Attention deficit hyperactivity disorder: is it a behavior disorder or active childhood behavior?

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Abstract

Although attention-deficit hyperactivity disorder constitutes 33 to 50% of mental health referrals for children, an increasing number of researchers has begun to question the validity of ADHD as a legitimate diagnosis. Eberstadt in her 1999 review stated, "Society has changed since the mid-1980s to view what may be normal childhood activity as lack of behavioral compliance" (p.1). Could the prevalence of ADHD simply be an increasingly active society's response to normal, active childhood behavior? The purpose of this paper is to examine the history of ADHD and explore assessment methods. Data from current literature and personal interviews with recognized professionals at the University of Iowa and surrounding areas is included to provide the readers with information on current trends used to treat this disorder.

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ATTENTION DEFICIT HYPERACTIVITY DISORDER:
IS IT A BEHAVIOR DISORDER OR ACTIVE CHILDHOOD BEHAVIOR?

A Research Paper
Presented to
The Department of Educational Leadership, Counseling,
and Postsecondary Education
University of Northern Iowa

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
Larry G. Scheel
May 2001
This Research Paper by: Larry G. Scheel

Entitled: ATTENTION DEFICIT HYPERACTIVITY DISORDER: IS IT A BEHAVIOR DISORDER OR ACTIVE CHILDHOOD BEHAVIOR?

has been approved as meeting the research paper requirements for the Degree of Master of Arts

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Date Approved: March 23, 2001
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In the United States, up to 6 million school-aged children are diagnosed and prescribed medication for Attention Deficit Hyperactivity Disorder (ADHD). The number of children who have been diagnosed with ADHD has increased dramatically from 1991 to 1995 as well as children receiving medication for ADHD have skyrocketed as well, from 3500 in 1993 to 126,000 in 1998 (Eastgate, 2000). This disorder comprises 33 to 50% of all child mental health referrals (Richters et al., 1995). According to Cipkala-Gaffin (1998), these numbers translate into 10% of school-age boys and 5% of school-age girls who have actually been diagnosed and are receiving medication for ADHD.

Although this disorder constitutes 33 to 50% of mental health referrals for children, an increasing number of researchers has begun to question the validity of ADHD as a legitimate diagnosis. Eberstadt in her 1999 review stated, “Society has changed since the mid-1980s to view what may be normal childhood activity as lack of behavioral compliance” (p.1). Could the prevalence of ADHD simply be an increasingly active society’s response to normal, active childhood behavior?

The purpose of this paper is to examine the history of ADHD and explore assessment methods. Data from current literature and personal interviews with recognized professionals at the University of Iowa and surrounding areas is included to provide the readers with information on current trends used to treat this disorder.
Historical Perspective

Prior to the mid-twentieth century, children who were overly active and difficult to control by their parents often had learning problems. While these children appeared outwardly normal they were labeled as emotionally disturbed, mentally retarded, or socially/culturally disadvantaged (Silver, 1990). However, society had not identified the signs and symptoms of ADHD. Early research in the 1940s suggested these problems were caused by brain damage. It was decided that the damage must be minimal and the earliest label used to describe what is now known as ADHD was “minimal brain damage” (Silver, 1990). As studies continued, evidence of brain damage failed to emerge; it appeared that all portions of the brain were intact and functioning. Researchers then focused on how the brain functioned, rather than how it might be damaged. The term “wiring” was introduced and the label was changed to “minimal brain dysfunction” (Silver, 1990). In 1966, the definition was again changed and described as follows:

Children of near average, average or above average general intelligence with certain learning or behavioral disabilities ranging from mild to severe, which are associated with deviation to the functions of the central nervous system. These deviations may manifest themselves by various combinations of impairment in perception, conceptualization, language memory, and control of attention, impulse, or motor functions (Silver, 1990, p. 393).
It was thought that a neurological-based dysfunction caused a learning disability. Hyperactivity was, therefore, a direct result of this perceived learning disability.

