Attention Deficit Disorder:
Description, Analysis, and Recommendations

An Honors Thesis (HONRS 499)

by

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ABSTRACT

While doing a practicum in an elementary school as a social work student, I came to realize the extent of problems associated with Attention Deficit Disorders within the schools, in the lives of the children who have the disorders, and in the lives of the families who must deal with Attention Deficit on a daily basis. The more students I saw who had been diagnosed with Attention-deficit Hyperactivity Disorder, the more interested I became in studying the problem. Thus, I did a great deal of research concerning Attention Deficit Disorders, and prepared this paper as a result of my findings. This paper will serve three purposes: to describe Attention Deficit Disorder, to provide an analysis of Attention Deficit Disorder, and to give my recommendations, as a social work student, to parents and teachers who suspect a child having Attention Deficit Disorder, or are working with a child who has been diagnosed as having Attention Deficit Disorder.

I have also prepared a packet of material for elementary schools to use in regards to Attention Deficit Disorder. The packet will be divided into three sections: students in grades 1-3, students in grades 4-5, and teachers. In each section I will provide material that explains what Attention Deficit Disorder is, what causes ADD, and how it is treated. The packet is divided into grade levels in order to be geared to the reading level of the students.
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There are approximately 63 million children under the age of eighteen in the United States. The most conservative estimates suggest that at least 3 to 5 percent of these children have Attention Deficit Disorder. Males with Attention Deficit Disorder outnumber females with Attention Deficit Disorder at a rate of 3:1 (Barkley, 1991). While the disorder is most commonly found in children, one to two thirds of children with Attention Deficit Disorder carry symptoms over into adulthood (Fowler, 1990). The problems children with Attention Deficit Disorder encounter are numerous and often devastating if left untreated. ADD children have problems at home, at school, and in public and these problems often extend into adulthood and affect relationships and employment.

The cause of Attention Deficit Disorder is not completely understood, and the treatment of the disorder is controversial. Attention Deficit Disorder is difficult to diagnose so many children with Attention Deficit Disorder go undiagnosed and untreated. In this paper, I will attempt to explain Attention Deficit Disorder and make recommendations so that parents and professionals will be better equipped to deal with the problems associated with Attention Deficit Disorder.
WHAT IS ATTENTION DEFICIT DISORDER?

Attention Deficit Disorder is a chronic developmental disorder of children and adults that is comprised of deficits in sustained attention, impulse control, and the regulation of activity level to situational demands. The predominate characteristics of Attention Deficit Disorder are: poor sustained attention or persistence of effort to tasks, impaired impulse control or delay of gratification, excessive task-irrelevant activity or activities poorly related to situational demands, deficient rule-following, and greater than normal variability during task performance (Barkley, 1991). Although individuals without Attention Deficit Disorder may show some of these characteristics, what distinguishes the ADD individual from others is the greater degree and frequency with which these features are displayed by the individual with Attention Deficit Disorder.

DEFINING ATTENTION DEFICIT DISORDER

The term Attention-deficit Hyperactivity Disorder is fairly new. Attention-deficit Hyperactivity Disorder has been referred to in the past as Minimal Brain Dysfunction, Hyperkinetic Syndrome, Hyperactivity Syndrome, and Attention Deficit Disorder with Hyperactivity (Garcia, 1991). Until 1980 the Diagnostic and Statistical Manual of Mental Disorders (DSM III) termed the disorder Attention Deficit
Disorder and divided it into three types (Parker 1993). These three types of Attention Deficit Disorder were: Attention Deficit Disorder with Hyperactivity (ADHD), Attention Deficit Disorder without Hyperactivity (ADD), and Residual Attention Deficit Disorder. Attention Deficit Disorder with Hyperactivity included children who had three core problems; attentional problems, impulsivity problems, and hyperactivity problems (Ingersoll, 1993). Attention Deficit Disorder without Hyperactivity occurred in those children who had attention problems, but did not have problems with impulsivity or hyperactivity (Parker, 1992). Residual Attention Deficit Disorder included those adults who may have had Attention Deficit as a child and then had to deal with the emotional or psychological problems that might have resulted from having this disorder without having been treated (Hunsucker, 1993).

In 1987, the American Psychiatric Association published the current Diagnostic and Statistical Manual of Mental Disorders, DSM III-R. In the DSM III-R, the American Psychiatric Association redefined Attention Deficit Disorder and grouped it into two different groups, Undifferentiated Attention Deficit Disorder (UADD) and Attention-deficit Hyperactivity Disorder (ADHD) (Parker, 1992). The first group, Undifferentiated Attention Deficit Disorder includes children who have attentional deficits, but are not hyperactive or impulsive. Children with UADD have a higher rate of learning problems than the hyperactive-impulsive
group (ADHD) (Parker, 1992). While the DSM III-R does not give criteria for the UADD group, it does give criteria for the ADHD group. The following are the current guidelines for defining Attention Deficit Hyperactivity Disorder (ADHD) according to the DSM III-R (American Psychiatric Association, 1987):

A. A disturbance of at least six months during which at least eight of the following things occur:

1. The child often fidgets with hands or feet or squirms in his seat. In adolescents, the symptoms may be limited to subjective feelings of restlessness.
2. The child has difficulty remaining seated when required to do so.
3. The child is easily distracted by extraneous stimuli.
4. The child has difficulty awaiting his turn in games or group situations.
5. The child often blurts out answers to questions before they have been completed.
6. The child has difficulty following through on instructions form others (not due to oppositional behavior or failure of comprehension); for example, the child fails to finish chores.
7. The child has difficulty sustaining attention in tasks or play activities.
8. The child often shifts from one uncompleted activity to another.

9. The child has difficulty playing quietly.

10. The child often talks excessively.

11. The child often interrupts or intrudes on others; for example, he might often butt into other children's games.

12. The child often does not seem to listen to what is being said.

13. The child often loses things necessary for tasks or activities at school or at home - toys, pencils, books, assignments for example.

14. The child often engages in physically dangerous activities without considering possible consequences; however, not for the purpose of thrill-seeking. For example, the child might run into the street without looking for cars.

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

B. The onset occurs before age seven.

C. Does not meet the criteria for a Pervasive Developmental Disorder.
For the purpose of this thesis, I will group both types of Attention Deficit Disorder together and refer to this as Attention Deficit Disorder or ADD. This will include all levels of Attention Deficit Disorder in general. Since all individuals vary in the extent that they have problems associated with Attention Deficit Disorder, it would be nearly impossible to describe every problem individuals may encounter. Therefore, I will focus on the problems that the majority of children with Attention Deficit Disorder encounter.

ASSOCIATED DISORDERS

As many as 25 percent of children diagnosed with Attention Deficit Disorder also have documented learning disabilities. This means that in the population of children age eighteen and under (63 million), approximately 2-3 million have Attention Deficit Disorder, and of these, approximately 47-78 thousand have learning disabilities. On the other hand, approximately 5 to 10 percent of children in the United States have learning disabilities and approximately one-third of these children also have ADD. So, 3-6 million children in the United States have learning disabilities and 1-2 million of these children have Attention Deficit Disorder. In conclusion, anywhere from 5 to 10 million children have ADD and/or learning disabilities (Ingersoll, 1993). While this is a small percentage of the
total population of children under age eighteen, the overall numbers are high. It is the responsibility of the American school system to educate these 5-10 million children with learning disabilities and/or Attention Deficit Disorder. With these large numbers of students requiring special attention, the resources spent on these students is high. Therefore, the large number of children with learning disabilities and/or Attention Deficit Disorder is important.

ADD AND LEARNING DISABILITIES

There are three theories that explain the positive correlation between Attention Deficit Disorder and learning disabilities. First, let me define learning disabilities. According to Public Law 94-142, the Education for All Handicapped Children Act, learning disabilities are disorders in one or more of the basic processes involved in understanding or in using language, spoken or written. This may take the form of imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. Federal guidelines state that in order for a child to be considered learning-disabled, there must be a significant discrepancy between the child's potential for learning and his actual academic achievement in one of the following seven areas: oral expression (speaking), listening comprehension (understanding), written expression, basic reading, reading comprehension, mathematics
calculations, or mathematics reasoning (problem solving) (Ingersoll, 1993).

The following are the three theories as to why there is a positive correlation between Attention Deficit Disorders and learning disabilities. First, ADD children have difficulty with academic achievement because they are inattentive and impulsive. According to this theory, children with Attention Deficit Disorder commonly have learning disabilities because their excessive motor activity interferes with the input of new learning so they become learning disabled. Several researchers have found that when ADD children were able to inhibit their activity level and receive needed information, they were able to function as successfully as normal children (Semrud-Clikeman, et.al, 1992). This research supports the theory that the activity of children with ADD interferes with their learning, resulting in the child having a learning disability.

The second theory concerning the relationship between Attention Deficit Disorder and learning disabilities states that learning disabled children "turn off and tune out" in the classroom because the work is so difficult for them (Ingersoll, 1993). According to this theory, the school work is so hard for children with learning disabilities that they stop focusing their attention on their work and focus their attention elsewhere in order to avoid failing at their work. According to this theory, learning disabled children simply give up and find other things to do than to pay attention in class.
The third theory of correlation between Attention Deficit Disorder and learning disabilities states that ADD and learning disabilities share a common genetic cause, resulting in the comorbidity of the disabilities. Based on this theory, certain learning disabilities, dyslexia for example, and ADD may share a common etiology. Therefore, a child who inherits one condition, will also inherit the other condition. Twin studies have proved that both learning disabilities and Attention Deficit Disorders do have a genetic component, and that there are higher levels of comorbidity between monozygotic twins than dizygotic twins, but the evidence is small at the present time (Gilger, et.al., 1992).

In essence, all three theories have some merit and the high correlation rate between Attention Deficit Disorder and learning disabilities may be a combination of all three theories (Ingersoll, 1993).

CAUSES OF ATTENTION DEFICIT DISORDER

Currently there is no definitive cause of Attention Deficit Disorder. There are however, many theories about the cause of Attention Deficit Disorder. It is likely that the etiology of Attention Deficit Disorder is a combination of factors including: organic factors such as trauma, infection, lead intoxication, and significant perinatal factors; predisposing genetic factors; or psychosocial
factors such as anxiety, inadequate nurturance by parents, and environmental stresses (Office for Medical Applications, 1982). In this section I will discuss the possible causes of ADD including: heredity, physiological causes (toxins, nutrition, and brain structure), prenatal factors, and psychosocial causes.

