

Attention Deficit Hyperactivity Disorder

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Attention Deficit Hyperactivity Disorder

Introduction

Counseling requires knowledge of many different behaviors and disorders. In children, one of the most common problem behaviors we are faced with is Attention Deficit with Hyperactivity Disorder (ADHD). A child is exhibiting this behavior when they display inappropriate degrees of *inattention*, *impulsiveness* and *hyperactivity*. (American Psychiatric Association [APA], 1987) Most children display this behavior to one degree or another, but some require special treatment. This is an often misunderstood disorder that is often treated improperly by those who have no training or even by those who have much education in the area. This is because there is no one accepted “solution” or treatment. If we understand ADHD and its treatment for the most severe case, we may be able to apply the information to any child who is simply being hyper, inattentive, or disruptive at that moment. To become more informed in this subject, particularly for the school counselor, we will look at a general description of the disorder, the current research as to the causes of the disorder, diagnosis factors, the prevalence of the problem, and finally treatment modalities which have been shown to be effective for treating ADHD.

General Description of Children with ADHD

ADHD is a disorder occurring in children that exhibit various degrees of inattentiveness, hyperactivity, and impulsiveness. Manifestations of this disorder usually appear in most situations, including, at home, in school, and in social situations. These

problems typically worsen in situations requiring sustained attention, whereas they may lessen when the person is receiving frequent reinforcement, very strict control, or is in a new situation. These children often will not stick to tasks assigned to them and have difficulty organizing and completing work properly. They often blurt out answers inappropriately, make comments out of turn, or interrupt. In addition, they have difficulty remaining seated, they excessively run and jump about and fidget. School and daily tasks require a large amount of attention and this is where these kids are likely to exhibit this behavior. Other associated features of the disorder vary as a function of age. These include low self-esteem, mood changes, low frustration tolerance and temper outbursts. These students tend to do poorly in school. The course of the disorder varies considerably. Sometimes ADHD as a child can manifest problems later in adulthood or they may be “outgrown” (APA, 1987).

Cause of ADHD

The generally accepted cause or causes of ADHD are mostly physiological in nature. Some suggest genetics such as a problem with chromosomal anomaly like an extra Y chromosome in boys, and in girls the lack of their second X chromosome. Another genetic based disorder, Neurofibromatosis (NF), which is not more prevalent in either sex, may be related. Behavioral studies of parents of children with ADHD revealed that a family history of the disorder is four times as common in parents of children with ADHD than otherwise. Sugar and/or food additives have long been proposed as a cause of ADHD, but it has recently been shown that there is little or no documented effect on the behavior of ADHD children. There may be some prenatal causes such as prolonged oxygen deprivation, extreme prematurity, intraventricular hemorrhages, and

hydrocephalus has been linked to later behavioral problems such as these. The most common belief is that it is a neurological problem. Information moves through the brain because nerve impulses are transmitted from cell to cell by neurotransmitters. Neurotransmitters cause some nerve cells to fire (called excitation) while inhibiting others from firing. When these are not working properly, various behaviors may result. Current research is focused on the portions of the brain that may be related to ADHD. The present evidence suggests that while it cannot be concluded that *all* children with ADHD have observable evidence of neurological dysfunction, the accumulation of the data from the genetic, biochemical, neurobehavioral, and neuroimaging studies strongly suggest that there is a neurological cause in most children (Hynd, Hern, Voeller & Marshall, 1991).

Diagnosis of ADHD

When a child comes into school or our agency, we may or may not be able to quickly identify them as ADHD. The sooner we do perceive a potential problem, the sooner we may be able to work on solutions. ADHD diagnosis is difficult because many of the ADHD symptoms may be present in all kids to some degree (Essex & Schifani, 1992). It is very often misdiagnosed as a learning disability, or even not diagnosed at all. Many times parents say “Don’t worry, she’ll outgrow it” or “He’s just being a boy.” (Campbell, 1985, p. 3). Familiarity with the diagnostic criteria will also be helpful with those children who do not fit the ADHD model completely. The characteristics for diagnosis are listed below:

Criteria for Diagnosing a Child as having ADHD (APA, 1980)

- 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., blurts 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

Along with diagnosing the disorder there is a classification for the severity of the syndrome. This is determined as follows :

Criteria for Severity of ADHD (DSM III-R)

Mild: Few, if any, symptoms in excess of those required to make the diagnosis and only minimal or no impairment in school or social functioning.

