

ATTENTION DEFICIT/HYPERACTIVITY DISORDER: SCHOOLS' ROLES IN
INTERAGENCY COMMUNICATION AND COLLABORATION

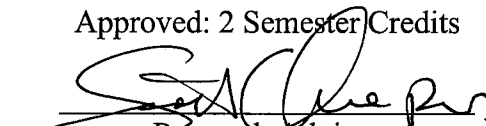
by

Rebecca E. Oppenheim

A Research Paper
Submitted in Partial Fulfillment of the
Requirements for the
Master of Science Degree
in

Guidance and Counseling

Approved: 2 Semester Credits



Research Advisor

The Graduate School
University of Wisconsin-Stout

August, 2004

The Graduate School
University of Wisconsin Stout
Menomonie, WI 54751

ABSTRACT

Oppenheim Rebecca E.

(Writer) (Last Name) (First Name) (Middle Initial)

Attention Deficit/Hyperactivity Disorder: Schools'
Roles in Interagency Communication and Collaboration

(Title)

Guidance and Counseling, Dr. Scott Orme, August/2004, 35

(Graduate Program) (Research Advisor) (Month/Year) (# of Pages)

American Psychological Association, 5th edition

(Name of Style Manual Used in this Study)

Attention deficit-hyperactivity disorder (AD/HD) affects a large number of children from all ethnic and economic backgrounds. The symptoms of AD/HD can negatively impact a child's academic and social development. Currently, there are people who feel that the diagnosis of AD/HD is overused and medication to treat AD/HD is over prescribed (Cipkala-Gaffin, 1998). Research has found that among physicians and psychiatrists there are inconsistencies in the diagnostic and treatment process of AD/HD (Magyary & Brandt, 2004). People working in the school system are a vital component of an accurate diagnosis and effective treatment of AD/HD. Due to the formal structure of the school's curriculum teachers may be the first to recognize the symptoms of AD/HD (Andrews, 1999). Teachers, through consultation with school psychologists and school counselors, can determine if the child should be referred for a diagnosis

of AD/HD. Physicians and psychiatrists use information from the schools and parents in their assessment of the child. A positive multidisciplinary working relationship with effective communication allows for an accurate diagnosis and effective treatment of AD/HD.

Overall, this paper looks at the school's involvement in the assessment and treatment processes of AD/HD. The interaction between professionals who are involved is reviewed. Additionally, this paper discusses where a breakdown in communication can occur and the issues that can arise from poor communication. Finally, this paper mentions models that can be used by schools to facilitate better multidiscipline communication.

ACKNOWLEDGMENTS

I would like to thank my thesis advisor, Dr. Scott Orme for his patience, commitment, and sense of humor. I need to thank my family, my fiancé, and his family for all their support in my academic pursuits. Finally, I want to express my appreciation to my mom. She opened my eyes to the field of psychology and the importance of helping others.

TABLE OF CONTENTS

ABSTRACT.....	ii
CHAPTER I.....	7
INTRODUCTION	7
<i>Statement of the Problem</i>	8
<i>Purpose of the Study</i>	9
<i>Assumptions and Limitations of the Study</i>	9
<i>Definition of Terms</i>	9
CHAPTER II.....	10
LITERATURE REVIEW	10
<i>The History of Attention Deficit / Hyperactivity Disorder</i>	10
<i>The Medical View of AD/HD</i>	11
<i>Diagnostic and Statistical Manual</i>	12
<i>Causes of AD/HD</i>	13
<i>The Process of the Diagnosis of AD/HD</i>	14
<i>The Role of the Professional</i>	14
<i>The Assessment Process</i>	14
<i>Treatment Options</i>	16
<i>Schools and AD/HD</i>	17
<i>Key School Personnel Involved</i>	17
<i>Assessment and Referral Process</i>	18
<i>Implementing Interventions/Treatments</i>	18
<i>Criteria for Receiving Accommodations</i>	19
<i>Issues Surrounding AD/HD and the Process</i>	21

<i>The Breakdown in Communication</i>	21
<i>Issues in Diagnosing AD/HD</i>	21
<i>Overuse of Medication</i>	23
<i>School Policies and Medication</i>	24
CHAPTER III	25
DISCUSSION	25
<i>Recommendations</i>	Error! Bookmark not defined.
<i>Limitations</i>	29
<i>Recommendations</i>	29
References.....	30
Appendix A:.....	34
<i>DSM-IV-TR Diagnostic Criteria for Attention-Deficit/Hyperactivity (APA, 2000)</i>	34
Appendix B:.....	35
<i>DSM-IV-TR Types of Attention-Deficit/Hyperactivity (APA, 2000)</i>	35

CHAPTER I

INTRODUCTION

Teachers, counselors, school psychologists, and others working in the schools are in a unique position to frequently interact with children and influence their development. A school typically utilizes a structured curriculum that they feel best supports and encourages growth in children. As children enter the school system some may find comfort within such structure, while others may struggle to adapt. Children with Attention Deficit/Hyperactivity Disorder (AD/HD) tend to behave poorly when placed in a highly structured environment, such as a classroom (Andrews, 1999).

The American Psychiatric Association (2000) reported that 3% - 7% of school-aged children in the United States have AD/HD. The title of the disorder, AD/HD, provides a general definition to the types of problematic behavior displayed by children with AD/HD. Children may appear hyperactive and impulsive and/or may have difficulty maintaining attention when needed (Andrews, 1999). The ability to sit in a seat and listen to a teacher's lecture is just one example of a difficult situation for a child with AD/HD.