Heredity:

One theory of the cause of Attention Deficit Disorder centers on ADD being hereditary. Several genetic disorders include Attention Deficit Disorder in their phenotypes. These disorders include: Turner syndrome (45, X) in females, 47 XYY in males, and fragile X syndrome. Attentional problems also appear to be part of the behavioral phenotype of children with neurofibromatosis (Pennington, 1991). Another basis for Attention Deficit Disorder being hereditary is the increase in rates among first and second degree relatives compared to the rates among relatives of control groups. Children with ADD are four times more likely to have a close family member with ADD. Twin studies conducted in 1989 support the theory that hyperactivity and inattentiveness are hereditary. Monozygotic twins have a higher rate of hyperactivity and inattentiveness than do dizygotic twins (Pennington, 1991) and since these are two very common characteristics of Attention Deficit Disorder, it is possible that ADD is inherited. When we examine
twins, we find that identical twins are much more likely to share ADD than dizygotic twins or other siblings (Ingersoll, 1993).

Physiological causes:

One theory of the cause of Attention Deficit Disorder that is physiologically based is that diet causes ADD. One variation of this theory was proposed by Benjamin Feingold in 1977 (Koziol, et.al., 1993). Feingold hypothesized that two groups of food cause hyperactivity in children. The first group of foods are those high in salicylates. This includes food such as almonds, cucumbers, tomatoes, berries, apples, oranges, and other fruits high in salicylates. The second group of foods that Feingold proposed cause hyperactivity are any foods which contain artificial colors and flavors with the exception of butylated hydroxytoluene (BHT).

Another theory that supports the cause of Attention Deficit Disorder as being dietary involves the food dye erythrosine (FDC Red Dye No. 3). This theory suggests that erythrosine inhibits neurotransmitter uptake and thus causes ADD (Office for Medical Applications of Research, 1982). To date, evidence fails to support a link between diet and children's behavior (Koziol, et.al., 1993).

Another physiologically based theory on the cause of Attention Deficit Disorder is that environmental toxins
cause ADD. Lead is currently the most researched toxin in reference to Attention Deficit Disorder (Ingerrssoll, 1993). Some research supports this theory while other research discards it. In two studies supported by the National Institute of Environmental Health Sciences (NIEHS), evidence suggests that maternal exposure to lead can adversely affect neurobehavioral development through its effect on slowing fetal growth and delaying fetal maturation. These studies suggest that blood levels considered safe for children are not safe for a fetus (Levine, 1988).

Another theory concerning the cause of Attention Deficit Disorder as being physiologically based is that there is a chemical imbalance which affects the neurotransmitters in the brain. It is believed that the problem is located in the pre frontal cortex of the brain. This area is responsible for planning and regulating human behavior (Hunsucker, 1993). This theory proposes that there is an abnormality in the neurotransmitters (chemicals which regulate brain cell functions and facilitate how the brain regulates behavior) in the brain, and in particular, the neurotransmitters dopamine and norepinephrin. Simply stated, the chemical messengers in the brain are not working correctly, and Attention Deficit Disorder results.
Prenatal causes:

Prenatal factors may also cause Attention Deficit Disorder. There is no evidence to suggest that a difficult labor or fetal distress during the birthing process cause Attention Deficit Disorder. There is however, evidence that damage prior to birth may contribute to Attention Deficit Disorder. Mothers of children with ADD often report having been in poor health during their pregnancies and many report having had preeclampsia, a serious condition characterized by high blood pressure, fluid retention, and protein in the urine (Ingersoll, 1993). Hypoxic brain injury, injury due to a lack of oxygen before birth, can also be a contributing factor to Attention Deficit Disorder (Fowler, 1990). Drug and alcohol use during pregnancy contribute to babies who suffer from a variety of problems as well, including learning disabilities and possibly Attention Deficit Disorder.

Psychosocial causes:

The final theory of causes of Attention Deficit Disorder that I will discuss is that ADD is psychosocially based. Many people feel that Attention Deficit Disorder is the result of poor parenting. This theory rationalizes that parents have done a poor job raising their children and the children have not been taught how to act or that the
children have some psychological problem stemming from the way they were raised that causes them to misbehave (Hunsucker, 1993).

The most commonly accepted theory is that Attention Deficit Disorder is the result of a combination of all of the previous theories. Each individual's disorder is unique and can be caused by any one of the previously mentioned theories. However, the most common cause is physiological, either genetically inherited or resulting from problems with neurotransmitters in the brain.

**DIFFERENTIAL DIAGNOSIS**

There is no diagnostic test that can give concrete positive or negative results for Attention Deficit Disorder. No psychological test, blood test, neurological test, or achievement test alone will detect Attention Deficit Disorder. The diagnosis of Attention Deficit Disorder takes a multifaceted approach including educational, psychological, and medical assessments. Since the diagnosis of Attention Deficit Disorder is based largely on signs and symptoms, it is important to understand what the major signs and symptoms of Attention Deficit Disorder are. In this section, I will first discuss the signs and symptoms used in diagnosing Attention Deficit Disorder and then I will discuss the multifaceted approach to diagnosing the disorder.
Common Symptoms:

I previously listed the symptoms included in the DSM III-R definition of Attention Deficit Disorder. The primary characteristics of Attention Deficit Disorder are inattention, impulsiveness, and hyperactivity. However, all children do not exhibit these behaviors in all situations. ADD children's behavior varies greatly, but most do share common symptoms. Some of the common symptoms of inattention in children with Attention Deficit Disorder are:
- the inability to adequately maintain sustained behaviors
- the inability to stay on task
- being easily distracted from work
- behavior that is not goal oriented
- difficulty following directions
- not finishing what is started

Some of the signs of impulsiveness in children with Attention Deficit Disorder are:
- being disruptive in class
- not taking turn in games
- intruding in conversation
- answering before questions are finished
- speaking out before thinking

Some of the signs of hyperactivity in children with Attention Deficit Disorder are:
- constant fidgeting
- partaking in risky behavior
- being aggressive
- having a high pain tolerance level
- being disorganized

These are many of the behaviors that are symptomatic of Attention Deficit Disorder and will be used when making the diagnosis of Attention Deficit Disorder (Hunsucker, 1993).

Team Assessment:

The diagnosis of Attention Deficit Disorder is a team approach which should be made only by trained professionals. While the diagnosis will be made only by professionals, the evaluation process will include professionals as well as friends and family members. The process of diagnosing ADD should include educational, psychological, and medical assessment.

Educational Assessment:

Educational assessments should be made to compare the child's intellectual abilities with the child's academic achievement. In children with Attention Deficit Disorder, there is commonly a large discrepancy between ability and achievement and it is important to look at where these discrepancies occur (Moss, 1990). Educational assessment will include intelligence tests, reports from the teacher regarding the student's ability to finish work, follow rules, and respect the teacher's authority.
Psychological Assessment:

A psychological assessment is also needed to diagnose Attention Deficit Disorder. This assessment will be made in regards to both the child individually and the entire family. This assessment will include a family history of psychological aspects (since ADD may be inherited or influenced by family dynamics) and a history of the child's development. Many children who have Attention Deficit Disorder also have other psychological disorders. For example, about 30 to 50 percent of children with ADD have a conduct disorder, about 35 percent have oppositional defiant disorder, about 25 percent have anxiety disorders, and about 20 percent have major depression (Koziol, et.al., 1993). Therefore, it is essential to distinguish between these disorders and Attention Deficit Disorder in order to properly treat the separate disorders. A child's behavior history (which can be evaluated by family, friends, or teachers) can give an indication of previous behaviors which would signify Attention Deficit Disorder. This would include information about the child's peer relations and prior behavior problems. It is also necessary to evaluate the child's and family's current emotional state for use in formulating a comprehensive treatment plan.
Medical Assessment:

The other aspect of diagnosing Attention Deficit Disorder is a medical assessment which will be used to rule out other medical conditions that could be resulting in symptoms similar to Attention Deficit Disorder. The medical assessment will rule out other problems such as allergies, epilepsy, and neurological diseases. The medical assessment will also help give deduce the cause of Attention Deficit Disorder, if a diagnosis is made. The medical assessment will include the medical history of the child and of family members. It will also include a thorough physical examination of the child.

Direct Observation:

Another tool used in the diagnosis of Attention Deficit Disorder is direct observation of the child by a trained professional. This can take place in a variety of settings so that the professional in charge of the diagnosis can get a true picture of the child's behavior (since reports given by parents and teachers may be biased). This will allow the practitioner to measure the extent of the symptoms of Attention Deficit Disorder displayed by the child.

In conclusion, the diagnosis of Attention Deficit Disorder demands a team approach with a number of people working together to make appropriate assessments of the
child and the child's family. Only trained professionals should attempt to diagnose Attention Deficit Disorder, but parents, teachers, and friends should be willing to participate in the assessment of the child's behavior.

TREATMENTS

There is no cure for Attention Deficit Disorder, but there are treatments that help reduce the level of symptoms and increase the level of coping with Attention Deficit Disorder for the child as well as the child's family. This section will be divided into two parts. Part one will include unreliable treatment methods that have been proposed and part two will include reliable treatment methods.

Unreliable Treatment Methods:

There are a number of ways of treating Attention Deficit Disorder that have been proposed, but are not supported by research as being reliable. These include: a change in diet, the use of megavitamins, and chiropractic treatment. Changing the diet of children does not appear to treat Attention Deficit Disorder. As previously stated, one proposed cause of ADD is based on nutrition. However, theories based on diet being a cause of Attention Deficit Disorder do not have much support, so neither does using diet as a treatment method. While it has been
proposed that eliminating foods high in salicylate, artificial flavorings, synthetic food colorings, and sugar could help in the treatment of Attention Deficit Disorder, there is no reliable research to support this (Moss, 1990).

Another form of treatment for Attention Deficit Disorder that has been proposed, but does not hold much merit is the use of megavitamins in very high doses. According to one theory, some people have a genetic abnormality which results in increased requirements for vitamins and minerals. When the requirements are not met, the result is learning and behavioral problems. According to this theory, the way to prevent the behavioral problems is to increase the vitamins and minerals. This theory has been discounted by the American Psychiatric Association and the American Academy of Pediatrics as being useful in treating Attention Deficit Disorder (Koziol, et.al., 1993).

