

Attention Deficit Hyperactivity Disorder (ADHD) in the Schools:  
Alternative Interventions for School Counselors

by

Brittany Evert

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

School Counseling

Approved: 2 Semester Credits

  
Carlos Dejud, Ph. D.

The Graduate School  
University of Wisconsin-Stout

December, 2009

**The Graduate School  
University of Wisconsin-Stout  
Menomonie, WI**

**Author:** Evert, Brittany

**Title:** *Attention Deficit Hyperactivity Disorder (ADHD) in Schools: Alternative Interventions for School Counselors*

**Graduate Degree/ Major:** MS School Counseling

**Research Adviser:** Carlos Dejud, Ph. D.

**Month/Year:** December, 2009

**Number of Pages:** 31

**Style Manual Used:** American Psychological Association, 5<sup>th</sup> edition

ABSTRACT

Attention deficit hyperactivity disorder is one of the most publicized and controversial psychiatric disorders in the United States and one of the most studied of all psychological disorders in children. ADHD is a set of chronic conditions that consists of inattention, hyperactivity, and impulsive behaviors. Children with ADHD often struggle academically and may have difficulty establishing peer relationships. Diagnosis of ADHD usually involves a variety of tests and interviews with parents, teachers, and other adults who can describe aspects of the child's behavior that may indicate ADHD. The need for understanding, support, acceptance, and positive self-esteem is essential for ADHD students and school counselors may be the only avenue that can provide this much support in the school setting. To help establish an optimal learning environment and support for students with ADHD and their families, school professionals need to have up-to-date knowledge, in-depth advice, and practical interventions that can be implemented. School counselors, school psychologists, and administrators can play

an important role in providing teachers with important information and guidance when teaching children with ADHD. School professionals need to be aware of the significant problems that are associated with ADHD in the school setting to help all children succeed.

The Graduate School  
University of Wisconsin Stout  
Menomonie, WI

Acknowledgments

I would first like to thank Dr. Carlos Dejud for his time and effort in helping me with my thesis writing and editing. With his support, I was able to learn more about ADHD and become more aware of this topic. Carlos provided me endless resources to help me in the process of writing my thesis. Carlos always had an open door and was always very encouraging. I am so appreciative to have had Carlos as my advisor. Not only was he a great advisor, but he was a great mentor to me this semester. Thank you to Carlos for all your time and effort this semester in helping me fulfill my thesis paper.

I would also like to thank Dr. Carol Johnson for her motivation and support throughout my graduate program experience. I am very fortunate that I had Carol for a classroom instructor for several occasions. She provided me with so much support and encouragement, which led me to have a successful graduate degree. Carol has so much passion and I one day hope I can become the advocate for students that she is. I just want to give a big thank you to Carol Johnson for everything she did for me throughout my semesters at the University of Wisconsin Stout.

I would also like to thank my wonderful boyfriend for always supporting me. With his support, I was able to complete my thesis paper in my busy schedule. Sean was always supportive and patient with me throughout my graduate program and thesis writing process.

Lastly, I want to thank my parents who have encouraged me to continue my education and have supported me the entire way. I could not have done it without their love and support.

## TABLE OF CONTENTS

	Page
ABSTRACT.....	ii
Chapter I: Introduction.....	1
<i>Statement of the Problem</i> .....	6
<i>Purpose of the Study</i> .....	6
<i>Assumptions of the Study</i> .....	6
<i>Definition of Terms</i> .....	7
<i>Limitations of the Study</i> .....	8
Chapter II: Literature Review .....	9
<i>General Overview of ADHD</i> .....	9
<i>Special Education Services for ADHD Students</i> .....	16
<i>ADHD and the Impact on Children in Education</i> .....	17
<i>Alternative Alternatives</i> .....	19
Chapter III: Critical Analysis and Recommendations .....	24
<i>Summary</i> .....	24
<i>Critical Analysis</i> .....	25
<i>Conclusion and Recommendations</i> .....	27
References .....	29

## Chapter I: Introduction

Attention Deficit Hyperactive Disorder (ADHD) has been described by the American Psychiatric Association (APA, 1994) as age-inappropriate inattention, impulsivity, and hyperactivity. Children with ADHD comprise a heterogeneous population with considerable variation across children to the extent in which they demonstrate all symptoms. The diagnosis of children with ADHD has increased over the past few years, which is concerning to all educators (Barkley, 1998). Imagine a student in a classroom, not being able to concentrate, very hyperactive, and is often disorganized. How do school personnel help this student succeed? What interventions can be implemented to help this student? These are common, daily concerns that teachers deal with in the classrooms.

ADHD children find it difficult to complete routine tasks or concentrate for an extended period of time. An estimated 3% to 5% of the school-age population has ADHD with boys outnumbering girls (Myrick & Webb, 2003). ADHD is currently understood largely through a medical perspective, and in that context, the treatment recommended is stimulant medication. Supporting research has found that ADHD is one of the most widely diagnosed disorders of childhood (McKinley & Stormont, 2008; Myrick & Webb, 2003). With this in mind, educators have the responsibility to help each student to be successful in school.