The symptoms of the disorder have the potential to disrupt many areas of a child's life. For example, the hyperactive and impulsive behaviors could lead to peer rejection, which in turn can affect a child's self-esteem (Sandberg, 1996). Silver (1992) noted that when children have difficulty at school the whole family experiences an increase in stress. Along with the stress of dealing with the symptoms of AD/HD, Barkley (1998) reported that almost half of all children diagnosed with AD/HD endure at least one comorbid disorder. Studies have found that children with AD/HD are at a higher risk for problems with depression, anxiety (Brown, 2000),

obsessive-compulsive disorder, oppositional disorder, conduct disorder (Fisher, 1998 & Nadeau, Littman, & Quinn, 1999), and motor tics (Pliszka, Carlson, & Swanson, 1999).

As with any disorder that affects a child's success in school, it is important to diagnose AD/HD early in the child's educational career (HaileMariam, Bradley-Johnson, & Johnson, 2002). In many incidences of AD/HD the child is diagnosed by the time s/he finishes elementary school (Andrews, 1999). School personnel can be instrumental in the detection, and accurate diagnosis, of AD/HD due to observable symptoms children with AD/HD exhibit at school. Although school personnel do play a critical role, there are a number of other individuals who should also be involved in order to correctly diagnosis and treat AD/HD.

Along with the school, parents or guardians of the child, a physician, and a psychiatrist are the recommended resources to make a complete assessment of AD/HD (Hoff, Doepke, & Landau, 2002; Power, 2003). Research has found that a key element to an accurate diagnosis and successful treatment is effective communication between all involved (Hall & Gushee, 2000; Pliszka, Carlson, & Swanson, 1999; Power, 2003). Furthermore, Magyary and Brandt (2002) reported that lack of effective communication can prolong the assessment process, result in an inaccurate diagnosis, and decrease the success of treatment.

Statement of the Problem

As some children begin their education school personnel may observe behavior associated with AD/HD. As noted, an interprofessional approach to the assessment of AD/HD for the child is recommended. Effective communication among all involved has been shown to be necessary to achieve an accurate diagnosis and successful treatment. Poor communication can result in negative consequences for the student with AD/HD. As such, the following questions are poised:

- How is AD/HD diagnosed and what issues/problems occur during the assessment and treatment process?
- What is the school systems involvement in the process of diagnosing AD/HD? What is the role of the different school personnel involved? What issues surround the diagnosis of AD/HD in the school system?
- Is there breakdown in communication between schools and health agencies? If so

how does it occur?

Purpose of the Study

The purpose of this study is twofold. First, do a comprehensive literature review examining the diagnosis of Attention Deficit/Hyperactivity Disorder and the school systems involvement in the diagnosis process. Second, investigate recommended models for interagency collaboration on identifying and diagnosing AD/HD.

Assumptions and Limitations of the Study

One assumption is that there is literature available pertaining to the topic of the paper. Although, there is a large amount of research and literature on AD/HD, it may be difficult to locate information specifically discussing the topic examined in the paper. Another assumption is that AD/HD is an actual disorder. A limitation is that there is some question as to the authenticity of AD/HD.

Definition of Terms

Psychostimulant – An agent that temporarily arouses or accelerates mental activity (Webster's II, 1995).

Collaboration - To work together, especially in a joint intellectual effort (Webster's II, 1995).

CHAPTER II

LITERATURE REVIEW

The History of Attention Deficit / Hyperactivity Disorder

When examining AD/HD it is relevant to review the history in order to have a complete picture of the disorder. The term Attention Deficit/Hyperactivity has been around for close to two decades; however, the disorder has been found in literature for over a century.

Early 1900s to mid 1900s. As early as 1902 documentation of a disorder in children that displayed similar symptoms of AD/HD was reported (Green & Chee, 1998). Men such as, George Still and Alfred Tredgold, were two of the first people to research the disorder and present literature discussing causes, symptoms, and treatment approaches (Sandberg, 1996). The symptoms presented then are similar to the current symptoms of what today is referred to as, AD/HD. Interestingly, the causes and treatments Still and Tredgold wrote about, have not been found to be completely false. At that time, a biological defect, either due to brain damage occurring prior to birth or post-natal damage, was thought to cause the disorder (Sandberg). Additionally, treatments such as; adjusting the child's environment, use of medication, and special educational accommodations were considered (Barkley, 1998).

Over the next fifty years many of the theories of the disorder remained the same. An outbreak of encephalitis around 1920, which left many children with brain damage, furthered the notion that brain damage was the main cause of the disorder (Green & Chee, 1998). Treatment wise, there continued to be a push for added accommodations in education along with use of behavior modification. Furthermore, the use of amphetamines to alleviate symptoms had increased as well (Barkley, 1998).

Mid 1900s to present. Going into the 1950s the disorder had been termed by some researchers, *Minimal Brain Dysfunction* (MBD), which related it to its assumed cause of brain damage (Shaywitz & Shaywitz, 1992). Conversely, Ross and Ross (1982) reported that the cause, symptoms, and treatment of the disorder was continually disputed and the professional and public communities rallied for a more precise and operational definition of the disorder. The demand for more accurate information led to more research. As researchers examined the disorder, a trend of symptoms became clear and hyperactivity, impulsivity, and inattention became defining characteristics (Barkley 1998).

The title of the disorder went from representing the presumed cause of the disorder to expressing the symptoms of the disorder. Since the 1960s the terminology for the disorder changed from MBD to *Hyperkinetic Reaction of Childhood* to *Attention Deficit/Hyperactivity Disorder*. Actually, different versions of the term, *Attention Deficit/Hyperactivity Disorder* can be found starting in the third edition of the Diagnostic and Statistical Manual (Hoff, Doepke, & Landau, 2002; Silver, 1992). Other notable developments include; improved assessment techniques and increased use of stimulant medication and behavior modification in treatment plans (Teeter, 1998). Not everything is yet known about AD/HD. There is no exact cause of the disorder and there is not an assessment tool that indefinitely diagnosis AD/HD. As AD/HD continues to be studied, new developments are reported each year.

The Medical View of AD/HD

When doctors and psychiatrists in the United States diagnosis a person with AD/HD they apply the criteria set by the Diagnostic and Statistical Manual (DSM), which is published by the American Psychiatric Association (APA). The structured format provided for diagnosing

AD/HD is useful; however, it also includes a brief overview of the background of the disorder, the causes and associated features.