Another treatment method for Attention Deficit Disorder is chiropractic treatment. It has been proposed that one cause of learning disabilities and Attention Deficit Disorder is the misalignment of two specific bones in the skull, the sphenoid and the temporal bones, causing pressure on the brain which causes it to malfunction. According to this theory, treatment of Attention Deficit Disorder and learning disabilities would be the realignment of these bones via chiropractic adjustment. This theory has not been recognized by the American Chiropractic Association and is
not consistent with evidence that the cranial bones do not move. Although studies have supported this approach of treatment, they lack validity and reliability. Therefore, this form of treatment does not hold much merit (Ingersoll, 1993).

Reliable Treatment Methods:

One method of treatment that does prove reliable for at least some children is medication. There are currently several types of medication used in the treatment of Attention Deficit Disorder. In this section, I will focus on the use of stimulant medication, antidepressants, and antihypertensive medication. Stimulant medication, in the form of methylphenidate (Ritalin), pemoline (Cylert), and dextroamphetamine (Dexedrine), is the most common form of pharmacologic treatment of Attention Deficit Disorder (Braswell, 1991). The most common forms of antidepressants used in the treatment of Attention Deficit Disorder are: imipramine (Tofranil), desiprimine (Norpramine), and amitriptylin (Elavil) (Parker, 1992). The most common form of antihypertensive medication used in the treatment of Attention Deficit Disorder is clonidine, or Catapress. In this section, I will discuss these different types of medication and their use in treating Attention Deficit Disorder.
STIMULANTS:

Stimulant use in treating Attention Deficit Disorders appears to be the most effective treatment to date. Approximately 80 percent of children who have Attention Deficit Disorder respond to stimulant treatment (Lovejoy, 1987). Ritalin is by far the most frequently used stimulant medication to treat Attention Deficit Disorder. Ritalin is a mild central nervous system stimulant that works by stimulating the release of neurotransmitters to improve concentration. Ritalin is available as tablets of 5,10, and 20 mg for oral administration (Barnhart, 1988). Ritalin comes in a sustained release form that takes effect within thirty to ninety minutes after ingestion (Parker, 1992). Ritalin is not addictive nor is a tolerance for the drug developed over time (Moss, 1991). However, some children do have a "rebound effect" a few hours after the last of 2-3 dosages is taken in the day. This "rebound effect" occurs from withdrawal from the drug and may result in the child displaying more severe signs of Attention Deficit Disorder temporarily (Parker, 1992). There is some evidence that Ritalin may result in a decrease in growth velocity. This slowed growth rate occurs for the first year or two, but then returns to normal. Also, by children taking "drug holidays" or breaking from their Ritalin during vacation periods from school, are able to catch up during these periods (Moss, 1990).
There are warnings for using the drug Ritalin. Children under six years of age should not use this drug since safety and efficacy in this age range have not been determined. Pregnant women should also abstain from using this drug due to a lack of studies. Ritalin should be given cautiously to those with a history of emotional instability since those patients may increase the dosage on their own (Barnhart, 1988). Ritalin also has many side effects which vary from one individual to another. Some of the side effects of Ritalin are: anorexia, abdominal pain, drowsiness, and an increase in heart rate (Cowert, 1988).

Ritalin is a controversial drug and I will discuss the controversy around Ritalin in the final section of this paper.

Another medication used to treat Attention Deficit Disorder is Cylert. Cylert is a central nervous system stimulant that comes in 18.75 mg, 37.5 mg, or 75 mg for oral administration (Parker, 1992). The duration of the effectiveness of Cylert is more than Ritalin (8 to 12 hours for Cylert and 3 to 5 hours for Ritalin), but the time it takes for Cylert to reach its maximum level of effectiveness is longer than for Ritalin. Cylert takes 4 to 6 weeks before reaching maximum levels of effectiveness. Like Ritalin, Cylert does have adverse effects for some individuals. Decrements in growth have been reported with the long term use of stimulants. As with the use of Ritalin, drug holidays should be taken from this drug.
Also, Cylert is metabolized by the liver. Hepatitis and jaundice have been reported in people taking Cylert. Therefore, liver function tests should be performed routinely to check for any reaction (Barnhart, 1988). Again, pregnant women, very young children, and people with emotional problems should not be taking this medication unless it is monitored continuously (Barnhart, 1988).

One other stimulant medication that is used frequently is Dexedrine. Dexedrine is a central nervous system stimulant taken orally as a time released capsule. Dexedrine is not recommended for children under three years of age. This medication should be discontinued in cases where tics or Tourette's syndrome results and growth should be consistently measured (Barnhart, 1988).

ANTIDEPRESSANTS

The three antidepressant medications most frequently prescribed are imipramin (Tofranil), desiprimine (Norpramine), and amytriptyline (Elavil), which are usually prescribed for those children who did not benefit from stimulant therapy (Parker, 1992). The time it takes for these medications to take effect is slower than for stimulant medication and may take several days to take effect. While the long term side effects of these three antidepressants have not been research well, some of the common side effects are: constipation, elevated blood
pressure, confusion, and possible precipitation of manic-like behavior (Parker, 1992).

CLONADINE

Clonadine (Catapress) is a blood pressure regulating medication which can also be used for treating the children with the most severe overactive and aggressive behavior. Catapress is not recommended for those children who have Attention Deficit Disorder without hyperactivity. Catapress can be administered orally or through a skin patch. It takes Catapress about two weeks to affect symptoms of Attention Deficit Disorder and maximum effectiveness may take two to three months. The major side effects of Catapress are: sedation which occurs about one hour after administration and lasting 30 to 60 minutes, improved sleep, improved appetite, and facilitated growth (Parker, 1992).

BEHAVIOR MANAGEMENT

Another form of treatment for Attention Deficit Disorder is behavior management. The goal of behavior modification is to teach the child appropriate conduct for real-life situations (Lovejoy, 1987). Behavior management includes the parents as well as the child. The parents must provide a very structured and supportive environment for the child. The family must work as a unit to set expectations,
rules, rewards, and reasonable punishments. Parents must consistently reward the child for appropriate behavior and punish inappropriate behavior. Responses to a child's behavior must always be consistent, immediate, and unmistakable. At the same time the child should be aware that he or she is not being punished for having Attention Deficit Disorder, but for his or her behavior (Lovejoy, 1987).

PARENT SKILL TRAINING

Based on the theory that poor parenting is a cause for Attention Deficit Disorder, another treatment approach is teaching parenting skills to parents. All parents of children with Attention Deficit Disorder will benefit from being educated about what Attention Deficit Disorder is. Teaching parenting skills to parents may help in some cases of Attention Deficit Disorder because the parents will learn how to cope with the child and the disorder. However, since most research points to parenting skills as being only a very slight contributing factor to Attention Deficit Disorder, teaching parenting skills probably will not alleviate the disorder. Learning parenting skills can give parents the skills they need in order to effectively help their child through behavior modification and help them deal with the symptoms better.
There are several issues surrounding Attention Deficit Disorder that have raised controversy in the last few years. Some of the issues that have raised controversy focus on the cause of Attention Deficit Disorder, the diagnosis of Attention Deficit Disorder being so widespread, the effects of the drug Ritalin, and whether Ritalin is overdiagnosed.

I have previously discussed many of the theories related to the cause of Attention Deficit Disorder. Currently the most acceptable cause of Attention Deficit Disorder is that it is neurological based and that genetics are responsible for the disorder. However, there is ongoing debate as to what extent a child's environment can cause Attention Deficit Disorder. While some theories totally dispell environment as a cause of Attention Deficit Disorder, others try to prove environment does cause, or at least contribute to, Attention Deficit Disorder.

Another controversy concerning Attention Deficit Disorder is that the numbers of children being diagnosed with the disorder are rising. The debate questions whether the disorder is being appropriately diagnosed or whether it is a catch all term for children with behavior problems. It is true that there are cases where Attention Deficit Disorder is wrongly diagnosed. This is why diagnosis of ADD should be a multifaceted approach. Attention Deficit Disorder should be diagnosed only after a variety of other
syndromes can be ruled out and the person diagnosing the disorder has the proper training to do so.

Another controversy is the effects of the stimulant drug Ritalin. Many allegations about the drug have been made including the allegations that Ritalin causes depression, psychosis, and Tourette's syndrome. It is true that in rare cases, these may result from the use of Ritalin, but it is controversial as to whether Ritalin is the cause of these or whether they would have been present even without Ritalin being administered. This topic continues to be controversial until research has been done to support either side (Mare, 1989).

One other controversial issue surrounding Attention Deficit Disorder is whether Ritalin is overprescribed. This is controversial because some physicians prescribe Ritalin without knowing the proper dosage or what side effects the medication may cause. Physicians need to be individualizing dosages before prescribing any form of stimulant medication.

RECOMMENDATIONS

Based on my analysis of the research I have conducted and the work I have done with children with Attention Deficit Disorder, I will now make my recommendations for parents and professionals. I will divide this into two sections, recommendations for parents and recommendations for professionals within the school system (especially teachers and social workers).
Recommendations for parents:

There are two cases that I will make recommendations for in regards to parents. The first being if the parents suspect their child may have Attention Deficit Disorder and the second, if parents find out their child has ADD through a diagnosis. My recommendation for parents who suspect their child may have Attention Deficit Disorder is to have the child evaluated by several professionals. This will include physicians (in order to rule out the possibility that some other medical condition is causing the behavior problems), teachers (in order to get an evaluation of the child's behavior at school), and child psychologists (in order to rule out the possibility that some psychological problem is not the cause of the child's behavior problems). Since a diagnosis is often difficult to make, I would recommend that parents get the opinion of several professionals before coming to a conclusion as to whether their child does or does not have Attention Deficit Disorder.

If a child is diagnosed as having Attention Deficit Disorder, there are several other steps parents need to take. First, parents need to work with their children to help the children understand that their illness is just like any other illness, in the fact that it is not their fault. However, at the same time, parents must help their children
understand that although they do have the illness, they are still responsible for their behavior.