The primary professional responsibilities of education professionals involve the development and delivery of curriculum and instruction. Educators make decisions and take actions regarding what to teach, how to teach, when to teach, and where to teach (DuPaul & Stoner, 2003). Decisions surrounding these issues are important for all students, including those with ADHD. All school professionals play a huge role in the involvement of ADHD students. School professionals need to be prepared to discuss with parents and others the available services

and resources ADHD students can receive (DuPaul & Stoner, 2003). Educators have the responsibility of getting the proper training to help ADHD students succeed in school because their involvement is crucial with ADHD students for their success in school.

ADHD impacts children and their performance at school. Students with ADHD are at risk for significant difficulties such as the inattention, hyperactivity, and impulsivity. However, with these difficulties, the three most frequent correlates of ADHD are academic underachievement, high rates of noncompliance and aggression, and disturbances in peer relationships (DuPaul & Stoner, 2003). Research to date suggests that ADHD children have their greatest difficulties with “persistence of effort” or “sustaining attention to tasks” (DuPaul & Stoner, 2003). These behaviors are seen most dramatically in situations that require the child to maintain attention to dull or boring tasks such as homework, chores, and independent schoolwork. With this, teachers and parents frequently report that children with attention deficit hyperactivity disorder underachieve academically compared to their classmates.

Two important federal mandates protect the rights of eligible children with ADHD: the Individuals with Disabilities Education Act (IDEA) and Section 504 of the Rehabilitation Act of 1973 (Section 504). Although a child with ADHD may not be eligible for services under IDEA, he or she may meet the requirements of Section 504. Section 504 was established to ensure a free and appropriate public education (FAPE) for all children who have an impairment, physical or mental, that significantly limits one or more major life activities (U.S. Department of Education, 2007). If it can be demonstrated that a child's ADHD negatively affects his or her learning, a major life activity in the life of a child, the student may qualify for services under Section 504. To be considered eligible for Section 504, a student must be evaluated to ensure that the disability requires special education or related services or supplementary aids and services

(U.S. Department of Education, 2007). Therefore, a child with ADHD-like behavior that does not interfere with his or her learning process may not be eligible for special education and related services under IDEA or supplementary aids and services under Section 504. Schools have to make reasonable and appropriate accommodations to students with ADHD if the disability impairs their education.

The requirements and qualifications for IDEA are more rigorous than those of Section 504. IDEA provides funds to state education agencies for the purpose of providing special education and related services to children evaluated in accordance with IDEA and found to have at least one of the 13 specific categories of disabilities, and who thus need special education and related services (Waller, 2006). ADHD may be considered under the specific category of "Other Health Impairment" (OHI), if the disability results in limited strength, vitality, or alertness, including a heightened alertness to environmental stimuli that results in limited alertness with respect to the educational environment and that is due to chronic or acute health problems (Waller, 2006).

With ADHD being such a significant problem in the schools, many questions are raised on what can be done in the classroom to help students with ADHD, as it is the educator's duty to provide reasonable strategies. In a classroom of diversity and multiple levels of students, teachers are unsure of how to accommodate ADHD diagnosed students who are in the general classroom. Children with ADHD are at significant risk for experiencing failure in school (McKinley & Stormont, 2008). They often have problems where rules and events require them to sit still, be attentive, and stay focused on academic task and classroom discussions. In addition, ADHD students may receive some assistance from special education teachers, but between 85 to



90 percent are still served in general education classroom for all or part of the day (Myrick & Webb, 2003).

Additionally, interventions for children and youth diagnosed with ADHD are mostly related to medication. The most common treatment of ADHD is the use of psychotropic medications (Myrick & Webb, 2003). With stimulant medication, however, it does not teach appropriate behaviors. Medication does increase the probability of a child displaying appropriate behaviors that are already in their repertoire. According to Myrick and Webb (2003), the difficulty for ADHD students is not knowing what to do, but doing what they know. Research has found that the long term diagnosis for ADHD children treated with stimulant medication alone was the same as those receiving no treatment.

A service that has recently been implemented in some schools to help serve ADHD students in the general classroom is the Irvine Paraprofessional Program (Barkley, 1998). The program consists of a close partnership between the school psychologists and teachers and utilizes trained paraprofessionals who help in the classrooms with behaviors. The school psychologist works with the classroom teacher to develop an initial intervention plan which includes certain accommodations for a 12 week period (Barkley, 1998). The intervention consists of tokens where the child receives tokens for up to four target behaviors every 15 minutes when the paraprofessional is in the class (Barkley, 1998). The program also includes a three-tier levels system where students earn privileges as they move up each of three levels by consistently reaching their goals (Barkley, 1998).

As the population of students diagnosed with ADHD increases, school counselors should be familiar with theories and therapy services available for students with ADHD. Educational

assessment and intervention services employed for students with ADHD typically include traditional special education, pharmacological interventions, and/or behavioral interventions.