Moderate: Symptoms or functional impairment intermediate between “mild” and “severe.”

Severe: Many symptoms in excess of those required to make the diagnosis and significant and pervasive impairment in functioning at home and school and with peers.

To “officially” diagnose the problem as ADHD, a psychologist must follow the above requirements and determine whether there is a case of ADHD, and what the severity is. Note from the list that the child is considered to manifest ADHD if he/she exhibits 8 or more of a list of 14 symptoms that reflect the behavior and where the onset of symptoms is before the age of 7.

An additional proposed method for diagnosing ADHD is the Multimethod Assessment of ADHD as shown below.

Multimethod Assessment of ADHD (Schaughency & Rothlind, 1991)

Assessment Question	Method of Measurement	Possible Test
1. Does this child meet the DSM-III-R diagnostic criteria for ADHD? (Those listed above)	Structured diagnostic interview	Various tests available
2. Does an alternative diagnosis or conceptualization account for his/her difficulties?	Structured diagnostic interview Other Tests as appropriate	Various tests available IQ, Achievement
3. Does this child display these behaviors to a developmentally inappropriate extent ?	Behavior rating scales with multiple informants	Various tests available
4. Do these behaviors impair the child's functioning in the school, in social relationships, and/or in the home?	Behavior rating scales with multiple informants Sociometrics Archival data-referrals, grades, classroom performance, etc.	Various tests available

There is some controversy regarding these methods of defining ADHD. This is a definition which implies that there is a “*single* unitary dimension of maladaptive behavior that encompasses inattention, impulsivity, and hyperactivity.” (Frick & Lahey, 1991, p. 165). Many studies involving analysis of teacher rating scales (where teachers survey child’s behavior) show that hyperactivity is not necessarily always present with inattention, and visa versa. This recent research shows that the disorder should be split into two distinct classifications for diagnosis. If it is, the research will hopefully be better able to isolate possible treatments. This is an example of the lack of knowledge present regarding these children. The diagnosis is an important step in the process of working with these youngsters.

Prevalence of ADHD / Typical Clients with ADHD

ADHD is one of the most common behavior disorders we can see in children. It “is one of the most frequent reasons children are referred to mental health clinics in the United States, accounting for as many as 50% of all child referrals to outpatient mental health clinics.” (Frick & Lahey, 1991, p. 163). The Diagnostic and Statistical Manual of Mental Disorders (DSM-III-R) states, “the disorder is common; it may occur in as many as 3% of children.” (APA, 1987, p. 51). More recent studies consistently point to a 5% to 10% proportion of children who have the syndrome, while, some experts believe that it may be as high as 20% (Taylor, 1990). We must remember that is *clinically diagnosed* cases. Children who do not quite meet all of the characteristics in the DSM-III-R cannot be classified as having ADHD so they will not even be included in that percentage. In addition, it is estimated that 5 to 10 times as many boys exhibit this behavior as girls (Hynd et al., 1991). To put some of these numbers in perspective then, if we have 5% of

children with ADHD, and 5 times as many of these are boys, this results in 8% of boys possibly diagnosed ADHD. If we make a less conservative estimate of 20% of children with ADHD, and 10 times as many boys with it, this results in approximately 36% of boys. The numbers with ADHD may even be higher since recent studies have shown that girls don't appear as frequently because they are not "as flagrantly active or aggressive as their male counterparts and are thus less likely to be referred for evaluation." (Hynd et al., 1991, p. 178) This means there may be even more undetected cases in girls. This may be quite significant to the teacher who has many students, since the odds are that they will see ADHD kids every year. About one third of the children continue to show signs in adulthood and a significant number of these have also been found to develop Antisocial Personality Disorder (APA, 1987, p. 51). This is certainly a disorder we will encounter often in a counseling environment.

Treatments

ADHD is a very complicated problem to treat, with no straightforward "solution." It is treated both by medical and psychological methods. The prescription of psychostimulant medications is the most frequent treatment for ADHD, with approximately 750,000 children receiving these drugs annually. It may seem paradoxical that the hyper children are prescribed stimulants, but these particular drugs have been found to stimulate the parts of the brain that seem to be related to the disorder. The three most commonly employed are Ritalin, Dexedrine, and Cylert (listed by brand names) with Ritalin (methylphenidate) accounting for more than 90% of these. About 70 to 80% of the children treated with psychostimulants respond positively, while the remainder require alternative medications such as antidepressants (DuPaul, Barkley & McMurray, 1991).