The parents need to also work with the school and psychologists on devising a plan of intervention for the child. All children who have Attention Deficit Disorder will benefit from a behavior modification program in the school, at home, or both. Parents can work with the professionals to devise such a program. Some children may also benefit from the use of medication. Parents can work with professionals to determine whether their child will receive medication, and again, I stress the importance of getting more opinions than just one. Before children begin receiving medication, parents need to have several professionals' opinions supporting the use of medication, they need to fully understand the risks of using medication, they need to fully understand how the medication must be used and taken, and they need to fully understand what side effects to look for when the child begins taking the medication. These needs are essential for parents if their child is diagnosed as having Attention Deficit Disorder.

I have one final recommendation for parents who have a child who has been diagnosed with Attention Deficit Disorder. This recommendation is to get help for themselves in order to better deal with their child and their own stresses resulting from their child having Attention Deficit Disorder. Whether it be through individual counseling or through joining a support group, parents need to get help for themselves in order to better help their child.
Recommendations for professionals:

Since many of the problems children with Attention Deficit Disorder encounter occur in school, I will focus my recommendations on professional within the school system, and in particular, teachers and social workers. Based on my analysis of Attention Deficit Disorder, I have several recommendations to make for professionals within the school system. First, all teachers, social workers, and other personnel in the schools should have a basic understanding of what Attention Deficit Disorder is, and what signs to look for in students. If a teacher suspects a student has Attention Deficit Disorder, that teachers should discuss those concerns with the social worker, child psychologist, or other personnel within the system that is qualified to assess the student's behavior. The teacher should make written assessments of the student's behavior and keep records of inappropriate behavior in order to show the social worker exactly what the student is doing that suggests Attention Deficit Disorder.

When a referral is made to a social worker, the social worker then should do a further assessment of the student's behavior through classroom observation and written assessments by other teachers the student has. The social worker should also contact the student's family to discuss the student's behavior and to get an assessment of the
child's behavior at home. The social worker is responsible for making referrals to the school's child psychologist and a physician, both professional who are trained in diagnosing Attention Deficit Disorder. These are the steps I recommend for teachers and social workers within schools who suspect a student has Attention Deficit Disorder.

I also have several recommendations for teachers and social workers in schools after a student is diagnosed with Attention Deficit Disorder. Social Workers and teachers need to work with the student to devise a behavior modification program for the student. The student's behavior needs to be constantly and consistently monitored by the teacher. A reward system needs to be agreed upon by the teacher, social worker, and student, and can be monitored by the teacher or social worker. Teachers and social workers need to give the student positive support and reinforce appropriate behaviors.

There are several steps teachers can take in the classroom to help students with Attention Deficit Disorder. Based on the fact that children with Attention Deficit Disorder have trouble keeping their attention focused, they are often hyperactive, and they respond negatively to large groups and change, these are my suggestions for teachers:

- make the classroom very structured with specific rules
- keep change to a minimal
- work in small groups
- keep outside interference to a minimal
- give assignments in small parts
- give frequent breaks
- offer assistance to the student in organizing material (for example an assignment folder will help the student stay more organized).

These are my suggestions for teachers, social workers, or any other person who works with children with Attention Deficit Disorder. Working with children with Attention Deficit Disorder can be very challenging. However, these recommendations might make the job a little easier for all involved.


What is Attention Deficit Disorder (ADD)?

What causes ADD?

How can ADD be treated

A Guide to Understanding ADD for Grades 4+5
Some of the common symptoms of inattention in children with Attention Deficit Disorder are:
- the inability to adequately maintain sustained behaviors
- the inability to stay on task
- being easily distracted from work
- behavior that is not goal oriented
- difficulty following directions
- not finishing what is started

Some of the signs of impulsiveness in children with Attention Deficit Disorder are:
- being disruptive in class
- not taking turn in games
- intruding in conversation
- answering before questions are finished
- speaking out before thinking

Some of the signs of hyperactivity in children with Attention Deficit Disorder are:
- constant fidgeting
- partaking in risky behavior
- being aggressive
What CAUSES ADD?

RELATED TO A CHEMICAL IMBALANCE IN THE BRAIN
A shortage of certain chemicals in the brain may interfere with concentration and attention.

ASSOCIATED WITH OTHER PHYSICAL CAUSES
Injury to the brain (for example, from lead paint) or injury to an unborn child during pregnancy may contribute to ADD in rare cases.

INHERITED
ADD seems to be more common in children of parents who have had or still have ADD.

AFFECTED BY A CHILD'S ENVIRONMENT
What happens at home, school, and in social situations may make symptoms more (or less) severe.
There is no cure for ADD, but a combination of treatments can be effective. Treatment may include:

**BEHAVIOR MODIFICATION**
This involves setting up clear rules for behavior and a consistent set of rewards and consequences to help teach a child how to act.

**COUNSELING**
The child and the family may benefit from individual, group, or family counseling.

**MEDICATION**
Prescription medications help many children with ADD. But medication is never the only treatment.

**EDUCATIONAL PLANNING**
Schools may respond to children with ADD by adapting regular classroom programs or through special education programs and approaches.
Kid Facts

About Attention Deficit Disorder

A Guide To Understanding ADD for Grades 1-3
ADD

Makes you have trouble:

- Paying attention
- Following directions

Sometimes you:

- Disrupt the class
- Forget to take turns
- Get angry

- Do things that can hurt you
- Interrupt others
ADD might be caused by:

- Problems at home/school
- Related to a chemical imbalance in the brain: A shortage of certain chemicals in the brain may interfere with concentration and attention.
Getting better by:

Learning new behaviors

Taking medicine

Working with your parents

Feeling good about yourself
READING LIST FOR CHILDREN WITH ATTENTION DEFICIT DISORDER:


Making the Grade: An Adolescent's Struggle with ADD by Roberta Parker for children ages 11-14

Putting on the Breaks by Patricia Quinn, M.D. and Judith Stern, M.A. for children ages 8-12.


Ottis Learns About His Medication by Methew Galvin, M.D.

Eagle Eyes: A Child's View of Attention Deficit Disorder by Jeanne Gehret, M.A. for children of all ages.

Learning To Slow Down and Pay Attention by Kathleen Nadeau, Ph.D. and Ellen Dixon, Ph.D.

Shelly, The Hyperactive Turtle by Deborah Moss.
ADD

A GUIDE

FOR:

PARENTS &

TEACHERS
ADHD Fact Sheet for Parents and Teachers

I have developed this fact sheet as a ready reference to be given to the parents and teachers of ADHD children seen in your clinical practice. It can be handed out to them as part of the feedback conference following an evaluation or mailed to school teachers along with more specific recommendations about the classroom management of the particular patient.

* * *

Attention-deficit Hyperactivity Disorder (ADHD) is the most recent term for a specific developmental disorder of both children and adults that is comprised of deficits in sustained attention, impulse control, and the regulation of activity level to situational demands. This disorder has had numerous different labels over the past century, including hyperkinetic reaction of childhood, hyperactivity or hyperactive child syndrome, minimal brain dysfunction, and Attention Deficit Disorder (with or without Hyperactivity).

MAJOR CHARACTERISTICS

The predominant features of this disorder are:

1. Poor sustained attention or persistence of effort to tasks, particularly those which are relatively tedious and protracted. This is frequently seen in the individual's becoming rapidly bored with repetitive tasks, shifting from one uncompleted activity to another, frequently losing concentration during lengthy tasks, and failing to complete routine assignments without supervision.

2. Impaired impulse control or delay of gratification. This is often noted in the individual's inability to stop and think before acting; to wait one's turn while playing or conversing with others; to work for larger, longer-term rewards rather than opting for smaller, immediate ones; and to inhibit behavior as a situation demands.

3. Excessive task-irrelevant activity or activity poorly regulated to situational demands. Individuals with ADHD are typically noted to be excessively fidgety, restless, and "on the go." They display excessive movement not required to complete a task, such as wriggling feet and legs, tapping things, rocking, or shifting position while performing relatively boring tasks. Trouble sitting still or inhibiting movement as a situation demands is often seen in younger children with ADHD.

4. Deficient rule-following. ADHD individuals frequently have difficulty following through on instructions or assignments, particularly without supervision. This is not due to poor language comprehension, defiance, or memory impairment. It seems as if instructions do not regulate behavior as well in ADHD individuals.

5. Greater than normal variability during task performance. Although there is not yet a consensus for including this characteristic with the others of ADHD, much research has accumulated to suggest that ADHD individuals show wide swings or considerable greater variation in the quality, accuracy, and speed with which they perform assigned work. This may be seen in highly variable school or work performance where the person fails to maintain a relatively even level of accuracy over time in performing repetitive or tedious tasks.

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Although normal individuals, particularly young children, may show some of these features, what distinguishes the ADHD from normal individual is the considerably greater degree and frequency with which these characteristics are displayed.

OTHER CHARACTERISTICS

Several other features are associated with the disorder, these being:

1. Early onset of the major characteristics. Many ADHD individuals have demonstrated their problems since early childhood (mean age of onset is 3 to 4 years of age) and the vast majority have had their difficulties since 7 years of age.

2. Situational variation. The major characteristics show considerable situational variation in that the impairments are less likely to be seen in situations involving one-to-one activities with others, particularly if they are with their fathers or other authority figures. ADHD individuals also do better when the activities they are doing are novel, highly interesting, or involve an immediate consequence for completing them. Group situations or relatively repetitive, familiar, and uninteresting activities are likely to be most problematic for them.

3. Relatively chronic course. Most children with ADHD manifest their characteristics throughout childhood and adolescence. Although the major features improve with age, most ADHD individuals remain behind others their age in their ability to sustain attention, inhibit behavior, and regulate their activity level.

ADULT OUTCOME

It has been estimated that between 15% and 50% of children with ADHD ultimately outgrow their problems or at least achieve a point in life where their symptoms are no longer maladaptive. Most ADHD individuals will continue to display their characteristics into young adulthood. The professional literature has only recently recognized that adults may display these features as well, and may have manifested them since childhood. Between 15% and 60% of ADHD individuals will have problems with aggressiveness, conduct, and violation of legal or social norms during adolescence, and 25% are likely to become antisocial in adulthood. The most common area of maladjustment is in school work, where ADHD individuals are more likely to be retained in grade, provided special education, suspended for inappropriate conduct, expelled, or quit. ADHD individuals frequently have less educational attainment by adulthood than matched samples of normal individuals followed over the same time period. Approximately 35% of ADHD children will display a learning disability (i.e., delay in reading, math, spelling, writing, or language) beside their ADHD features. Among those ADHD individuals who develop conduct disorders or antisocial behavior in adolescence, substance abuse, especially using cigarettes and alcohol, are noted in the majority. ADHD individuals without conduct disorder show no greater tendency to substance abuse than do normal people.