As school professionals become more aware of the diagnosis of ADHD, the need for intervention in the schools is essential for creating each student the best learning environment. School counselors have a huge role in helping students understand and manage their behavior and their relationship with others to maximize their learning potential. In additions, school counselors play a huge role in helping students succeed in the classroom, so finding the most essential and beneficial intervention plans to help students with ADHD is a function a school counselor needs to become aware of. Counselors want to help ADHD student's gain the most from school by helping them manage their behavior and adjust to rules and procedures.

The American School Counseling Association (ASCA, 2003) described a developmental school guidance and counseling program with the goal of helping all students learn more effectively and efficiently. With this, school counselors play a huge role in helping all students succeed in the classroom. School counselors are involved in the process of evaluating students with ADHD and helping teachers by providing them with the best resources and intervention strategies for in the classroom. School counselors, as behavioral and relationship specialists, can provide support for ADHD students and their teachers. In addition, ASCA (2003) strongly encourages the involvement of school counselors in the multidimensional treatment and intervention strategies of students with ADHD. Others in the field have also addressed the need for school counselors to receive more training for working with students with ADHD and understanding ADHD (Myrick and Webb, 2003). Sometimes certain student populations such as those with ADHD are targeted for special attention and one or more counselor interventions. The

greatest number of classroom problems and referrals associated with ADHD are related to behaviors that often cause conflicts with teachers and other students (ASCA, 2003).

### *Statement Problem*

School professionals have an important role in helping students diagnosed with ADHD succeed in the classroom. ASCA (2003) strongly encourages the involvement of school counselors in the multidimensional treatment and intervention strategies of students with ADHD. ADHD students are mostly treated with medication as a source of intervention. With this being said, the research problem becomes what kind of support school counselors can give to ADHD students that are not on medication? What are school counselor's perspectives toward medicating ADHD students? What are school counselor's perspectives on other interventions other than medication in the school setting? In order to address this problem, the following pages will include ways school counselors can help in assisting a student with diagnosed ADHD.

### *Purpose of the Study*

The purpose of this literature review is to help educators and school counseling professionals explore alternative interventions other than medication for students diagnosed with ADHD. Educators have a responsibility to help all students succeed in school.

### *Assumptions of the Study*

It is assumed ADHD is a condition for some children that impact their ability to learn in the classroom. It is also assumed that there is a need for a review of literature to help school counselors when assisting children diagnosed with ADHD. Research indicates that treatment plans for students diagnosed with ADHD may include medication, counseling, and interventions in the classroom that would help the child succeed.

### *Definitions of Terms*

To understand the content area of this study, certain terms may need clarification. The terms are as follows:

*Attention Deficit Hyperactivity Disorder (ADHD)* - “Students who are inattentive, hyperactive, and impulsive” (Barkley, 1998, p. 57).

*Hyperactivity* - “Children leaving their seats without permission, playing with inappropriate objects, repetitive tapping of hands and feet and fidgeting in their chairs” (Pierangelo and Giuliani, 2008, p. 12).

*Impulsivity* - “Frequent calling out without permission, talking with classmates at inappropriate times, and becoming angry when confronted with frustrating tasks” (Pierangelo and Giuliani, 2008, p. 13).

*Inattention* - “Has a hard time paying attention to teacher lectures, group discussions, and task instructions” (DuPaul & Stoner, 2003, p. 8).

*Diagnosed* - “Seeking a professional to get tested for the disorder by looking for signs and symptoms” (Cooper & Jensen, 2002, p. 3)

*School Counselor* - “A counselor and educator who works in elementary, middle, and high schools to provide academic, career, college readiness, and personal/social competencies to all students through advocacy, leadership, systemic change, and teaming and collaborating with other educators as part of a comprehensive developmental school counseling program” (<http://www.schoolcounselor.org>).

*School Professionals* - “Includes teachers, counselors, psychologists, principals, school nurse, and special education teachers” (<http://www.schoolcounselor.org>).

*Medication* - “An intervention treatment that involves taking d-amphetamine (Dexedrine), methylphenidate (Ritalin), and pemoline (Cylert)” (DuPaul & Stoner, 1994, p.135).

*Alternative Interventions* - “Applying different strategies for treatment of ADHD that does not include medicine” (<http://www.schoolcounselor.org>).

*Comorbidity* - “Two or more diseases occurring in the same individual” (Pliszka, 2009, p.2).

*Oppositional Defiant Disorder (ODD)* - “An ongoing pattern of disobedient, hostile and defiant behavior toward authority figures which goes beyond the bounds of normal childhood behavior. People who have it may appear very stubborn” (Pliszka, 2009, p. 26).

*Conduct Disorder (CD)* - “A category marked by a pattern of repetitive behavior wherein the rights of others or social norms are violated” (Pliszka, 2009, p. 46).