Diagnostic and Statistical Manual

The DSM-IV-TR (APA, 2000) is the most current version of the DSM series. In the DSM-IV-TR, AD/HD is listed in the *Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence* and is under the heading, *Attention-Deficit and Disruptive Behavior Disorders*. First the DSM-IV-TR provides a list of diagnostic criteria separated into five different criteria labeled A through E (see Appendix A). The DSM-IV-TR then breaks down the disorder into three subtypes: *AD/HD Combined Type*, *AD/HD, Predominantly Inattentive Type*, and *AD/HD, Predominantly Hyperactive-Impulsive Type*. The diagnostic criteria met in each section determines what type of AD/HD the person has (see Appendix B).

The criteria. Specific symptoms must be met in order to determine a diagnosis of AD/HD. Criterion A addresses symptoms associated with inattention and hyperactivity-impulsivity. Criterion B requires that the symptoms appeared prior to age seven. Then, criteria C and D relate to the severity of impairment that should be observed for diagnosis. Finally, criterion E notes that the impairment should be due to AD/HD and not another disorder (APA, 2000).

The symptoms. In criterion A the first section address symptoms of inattentiveness. Examples of the symptoms are: appears careless with details, has difficulty with organization, follow through, or maintaining attention, and/or procrastinates on tasks that require an extended length of concentration. The second section focuses on symptoms of hyperactivity and impulsivity. Symptoms of hyperactivity include: excessive movement of body, including being overly talkative and having difficulty remaining seated for a reasonable amount of time.

Constantly interrupting others and difficulty waiting for the appropriate moment to respond are behaviors that relate to impulsivity. In each section there are nine symptoms and, in order to meet the criteria for a section, a person would need to experience six of the nine symptoms for six or more months (APA, 2000).

Associated features. Associated features are behaviors that frequently appear along with the symptoms of AD/HD. The behaviors may result from, or escalate, a symptom. Additionally, associated features tend to further impair positive academic, social, and emotional development. A child may be stubborn, bossy, easily frustrated and appear lazy. Additionally, the child will struggle academically due to related learning disabilities and, resulting from aggressive behavior, may be rejected by other children (APA, 2000; Fisher, 1998). Finally, as a side note, the disorders such as oppositional defiant disorder, conduct disorder, depression and anxiety, which are highly correlated with AD/HD, also fall under associated features.

Causes of AD/HD

To date, there is no definitive reason for why certain people have AD/HD, while others do not. Barkley (1998) listed a number of causes researchers believe may bring about AD/HD. Low birth weight, brain damage and chemical imbalances are possible neurological causes. Reactions to food allergies and additives and prenatal exposure to alcohol and cigarettes have been blamed as well. Although Barkley mentioned parenting styles and the environment as causes, Sandberg (1996) theorized that children are predisposed to have AD/HD and the environment stimulates the symptoms. Finally, there does appear to be a genetic link to AD/HD. The DSM-IV-TR reported that children are more likely to have AD/HD if there is a *first-degree biological relative* with the disorder (APA, 2000, p.90).

The Process of the Diagnosis of AD/HD

In the United States, AD/HD is one of the top reasons referrals are made for children to mental health practitioners (Barkley, 1998). Diagnosing AD/HD is not as simple as looking up and identifying with a list of symptoms. A professional such as a physician or psychiatrist should conduct a thorough assessment when a child appears to possess a number of symptoms related to AD/HD.

The Role of the Professional

Physicians, psychiatrists, and psychologists are the main professionals who are able to diagnosis AD/HD. All three professions use the DSM in diagnosing mental health disorders. When a child experiences possible mental health issues a psychiatrist or psychologist performs a clinical interview (Barkley, 1998). A more detailed description of the clinical interview is discussed when examining the assessment process. Physicians, in addition to conducting a clinical interview, perform a medical examination. Hearing, vision, motor coordination, and laboratory tests are used to help rule out other possible explanations for the problem behavior (Barkley, 1998). Finally, physicians and psychiatrists are the only two professionals in most states who are able to prescribe the medication that is typically used in the treatment of AD/HD.

The Assessment Process

With so many of the symptoms that fall under the category of AD/HD also being components to a variety of other mental and physical health issues, it is important to carryout a comprehensive assessment. In a comprehensive assessment, multiple sources of information are considered and both physical and behavioral assessments should be conducted (Hinshaw, 1994).

Clinical interview. Typically, both the child and the parents are included in the clinical interview. The level of involvement of the child would depend on the age and developmental

level of the child (Barkley, 1998). A clinical interview serves many purposes in regards to the assessment process. Brown (2000), stated that the interview helps in building rapport between the assessor and the family. Additionally, along with taking the child's and family history, the assessor is able to observe the child's behavior. Having an awareness of the child's temperament history is also important since research suggests that there is a high correlation with certain temperaments and AD/HD (Friedman & Doyal, 1992). Pliszka, Carlson, and Swanson (1999) pointed out that a baseline level of behavior can also be collected through observation during the interview. Plus, the assessor can begin to narrow down the problem behaviors that must be addressed first. Although the interview can provide a vast amount of information, an interview alone can not determine the diagnosis for AD/HD.

Assessment methods. To date, there are no known tests or assessments that have been found to lead to an absolute diagnosis of AD/HD. There are; however, indirect assessments that can be applied to examine the degree of impairment in the areas that are known to be effected by AD/HD. There are rating scales such as the *ADHD-IV Rating Scale* and the *Conner's Rating Scales*, which allow the assessor to better determine the severity of the AD/HD symptoms (Hoff, Doepke, and Landau, 2002). The *Wechsler Intelligence Scale for Children* has been used to measure information processing and distractibility (Green & Chee, 1998). Green and Chee also mentioned *The Stroop Word Test* and the *Wisconsin Card Sorting Test* because they both measure response inhibition/impulsivity and attention. Research has found that *The Stroop Color and Word Test* may measure attention and help determine if the diagnosis should be a learning disability or AD/HD (Golden & Golden, 2002).