FREQUENCY

ADHD occurs in approximately 3%-5% of the population, with a sex ratio of 3:1 (boys to girls). It is found in almost all countries and ethnic groups. It is more commonly seen in individuals with a history of conduct disorder, learning disabilities, or tics or Tourette’s Syndrome.

ETIOLOGIES

ADHD appears to have a strong biological basis and is likely to be inherited in many cases. In others, it may be associated with greater-than-normal pregnancy or birth complications. In a few, it arises as a direct result of disease or trauma to the central nervous system. Research has not supported the popular views that ADHD is frequently due to the consumption of food additives, preservatives, or sugar. While a few ADHD individuals show an exacerbation of their features by allergies, these allergies are not viewed as the cause of ADHD. Individuals with seizures or epilepsy, or others who must take sedatives or anticonvulsant drugs, may develop ADHD as a side effect of their medication or find their pre-existing ADHD features exacerbated by these medicines.
No treatments have been found to cure this disability, but many exist that have shown some effectiveness in reducing the level of symptoms or the degree to which they impair adjustment. The most substantiated treatment is the use of stimulant medications. It is often recommended that other treatments be used before or in conjunction with the stimulant medications. These other treatments include training the parents of ADHD children in more effective child-management skills, modifying classroom behavior-management methods used by teachers, adjusting the length and number of assignments given to ADHD children at one time, and providing special educational services to ADHD children with more serious degrees of the disorder. Other treatments with some promise but not yet fully proven are social skills training, training in self-control methods, or use of antidepressant medication where stimulants are ineffective. For ADHD adults, providing vocational counseling, time management training, social skills counseling, and practical methods of coping with their disability may be helpful. The stimulant medications may be effective in the more severe cases.

Treatments with little or no evidence of their effectiveness include dietary management (elimination of sugar or food additives), long-term psychotherapy, high doses of vitamins, chiropractic treatment, or sensory-integration therapy—despite their widespread popularity.

The treatment of ADHD requires a comprehensive behavioral, psychological, educational, and sometimes medical evaluation followed by education of the individual or their caregivers as to the nature of the disorder and methods proven to assist with its management. Treatment is likely to be multidisciplinary, requiring the assistance of the mental health, educational, and medical professions at various points in its course. Treatment must be provided periodically over long time intervals in assisting ADHD individuals to cope with their behavioral disability.
The ADD Hyperactivity Handbook for Schools

Children With Attention Deficit Disorders
ADD Fact Sheet

Prevalence and Characteristics of ADD
Current interest in Attention Deficit Disorders (ADD) is soaring. Magazine articles, newspaper reports, network newscasts, and television talk shows have found this to be a timely topic. Scientific journals report thousands of studies of ADD children and youth and ADD support groups continue to grow at an astounding rate as parents seek to learn more about this disorder in an effort to help their youngsters succeed at home and at school. Children with ADD are characterized by symptoms of inattention, impulsivity, and sometimes, hyperactivity which have an onset before age seven and which persist for at least six months. These children comprise approximately 3-5% of the school age population with boys significantly outnumbering girls.

In order to receive a diagnosis of ADD a child must exhibit at least eight of the following characteristics for a duration of at least six months with onset before age seven:

Characteristics of ADD
1. often fidgets with hands or feet or squirms in seat (in adolescence 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 turns 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)
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)
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

A second diagnosis, Undifferentiated Attention Deficit Disorder, refers to those children who exhibit disturbances in which the primary characteristic is significant inattentiveness without signs of hyperactivity. Recent studies of this group of ADD children without hyperactivity indicates that they tend to show more signs of anxiety and learning problems, qualitatively different inattention, and may have different outcomes than the hyperactive group.

Causes of ADD
There are still many unanswered questions as to the cause of ADD. Over the years the presence of ADD has been weakly associated with a variety of conditions including: prenatal and/or perinatal trauma, maturational delay, environmentally caused toxicity such as fetal alcohol syndrome or lead toxicity, and food allergies. History of such conditions may be found in some individuals with ADD, however, in most cases there is no history of any of the above.

Recently, researchers have turned their attention to altered brain biochemistry as a cause of ADD and presume differences in biochemistry may be the cause of poor regulation of attention, impulsivity and motor activity. A recent landmark study by Dr. Alan Zametkin and researchers at NIMH have traced ADD for the first time to a specific metabolic abnormality in the brain. A great deal more research has to be done to reach more definitive answers.

Identification of ADD
The identification and diagnosis of children with ADD requires a combination of clinical judgement and objective assessment. Since there is a high rate of coexistence of ADD with other psychiatric disorders of childhood and adolescence any comprehensive assessment should include an evaluation of the individual's medical, psychological, educational and behavioral functioning. The more domains assessed the greater certainty there can be of a comprehensive, valid and reliable diagnosis. The taking of a detailed history, including medical, family, psychological, developmental social and educational factors is essential in order to establish a pattern of chronicity and pervasiveness of symptoms. Augmenting the history are the standardized parent and teacher behavioral rating scales which are essential to quantifiably assess the normality of the individual with ADD. The taking of a detailed history, including medical, family, psychological, developmental social and educational factors is essential in order to establish a pattern of chronicity and pervasiveness of symptoms. Augmenting the history are the standardized parent and teacher behavioral rating scales which are essential to quantifiably assess the normality of the individual with ADD.

Treatment of ADD
Most experts agree that a multi-modality approach to treatment of the disorder aimed at assisting the child medically, psychologically, educationally and behaviorally is needed. This requires the coordinated efforts of a team of health care professionals, educators and parents who work together to identify treatment goals, design and implement interventions and evaluate the results of their efforts.

Medications used to treat ADD are no longer limited to psychostimulants such as methylphenidate (Ritalin), dextroamphetamine (Dexedrine) and pemoline (Cylert) which have been shown to have dramatically positive effects on attention, overactivity, visual motor skills and even aggression in 70% or more ADD children. In the past several years the
tricyclic antidepressant medications, imipramine (Tofranil), and norpramine (Desipramine), have been studied and used clinically to treat the disorder with other types of antidepressants: fluoxetine, chlorimipramine and bupropion much less frequently prescribed. Clonidine (Catapress), antihypertensive, and carbamazepine (Tegretol), an anti-convulsant, have been shown to be effective for some children as well.

Ideally, treatment should also include consideration of the individual's psychological adjustment targeting problems involving self-esteem, anxiety and difficulties with family and peer interaction. Frequently family therapy is useful along with behavioral and cognitive interventions to improve behavior, attention span, and social skills. Educational interventions such as accommodations made within the regulate education classroom, compensatory educational instruction or placement in special education may be required depending upon the particular child's needs.

Outcome of ADD
ADD is an extremely stable condition with approximately eighty percent of young children diagnosed ADD also meeting criteria for an ADD diagnosis when reevaluated in adolescence. Unfortunately, ADD does not often occur in isolation from other psychiatric disorders and many ADD children have co-existing oppositional and conduct disorders with a smaller number (probably less than 25%) having a learning disability. Studies indicate that ADD students have a far greater likelihood of grade retention, school drop out, academic underachievement and social and emotional adjustment difficulties.

Most experts agree, however that the risk for poor outcome of ADD children and adolescents can be reduced through early identification and treatment. By recognizing the disorder early and taking the appropriate steps to assist the ADD child and family many of the negatives commonly experienced by the child can be avoided or minimized so as to protect self-esteem and avoid a chronic pattern of frustration, discouragement and failure.

While the hard facts about attentional deficits give us good reason to be concerned about ADD children, the voice of advocating parents coupled with the commitment of educated health care professionals and educators provide us with hope for the future well-being of this population of deserving youth.

Important Points To Remember
1. ADD children make up 3 - 5% of the population. A thorough evaluation can help determine whether attentional deficits are due to ADD or to other factors.

2. Once identified, ADD children are best treated with a multi-modal approach. Best results are obtained when medication, behavioral management programs, educational interventions, parent training, and counseling, when needed, are used together to help the ADD child. Parents of ADD children and adolescents play the key role of coordinating these services.

3. Teachers play an essential role in helping the ADD child feel comfortable within the classroom despite their difficulties. Adjustments in classroom procedures and work demands, sensitivity to self-esteem issues, and frequent parent-teacher contact can help a great deal.

4. ADD may be a life-long disorder requiring life-long assistance. Families, and the children themselves, need continued support and understanding.

Suggested Reading For Parents
Phelan, Thomas W. ADHD Video Parts I & II. Child Management, 1991 (Video and Book)

Books for Children

For Further Information About ADD contact:

CH.A.D.D.
Children With Attention Deficit Disorders
499 Northwest 70th Avenue, Suite 308
Plantation, Florida 33317
(305) 587-3700

CH.A.D.D. is a non-profit parent-based organization providing support to families of children with attention deficit disorders and information to professionals. CH.A.D.D. maintains over two hundred and twenty-five chapters nationwide to provide services for children and adolescents with ADD.

To locate a chapter nearest you call our national headquarters.

* The terms ADD and ADHD are used synonymously in this paper.
Appendix C: Medication Fact Sheet for Parents and Teachers

Medical Management of Children with Attention Deficit Disorders

Commonly Asked Questions

by

Children with Attention Deficit Disorders (CH.A.D.D.)
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1. What is an Attention Deficit Disorder?

Attention deficit disorder (ADD), also known as attention deficit hyperactivity disorder (ADHD), is a treatable disorder which affects approximately three to five per cent of the population. Inattentiveness, impulsivity, and oftentimes, hyperactivity, are common characteristics of the disorder. Boys with ADD tend to outnumber girls by three to one, although ADD in girls is underidentified.