#### *Limitations of the Study*

Limitations to the study include that since every child is different, not every student will be able benefit from the information included in the literature review concerning different types of interventions strategies to help individual students in the classroom. The information is to be used as a starting point for further discussion among medical professionals, parents, school personnel, and other trained individuals in the field. An important key is to understand each child and what would work best for each child.

## Chapter 2: Literature Review

This chapter will address factors related to ADHD. It will begin with a brief look at the diagnosis criteria for ADHD children, treatments, side effects of psychotropic medications, school climate/performance, as well as a description of the Rational Emotive Behavior Therapy (REBT) theory. This chapter will conclude with an exploration of various alternative interventions for school counselors.

### General Overview of ADHD

#### *Characteristics and Prevalence*

Attention deficit hyperactivity disorder (ADHD) is a diagnostic label used to describe people who have developmentally inappropriate levels of inattention, hyperactivity, and impulsivity. They find it difficult to complete routine tasks or concentrate for an extended period of time. They frequently fidget and have difficulty inhibiting behaviors that can distract others. A child being diagnosed with ADHD is seemingly increasing. Research indicates that approximately 3-5% of children in the United States can be diagnosed with ADHD (DuPaul & Stoner, 1994). With this being said, approximately one child in every classroom will have ADHD given that most general education classrooms include at least 20 students (DuPaul & Stoner, 1994). Boys with ADHD outnumber girls and compared to other childhood conditions, ADHD is a high occurrence disorder that is particularly prominent among males (DuPaul & Stoner).

As a result, children reported to have indications of attention and behavioral problems are often referred to school psychologists and other educational and mental health professionals frequently. ADHD students often have problems in school where rules and procedures require them to sit still, be attentive, and stay focused on academic tasks and classroom discussions.

They may receive some assistance from special education teachers who typically have smaller classes and who rely on the use of behavioral techniques in managing students. However, between 85% and 90% of ADHD students are still served in general education classrooms.

### *Diagnosis of ADHD*

ADHD is considered a neurobiological disorder. Only a licensed professional such as a pediatrician, neuropsychologist, neurologist, school psychologist, or psychiatrist should make the diagnosis that a child, teen, or adult has ADHD (Pierangelo & Giuliani, 2008). These professionals use the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV). Although the DSM-IV has numerous problematic issues, it helps give these professionals the criteria for diagnosing ADHD. The criteria states that individuals have their symptoms of ADHD for at least 6 months, that these symptoms are to a degree that is developmentally deviant, and that the symptoms have developed by 7 years of age (Barkley, 1998). According to Barkley (1998), from criteria listed in the DSM-IV, six of the nine items must be endorsed from the inattention item list:

#### *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 task or play activities
- (c) Often does not seem to listen when spoken to directly
- (d) Often does not follow through on instruction and fails to finish schoolwork, chores, or duties in the workplace
- (e) Often has difficulty organizing tasks and activities
- (f) Often avoids or is reluctant to engage in tasks that require sustained mental effort

- (g) Often loses things necessary for tasks or activities
- (h) Is often easily distracted by extraneous stimuli
- (i) Is often forgetful in daily activities

According to Barkley (1998), the criteria in the DSM-IV from the hyperactive-impulsive item lists, six of the nine items, total, must be endorsed as deviant:

*Hyperactivity*

- (a) Often fidgets with hands or feet or squirms in seat
- (b) Often leaves seat in classroom or in other situations to remain seated
- (c) Often runs about or climbs excessively in situation in which it is inappropriate
- (d) Often has difficulty playing or engaging in leisure activities quietly
- (e) If often “on the go” or often acts as if “driven by a motor”
- (f) Often talks excessively

*Impulsivity*

- (a) Often blurts out answers before questions have been completed
- (b) Often has difficulty awaiting turn
- (c) Often interrupts or intrudes on others

The manner in which the DSM-IV defines ADHD has numerous implications for the assessment process (Barkley, 1998). No one procedure alone can address everything that needs to be addressed in assessing ADHD, therefore, clinicians must use other methods. The assessment of ADHD is a process and there are various steps professionals go through in the diagnosis process. The assessment of the child with ADHD does not conclude with the diagnosis, but continues on an ongoing basis as intervention procedures are implemented (DuPaul & Stoner, 2003). The goal of the evaluation process is not to simply arrive at a



diagnosis of ADHD, but to determine an intervention plan that is likely to succeed, based upon the information gathered. According to DuPaul and Stoner (2003), using a behavioral assessment approach incorporating parent and teacher interviews, parent and teacher rating scales, direct observations, and academic performance data is the optimal methodology for addressing both goals of the evaluation process.

### *Treatment of ADHD*

Currently the recommended management for children who are diagnosed with ADHD is stimulant medication (DuPaul & Stoner, 2003). Research has shown that giving young children stimulant medication to improve their behavior is controversial. It is argued that there does not appear to be any other form of management that works effectively to improve children's behavior and academic performance for those that subscribe to the use of stimulant medication (DuPaul & Stoner, 2003).

