AD/HD criteria are met, the proper diagnosis for this is AD/HD, Predominantly Hyperactive-Impulsive Type (314.01). This, of course, is a completely new subtype category. Although this new category came mainly from the results of numerous factor analytic studies (DuPaul, 1991; Lahey et al.,

TABLE 1.8. Diagnostic Criteria for Combined, Predominantly Inattentive, and Predominantly Hyperactive-Impulsive Types of Attention-Deficit/Hyperactivity Disorder

Subtype category	Diagnostic criteria
Combined	Six (or more) symptoms of inattention and six (or more) symptoms of hyperactivity-impulsivity have persisted for at least 6 months.
Predominantly Inattentive	Six (or more) symptoms of inattention (but fewer than six symptoms of hyperactivity-impulsivity) have persisted for at least 6 months.
Predominantly Hyperactive-Impulsive	Six (or more) symptoms of hyperactivity-impulsivity (but fewer than six symptoms for inattention) have persisted for at least 6 months.

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1988), such statistical considerations were not the only grounds for its appearance in *DSM-IV*. Findings from various clinical investigations, which showed that symptoms of hyperactivity and impulsivity were critical in determining current and future psychosocial functioning (Barkley, Fischer, Edelbrock, & Smallish, 1990; Loeber, Keenan, Lahey, Green, & Thomas, 1993), were also influential.

Along with these subtyping changes, many other novel features are found in the criteria for AD/HD. One such modification is that there is now a requirement for establishing evidence of cross-situational pervasiveness, meaning that symptom-related impairment must exist in at least two settings. Another new feature, at least with respect to children, is that there must now be evidence that these symptoms interfere with developmentally appropriate social, academic, or occupational functioning.

Although *DSM-IV*'s requirement for ruling out exclusionary conditions is by no means new, its listing of such conditions is by far the most expansive to date. Going well beyond *DSM-III-R*'s sole requirement, ruling out PDD, this new list requires consideration of schizophrenia, psychotic disorder, mood disorder, anxiety disorder, dissociative disorder, and personality disorder before arriving at an AD/HD diagnosis. This alone is a meaningful addition to the criteria for AD/HD. Making it even more unique is the diagnostic flexibility. Whereas some conditions, such as PDD, automatically preclude having AD/HD, others, such as a mood disorder or an anxiety disorder, do not. Thus, the new guideline recognizes that although there are times when particular disorders better account for the presence of AD/HD-like symptoms, at other times these same disorders can co-exist with AD/HD.

Other important changes are found in how *DSM-IV* addresses the needs of adolescents and adults. Many of *DSM-IV*'s new symptom descriptions include wording that is more developmentally appropriate for an older group. This is evident, for example, in the phrase *may be limited to subjective feelings of restlessness*, which is parenthetically inserted alongside the hyperactivity item, *runs about or climbs excessively*.

Such phrasing adjustments are not the only way in which *DSM-IV* addresses the diagnostic needs of the older end of the age continuum. Table 1.9. shows two new subtype categories for this purpose. The first is AD/HD, In

TABLE 1.9. Diagnostic Criteria for In Partial Remission and Not Otherwise Specified Types of Attention-Deficit/Hyperactivity Disorder

Subtype category	Diagnostic criteria
In Partial Remission	Clinically significant symptoms remain but criteria are no longer met for any of the subtypes.
Not Otherwise Specified	Symptoms do not currently meet full criteria for the disorder and it is unclear whether criteria for the disorder have previously been met.

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Partial Remission, which most often applies to adolescents and adults who, as children, probably met criteria for one of the three major AD/HD subtypes, but who no longer do. Defined in this way, In Partial Remission bears close resemblance to what was known as ADD-RT in *DSM-III*. What makes it different is that a numerical coding option now allows for identifying which of the three major subtypes previously existed. For example, for someone with a history of either the Combined Type or the Predominantly Hyperactive-Impulsive Subtype, the code 314.01 is used. For those who previously met the Predominantly Inattentive Criteria, this In Partial Remission label is used again, but the numerical code is 314.00.

The other new category in *DSM-IV* is AD/HD, Not Otherwise Specified (314.9). This too is primarily intended for adolescents and adults whose symptoms do not currently meet the criteria for any of the three major AD/HD subtypes, but unlike In Partial Remission, Not Otherwise Specified does not assume an earlier AD/HD diagnosis. Instead, it might be used when there is uncertainty about the onset of AD/HD symptoms, a common complication when evaluating adults. Occasionally it arises when evaluating children too, especially children whose early histories are unclear due to chaotic home environments, multiple foster care placements, and so forth.