Some common symptoms of ADD are:
1. Excessively lidgets or squirms
2. Difficulty remaining seated
3. Easily distracted
4. Difficulty awaiting turn in games
5. Blurs out answers to questions
6. Difficulty following instructions
7. Difficulty sustaining attention
8. Shifts from one activity to another
9. Difficulty playing quietly
10. Often talks excessively
11. Often interrupts
12. Often doesn't listen to what is said
13. Often loses things
14. Often engages in dangerous activities

However, you don't have to be hyperactive to have an attention deficit disorder. In fact, up to 30% of children with ADD are not hyperactive at all, but still have a lot of trouble focusing attention.

2. How can we tell if a child has ADD?

Many factors can cause children to have problems paying attention besides an attention deficit disorder. Family problems, stress, discouragement, drugs, physical illness, and learning difficulties can all cause problems that look like ADD, but really aren't. To accurately identify whether a child has ADD, a comprehensive evaluation needs to be performed by professionals who are familiar with characteristics of the disorder.

STRESS
DISCOURAGEMENT
PHYSICAL ILLNESS
LEARNING DIFFICULTIES
FAMILY PROBLEMS

The process of evaluating whether a child has ADD usually involves a variety of professionals which can include the family physician, pediatrician, child and adolescent psychiatrist or psychologist, neurologist, family counselor and teacher. Psychiatric interview, psychological and educational testing, and a neurological examination can provide information leading to a proper diagnosis and treatment planning. An accurate evaluation is necessary before proper treatment can begin. Complex cases in which the diagnosis is unclear or is complicated by other medical and psychiatric conditions should be seen by a physician.

Parents and teachers, being the primary sources of information about the child's ability to attend and focus at home and in school, play an integral part in the evaluation process.

3. What kind of services and programs help children with ADD and their families?

Help for the ADD child and the family is best provided through multi-modal treatment delivered by a team of professionals who look after the medical, emotional, behavior, and educational needs of the child. Parents play an essential role as coordinators of services and programs designed to help their child. Such services and programs may include:

- Medication to help improve attention, and reduce impulsivity and hyperactivity, as well as to treat other emotional or adjustment problems which sometimes accompany ADD.
- Training parents to understand ADD and to be more effective behavior managers as well as advocates for their child.
- Counseling or training ADD children in methods of self-control, attention focusing, learning strategies, organizational skills, or social skill development.
- Psychotherapy to help the demoralized or even depressed ADD child.
- Other interventions at home and at school designed to enhance self-esteem and foster acceptance, approval, and a sense of belonging.
4. What medications are prescribed for ADD children?

Medications can dramatically improve attention span and reduce hyperactive and impulsive behavior. Psychostimulants have been used to treat attentional deficits in children since the 1940's. Antidepressants, while used less frequently to treat ADD, have been shown to be quite effective for the management of this disorder in some children.

5. How do psychostimulants such as Dexedrine (dextroamphetamine), Ritalin (methylphenidate) and Cylert (pemoline) help?

Seventy to eighty per cent of ADD children respond in a positive manner to psychostimulant medication. Exactly how these medicines work is not known. However, benefits for children can be quite significant and are most apparent when concentration is required. In classroom settings, on-task behavior and completion of assigned tasks is increased, socialization with peers and teacher is improved, and disruptive behaviors (talking out, demanding attention, getting out of seat, noncompliance with requests, breaking rules) are reduced.

The specific dose of medicine must be determined for each child. Generally, the higher the dose, the greater the effect and side effects. To ensure proper dosage, regular monitoring of different levels should be done. Since there are no clear guidelines as to how long a child should take medication, periodic trials off medication should be done to determine continued need. Behavioral rating scales, testing of continuous performance tasks, and the child's self-reports provide helpful, but not infallible measures of progress.

Despite myths to the contrary, a positive response to stimulants is often found in adolescence with ADD, therefore, medication need not be discontinued as the child reaches adolescence if it is still needed.

6. What are common side effects of psychostimulant medications?

Reduction in appetite, loss of weight, and problems in falling asleep are the most common adverse effects. Children treated with stimulants may become irritable and more sensitive to criticism or rejection. Sadness and a tendency to cry are occasionally seen. The unmasking or worsening of a tic disorder is an infrequent effect of stimulants. In some cases this involves Tourette's Disorder. Generally, except in Tourette's, the tics decrease or disappear with the discontinuation of the stimulant. Caution must be employed in medicating adolescents with stimulants if there are coexisting disorders, e.g. depression, substance abuse, conduct, tic or mood disorders. Likewise, caution should be employed when a family history of a tic disorder exists.

Some side effects, e.g. decreased spontaneity, are felt to be dose-related and can be alleviated by reduction of dosage or switching to another stimulant. Similarly, slowing of height and weight gain of children on stimulants has been documented, with a return to normal for both occurring upon discontinuation of the medication. Other less common side effects have been described but they may occur as frequently with a placebo as with active medication. Pemoline may cause impaired liver functioning in 3% of children, and this may not be completely reversed when this medication is discontinued.

Over-medication has been reported to cause impairment in cognitive functioning and alertness. Some children on higher doses of stimulants will experience what has been described as a "rebound" effect, consisting of changes in mood, irritability and increases of the symptoms associated with their disorder. This occurs with variable degrees of severity during the late afternoon or evening, when the level of medicine in the blood falls. Thus, an additional low dose of medicine in the late afternoon or a decrease of the nighttime dose might be required.

7. When are tricyclic antidepressants such as Tofranil (imipramine), Norpramin (deslpramine) and Elavil (amitriptyline) used to treat ADD children?

This group of medications is generally considered when contraindications to stimulants exist, when stimulants have not been effective or have resulted in unacceptable side effects, or when the antidepressant property is more critical to treatment than the decrease of inattentiveness. They are used much less frequently than the stimulants, seem to have a different mechanism of action, and may be somewhat less effective than the psychostimulants in treating ADD. Long-term use of the tricyclics has not been well studied. Children with ADD who are also experiencing anxiety or depression may do best with an initial trial of a tricyclic antidepressant followed, if needed, with a stimulant for the more classic ADD symptoms.

8. What are the side effects of tricyclic antidepressant medications?

Side effects include constipation and dry mouth. Symptomatic treatment with stool softeners and sugar-free gum or candy are usually effective in alleviating the discomfort. Confusion, elevated heart rate, possible precipitation of manic-like behavior and inducement of seizures are uncommon side effects. The latter three occur in vulnerable individuals who can generally be identified during the assessment phase.

9. What about ADD children who do not respond well to medication?

Some ADD children or adolescents will not respond satisfactorily to either the psychostimulant or tricyclic antidepressant medications. Non-responders may have severe symptoms of ADD, may have other problems in addition to ADD, or may not be able to tolerate certain medications due to adverse side effects as noted above. In such cases consultation with a child and adolescent psychiatrist may be helpful.

10. How often should medications be dispensed at school to an ADD child?

Since the duration for effective action for Ritalin and Dexedrine, the most commonly used psychostimulants, is only about four hours, a second dose during school is often required. Taking a second dose of medication at noon-time enables the ADD child to focus attention effectively, utilize appropriate school behavior and maintain academic productivity. However, the noon-time dose can sometimes be eliminated for children whose afternoon academic schedule does not require high levels of attentiveness. Some psychostimulants, i.e. SR Ritalin (sustained release form) and Cylert, work for longer periods of time (eight to ten hours) and may help avoid the need for a noon-time dose. Antidepressant medications used to treat ADD are usually taken in the morning, afternoon hours after school, or in the evening. In many cases the physician may recommend that medication be continued at non-school times such as weekend afternoons, weekends or school vacations. During such non-school times lower doses of medication than those taken for school may be sufficient. It is important to remember that ADD is more than a school problem — it is a problem which often interferes in the learning of constructive social, peer, and sports activities.

11. How should medication be dispensed at school?

Most important, regardless of who dispenses medication, since an ADD child may already feel "different" from others, care should be taken to provide discreet reminders to the child when it is time to take...
medication. It is quite important that school personnel treat the administration of medication in a sensitive manner, thereby safeguarding the privacy of the child or adolescent and avoiding any unnecessary embarrassment. Success in doing this will increase the student's compliance in taking medication.

The location for dispensing medication at school may vary depending upon the school's resources. In those schools with a full-time nurse, the pharmacy would be the first choice. In those schools in which a nurse is not always available, other properly trained school personnel may take the responsibility of supervising and dispensing medication.

12. How should the effectiveness of medication and other treatments for the ADD child be monitored?

Important information needed to judge the effectiveness of medication usually comes from reports by the child's parents and teachers and should include information about the child's behavior and attentiveness, academic performance, social and emotional adjustment and any medication side effects.

Reporting from these sources may be informal through telephone, or more objective via the completion of scales designed for this purpose.

The commonly used teacher rating scales are:

- Conners Teacher Rating Scales
- ADD-H Comprehensive Teacher Rating Scale
- Child Behavior Checklist
- ADHD Rating Scale
- Child Attention Problems (CAP) Rating Scale
- School Situations Questionnaire Academic performance should be monitored by comparing classroom grades prior to and after treatment.

It is important to monitor changes in peer relationships, family functioning, social skills, a capacity to enjoy leisure time, and self-esteem.

The parents, school nurse or other school personnel responsible for dispensing or overseeing the medication trial should have regular contact by phone with the prescribing physician. Physician office visits of sufficient frequency to monitor treatment are critical in the overall care of children with ADD.

13. What is the role of the teacher in the care of children with ADD?

Teaching an ADD child can test the limits of any educator's time and patience. As any parent of an ADD child will tell you, being on the front lines helping these children to manage on a daily basis can be both challenging and exhausting. It helps if teachers know what to expect and if they receive in-service training on how to teach and manage ADD students in their classroom.

Here are some ideas that teachers told us they have helped:

- Build upon the child's strengths by offering a great deal of encouragement and praise for the child's efforts, no matter how small.
- Learn to use behavior modification programs that motivate students to focus attention, behave better, and complete work.
- Talk with the child's parents and find helpful strategies that have worked with the child in the past.
- If the child is taking medication, communicate frequently with the physician (and parents) so that proper adjustments can be made with respect to type or dosage of medication. Behavior rating scales are good for this purpose.
- Modify the classroom structure to accommodate the child's span of attention, i.e., shorter assignments, preferential seating in the classroom, appealing curriculum material, animated presentation of lessons, and frequent positive reinforcement.
- Determine whether the child can be helped through special educational resources within the school.
- Consult with other school personnel such as the guidance counselor, school psychologist, or school nurse to get their ideas as well.