The sole purpose of stimulant medication is to increase the level of activity or arousal in the brain. The three most common medicines that supporting research has shown are d-amphetamine (Dexedrine), methylphenidate (Ritalin), and pemoline (Cylert) (Brown, 2005; DuPaul & Stoner, 2003; Pierangelo & Giuliani, 2008). Ritalin is the most widely investigated treatment and its clinical efficiency in improving the primary systems of ADHD (Cooper and Jensen, 2002). Many studies have been conducted examining the effects of medication on children who have been diagnosed with ADHD. Many of these studies explore the effects medication has had on the child's behavior and academic performance (Guevara, Lozano, Wickizer, Mell, & Gephart, 2002; Myrick & Webb, 2003).

It is quite important that teachers and other school professional are in communication with a child's parents and/or physician whenever stimulant medication is prescribed. It is crucial

because these medications are most active in affecting a child's behavior during school and children with ADHD display their greatest problems in school settings, thus, the success of treatment is determined by changes in their school performance (DuPaul & Stoner, 1994).

School professional can play a role in the stages of treatment. Teacher input should be sought prior to initiating medication treatment. Also, changes in the student's behavior control and academic performance should be among the primary measures used to determine the best dose of medication (Dupaul & Stoner, 2003). Finally, DuPaul and Stoner say that school professionals need to communicate any significant changes in student performance that may occur once a child's dosage is determined (2003).

#### *Side Effects of Psychotropic Medications*

Brown (2005) states that medication offers relieve, not a cure. In the classroom setting, it is widely reported that the child's behavior improves while taking the medication. Researchers suggest that with stimulant medication, the behavior is no longer as disruptive as it was prior to the medication, the children are more focused and able to stay on task, and their academic achievements improve (Barkley, 2005; DuPaul & Stoner, 2003). It is reported that children with ADHD often complain of being too easily distracted. Brown found that while on medication, children with attention deficit hyperactivity disorder (ADHD) were better able to ignore distractions and to sustain focus and maintain speed and accuracy on their primary task (2005).

The effect of stimulant medication on their general behaviors indicates that between 73% and 77% of children treated with stimulants were seen as improved in their behavior (Barkley, 1998). Furthermore, research shows that most children treated with stimulants, attention to assigned class work is improved to the extent that the child's behavior appears to be similar to his or her non-ADHD classmates (Barkley, 1998). Barkley (1998) states that attention while

playing sports may also be improved with the use of stimulants. In addition, other distributive behaviors, such as aggression, impulsive behavior, noisiness, and noncompliance with authority figures commands, also have been shown to improve with the use of stimulant medication.

Along with improved behavior, research has shown that stimulant medication has improved the quality of social interactions between children with ADHD and their parents, peers, and teachers. In particular, stimulants increase children's compliance with parental commands and enhance their responsiveness to the interactions of others (Barkley, 1998). The primary change in the peer social interactions is that the stimulants reduce the child's negative and aggressive behaviors, which leads to better social interactions.

While there is no doubt that the medication in the treatment of ADHD is effective, an estimated 30 percent of affected individuals do not adequately response or cannot tolerate the medication (Cooper and Jensen, 2002). With this, medications are short-acting drugs that require multiple administrations during the day with their attendant impact on compliance and need to take treatment during school (Cooper and Jensen, 2002). The fact that stimulants are controlled substances continues to fuel worries in children, families, and the treating community that further hinders their use. Cooper and Jensen (2002) say that these fears are based on lingering concerns about the abuse potential of stimulant drugs by the child or family member, the possibility of diversion, and safety concerns regarding the use of a controlled substance by patients who are impulsive and frequently have antisocial tendencies.

Stimulant medication is by far the most commonly used treatment in managing children with ADHD, 10-20% of those who take such medication do now show clinically significant improvements in their primary ADHD symptom (Barkley, 1998). Even when a favorable response is obtained, some children experience side effects that are of sufficient occurrence and

severity to prevent continued use of stimulant medication (Barkley, 1998). With these issues, many parents prefer not to use any form of medication in treating their child (Barkley, 1998).

The most common side effects to be found are reduced appetite, insomnia, increased anxiety and depression, tics, and irritability (Barkley, 2000; DuPaul & Stoner, 2003; Pierangelo & Giuliani, 2008). Another side effect associated with taking the medications is the potential emotional impact on the child (Pierangelo & Giuliani, 2008). An increasing number of writers suggest that stimulant medication may weaken self-competence and self-concept in children diagnosed with attention deficit hyperactivity disorder (Greenbaum & Markel, 2001).

Stimulants are typically administered two times a day. With this, the schedule results in children being un-medicated during the evening hours, which deleteriously affect their compliance with parental commands and timely completion of homework (Barkley, 1998). Barkley (1998) states that adding a third dosage will cause even more appetite reduction and insomnia. Thus, parents and school professionals should be aware of this issue and understand that children with ADHD may have a harder time getting their homework done.