The early Diagnostic and Statistical Manual for Mental Disorders (DSM-II, 1973), coined the term “hyperkinetic reaction of childhood or adolescence” when describing the hyperactive child (p.19). This disorder displayed overactivity, distractibility, and short attention span as signs and symptoms. In 1982, the DSM-III (3rd edition), again changed the name, this time to Attention Deficit Disorder (ADD). There were two sub-types: ADD with hyperactivity and ADD without hyperactivity. The definition was “the child displays for his or her chronological age, signs of developmentally inappropriate inattention, impulsivity, and hyperactivity” (p.863). In order to fall into one of the aforementioned categories, the child must display at least one of three behaviors: hyperactivity, distractibility, or impulsivity. The primary issue at that time focused on distractibility. However, in 1987, when the DSM-III-R was published, hyperactivity was identified as an important factor, thus paving the way for today’s diagnosis of ADHD.

It would hardly seem fitting to overlook the Diagnostic and Statistical Manual for Mental Disorders (DSM) when describing and addressing ADHD. The act of defining ADHD has undergone several notable revisions since the 1982 edition of the DSM-III. Pillow, Pelham, Hoza, Molina, and Stultz (1998)
indicated that the DSM-III describes ADHD as having three separate models: inattention, impulsivity, and hyperactivity, which were treated separately.

**Current Trends**

Today, the DSM-IV combines hyperactivity and impulsivity into a single model. Inattention is still considered a separate second model and when hyperactivity, impulsivity, and inattention are all present, combined type becomes the third model (American Psychiatric Association, 1994). The DSM-IV also notes comorbid conditions between ADHD, Oppositional Defiant Disorder (ODD), and Conduct Disorder (CD). With these comorbid conditions, it is difficult to conceive how a child diagnosed with ADHD could ever escape being labeled or break free from the bias that exists within a school setting or in the mental health community.

The DSM-IV lists eighteen symptoms for ADHD. A child who has six or more of the observable symptoms for at least six months, present in two different settings can be diagnosed with ADHD (Reid & Maag, 1994). These symptoms fall into three common behavioral classifications: (a) Inattention, the child has difficulty with tasks requiring long-term effort, is forgetful, disorganized and easily distracted, doesn’t listen, (b) Hyperactivity: the child fidgets, cannot sit quietly, is always in motion, talks excessively, (c) Impulsivity: the child cannot curb immediate reactions, acts or speaks without thinking, interrupts, and has difficulty waiting (CNNweb, 1999).
In reviewing the behavioral classifications, it would seem that almost any child could fall into the ADHD category at one time or another. Indeed, Cipkala-Gaffin (1998) questioned whether ADHD was a myth or a reality, due to its commonality. Her research indicated that many professionals believed adults “use it as a rationalization for children’s academic underachievement or socially unacceptable behavior” (p. 18).

The majority of children with this disorder seem to have a cluster of problems, which are often found together. This cluster consists of, but is not limited to, learning disabilities, social, and family problems (Silver, 1990). The question now becomes, does the disorder cause the behaviors, or are the behaviors a coping mechanism the individual uses to deal with the frustrations of the label?

ADHD is a neurological-based disorder, which is thought to be biological, though the precise cause is not known. Both intrinsic and extrinsic origins have been discussed as precursors for ADHD, with the primary focus of research looking at the intrinsic as the primary cause. Intrinsic factors, such as abnormalities in neurotransmitters, arousal levels, frontal lobe functioning, and response to allergens, tend to point to a genetic-based origin (Sansen, Smart, Prior & Oberklaid, 1993). They stated that the extrinsic or environmental factors often seem to play as important a role as the intrinsic. They further note a transactional biopsychosocial model of development that acknowledges both intrinsic and extrinsic causation influences are present. Research also indicates that, typically,
problems arise when there is a mismatch between the environment and the intrinsic characteristics of the child. Sansen, et al. (1993), also suggested that the origin of ADHD may be in the biological temperamental vulnerabilities of the child’s interaction with the non-optimal characteristics of their environment. They also suggested that the child who is temperamentally highly active, intense, irritable and colicky is likely to react by acting out, rather than withdrawing. “If the child’s family does not have the resources available to cope with the child, coercive cycles develop” (Sansen, et al., 1993 p. 1210). Thus, the child’s environment may play as large a role in the cause of ADHD as genetics.