There are also direct assessments of AD/HD used today. The Continuous Performance Test is performed on a computer and measures impulsivity and distractibility (Green & Chee,

1998). Hoff, Doepke, and Landau (2002) mentioned two versions of the computer assessment, the *Gordon Diagnostic System* and the *Conners Continuous Performance Test*. Although these assessments have been designed to help diagnose AD/HD, they cannot alone determine the diagnosis. The clinical interview, indirect assessments, and direct assessments should be combined when diagnosing AD/HD.

Treatment Options

Once the diagnosis of AD/HD is made there are a variety of treatment options available. Purdie, Hattie, and Carroll (2002) provided a review of pharmacological, behavioral and educational interventions for AD/HD in their recent article. Pharmacological interventions consist of a doctor prescribing medication, typically a stimulant medication, and then working with the child and family to determine the correct dosage. A behavioral, or cognitive-behavioral intervention involves the therapist developing a behavioral plan. Part of the plan usually applies positive and/or negative reinforcement strategies. As part of this, both the child and the environment are shaped to work more effectively together. An educational intervention is where the child and the family are provided with information regarding the disorder. The idea is that the more informed people are about the symptoms and associated features, the better prepared they are to face the challenges of living with the disorder. Currently, research has found that a combination of the different interventions is the most effective in treating AD/HD (Pliszka, Carlson, & Swanson, 1999).

Another aspect of treatment is therapy. The therapy appointments can be used to follow-up on medication and/or assess the success of the behavioral plan. Therapy can also provide support to the child and the family who are living with AD/HD (Swensen, Birnbaum, Secnik, Marynchenko, Greenderg, & Claxton, 2003). The frustration that can result from living with the

symptoms of AD/HD should be discussed and worked through so it does not become detrimental to the child's development. Cipkala-Gaffin (1998) further noted that parents of children with AD/HD are also put under a great deal of stress and can benefit from couple or family therapy.

Schools and AD/HD

When children start attending school it may be the first time they are placed in such an environment and the AD/HD like symptoms become more apparent and disruptive (Andrews, 1999). For a child in school AD/HD can be detrimental to learning, which is why schools are involved in the process. Typically, it is someone working in the school that recognizes the symptoms and makes the initial referral.

Key School Personnel Involved

Children spend over thirty hours a week in school and it is mainly the teachers who are with them during that time. Sciutto, Teresen, and Bender-Frank (2000) found that teachers overall are fairly knowledgeable about the symptoms of AD/HD. Because teachers spend so much time with students they are better able to recognize behavior patterns and observe children more objectively (Shaywitz & Shaywitz, 1992). When a teacher is concerned about a child possibly having AD/HD they may consult with the school psychologist or counselor.

In most schools it is the school psychologist and guidance counselor who are asked to assess students for possible referrals of AD/HD (Hartnett, Nelson, & Rinn, 2004). Although it is usually the school psychologist who conducts assessments Bauer, Ingersoll, and Burns (2004) pointed out that the guidance counselor's role in the school can change depending on the needs of the students and school. The main goal for the school counselor and/or psychologist is to assess the severity of the symptoms in regards to academic and social skills (Hoff, Doepke, &

Landau, 2002). Furthermore, the school counselor and/or psychologist can develop and implement behavior plans to address the teacher's concerns.

Assessment and Referral Process

After a referral is made from a teacher the school counselor or psychologist begins the school's assessment process. The school counselor or psychologist conducts an assessment similarly to a psychiatrist. S/he interviews teachers and the student, may observe the student in the classroom, and administers indirect assessments (Hoff, Doepke, & Landau, 2002). Shapiro and Heick (2004) examined school psychologist's use of assessment methods. Over half the participants reported using teacher or parent behavior rating scales, assessments of intelligence, a structured interview with the student, and direct observation methods. If from the assessment it appears the symptoms negatively affect a child's learning and development, the counselor or psychologist refers the child and parents to someone who can diagnose AD/HD (Sandberg, 1996).

Implementing Interventions/Treatments

Children spend a considerable amount of time at school interacting with a variety of school personnel and other students. For that reason, schools are asked to play a strong role in implementing interventions and assessing effectiveness of interventions and treatments (Pliszka, Carlson, & Swanson, 1999). Teachers, school psychologists and/or counselors must develop a working relationship with the parents and possibly the psychiatrist or physician. Andrews (1999) commented on the importance of schools and families working together. That in order to have a successful intervention the school and parents must collaborate. Sandberg (1996) reported that classroom-based behavioral interventions could be more effective than medication if there is communication and collaboration occurring.

Schools are involved in the follow-up process as well. Teachers, school psychologists, counselors, and school nurses are asked to assess the child throughout the treatment process (HaileMariam, Bradley-Johnson, & Johnson, 2002). Due to the structure of the classroom, if changes in medication are made, teachers and other school personnel can be asked to observe the child for changes in behavior. Additionally, HaileMariam, Bradley-Johnson, and Johnson mentioned that school personnel can report on information that can be compared to baseline data taken during the clinical interview and assessment.

Criteria for Receiving Accommodations

If a student appears to struggle academically in school the school can provide accommodations to the student. The heterogeneity of AD/HD forces schools to examine each child individually to determine the appropriate accommodations needed (Barkley, 1998). The type of accommodation provided depends on if a student is found to have a disability or impairment. If no disability and/or impairment is established, the school may not provide accommodations; however, they may make recommendations for the teacher (deBettencourt, 2002). When a disability and/or impairment is diagnosed the school may be required to provide accommodations under the *Individuals with Disabilities Act* (IDEA) or *Section 504* of the *Rehabilitation Act* of 1973.