What should be apparent by now is that *DSM-IV* contains many new conceptual and methodological features. Although it is too early to judge their historical impact, most of these modifications seem to be an improvement over what was used in *DSM-III-R*. Perhaps most important are the three major subtyping options, especially the new Predominantly Hyperactive-Impulsive subtype. That it has been given equal status with the Combined and Predominantly Inattentive subtype reflects the increased conceptual and clinical importance of these behavioral characteristics, particularly impulsivity (Barkley, 1998).

Many other enhancements are also evident in *DSM-IV*'s approach to subtyping. For example, the rules for establishing the three major subtyping diagnoses are clear and specific, which greatly increases their reliability. Another advantage is the manner in which the diagnostic needs of adolescents and adults are addressed: No longer is it necessary for them to meet the same criteria as do children to receive a diagnosis, though this is still a possibility. Other diagnostic options exist, in the form of either the In Partial Remission or the Not Otherwise Specified classifications.

Other *DSM-IV* improvements include the requirement for evidence of psychosocial impairment resulting from AD/HD symptoms and the requirement that the symptoms show cross-situational pervasiveness. Another strength is the manner in which exclusionary issues are addressed. Not only is there an expanded listing of potential rule-out conditions, but *DSM-IV* now allows the use of certain categories on this list in either an exclusionary or a comorbid capacity.

Additional strengths are found in some of the diagnostic criteria that *DSM-IV* carried over from earlier *DSM* editions. Foremost among these is its retention of *DSM-III-R*'s developmental deviance requirement. Such continuity calls further attention to the role of developmental factors in the diagnostic

process. *DSM-IV* also uses the same onset and duration criteria that appeared in *DSM-III-R* and in *DSM-III*, again highlighting this disorder's early appearance and chronicity.

Amidst these many advantages, certain aspects of the new diagnostic criteria are problematic, particularly the lack of an operational definition of what constitutes developmental deviance. How this guideline is met is therefore open to interpretation, so clinicians and researchers are more likely to disagree about who does, and who does not, meet this criterion.

Another developmentally related concern is that the same symptom cut-points are used for all ages. Although there are no published reports to challenge its validity, preliminary data suggest that requiring 6 or more symptoms of either inattention or hyperactivity-impulsivity is too restrictive for adolescents and adults (Barkley & Murphy, 1995). For individuals at this end of the age continuum, 4 or 5 symptoms from either list may be all that is needed to establish a level of statistical deviance corresponding to that of children. Under the current guidelines, many adults and adolescents might not receive one of the three major subtyping diagnoses even when it is clinically indicated. To compensate for this, *DSM-IV* offers AD/HD, In Partial Remission, and AD/HD, Not Otherwise Specified for adolescents and adults—clearly a step in the right direction. Unfortunately, both categories contain vague language in their criteria, reducing their clinical utility and reliability.

Similar problems exist for very young children. When *DSM-III-R* was in use, there was evidence that the requirement of 8 symptoms was far too inclusive for preschoolers (DuPaul, 1991). To be sure that only those preschoolers displaying clinically significant levels of AD/HD would receive this diagnosis, some (Barkley, 1990) advocated a cutoff score of 10 symptoms. Whether this same developmental complication applies to the *DSM-IV* criteria for AD/HD remains to be seen. If the current guidelines are too inclusive, many preschoolers may be mistakenly identified as having AD/HD. Further, the wording for many of the inattention symptoms (e.g., *often has difficulty organizing tasks and activities*) is developmentally inappropriate for preschoolers, thereby effectively eliminating these items from clinical consideration. Of additional diagnostic concern is that the duration requirement of 6 months may not be sufficient for differentiating normal preschoolers from those with clinically significant behavioral problems (Campbell, 1987).

Yet another potential problem is that some members of the professional and lay community may inappropriately regard the Predominantly Inattentive and Predominantly Hyperactive-Impulsive subtypes as pure categories. Although they can be, their actual definition suggests that this is not *DSM-IV*'s primary intent. To understand this situation more fully, consider how these subtypes might apply to two children with very similar behavioral features. One child, for example, might display 6 inattention symptoms but only 5 hyperactive-impulsive symptoms and carry a diagnosis of AD/HD, Predominantly Inattentive. Another child, with 5 inattention symptoms and 6 hyperactive-impulsive symptoms, would receive an AD/HD, Predominantly Hyperactive-Impulsive

diagnosis. To think of the former child as having pure inattention difficulties and the latter as having pure hyperactive-impulsive concerns is obviously inaccurate. In view of this, clinicians and researchers must bear in mind that both categories include symptoms that go beyond what their labels suggest. Thus, although the Predominantly Inattentive Type refers to a condition in which there are *predominantly* inattention concerns, it can also encompass features of hyperactivity-impulsivity. Likewise, the Predominantly Hyperactive-Impulsive Type pertains to a condition in which there are *predominantly* hyperactive-impulsive symptoms, but it can also include elements of inattention.