#### *Comorbidity with other Disorders and Disabilities*

The prevalence of having learning disabilities in ADHD students was found to be approximately one out of every three children with ADHD was found to have a learning disability (DuPaul & Stoner, 1994). Children with this disorder also experience difficulty with math, reading, and written communication (Pierangelo & Giuliani, 2008). In addition, they frequently have problems with reading fluency and mathematical calculations. ADHD learning problems have to do with attention, memory, and executive function difficulties (Pierangelo & Giuliani, 2008).

Furthermore, ADHD commonly occurs with other conditions. Pliszka describes this as comorbidity which is defined as two or more diseases occurring in the same individual (2009). Current research indicates that approximately 40 to 60 percent of children with ADHD have at least one coexisting disability (Pierangelo & Giuliani, 2008). The most common disabilities that seem to coexist with ADHD are learning disabilities, oppositional defiant (ODD), and conduct disorder (CD). ODD and CD are the most comorbidities associated with ADHD (Pliszka, 2009). With this, Pliszka (2009) states that 40% of the children with ADHD met criteria for ODD, while 14.3% met the criteria for CD.

### Special Education Services for ADHD Students

#### *Individuals with Disabilities Act (IDEA)*

Prior to 1991, students with ADHD were not eligible to receive special education services unless they qualified for such services on the basis of existing classification categories (DuPaul & Stoner, 2003). Consequently, the vast majority of children with ADHD were placed in the general education classrooms and minimal alternations were made to their instruction (DuPaul & Stoner, 2003). Two important federal mandates protect the rights of eligible children with ADHD: the Individuals with Disabilities Education Act (IDEA) and Section 504 of the Rehabilitation Act of 1973 (Section 504). Students classified as having ADHD may qualify for special education services in one of three ways. First, a child with ADHD could qualify for special education services under one of the existing disability categories defined in IDEA (DuPaul & Stoner, 2003). A second possibility for special education services was identified under the “Other Health Impairment” category. The term “Other Health Impairment” included chronic or acute impairments that result in limited alertness, which adversely affects educational performance (Waller, 2006). The inclusion of ADHD “Other Health Impairment” has been

reaffirmed with the 1997 reauthorization of the IDEA (DuPaul & Stoner, 2003). The “other Health Impairment” provision has been the most commonly applied criterion to judge a student’s eligibility for special education services (DuPaul & Stoner, 2003).

#### *Section 504*

The final criterion that could be used for students with ADHD to determine a child’s eligibility for instructional modifications is contained in Section 504 of the federal Rehabilitation Act of 1973. Section 504 was established to ensure a free and appropriate public education (FAPE) for all children who have an impairment, physical or mental, that significantly limits one or more major life activities (Department of Education, 2007). If it can be demonstrated that a child's ADHD negatively affects his or her learning, a major life activity in the life of a child, the student may qualify for services under Section 504. To be considered eligible for Section 504, a student must be evaluated to ensure that the disability requires special education or related services or supplementary aids and services (Department of Education, 2007).

#### *ADHD and the Impact on Children in Education*

Students with ADHD are at-risk for significant difficulties in a variety of functional areas. The three most frequent correlates of ADHD include academic underachievement, high rates of noncompliance and aggression, and disturbances in peer relationships (DuPaul & Stoner, 1994). Both teachers and parents report that ADHD children underachieve academically compared to their classmates (DuPaul & Stoner, 1994).

ADHD consists of three core systems which are inattention, hyperactivity, and impulsivity. Children with inattention ADHD have the most difficulty with what they are paying attention to, for how long, and under what circumstances. Children who are inattentive have a hard time keeping their minds on any one thing and may get bored with a task after only a few

minutes (Pierangelo & Giuliani, 2008). Children diagnosed with the predominantly inattentive types of ADHD are seldom impulsive or hyperactive, yet they have significant problems paying attention. Supporting research states that these children appear to be daydreaming, spacey, easily confused, slow moving, and lethargic (DuPaul & Stoner, 2003; Pierangelo & Giuliani, 2008).

In the school setting, they have a hard time understanding what the teacher is saying during instructions, which makes them make a lot of mistakes when doing their work. A child with inattentive ADHD is mostly referred to as ADD, which is a child with problems of inattention without the hyperactivity. Pierangelo and Giuliani (2008) refer to hyperactivity as constantly in motion. In school, hyperactivity children touch or play with whatever is in sight and they talk continually. Sitting still during a school lesson is a very difficult task for them and they squirm and fidget in their seats.

Research has shown that children with impulsivity speak out of turn, interrupt others, and engage in what looks like risk-taking behaviors (Pierangelo & Giuliani, 2008). Impulsive children seem unable to curb their immediate reactions or to think before they act. In school, these students will tend to blurt out inappropriate comments, display their emotions without restraint and act without regard for the later consequences of their conduct (Pierangelo & Giuliani, 2008). Children with ADHD show different combinations of these behaviors. When working with these students, it is important for school professionals to know each individual's characteristics. This knowledge will be useful in the evaluation and implementation of successful practices when selecting and applying successful interventions for these students (Pierangelo & Giuliani, 2008).