IDEA. The Individuals with Disabilities Act, which was amended in 1997, serves to provide federal funding to schools so that schools are able to offer special education and related services (Henderson, 2001). Under IDEA schools must find and educate students with disabilities, provide free and appropriate education (FAPE) in the least restricted environment (LRE), have procedural due process for students, and take appropriate step to encourage family participation (deBettencourt, 2002). The statute states that students qualify for IDEA by meeting

at least one of thirteen categories of disabilities or, if between the ages of 3 and 9, experiencing developmental delays. AD/HD falls under the category of *other health impairment*; however, it must also negatively affect the child's educational performance. If the school's evaluation determines the student does qualify under IDEA, the school then develops an Individualized Education Plan (IEP), which outlines the accommodations the school will provide (Salend & Rohena, 2003).

Section 504. Section 504 of the Rehabilitation Act of 1973 is a civil rights statute, which forbids schools to discriminate against a student solely because of a disability (Education Resources Information Center, 2001). Along with not discriminating against students with disabilities schools are required under Section 504 to provide FAPE and procedural due process (Smith, 2002). In order to be eligible for accommodations under Section 504 the statute lists specific criteria to be met. First, one or more of the student's *major life activities* must be limited due to the physical and/or mental impairment. Walking, talking, learning, or seeing were a few examples of major life activities provided by Smith. Second, there needs to be a record of the student having such an impairment, or that the student is deemed to have such an impairment.

Unlike IDEA, students under Section 504 do not have to receive special education in order to be accommodated and though the student is not responsible for costs, Section 504 is not federally funded (Henderson, 2001). In order to determine what accommodations are provided, Smith (2002) reported that a team of school personnel develops an accommodations plan and the committee reevaluates the student's eligibility every few years. Finally, more students do qualify for Section 504 than IDEA but students covered under IDEA are also protected by Section 504 (deBettencourt, 2002).

Issues Surrounding AD/HD and the Process

The Breakdown in Communication

A communication breakdown can occur because, in most cases, there is not a primary coordinator of all services (Friedman & Doyal, 1992). Many people are involved in the assessment and treatment process of AD/HD. For physicians and psychiatrists to accurately diagnose the disorder specific information is needed from the school, parents, and child. Although all involved do share information it is important to make sure that the right kind of information is provided. HaileMariam, Bradley-Johnson, and Johnson (2002) found substantial differences when they examined physician's preferences for information to diagnose AD/HD versus information obtained. The pediatricians surveyed preferred to have information pertaining to the reason for referral, levels of achievement and IQ, and assessments from teachers. Typically, pediatricians were provided with reasons for referrals, teacher and parent's assessments, and educational background information.

Communication is also needed in order to successfully proceed through the treatment process. HaileMariam, Bradley-Johnson, and Johnson (2002) also compared the type of information pediatricians preferred versus received in regards to effectiveness of treatment. Rating scales and informal observation were the two types most desired and were also the most received. Regardless, pediatricians still preferred more information such as achievement assessments and a written summary of information from a teacher, which were not usually provided.

Issues in Diagnosing AD/HD

The heterogeneity of AD/HD has caused controversy among professionals (Magyary & Brandt, 2002). Root and Resnick (2003) made the point that all children will exhibit inattention,

overactive, and impulsive behaviors as they develop. The severity of the symptoms is what must be focused on when assessing the child. At school, children are referred for AD/HD assessment when their behavior is not normal for the classroom. Purdie, Hattie, and Carroll (2002) questioned that statement by asking what is normal behavior and who determines the standards. One teacher may feel that a student is hyperactive and a disturbance to the class, while another teacher does not. Interestingly, HaileMariam, Bradley-Johnson, and Johnson (2002) asked pediatricians if AD/HD was over diagnosed and almost half agreed that it was.

Boys vs. girls. In the United States, boys are diagnosed with AD/HD at a higher rate than girls (Barkley, 1998). Nadeau, Littman, and Quinn (1999) hypothesized that girls are diagnosed less than boys because girls tend not to appear hyperactive and are commonly given the diagnosis of depression. Girls typically exhibit symptoms such as inattention and forgetfulness where a symptom of hyperactivity is usually demonstrated through excessive talking. Lumley, McNeil, Herschell, and Bahl (2002) also mentioned that on the behavior rating scales used to assess AD/HD, boys tend to be rated higher than girls by teachers.

Cultural factors. AD/HD is a disorder that affects children of all cultures or ethnicities. When children with AD/HD are examined research has found that certain cultures and ethnicities have been diagnosed at a higher rate than others for AD/HD (Root & Resnick, 2003). Specifically, American children are diagnosed more with AD/HD when compared to children all over the world. The APA (2000) attributes the disparity to a difference in diagnostic criteria and procedures. Root and Resnick reported that Asian American children are diagnosed the least with AD/HD and the ethnic group diagnosed the most with AD/HD are African American children. Why are there ethnic differences in the prevalence of AD/HD? Researchers such as

Gingerich, Turnock, Litfin, and Rosen (1998) and Magyary and Brandt (2002) have called into question the cultural sensitivity of the diagnostic process of AD/HD.

Gifted vs. AD/HD. Children who are gifted and children with AD/HD have been found to share academic and social problems (Hartnett, Nelson & Rinn, 2004). Furthermore, both groups of children tend to exhibit similar behaviors in school. The DSM-IV-TR (APA, 2000) cautions that a highly intelligent child may appear inattentive if the environment is not stimulating. Hartnett, Nelson, and Rinn conducted a study with school counseling students to uncover if the similarities between giftedness and AD/HD were known. Scenarios were given to the students and students were asked to determine if the child had AD/HD. The control group was not given the suggestion that they could also diagnose the child as being gifted. The study found that a significantly less students considered giftedness if it was not suggested to them.