A Canadian physician, Dr. Gabor Mat’e, published a book, *Scattered Minds*, which links ADHD to stress (Estgate, 2000). Dr. Mat’e is a childhood sufferer of ADHD who rejects the genetic causation of ADHD and suggested that the disorder is a result of the pressures of modern life. While he believes that there may be a genetic predisposition toward ADHD that makes a child susceptible to the disorder, he argues that the environment is the cause of the predisposition being manifested. Mat’e, whose practice deals almost exclusively with ADHD, cites recurrent themes in severe cases of ADHD, such as family strife, divorce, adoption, depression, violence, alcoholism, and sexual abuse.

Yet another area under research as a possible cause of ADHD involves prenatal complications. High levels of comorbidity between ADHD and conduct disorders, anxiety disorders, and major depression suggest that ADHD is a
heterogeneous disorder. Family genetic, twin, adoption, and segregation studies
do suggest that genes play an important role in the cause of ADHD. However,
findings of these studies also suggest that not all children with a family
predisposition toward ADHD actually develop the disorder (Sprich-Buchminister,
Biederman, Millerger, Farcone, & Lemar, 1993). Because of prenatal
complications, potential impact on brain development and functioning,
pregnancy, delivery, and infancy complications have been mentioned as
environmental risk factors for the child’s psychopathology (Sprich-Buchminister,
et al., 1993). Studies also indicate that mothers of children with ADHD have
higher rates of toxemia during pregnancy and abortions during previous
pregnancies. Additionally Sprich-Buchminister et al. reported a study conducted
by Hartsough and Lambert in 1985, that eight stresses were present in children
with ADHD that were not present in the control group. These stresses were:
maternal health during pregnancy, parity of child, fetal port-maturity, duration of
labor, fetal distresses during labor and birth, presence of congenital problems, and
health during pregnancy. Interestingly, this study found that compared to families
without a history of ADHD, children from families having these stresses tended to
have significantly higher rates of ADHD.

At the present time, the causes of ADHD are generally believed to be a
combination of genetic and environmental factors. The precise cause, however,
remains elusive and continues to be the focus of ongoing research.
Assessment Process

In order to understand the assessment process, it is necessary to note the following historical context of the diagnosis. In addition, due to the explosion in the number of children being diagnosed, the disorder continues to be mired in controversy.

A no-fault medical label that, initially, met the approval of white, middle class parents was willingly created by society. These parents did not want their children's academic problems linked with negative environmental factors commonly associated with poor minority children, many of whom were labeled as mentally retarded or emotionally disturbed (Estgate 2000). Although the current diagnosis has only been around since the 1980s, ADHD, in various different forms, has been in existence since the 1940s. Attention Deficit Hyperactivity Disorder is a psychiatric term, which describes a condition characterized by developmentally inappropriate levels of motor activity, attention, and impulsivity. The label, ADHD, along with the label, Learning Disability, can be traced to minimal brain dysfunction syndrome, which attributed behavioral and/or learning problems to some form of central nervous system anomaly (Estgate, 2000). In the past, terms such as hyperkinesis, hyperkinetic reaction to childhood, and hyperkinetic syndrome were used to emphasize overactivity or motor restlessness (Barkley, 1990). In the 1970s, those terms became outdated and hyperactivity was deemed less important than the problems of impulse control and attention.
span. However, in the 1980s, the focus shifted back to hyperactivity and this was used to distinguish factors as subcategories.

The assessment of Attention Deficit Hyperactivity Disorder can be made reliably using a well-tested diagnostic interview method employed by mental health professionals. There is no single format used in diagnosing ADHD. Some mental health professionals rely heavily on experience and the DSM-IV. These professionals conduct interviews that require medical, psychological, and educational input to identify signs and symptoms of ADHD. The signs and symptoms are then divided into two categories inattention and hyperactivity. The symptoms must present themselves to a degree, which is not consistent with those of other children at the same developmental level. Some examples of inattention are: difficulty staying on task during play or other activities, the appearance of not listening when given directions, easy distractibility during activities that require mental effort, and forgetting activities of daily living. Examples of hyperactivity are: playing with objects and/or hands or feet, leaving classroom seat or other settings where sitting is expected, having an abundance of energy, and running or climbing excessively. Some examples of impulsivity are: blurring out answers before questions are asked, finding it difficult to wait their turn in games and activities, and blurring in on or interrupting the conversation of others.
To make a diagnosis, the symptoms must be present for six months and in two separate settings. The symptoms should also create a significant impairment in social, academic, or occupational functioning.