### The ICD-10

Although educators and child health-care professionals in many parts of the world outside of North America would agree that symptoms of inattention, hyperactivity-impulsivity, or both constitute a diagnostic condition, they would not refer to it as AD/HD, nor would they follow the *DSM-IV* diagnostic guidelines. If a diagnosis was made at all, it would be Hyperkinetic Disorder, the criteria for which appear in the *International Classification of Diseases, 10th edition (ICD-10; WHO, 1993)*. Somewhat akin to *DSM-IV*, the *ICD-10* uses separate symptom listings comprising 18 symptoms. Unlike *DSM-IV*, the *ICD-10* utilizes a 9-item inattention list, a 5-item hyperactivity list, and a 4-item impulsivity list. Each list also differs in the symptom cut-points employed. For example, at least 6 inattention symptoms, 3 hyperactivity symptoms, and 1 impulsivity symptom must be present before considering a Hyperkinetic Disorder diagnosis. The *ICD-10* requires that these symptoms: (1) have an onset no later than 7 years of age; (2) have a duration of at least 6 months; (3) be developmentally deviant; and (4) not be due to PDD or certain other psychiatric conditions.

What should be apparent by now is that the *DSM-IV* and *ICD-10* diagnostic guidelines are similar. This is not a chance occurrence; systematic efforts were made during the development of *DSM-IV* to create a system that allowed direct comparison with equivalent *ICD-10* disorders. Thus, their symptom lists overlap. Their criteria for onset and duration, as well as some of their exclusionary criteria, are essentially identical, and both require cross-situational pervasiveness.

But there are significant differences. For one thing, *ICD-10* does not allow for subtyping. Thus, any comparison between *DSM-IV* and *ICD-10* must necessarily be limited to a consideration of AD/HD, combined type and Hyperkinetic Disorder, respectively. Also, because only one form of Hyperkinetic Disorder is available for consideration, fewer individuals would be expected to receive this diagnosis, which has clinical and research implications, especially for adolescents and adults. Another difference between *ICD-10* and *DSM-IV* is in the exclusionary criteria. In *ICD-10*, the co-occurrence of a depressive episode or an anxiety disorder automatically precludes a diagnosis of Hyperkinetic Disorder. Although *DSM-IV* recognizes that such conditions can preclude an AD/HD diagnosis, it also allows for comorbidity.



### CONCLUSION

There is little justification for claiming that AD/HD is merely a “disorder of the 90s.” More accurately, it is the most recent diagnostic label for a long-observed phenomenon: children who display developmentally inappropriate levels of inattention, impulsivity, and/or hyperactivity. Although confusing, these earlier labels were reflective of the many ways in which this disorder has been conceptualized over time.

Figure 1.1. shows the two major trends that have characterized the history of AD/HD in North America. The first trend pertains to diagnostic uniformity. From Still’s (1902) account until the late 1960s, few agreed on what to call this condition. As it became apparent that the continued use of multiple labels would seriously impede scientific progress, clinicians and researchers acknowl-