Another difficulty ADHD children face in school is having trouble with peer relationships. It is estimated that 50% of ADHD children have significant problems in social

relationship with other children (Barkley, 1998). Mothers, teachers, and peers find hyperactive children to be significantly more aggressive, disruptive, domineering, intrusive, noisy, and socially rejected in their social relations than normal children (Barkley, 1998). Children with ADHD have been found to talk more but to be less efficient in organizing and communicating information to peers (Barkley, 1998). Along with this, ADHD children are less likely to respond to the questions or verbal interactions of their peers (Barkley, 1998). Consequently, developing peer relationships with others in school is difficult for children with ADHD.

### Alternative Interventions

There are many interventions that teachers can use when working with ADHD students. However, there is little research on interventions for school counselors. According to Myrick and Webb, school counselors provide support for ADHD students and their teachers (2003). Research also encourages the involvement of school counselors in the multidimensional treatment of these students (Cains, 2000; Myrick & Webb, 2003). The literature in this section will explore alternative interventions for school counselors to help the students and their teachers.

#### *Rational Emotive Behavior Theory*

The Rational Emotive Behavior Therapy (REBT) is a theory that focuses on resolving emotional and behavioral problems and disturbances and enabling people to lead happier and more fulfilling lives. The REBT theory emphasizes behavioral change and self-regulation along with the examination and possible alteration of thoughts, beliefs, feelings, and expectations (Myrick & Webb, 2003). Myrick and Webb report that the REBT provides school counselors with a theory for developing a group guidance unit that helps students learn about ADHD and how it affects their behaviors and academic performance in the school setting (2003).



The purpose of the REBT theory for this literature review is to show a different approach that supports a different source of treatment interventions for children with ADHD. This theory assumes that an ADHD student cannot exhibit a behavior that has not been learned (Myrick & Webb, 2003). The REBT will provide an alternative intervention approach for school counselors when working with ADHD students. The REBT theory underpins the research problem in that it provides school counselors with an intervention that helps students and teachers succeed. The REBT theory gives school counselors a type of intervention that gives ADHD student's guidance when in the school setting. This theory offers a rationale for increasing student awareness on ADHD and the value of practicing school success skills (Myrick & Webb, 2003).

### *Group Counseling*

School counselors have the goal of helping all students learn more effectively and efficiently. Counselors provide such interventions as individual counseling, small group counseling, large group guidance, peer facilitator training and consultation with parents, teacher, and administrators. With this in mind, Myrick and Webb suggests that students with attention deficit hyperactivity disorder are targeted for special attention and one or more counselor interventions (2003). Research recommends group counseling more often than individual counseling for most ADHD children. Group counseling activities that help children bring out the behaviors and feelings associated with academic and social problems enable counselors to intervene and assist children who are low performers in school and have difficulties with their peers (Myrick & Webb, 2003).

An ADHD group counseling group focuses on increased understanding of the disorder and how it impacts every other group member's school performance (Myrick & Webb, 2003). This interventions focus is to also help students face their disorder and work with other group

members with the same disorder. Research has found this intervention to be appealing and it gives students a language of self-help that enables them to be more responsible for their actions and to manage themselves in the school environment (Myrick & Webb, 2003).

### *Behavioral Treatment*

Behavioral treatments have been used for more than twenty years with children specifically diagnosed as having ADHD (Cooper and Jensen, 2002). Many different types of behavioral treatments have been applied to ADHD children which include verbal self-instructions, problem solving strategies, cognitive modeling, self-monitoring, self-evaluation, and self reinforcement (Cooper and Jensen, 2002). An intervention strategy involves a series of sessions, usually once or twice weekly, in which the school counselor works with an individual child and attempts to teach the child, through modeling, role play, and practice, cognitive techniques (e.g., saying “stop, look, and listen” to him or her at the onset of a problem) that the child can use to control his or her inattention and impulsive behavior problems in other settings.

Behavioral therapy has a goal of modifying the physical and social environment to alter or change behavior (Pierangelo & Giuliani, 2008). School counselors, school psychologists, and mental health therapists are typically the ones implementing the behavioral therapy. Behavioral therapy is designed to use direct teaching and reinforcement strategies for positive behaviors and direct consequences for inappropriate behavior (Pierangelo & Giuliani, 2008). Behavioral strategies are used most commonly when parents do not want to use medication as a source of treatment. Research has also indicated with behavior therapy that the strategies can be used in a variety of settings such as school, home, and the community (Pierangelo & Giuliani, 2008). The effectiveness of the behavioral therapy has been found to be most effective when implemented and maintained.