Overuse of Medication

For over fifty years the effectiveness of psychostimulant medication to decrease the symptoms of AD/HD has been known (Green & Chee, 1998). Stimulant medications have been the most commonly used form of treatment and have been found to be highly effective (Pliszka, Carlson & Swanson, 1999). Doctors and psychiatrists prescribe the drugs and then work with the family and the school to determine the appropriate dosage. Prescribing medication appears to be on the rise and children are being placed on medication at younger ages. In 2001, almost twenty million prescriptions were given to children for treatment of AD/HD (Hoff, Doepke & Landau, 2002). Additionally, Hoff, Doepke, and Landau reported that there has been an increase of children under the age of six who are prescribed medication for AD/HD.

The study by HaileMariam, Bradley-Johnson, and Johnson (2002) further examined the types of treatments pediatricians recommended. Nearly two thirds of pediatricians always or

usually recommended stimulant medications for treatment of AD/HD. Pediatricians cited the pressure parents and schools receive from teachers to control the child's behavior as reasons for stimulant medication being prescribed. To help ease the pressure, Connecticut enacted a law that has made it illegal for school personnel to suggest to parents the idea of placing their child on psychiatric medication (Hoff, Doepke, & Landau, 2002).

School Policies and Medication

In situations where stimulant medication is used for treatment, schools may be asked to administer the medication during the school day. Bauer, Ingersoll, and Burns (2004) specifically looked at school policies in regards to disbursing medication. At most schools the school nurse handles the medication; however, not all schools employ a full-time nurse. When a school nurse is not available, schools have passed on the duty to principals, teachers, secretaries, and counselors or have allowed students to carry their medication with them. When people who are not trained in psychiatric medication are administering it, there is a potential for legal and ethical issues.

CHAPTER III

DISCUSSION

In the United States, attention deficit/hyperactivity disorder affects 3%-5% of school age children. Although not always titled AD/HD, the disorder has been around for over a century and the diagnostic and treatment approaches have continually been surrounded by controversy. Children with AD/HD experience a variety of symptoms at varying degrees of severity. To date there are no assessments that can undisputedly diagnose AD/HD; however, there are many assessments that can measure the severity of the symptoms.

When a child enters school many symptoms of AD/HD exude due to the formal structure of the school curriculum. The symptoms of AD/HD can cause major distress for a child in school because their behavior can negatively affect their academic and social development. A child with AD/HD may have difficulty with speech and language development, have poor self-regulation of emotions and is at higher risk for learning disabilities (Barkley, 1998). In response to the problems caused by the symptoms, children with AD/HD are more likely to develop school phobia and have lower self-esteem (Nadeau, Littman, and Quinn, 1999).

With the problematic behavior occurring most often at school, school personnel are in the best position to recognize the symptoms and refer a child for AD/HD. School teachers and staff can consult with school psychologists and counselors, who then are able to measure the severity of symptoms and possibly refer the child to a physician or psychiatrist for diagnosis. Once a diagnosis is made and a treatment is prescribed the school, along with the parents, can report on the effectiveness of the treatment. The school, mandated by federal law, also provides accommodations to students with AD/HD if they meet the criteria for IDEA (1997) or Section 504 of the Rehabilitation Act of 1973.

Each agency or system included in the diagnostic and treatment processes must work together in order to foster a successful outcome for the child. The school system's involvement is highly important because teachers can be more objective than parents and children may not display problem behavior in a brief interview with a doctor or psychiatrist (Hinshaw, 1994). Physicians and psychiatrists need to communicate to the school the type of information desired for an assessment. Furthermore, parents must be willing to communicate with the school and physician or psychiatrist to ensure a more complete assessment and support of the treatment. The problem that occurs is that each system tends to work independently from each other. People from each system are aware of the importance of interacting with people from other agencies; however, the systems are not designed for effective inter-system communication and collaboration (Reeder, Maccow, Shaw, Swerdlik, Horton & Foster, 1997).

Interagency Communication Models

Prior to improving communication between systems, it is important to enhance the communication within a system. At the school level that would involve developing better collaboration between school personnel. Teachers are provided minimal training to work with mental health issues in the classroom. In most circumstances, a teacher's understanding of AD/HD and how to work with a child who has AD/HD comes from the teacher's past experiences (Sciutto, Terjesen, Bender-Frank, 2000). Two similar programs that have been implemented in schools to address collaboration within the school are *Prereferral Assistance Teams* and *Needs Assessment Teams*.

The Prereferral Assistance Team allows teachers and school psychologists and/or counselors to consult on children whose behavior raises concerns for the teacher. Through the consultation the teacher is able to gain skills s/he can utilize when working with the child and

apply to other children in the future (Dwyer & Bernstein, 1998). Similar to a Prereferral Assistance Team is a Needs Assessment Team (NAT). NATs meet regularly throughout the school year and all school personnel who interact with the child being discussed are invited to attend (L. Nowak, personal communication, August 2, 2004). A NAT meeting ensures that everyone working in the school with the child has the same information.

Once there is effective communication within the school system, the school can better work with outside agencies. Two models that address multidiscipline collaboration are the *Tripartite Model of School-Based Mental Health Interventions* and the *ADHD Decision Tree and Clinical Paths*.

The Tripartite Model of School-Based Mental Health Interventions is made up of three interacting parts described by Pfeiffer & Reddy (1998). Mental health intervention is the first part of the model. The different types of intervention approaches are health promotion, prevention, treatment, and maintenance/follow-up. The intervention chosen depends on the individual child. The second part of the model is interrelated with the first part by determining the focus of the intervention. The four categories are: behavior disorders (including ADHD), emotional and social problems, substance use and abuse, and parent/family issues. The final aspect of the model calls for community involvement in the intervention process. Pfeiffer and Reddy stated that schools and community agencies must have full partnership to allow for cost efficient and easily accessible services for families and children.