When the inattention and motor over activity associated with ADHD are diminished due to medication, learning difficulties are equally attenuated (Hynd et al., 1991). When we have a student who is on medication we must be prepared to adapt to their abilities.

Even though serious treatments often require medication, this is not the only way to work with these children. Behavioral methods often help us work with kids who may otherwise be able to absorb little information. One method is to work with adjusting the environment the student perceives. Some of these require modification of the class environment such as seating or standing arrangements or characteristics of the task (e.g., do activities along with other fun games, instead of repetitive, boring tasks). More easily applied strategies are also used. *Contingent teacher attention* constitutes the most universally employed set of classroom management techniques. Frequent verbal feedback (both positive and negative), and non-verbal feedback such as frowns, smiles and pats of approval are frequently used. *Classroom token economies* where tokens or points are awarded to be exchanged later for prizes, activities, or privileges, have been well documented as being excellent ways to motivate youngsters (ADHD and non-ADHD alike). These may or may not include loss of the prizes, activities, or privileges when the student demonstrates inappropriate behavior. A way to get parents involved is to agree on a checklist of *behavioral goals* that the instructor can send home with the child to be signed by the parent. Then the parent can provide appropriate reinforcement at home. Another method is the *time-out* period where a student is removed from the group activity for a period of time. These environmental modifications and reinforcements have been shown to be effective (Abramowitz and O'Leary, 1991).

Cognitive behavioral interventions teach students how to be their own managers of behavior. These are broken down into two categories that teach *self-monitoring and self-reinforcement*, and those that involve cognitive skills such as *self-instruction and problem solving*. Self monitoring strategies teach children to observe their own behavior while self-reinforcement involves teaching children to reward themselves based on the self-monitoring. These are taught at the end of a token economy strategy to promote maintenance of the idea (could also be at the end of a session where the student needs to go home and continue to behave). With the self-instruction method, the student is taught metacognitive skills to follow a series of steps in approaching a task (such as repeating the instructions back, verbalizing how they may attempt the task, thinking about the consequences of the approach, deciding how to proceed, performing the task, reflecting upon their performance, and evaluating their own performance of the task). Then these are changed to covert self-instructions through rehearsal. These may provide promise that the student may learn to control their behavior on their own (Abramowitz and O’Leary, 1991).

Conclusions

We have discussed the causes, diagnosis, prevalence and treatment for ADHD. With an understanding of ADHD and its treatments we can apply the information, to varying degrees, to severe cases or to any child who is simply being hyper, inattentive, or disruptive. Currently, drugs are usually a requirement for treatment, but also have undesirable side effects, most notably reduced learning capacity. The causes of ADHD are thought to be physiological in nature. Further research is providing behavioral options that may reduce or eliminate the need for medicinal treatments. I believe that in the long term we will be able to extend the behavioral and psychological options much further than it is at this time. Working with these children is very challenging. It requires quite a bit of effort on the part of the counselor, but with a clearer perception of the problem, the efforts will be fruitful, both for the counselor and for the client.

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Synopsis

Attention Deficit Hyperactivity Disorder

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Attention Deficit with Hyperactivity Disorder (ADHD) is one of the most common reported problematic behaviors in young children. It accounts for 50% of all child mental health referrals. It is an often misunderstood problem that, historically, has not been properly treated. Three percent, to as many as twenty percent of children could be diagnosed as ADHD. A child is exhibiting this behavior when they display inappropriate degrees of *inattention*, *impulsiveness* and *hyperactivity*. Current evidence points toward a physiological causality with some correlation with environmental factors. More specifically, it seems to be a neurobiological cause. Psychological diagnosis of ADHD employs specific procedures as listed in the DSM-III-R, yet many children manifest a large portion of the symptoms without “qualifying” as ADHD. Both medicinal and psychological treatments are currently in use but using drugs is the common solution used today. The most effective drugs are psychostimulant types which stimulate the portions of the brain thought to be responsible for ADHD behavior. The side effects of these drugs are often serious and can limit the child’s ability to learn even more than the original disorder. These problems with the medical solutions promote further research in psychological methods of controlling and dealing with this behavior. These techniques include strategies a teacher could use in the classroom, and techniques that teach the child to monitor their own actions. Since this is a common problem, we must understand the various factors involved so that all children can achieve their maximum potential.