14. What are common myths associated with ADD medications?

**Myth:** Medication should be stopped when a child reaches teen years.

**Fact:** Research clearly shows that there is continued benefit to medication for those teens who meet criteria for diagnosis of ADD.

**Myth:** Children build up a tolerance to medication.

**Fact:** Although the dose of medication may need adjusting from time to time, there is no evidence that children build up a tolerance to medication.

**Myth:** Taking medication for ADD leads to greater likelihood of later drug addiction.

**Fact:** There is no evidence to indicate that ADD medication leads to an increased likelihood of later drug addiction.

**Myth:** Positive response to medication is confirmation of a diagnosis of ADD.

**Fact:** The fact that a child shows improvement of attention span or a reduction in activity while taking ADD medication does not substantiate the diagnosis of ADD. Even some normal children will show a marked improvement in attentiveness when they take ADD medications.

**Myth:** Medication stunts growth.

**Fact:** ADD medications may cause an initial and mild slowing of growth, but over time, the growth suppression effect is minimal if non-existent in most cases.

**Myth:** Taking ADD medications as a child makes you more reliant on drugs as an adult.

**Fact:** There is no evidence of increased medication taking when medicated ADD children become adults, nor is there evidence that ADD children become addicted to their medications.

**Myth:** ADD children who take medication attribute their success only to medication.

**Fact:** When self-esteem is encouraged, a child taking medication attributing his success not only to the medication but to himself as well.

**Summary of Important Points**

1. ADD children make up 3.5% of the population, but many children who have trouble paying attention may have problems other than ADD. A thorough evaluation can help determine whether attentional deficits are due to ADD or to other conditions.

2. Once identified, ADD children are best treated with a multi-modal approach. Best results are obtained when behavioral management programs, educational interventions, parent training, counseling, and medication, when needed, are used together to help the ADD child. Parents of children and adolescents with ADD play a key role in coordinating these services.

3. Each ADD child responds in his or her own unique way to medication depending upon the child's physical make-up, severity of ADD symptoms, and other possible problems accompanying the ADD. Responses to medication need to be monitored and reported to the child's physician.

4. Teachers play an essential role in helping the ADD child feel comfortable within the classroom procedures and work demands, sensitivity to self-esteem issues, and frequent parent-teacher contact can help a great deal.

5. ADD may be a life-long disorder requiring life-long assistance. Families, and the children themselves, need our continued support and understanding.

6. Successful treatment of the medical aspects of ADD is dependent upon ongoing collaboration between the prescribing physician, teacher, therapist, and parents.
ATTENTION DEFICIT DISORDERS:
A GUIDE FOR TEACHERS

Prepared for distribution by the Education Committee of
CH.A.D.D.
Children With Attention Deficit Disorders
"Parents Supporting Parents"

TEACHERS ARE THE KEY FOR THE EFFECTIVE TREATMENT OF ADD
Defining Attention Deficit Disorders (ADD)

Attention Deficit Disorder is a syndrome which is characterized by serious and persistent difficulties in three specific areas:

1. Attention span
2. Impulse control
3. Hyperactivity (sometimes)

ADD is a chronic disorder which can begin in infancy and can extend through adulthood while having negative effects on a child’s life at home, school, and within his/her community. It is conservatively estimated that 3-5% of our school age population is affected by ADD, a condition which previously fell under the heading of “learning disabled,” “brain damaged,” “hyperkinetic,” or “hyperactive.” However, the newer term, attention deficit disorder, was introduced to more clearly describe the characteristics of these children. There are two types of attention deficit disorder, both of which are described below.

Attention Deficit Hyperactivity Disorder (ADHD)

According to the criteria in the Diagnostic and Statistical Manual of the American Psychiatric Association, to diagnose a child as having ADHD s/he must display for six months or more at least eight of the following characteristics before the age of seven:

1. Fidgets, squirms or seems restless
2. Has difficulty remaining seated
3. Is easily distracted
4. Has difficulty awaiting turn
5. Blurs out answers
6. Has difficulty following instructions
7. Has difficulty sustaining attention
8. Shifts from one uncompleted task to another
9. Has difficulty playing quietly
10. Talks excessively
11. Interrupts or intrudes on others
12. Does not seem to listen
13. Often loses things necessary for tasks
14. Frequently engages in dangerous actions

Undifferentiated Attention Deficit Disorder

In this form of ADD the primary and most significant characteristic is inattentiveness; hyperactivity is not present. Nevertheless, these children still manifest problems with organization and distractibility and they may be seen as quiet or passive in nature. It is speculated that Undifferentiated ADD is currently underdiagnosed as these children tend to be overlooked more easily in the classroom. Thus, these children may be at a higher risk for academic failure than those with attention deficit hyperactivity disorder.

Diagnosing Attention Deficit Disorders

Students who have exhibited the characteristics mentioned above for longer than six months may be at risk for having an attention deficit disorder. However, a diagnosis of attention deficit should only be made after ruling out other factors related to medical, emotional or environmental variables which could cause similar symptoms. Therefore, physicians, psychologists, and educators often conduct a multi-disciplinary evaluation of the child including medical studies, psychological and educational testing, speech and language assessment, neurological evaluation, and behavioral rating scales.
Causes of Attention Deficit Disorders

A 1987 Report to Congress prepared by the Intergency Committee of Learning Disabilities attributes the probable cause of ADD to "abnormalities in neurological function, in particular to disturbance in brain neurochemistry involving a class of brain neurochemicals termed 'neurotransmitters.'" Researchers are unclear, however, as to the specific mechanisms by which these neurotransmitter chemicals influence attention, impulse control and activity level.

Although many ADD children tend to develop secondary emotional problems, ADD, in itself, may be related to biological factors and is not primarily an emotional disorder. Nevertheless, emotional and behavioral problems can frequently be seen in ADD children due to problems that these children tend to have within their school, home, and social environments. Such characteristics as inattentiveness, impulsivity, and underachievement can also be found in non-ADD students who suffer primarily from emotional difficulties which effect concentration and effort or in those students who simply have motivational deficits leading to diminished classroom attentiveness and performance. Differential diagnosis, therefore, is an essential prerequisite to effective treatment.

Treating Attention Deficit Disorders

Treatment of the ADD child usually requires a multi-modal approach frequently involving a treatment team made up of parents, teachers, physicians, and behavioral or mental health professionals. The four corners of this treatment program are as follows:

- Educational Planning
- Medical Management
- Psychological Counseling
- Behavioral Modification

"Hyperactivity with ADD, without treatment, often results in school failure, rejection by peers and family turmoil, all of which can lead to developmental delays and psychiatric complications stemming from low self-esteem and frustration."

Jerry M. Weiner, M.D., Pres. Amer. Academy of Ch. & Adol. Psychiatry

With this downward cycle in progress ADD can lead to:
- Poor social adjustment
- Behavioral problems
- School failure
- Drop-out and delinquency
- Drug abuse
Appendix D: ADD Guide for Teachers

Using Medication in the Treatment of Attention Deficit Disorders

The use of medication alone in the treatment of ADD is not recommended. As indicated earlier, a multimodal treatment plan is usually followed for successful treatment of the ADD child or adolescent. While not all children having ADD are prescribed medication, in certain cases the proper use of medication can play an important and necessary part in the child's overall treatment.

Ritalin, the most commonly used medication in treating ADD, is a psychostimulant and has been prescribed for many years with very favorable results and minimal side effects. Other psychostimulant medications which are used to treat ADD are Cylert and Dexedrine. In the past several years antidepressant medications such as Tofranil and Norpramine have also proved successful in treating the disorder. All these medications are believed to effect the body's neurotransmitter chemicals, deficiencies of which may be the cause of ADD. Improvements in such characteristics as attention span, impulse control and hyperactivity are noted in approximately 75% of children who take psychostimulant medications. It is important that teachers are informed about all medications that an ADD student may take as teachers need to work closely with the child's parents and other helping professionals in monitoring medication effectiveness.

Medication side effects such as appetite loss, sleep difficulties, and/or lethargy in the classroom, among others, can often be controlled through medication dosage adjustments when reported by the child's parents or teachers.

Teaching Students With Attention Deficit Disorders

The most effective treatment of ADD requires full cooperation of teachers and parents working closely with other professionals such as physicians, psychologists, psychiatrists, speech and educational specialists, etc. In the coordinated effort to ensure success in the lives of children with ADD the vital importance of the teacher's role cannot be overestimated. Dennis Cantwell, M.D. claims, "Anything else is a drop in the bucket when you compare it with the time spent in school."

Recommendations for the Proper Learning Environment

1. Seat ADD student near teacher's desk, but include as part of regular class seating.
2. Place ADD student up front with his back to the rest of the class to keep other students out of view.
3. Surround ADD student with "good role models," preferably students that the ADD child views as "significant others." Encourage peer tutoring and cooperative collaborative learning.
4. Avoid distracting stimuli. Try not to place the ADD student near:
   - Air conditioner
   - High traffic areas
   - Heater
   - Doors or windows
5. ADD children do not handle change well so avoid:
   - Transitions
   - Changes in schedule
   - Physical relocation
   - Disruptions
   (monitor closely on field trips)
6. Be creative! Produce a "stimuli-reduced study area." Let all students have access to this area so the ADD child will not feel different.
7. Encourage parents to set up appropriate study space at home with routines established as far as set times for study, parental review of completed homework, and periodic notebook and/or book bag organized.
Recommendations For Giving Instructions to Students

1. Maintain eye contact with the ADD student during verbal instruction.
2. Make directions clear and concise. Be consistent with daily instructions.
4. Make sure ADD student comprehends before beginning the task.
5. Repeat in a calm, positive manner, if needed.
6. Help ADD child to feel comfortable with seeking assistance (most ADD children won't ask).
7. These children need more help for a longer period of time than the average child. Gradually reduce assistance.
8. Require a daily assignment notebook if necessary.
   a. Make sure student correctly writes down all assignments each day. If the student is not capable of this then the teacher should help the student.

b. Parents and teachers sign notebook daily to signify completion of homework assignments.

c. Parents and teachers may use notebook for daily communication with each other.