The ADHD Decision Tree and Clinical Paths model, which was described by Magyary and Brandt (2002), breaks down the diagnostic process and provides specific tasks for those involved. The first step is the referral by the parent or school to the primary care clinician. During the assessment step the clinician would acquire specific information from the parent and

school, plus would conduct a physical examine and take the child's history. If after reassessing the child s/he does not meet the criteria for AD/HD the clinician should consider other disorders and then treat the primary presenting disorder. If the child meets the DSM-IV-TR criteria for AD/HD then the child is assessed for comorbid disorders. If there are comorbid disorders present then the clinician would diagnose the child with AD/HD and coexisting disorders. If no comorbid conditions exist, then the child would only be diagnosed with AD/HD. Once a diagnosis is determined the clinician educates the parents and child on the disorder and treatment process begins.

The ADHD Decision Tree and Clinical Path could be the first step to effective multidiscipline communication. There is a primary care physician and there is specific information desired from schools and families. Since the school and family would be aware of the information needed it would be expected that they would be prepared to provide the same information for each child. A standard assessment process could develop and better communication and collaboration would ensue.

Recently schools have started to integrate more health-related services into the school and become *full-service schools*. A full service school is one that can provide medical, mental health and social services assistance to families of children who attend the school. Reeder et al (1997), when examining full-service schools referred to two types of full-service schools. There are school-bases services, which is where the medical, mental health and social services is offered on school property. With school-linked services, the school is involved in providing medical, mental health, and social services, but they are not provided on school grounds. Instead, the school would refer the families to outside agencies who have partnered with the school. With full-service schools school personnel working with a child would be able to stay informed of the

child's situation. Additionally, full-service schools are an example of different systems learning to work together.

Limitations

One of the limitations of this paper is that, although there is a large degree of research on AD/HD, there is not a great deal of literature that specifically studied communication between systems in diagnosis the disorder. Another limitation is that it is assumed that AD/HD is an actual disorder. There is some question as to if a child who presents symptoms of AD/HD may actually have a combination of other disorders (Cipkala-Gaffin, 1998). Whether AD/HD is verifiably an actual disorder does not dismiss that children do experience the symptoms that make up AD/HD. Furthermore, it does not deny that the symptoms a child experiences negatively affect the child's academic and social development.

Recommendations

In order to best serve a child who is faced with living with the symptoms of AD/HD, schools systems, psychiatrists, physicians and parents must learn to effectively communicate with each other. The most basic recommendation is to develop a model or protocol that facilitates effective multidiscipline communication for the diagnostic and treatment process of AD/HD. The models described can help foster a positive working relationship between the systems involved in diagnosing and treating AD/HD. Further research is needed in studying the models that incorporate interdisciplinary communication in regards to diagnosing AD/HD. Studies examining the causes for breakdowns in communication between professions would also be helpful. Eventually, it would be extremely beneficial to develop nationwide standards for the diagnostic and treatment processes of AD/HD.

References

- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed. Revised). Washington, DC: Author.
- Andrews, K.B. (1999). Attention-deficit hyperactivity disorder: The implications for early childhood educators. *Early Childhood Education Journal*, 27, 115-117.
- Barkley, R.A. (Ed.). (1998). *Attention-deficit hyperactivity disorder: A handbook for diagnosis and treatment* (2nd ed.). NY: The Guilford Press.
- Bauer, A.L., Ingersoll, E., & Burns, L. (2004). School counselors and psychotropic medication: Assessing, training, experience, and school policy issues. *Professional School Counseling*, 7, 202-211.
- Brown, M.B. (2000). Diagnosis and treatment of children and adolescents with attention deficit/hyperactivity disorder. *Journal of Counseling and Development*, 78, 195-203.
- Cipkala-Gaffin, J.A. (1998). Diagnosis and treatment of attention deficit/hyperactivity disorder. *Perspectives in psychiatric care*, 34, 18-25.
- deBettencourt, L. U. (2002). Understanding the difference between IDEA and section 504. *Teaching Exceptional Children*, 34(3), 16-23.
- Dwyer, K.P., & Bernstein, R. (1998). Mental health in the schools: Linking islands of hope in a sea of despair'. *School Psychology Review*, 27, 277-289. Retrieved July 2, 2004, from Academic Search Elite database.
- Fisher, B.C. (1998). *Attention deficit disorder misdiagnosis: Approaching ADD from a brain behavior/neuropsychological perspective for assessment and treatment*. Boca Raton, FL: CRC Press.

- Friedman, R.J., & Doyal, G.T. (1992). *Management of children and adolescents with attention deficit-hyperactivity disorder* (3rd ed.). Austin, TX: Pro-ed.
- Golden, Z.L., & Golden, G.J. (2002). Patterns of performance on the stroop color and word test in children with learning, attentional, and psychiatric disabilities. *Psychology in the Schools, 39*, 489-495.
- Green, C., & Chee, K. (1998). *Understanding ADHD: Attention deficit hyperactivity disorder*. NY: The Ballantine Publishing Group.
- HaileMariam, A., Bradley-Johnson, S., & Johnson, C.M. (2002). Pediatricians' preferences for ADHD information from schools. *School Psychology Review, 31*, 94-105.
- Hall, A.S., & Gushee, A.G. (2000). Diagnosis and treatment with attention deficit hyperactivity youth: Mental health consultation with school counselors. *Journal of Mental Health Counseling, 22*, 295-306.
- Hartnett, D.N., Nelson, J.M., & Rinn, A.N. (2004). Gifted or ADHD? The possibilities of misdiagnosis, *Roper Review, 73*, 73-76.
- Henderson, K. (2001). An overview of ADA, IDEA, and Section 504: Update 2001. Retrieved July 1, 2004, from ERIC Clearinghouse.
- Hinshaw, S.P. (1994). *Attention deficits and hyperactivity in children*. Thousand Oaks, CA: Sage Publications. Vol. 29 Developmental Clinical Psychology and Psychiatry.
- Hoff, K.E., Doepke, K., & Landau, S. (2002). Best practices in the assessment of children with attention deficit/hyperactivity disorder: Linking assessment to intervention. In J. Grimes & A. Thomas (Eds.), *Best practices in school psychology IV*. (1129-1150). Bethesda, MD: NASP.