While it is obvious that there are many children that suffer with ADHD, there is ample research to indicate that misdiagnosis may occur without proper assessment techniques. Current trends in research suggest that a multi-model approach to assessment and treatment maybe more effective than medication alone. However, interviews with one educator, Ms. Carrie Norton, and a school counselor, Ms. Carol Sissel, revealed that only observation was used as an assessment procedure.

Ms. Norton, a Grant Wood Area Education Agency employee, is member of a team of professionals responsible for assessing children. Ms. Norton reported that the process her team uses is observation of the child for two to three days in different settings. These settings might include the classroom, the lunchroom and the playground. Each member of the team uses the Connor Checklist to compute score. A recommendation, based on those scores, is made to a physician. The physician then prescribes medication. Ms. Norton indicated the physician acts somewhat as a gatekeeper between the assessment team and the family. The physician's responsibility includes gathering family history, which may point to possible stressors within the family as well as diagnosis, and prescribing medication.
It is interesting to note that children with ADHD have the ability to act appropriately in new settings for short periods of time. These brief spans of time might even include visits to the doctor’s office. It could, therefore, present a dilemma for a physician to accurately make an assessment.

Carol Sissel, a school counselor in Burlington, takes a more comprehensive approach when observing children. Her observation techniques include asking parents and teachers to fill out many different questionnaires. Ms. Sissel personally observes each child and makes a comparison with every other child in the classroom to see how often the identified child displays inappropriate behaviors versus other students who display those same types of characteristics.

Many professionals responsible for assessing ADHD used similar questionnaires, but that is about all they had in common. Assessment techniques ranged from extensive interviews with family, teachers and others to simple reliance on the family and one teacher to complete a short form.

How much do the family members and educators agree on behaviors? Some parents may not see the same type of behavior at home that educators see at school. Some parents may even choose to ignore the behaviors for fear that their child may be labeled and teased at school. Still other parents may simply be unskilled in recognizing the symptoms when they do appear.

Another problem with the questionnaire model of assessment is the difference between raters when observing the same child at the same time. To
one observer, the child may appear to be fidgeting a lot, but to another, the child may only appear to fidget a little. With such ambiguity, it becomes difficult to come to concrete agreement. "In Barkley's (1990) review of ADHD rating scales, fewer than half reported interobserver agreement, and in instances where this information appeared, interobserver agreement was below levels necessary for diagnostic decision making" (Estgate, 2000). The question now becomes, "Is the child diagnosed with ADHD or not?"

Assessment ambiguity is one of the chief reasons the ADHD diagnosis is becoming more and more widespread. For this reason, it is also becoming more and more difficult to discern whether a child has an actual disorder or whether they are merely an energetic youth. Many educators at the Iowa City Community Schools agreed with this concept, but felt that, if Ritalin affected the child's behavior positively (e.g., sitting still or learning in class), then the benefits outweighed the risks.

Our society's willingness to medicate children to help them calm down in class is setting an extremely frightening precedent. The only variant is the dosage required to achieve the desired effect. According to Carol Sissel, after a child has been on Ritalin for a certain period of time, the amount of the drug needed to achieve the same behavior needs to be increased.
Treatment Modalities

There are several modalities of treatment for ADHD. These modalities include, but are not limited to, cognitive-behavioral and multi-model treatment, medically-based or drug management, behavioral parent training, self-management, psychological therapy, and a treatment-based exercise program.

However, the most widespread form of treatment is drug management, and Ritalin is far and away the most commonly prescribed medication. In fact, Wooster (1999) described the phenomenon by noting that, "Many schools are devoted to the four R’s: Reading, Writing, Arithmetic and Ritalin" (p.86). Eberstadt (1999) reported that, every day, approximately four million children in the United States are administered Ritalin. Her research also points out that production of Ritalin has increased 700% since 1990. Not surprisingly, Wooster, and Eberstadt, both concluded that Ritalin use is out of proportion in the United States. Furthermore, the authors challenged their readers to re-examine drug management as a treatment model for children diagnosed with ADHD.