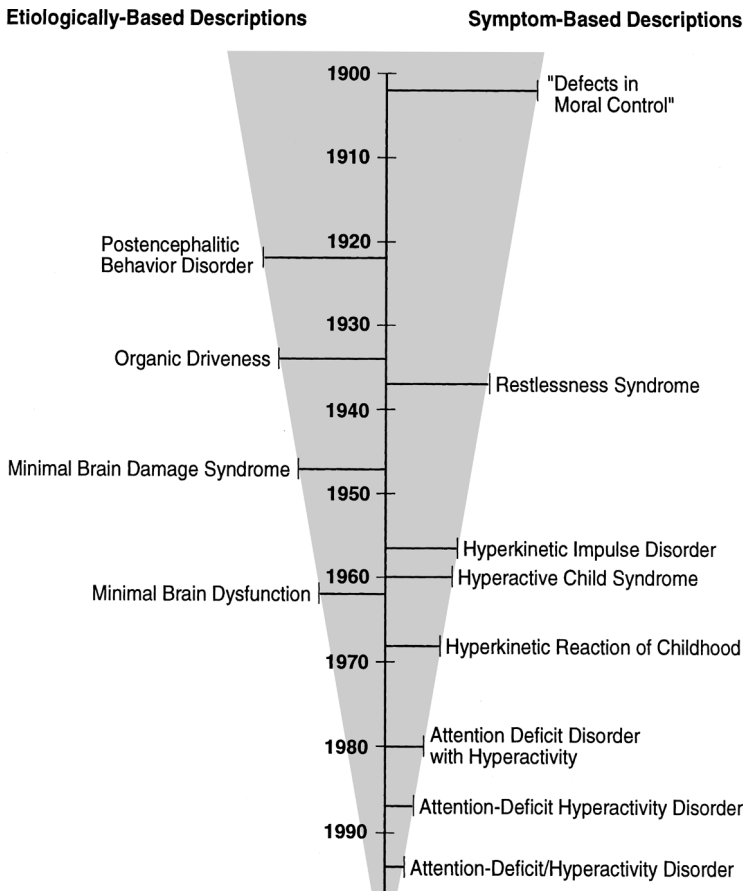


FIGURE 1.1. Historical trends in diagnosing AD/HD.

edged the need for a common diagnostic terminology. The arrival of *DSM-II* (APA, 1968) afforded the first real opportunity for this through its presentation of Hyperkinetic Reaction of Childhood. This commitment to diagnostic uniformity has since gained widespread acceptance; most professionals now use uniform diagnostic language in their descriptions of AD/HD.

The second trend pertains to *how* this disorder has been labeled. With the exception of Still's account, most early names for this condition, such as post-encephalitic behavior disorder (Hohman, 1922), reflected its presumed etiology. During the mid-1930s, a competing trend emerged in the form of various symptom-based descriptions, which included such terms as "restlessness syndrome" (Levin, 1938). Although these competing trends remained in evidence for the next 3 decades (Chess, 1960; Clements & Peters, 1962), etiologically based descriptions eventually declined as symptom-based descriptions gained wider acceptance. When Hyperkinetic Reaction of Childhood appeared in *DSM-II*, it marked the beginning of a new era in which only symptom-based descriptions were used.

As for the *DSM* diagnostic criteria, they too have undergone numerous transformations, a summary of which appears in Table 1.10. What began as a simple text description in *DSM-II* has now evolved into a complex, multifaceted depiction. Along the way there have been major shifts in conceptual emphasis, dramatic changes in how symptoms are listed, and increased awareness of the importance of subtyping. There have also been many modifications in the diagnostic procedures themselves, greatly increasing their accuracy. These include the recently incorporated requirements for establishing developmental

TABLE 1.10. Summary of Major Changes in *DSM* Criteria

Diagnostic criteria	DSM-II	DSM-III	DSM-III-R	DSM-IV
Symptoms groupings	1-factor	3-factor	1-factor	2-factor
Subtyping options	—	ADDH, ADD, ADD-RT	ADHD, UADD	C, I, HI, IPR, NOS
Symptom onset	—	<7 years	<7 years	<7 years
Symptom duration	—	6 months	6 months	6 months
Developmental deviance	—	—	Yes	Yes
Cross-situational pervasiveness	—	—	—	Yes
Functional impairment	—	—	—	Yes
Exclusionary conditions	OBD	Sx, Aff, MR	PDD	PDD, Sx, Psy, MD, Anx, DD, PD

*Note:* *DSM* = *Diagnostic and Statistical Manual*; ADDH = Attention deficit disorder with hyperactivity; ADD = Attention deficit disorder (without hyperactivity); ADD-RT = Attention deficit disorder, residual type; ADHD = Attention-deficit hyperactivity disorder; UADD = Undifferentiated attention-deficit disorder; C = combined type; I = Predominantly inattentive type; HI = Predominantly hyperactive-impulsive type; IPR = in partial remission; NOS = Not otherwise specified; OBD = Organic brain damage; Sx = Schizophrenia; Aff = Affective disorder; MR = Mental retardation; PDD = Pervasive developmental disorder; Psy = Psychotic disorder; MD = Mood disorder; Anx = Anxiety disorder; DD = Dissociative disorder; PD = Personality disorder.

deviance, for documenting functional impairment, and for considering various exclusionary conditions.

If nothing else, what this history teaches us is that AD/HD's assessment is a dynamic process. Only time will tell how well the current criteria will hold up under empirical scrutiny. In the meantime, as we use the new guidelines in clinical practice and research, it is our responsibility to adhere as closely as possible to them as they are set forth in *DSM-IV*. To the extent that we do this, our field will be in an excellent position to judge which *DSM-IV* features should be retained in any subsequent revisions.