- Lumley, V.A., McNeil, C.B., Herschell, A.D., & Bahl, A.B. (2002). An examination of gender differences among young children with disruptive behavior disorders, *Child Study Journal*, 32, 89-100.
- Magyary, D., & Brandt, P. (2002). A decision tree and clinical paths for the assessment and management of children with ADHD. *Issues in Mental Health*, 23, 553-566.
- Nadeau, K.G., Littman, E.B., & Quinn, P.O. (1999). *Understanding girls with AD/HD*. Silver Spring, MD: Advantage Books.
- Pfeiffer, S.I., & Reddy, L.A. (1998). School-based mental health programs in the united states: Present status and a blueprint for the future. *School Psychology Review*, 27, 84-96.
Retrieved July 2, 2004, from Academic Search Elite database.
- Pliszka, S.R., Carlson, C.L., & Swanson, J.M. (1999). *ADHD with comorbid disorders: Clinical assessment and management*. NY: The Guilford Press.
- Power, T.J. (2003). Promoting children's mental health: Reform through interdisciplinary and community partnerships. *School Psychology Review*, 32, 3-16.
- Purdie, N., Hattie, J., & Carroll, A. (2002). A review of the research on interventions for attention deficit hyperactivity disorder: What works best? *Review of Educational Research*, 72, 61-99.
- Reeder, G.D., Maccow, G.C., Shaw, S.R., Swerdlik, M.E., Horton, C.B., & Foster, P. (1997). School psychologists and full-service schools: Partnerships with medical, mental health, and social services. *School Psychology Review*, 26, 603-621.
- Root, R.W., & Resnick, R.J. (2003). An update on the diagnosis and treatment of attention deficit/hyperactivity disorder in children. *Professional Psychology: Research and Practice*, 34, 34-41.

Ross, D.M., & Ross, S.A. (1982). *Hyperactivity current issues, research and theory* (2nd ed.).

NY: John Wiley & Sons.

Salend, S.J., & Rohena, E. (2003). Students with attention deficit disorders: An overview.

Intervention in School and Clinic, 38, 259-266.

Sandberg, S. (Ed). (1996). *Hyperactivity disorders of childhood*. Great Britain: Cambridge

University Press.

Sciutto, M.J., Terjesen, M.D., & Bender-Frank, A.S. (2000). Teachers' knowledge and

misconceptions of attention deficit/hyperactivity disorder, *Psychology in the Schools*, 37, 115-122.

Shapiro, E.S., & Heick, P.F. (2004). School psychologist assessment practices in the evaluation

of students referred for social/behavioral/emotional problems, *Psychology in the Schools*, 41, 551-561.

Shaywitz, S.E., & Shaywitz, B.A. (Eds.) (1992). *Attention deficit disorder comes of age:*

Toward the twenty-first century. Austin, TX: Pro.ed.

Silver, L.B. (1992). *Attention-deficit hyperactivity disorder: A clinical guide to diagnosis*

and treatment. Washington D.C.: American Psychiatric Press.

Swensen, A.R., Birnbaum, H.G., Secnik, K., Marynchenko, M., Greenberg, P., & Claxton, A.

(2003). Attention-deficit/hyperactivity disorder: Increased costs for patients and their families. *Journal of the American Academy of Child and Adolescent Psychiatry*, 42, 1415-1423.

Teeter, P.A. (1998). *Interventions for ADHD: Treatment in developmental context*. New York:

Guilford Press.

Webster's II: New College Dictionary (1995). Boston: Houghton Mifflin Company.

Appendix A:

DSM-IV-TR Diagnostic Criteria for Attention-Deficit/Hyperactivity (APA, 2000)

Criteria A

A1. Symptoms of inattention:

- a. often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities.
- b. often has difficulty sustaining attention in tasks or play activities.
- c. often does not seem to listen when spoken to directly.
- d. often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand directions).
- e. often has difficulty organizing tasks and activities.
- f. often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework).
- g. often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools).
- h. is often easily distracted by extraneous stimuli.
- i. is often forgetful in daily activities.

A2. Symptoms of hyperactivity:

- a. often fidgets with hands or feet or squirms in seat
- b. often leaves seat in classroom or in other situations in which remaining in seat is expected.
- c. often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness).
- d. often has difficulty playing or engaging in leisure activities quietly.
- e. is often "on the go" or often acts as if "driven by a motor"
- f. often talks excessively

Symptoms of impulsivity:

- g. often blurts out answers before questions have been completed
- h. often has difficulty awaiting turn.
- i. Often interrupts or intrudes on others (e.g., butts into conversations or games).

Criteria B: Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years.

Criteria C: Some impairment from the symptoms is present in two or more settings (e.g., at school [or work] and at home).

Criteria D: There must be clear evidence of clinically significant impairment in social, academic, or occupational functioning.

Criteria E: The symptoms do not occur exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder and are not better accounted for by another mental disorder (e.g., Mood Disorder, Anxiety Disorder, Dissociative Disorder, or a Personality Disorder).

Appendix B:

DSM-IV-TR Types of Attention-Deficit/Hyperactivity (APA, 2000)

(Please refer to Appendix A for the criteria for inattention and hyperactivity/impulsivity)

Attention-Deficit/Hyperactivity Disorder, Combined Type

- a. Criteria met for inattention (A1)
- b. Criteria met for hyperactivity /impulsivity (A2).

Attention-Deficit/Hyperactivity Disorder, Predominantly Inattentive Type

- c. Criteria met for inattention (A1) only.
- d. Criteria was not met for hyperactivity/impulsivity (A2).

Attention-Deficit/Hyperactivity Disorder, Predominantly Hyperactive-Impulsive Type

- e. Criteria was not met for inattention (A1).
- f. Criteria met for hyperactivity/ impulsivity (A2) only.