Eberstadt’s (1999) research has a direct implication, which is reflected in the following statement:

How it has come to pass that in din-de-siecle America, where every child from preschool onward can recite the ‘anti-drug’ catechism by heart, millions of middle and upper-middle class children are being legally drugged with a substance so similar to cocaine that, as one
journalist accurately summarized, 'it takes a chemist to tell the difference.' (p.2)

In contrast, a report by Schachar, Tannock, Cunningham, and Corkum (1997) viewed Ritalin as being quite beneficial for treating children with ADHD. The authors asserted that Ritalin treatment decreases aggression and produces rapid improvements in ADHD symptoms, such as overactivity, impulsivity, and inattentiveness. They further stated that side effects were minimal. One source (CNNweb, 1999) notes that some stimulants, such as Dexedrine, Adderall, and Cylert have also been effective in treating children with ADHD.

It must be emphasized that education and drug management do not cure ADHD they merely control the symptoms. Medications do not affect all the conditions of ADHD. Other forms of treatment are needed to ensure that children achieve their full potential. Research conducted by Richters, et al. (1995) found that a multi-model approach with children with ADHD was more effective than drug management alone. Their report suggested that, along with drug management, a psychosocial-based treatment should be utilized. The psychosocial treatment includes interventions, such as "classroom-based behavior modification, social skills, cognitive training, parent/home-based interventions, and intensive summer treatment programs" (p. 993).

According to Dr. P.B. Raju, founder of Psychiatric Associates of Northeast Iowa, (personal communication, September 8, 2000) medication for
children who are diagnosed with ADHD is often necessary, especially in youth ages 5-10 to control the hyperactivity. Dr. Raju further stated that a combination of cognitive behavior interventions to teach children coping skills increases the prognosis. He goes on to note that, in a majority of cases, those children who have a combination of drug therapy and psychotherapy as part of their treatment can cease taking medication by the time they reach puberty because they have learned how to control their behaviors without medication, which may have possible side effects as they grow older.

ADHD has been called the “plague of the century,” and some have even questioned whether our society is “pathologizing” children (Eberstadt, 1999). It is evident that treatment is needed to restore stability to children, families and classrooms.

The first step, then, might be to examine society’s role in the creation of ADHD. Society should be held responsible for not only failing to provide safe and effective treatment for these children and their families, but also for not providing adequate, effective training for educators. Clearly, further research is needed to investigate how to individualize treatment that not only fits the needs and abilities of these children, but also the needs and abilities of their parents and educators. It goes without saying that placing focus exclusively on the needs of the children with ADHD, would severely hamper the likelihood of effective management. The needs, abilities, and resources of those who provide direct care
and supervision to children with ADHD also need to be taken into account. Additionally, it is important that parents, educators, and pertinent others are able to establish cohesion in treatment and objective goals for children with ADHD.

Conclusion and implications for Counselors

It appears that more research is needed to adequately assess ADHD since such a large number of children are identified as ADHD. It is imperative that the professionals who make the assessments are as confident that their diagnosis is correct. While it is true that Ritalin has proven effective when administered for ADHD, its use has also been inappropriately recommended for normal, but highly energetic children. With so much knowledge and information proliferating on the subject of ADHD, it is unconscionable that incorrect diagnoses are still being made.

It is imperative that children who have disruptive behaviors have options for reining in those behaviors. It is likewise, crucial, that normal, but perhaps overactive youngsters are not labeled as ADHD and correspondingly medicated. Finding the answer to this dilemma could be as simple as taking a closer look at home and classroom behavior, and not relying exclusively on the information contained in assessment questionnaires.

It would seem that, as the new millennium dawns, there will be an increased need for trained professionals to treat burgeoning numbers of children
diagnosed with ADHD while the controversy rages over whether or not ADHD is overused as a diagnosis and whether or not these children are overmedicated.

The lack of standardized assessment techniques continues to allow for misdiagnosis. Additional research in developing techniques for assessment and treatment may provide opportunities for highly trained counselors in the future. The current trend of mental health counselors who embrace the cognitive behavioral approach to providing services also seems to be a good match with the current treatment modalities for ADHD.

As the age of managed care comes into its own it will be imperative for practitioners to develop new techniques to aid those children with maximum efficiency. It is critical that counselors become more aware of and proficient in some of the brief therapy techniques aimed at both children and families to teach parents how to help their problem children. It would seem that family therapy would also be of benefit by focusing on teaching families techniques to intervene effectively in their children’s lives.
References