Recommendations for Students Performing Assignments

1. Give out only one task at a time.
2. Monitor frequently. Use a supportive attitude.
3. Modify assignments as needed. Consult with Special Education personnel to determine specific strengths and weaknesses of the student. Develop an individualized educational program.
4. Make sure you are testing knowledge and not attention span.
5. Give extra time for certain tasks. The ADD student may work more slowly. Don't penalize for needed extra time.
6. Keep in mind that ADD children are easily frustrated. Stress, pressure and fatigue can break down the ADD child's self-control and lead to poor behavior.

Recommendations for Behavior Modification and Self-esteem Enhancement

Providing Supervision and Discipline

a. Remain calm, state infraction of rule, and don't debate or argue with student.
b. Have pre-established consequences for misbehavior.
c. Administer consequences immediately and monitor proper behavior frequently.
d. Enforce rules of the classroom consistently.
e. Discipline should be appropriate to "fit the crime," without harshness.
f. Avoid ridicule and criticism. Remember, ADD children have difficulty staying in control.
g. Avoid publicly reminding students on medication to "take their medicine."
Appendix D: ADD Guide for Teachers

Providing Encouragement

a. Reward more than you punish in order to build self-esteem.
b. Praise immediately any and all good behavior and performance.
c. Change rewards if not effective in motivating behavioral change.
d. Find ways to encourage the child.
e. Teach the child to reward him/herself. Encourage positive self-talk (i.e., “You did very well remaining in your seat today. How do you feel about that?”). This encourages the child to think positively about him/herself.

Other Educational Recommendations Which May Help Some ADD Students

1. Some ADD students may benefit from educational, psychological, and/or neurological testing to determine their learning style, cognitive ability and to rule out any learning disabilities (common in about 30% of ADD students).
2. Private tutor and/or peer tutoring at school.
3. A class that has a low student-teacher ratio.
4. Social skills training and organizational skills training.
5. Training in cognitive restructuring (positive “self-talk,” i.e., “I did that well.”).
6. Use of a word processor or computer for school work.
7. Individualized activities that are mildly competitive or non-competitive such as: bowling, walking, swimming, jogging, biking, karate
   Note: ADD children may do less well in team sports
8. Involvement in social activities such as scouting, church groups or other youth organizations which help develop social skills and self-esteem.
9. Allowing the child to play with younger children if that’s where they “fit in.”
   Many ADD children have more in common with younger children. The child can still develop valuable social skills from interaction with younger children.
Suggested Reading and References

Books and Pamphlets

Friedman, Ronald. *Attention Deficit Disorder and Hyperactivity.* Educational Resources, Inc., 1990 Ten Mile Road, St. Clair Shores, MI 48081 ($10.95).
Garfinkel, Barry. *What is Attention Deficit and How Does Medication Help?* Division of Child and Adolescent Psychiatry, Box 95 UMH&C, Harvard Street at East River Road, Minneapolis, MN 55455 (About $2.00).
Parker, Harvey C. *The ADD Hyperactivity Workbook for Parents, Teachers, and Kids.* Impact Publications, Inc., 300 Northwest 70th Avenue, Suite 102, Plantation, FL 33317 ($12.95 plus $2.00 shpg. & hdlg.).
Phelan, Thomas. *ADD-Hyperactivity.* 507 Thornhill Drive, Carol Stream, IL 60188.

Other References


Acknowledgements

"Attention Deficit Disorders: A Guide for Teachers" was prepared by members of the Education Committee of CH.A.D.D, November 1988.

Education Committee of CH.A.D.D.

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Laura Mills
Sandy Mitchell
Jan Morton
Nancy Thornberry

CH.A.D.D. would like to thank and encourage all who are involved with the important task of education. Let us work together today to ensure a bright tomorrow for our children.

For more information on ADD write to: Or contact your local CH.A.D.D. Chapter

CH.A.D.D.
Children with Attention Deficit Disorders
499 N.W. 70th Avenue, Suite 308
Plantation, FL 33317
(305) 587-3700
National Support Organizations
for parents of children
with ADD

ADDA - Attention-deficit Disorder Association
National Referral to ADHD support services
University of California, Irvine
Child Development Center
19262 Jamboree Boulevard
Irvine, California 92715
(714) 856-8700

CHADD - Children with Attention-deficit Disorders
(national information center for children with ADD)
Suite 185
1859 N. Pine Island Road
Plantation, Florida 33322
(305) 792-8100

Indianapolis chapter of CHADD
(317) 882-9408

Learning Disabilities Association
4156 Library Road
Pittsburgh, Pennsylvania 15234
(412) 341-1515

National Center for Children with Learning Disabilities
99 Park Avenue
New York, New York 10016
(212) 687-7211
MATERIAL
To Be Used
For:
Behavior
Modification
Getting To My Goal

Contract

Today my goal is to:

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

If ______________________________________

Student's Name

reaches the goal

__________________________________________________________________________

Reward

If ______________________________________

Student's Name

does not reach the goal

__________________________________________________________________________

Consequence

Date____________________

Source: The ADD Hyperactivity Handbook for Schools by Harvey C. Parker, Ph.D. This form may be reproduced for classroom use.
A List of Reinforcers Identified by Elementary-Aged Students

| 1. Listen to the radio          | 27. Tacos             |
| 2. Free time                    | 28. Hamburgers and french fries |
| 3. Watch favorite program on TV | 29. Pizza              |
| 4. Talk to best friend          | 30. Money              |
| 5. Listen to favorite tapes     | 31. Making buttons      |
| 6. Read a book                  | 32. Parties            |
| 7. Candy, especially chocolate  | 33. Teacher's helper    |
| 8. Play sports - baseball, kickball, soccer, hockey | 34. Field trips |
| 9. Ride a bike                  | 35. Eat lunch outside on a nice day |
| 10. Do something fun with best friend | 36. Recess        |
| 11. Go to the zoo               | 37. Student-of-the-month |
| 12. Build a model plane or car  | 38. Honor roll         |
| 13. Go to the arcade and play video games | 39. Buy sodas |
| 14. Camping trip                | 40. Work on puzzles    |
| 15. Play with pets              | 41. Write on the chalkboard |
| 16. Go to a fast-food restaurant| 42. Gumball machine    |
| 17. Pop popcorn                 | 43. Race cars          |
| 18. Go to a movie               | 44. Use colored markers |
| 19. Play in the gym             | 45. Roller skating     |
| 20. Play outside                | 46. Puppet show        |
| 21. Help clean up classroom     | 47. Water slide        |
| 22. Play with puppets           | 48. Stickers           |
| 23. Play with dolls and a doll house | 49. Pencils        |
| 24. Ice cream                   | 50. Use the computer   |
| 25. Cookies                     | 51. Fly model airplanes|
| 26. Go shopping at a grocery store | 52. Visit the principal |
Daily Report

Name ___________________________ Date __________

Rate the child's progress for the day in each of the following areas by filling in the bar to the right of the behavior.

Completed work. ________________________________

Paid attention. ________________________________

Followed class rules. ________________________________

Cooperated with others. ________________________________

Additional comments: ________________________________

Teacher Signature ________________________________

Source: The ADD Hyperactivity Handbook for Schools by Harvey C. Parker, Ph.D. This form may be reproduced for classroom use.
<table>
<thead>
<tr>
<th>Name</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I CAN PAY ATTENTION</strong></td>
<td></td>
</tr>
<tr>
<td>Pay attention to the Teacher - Look &amp; Listen</td>
<td></td>
</tr>
<tr>
<td>Follow Directions - Do what the Teacher says</td>
<td></td>
</tr>
<tr>
<td>Get work done - Work first then play</td>
<td></td>
</tr>
<tr>
<td><strong>I CAN CONTROL MY BEHAVIOR</strong></td>
<td></td>
</tr>
<tr>
<td>Raise hand to ask - answer questions</td>
<td></td>
</tr>
<tr>
<td>Keep feet on the floor &amp; stay in your seat</td>
<td></td>
</tr>
<tr>
<td>Keep hands to yourself</td>
<td></td>
</tr>
<tr>
<td><strong>I CAN KEEP THINGS IN ORDER</strong></td>
<td></td>
</tr>
<tr>
<td>Keep desk neat</td>
<td></td>
</tr>
<tr>
<td>Keep writing neat</td>
<td></td>
</tr>
<tr>
<td><strong>Total Points</strong></td>
<td></td>
</tr>
</tbody>
</table>
Getting Along With Others

Name __________________________  Date ______________

Choose a skill from those below or select one of your own ideas.

Skill to be practiced today:

Practice in: Classroom  Lunchroom  Schoolyard
(Circle)

Sample Social Skills

1. Giving others a turn
2. Cooperating with others
3. Expressing your ideas or feelings
4. Doing someone a favor
5. Starting a conversation
6. Leading a group
7. Respecting the rights of others
8. Saying you're sorry
9. Ignoring someone's behavior
10. Being polite

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Raise Your Hand Before Talking

Fill in a circle everytime you raise your hand before talking.

Name ___________________________ Date ____________

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Writing Reminders

Name ___________________________ Date ____________

Subject ____________________________

Answer these questions before you begin to write.

Is my pencil sharp? Yes No
Am I holding the pencil correctly? Yes No
Am I sitting properly? Yes No
Is my paper where it should be? Yes No
Am I paying attention to neatness? Yes No
Am I taking my time when I write? Yes No

Source: The ADD Hyperactivity Handbook for Schools by Harvey C. Parker, Ph.D. This form may be reproduced for classroom use.
Proofreading Checklist

Name __________________________ Date ______________
Assignment __________________________ Class ____________

Check your work to see if you have done the following:

Yes  No

<table>
<thead>
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<th>Q</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heading on paper?</td>
<td></td>
</tr>
<tr>
<td>Margins correct?</td>
<td></td>
</tr>
<tr>
<td>Proper spacing between words?</td>
<td></td>
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<tr>
<td>Handwriting neat?</td>
<td></td>
</tr>
<tr>
<td>Sentences start with capital letters?</td>
<td></td>
</tr>
<tr>
<td>Sentences end with correct punctuation?</td>
<td></td>
</tr>
<tr>
<td>Crossed out mistakes with only one line?</td>
<td></td>
</tr>
<tr>
<td>Spelling is correct?</td>
<td></td>
</tr>
</tbody>
</table>

I proofread my paper. ___ Someone else proofread my paper.

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BIBLIOGRAPHY