### *Contingency Management*

Contingency management (CM) interventions are relatively more intensive than behavioral interventions and are implemented directly by a paraprofessional, consulting professional, such as a school counselor or school psychologists, or a trained teacher. The interventions of CM consist of techniques such as point/token economy reward systems, time out, and response cost (Cooper and Jensen, 2002). Cooper and Jensen implemented a response-cost system in which the teacher and other school professional applied a flip-card system in which the child and teacher had cards with numbers in descending order from 20-0 (2002). The child was told that he could earn up to twenty minutes of free time by staying on task. If the child wasn't working or staying on task, the teacher or other professional would flip a card down, and the child lost one minutes of his or her spare time (Cooper and Jensen, 2002). This intervention showed clear beneficial effects on both the classroom work and classroom behavior (Cooper and Jensen, 2002).

### *Parent Training*

It is often important for parents of children with ADHD to receive supportive instruction in behavioral management strategies designed to help their children's attention to household tasks and rules (DuPaul & Stoner, 2003). With this, school counselors, social workers, and school psychologists need to provide parent training services in the school setting. Barkley (1998) has adapted the Forehand and McMahon parent training program to more specifically address the core problems related to ADHD. The training program can be conducted with individual parents or in a group formant given by school counselors or school psychologists. The parent training process consists of eight sessions lasting about 1-1.5 hours for an individual family and 1.5-2 hours for groups of parents (DuPaul & Stoner, 2003).

Each training session follows a similar sequence of activities, including a review of information covered previous weeks, a brief assessment of whether any critical events occurred since the previous meeting, and a discussion of homework activities that were assigned at the end of the last session (DuPaul & Stoner, 2003). The leader then provides instruction with respect to particular management methods that the parents are to practice during the following week (DuPaul & Stoner, 2003). Parent training groups are beneficial in helping their child be successful. School counselors and school psychologists need to have the proper training and knowledge of ADHD before developing a parent training group.

With this, another intervention that school counselors can develop is a parent support group. A parent support group is quite helpful for parents of children with ADHD to interact with other parents of similar children to share frustrations, successes, and advocacy strategies. School counselors can help support parents by developing a group for these families to learn more about ADHD from the other parents and to be able to vent about their concerns.

### Chapter 3: Summary, Critical Analysis, and Recommendations

The purpose of this literature reviewed was to document the characteristics, prevalence, diagnosis, treatment, and alternative treatment methods of ADHD. This chapter will address a summary of the literature review regarding the need for school counselors to be knowledgeable about alternative interventions when providing service to children with ADHD. This chapter will also include a critical analysis of the findings from the literature review related to ADHD treatment and offer recommendations for future practice and further research.

#### *Summary*

ADHD and the diagnosis of children has increased over the past few years, which is concerning to all educators. ADHD affects students in many different ways, especially in the school setting. Children with ADHD have difficulties with inattention, hyperactivity, and impulsiveness. Student who are diagnosed predominantly with inattentive ADHD have problems paying attention because they are usually daydreaming, spacey, easily confused, slow moving, and lethargic. Hyperactivity children touch or play with whatever is in sight, interrupt others, and engage in risk taking behaviors. Lastly, impulsive children tend to blurt out inappropriate comments, display their emotions without restraint, and act without regard for the later consequences of their conduct.

Children with ADHD are at increased risk of a wide range of adverse difficulties, including low self-esteem, academic underachievement, poor peer relationships, disrupted family relationships, accidents and anti-social behavior. ADHD is also associated with an increased rate of other disorders, including depression, anxiety, other behavioral disorders, tic disorders, and specific learning difficulties. Another difficulty that ADHD children face in the school setting is having trouble with peer relationships.

There is currently no cure for ADHD disorder, and when diagnosed the student might live with ADHD for the rest of his or her life. Additionally, interventions for children and youth diagnosed with ADHD are mostly related to medication. The most common treatment of ADHD is the use of psychotropic medications such as amphetamine, methylphenidate, and pemoline. However, a big controversial with medication and the treatment of ADHD is that it does not teach the appropriate behaviors. The main purpose of the medication is to increase the level of activity or arousal in the brain. Medication does increase the probability of a child displaying appropriate behaviors that are already in their repertoire. Research has found that the long term diagnosis for ADHD children treated with stimulant medication alone was the same as those receiving no treatment (Barkley, 1998).

School professionals play a huge role when working with students of ADHD and they should know what ADHD is and how it affects the student in their education. School professionals are involved in the diagnosis and treatment process so they need to be prepared to work with parents and others to help each student succeed by providing the available services and resources ADHD students can receive. In addition, all school professionals have the responsibility of getting the proper training to help ADHD students succeed in school because their involvement is vital with ADHD students for their success in school.

### *Critical Analysis*

Diagnosing ADHD is a very difficult process. Many school professionals are involved in the assessment process and it can be very difficult to diagnosis. One reason being is that a lot of children display these types of behaviors. The core behaviors ADHD students typically exhibit are inattentiveness, hyperactivity, and impulsiveness. Many students in a classroom setting exhibit these behaviors one time or another, which can make it rigid in the evaluation process.

When diagnosing ADHD, school professionals must be knowledgeable regarding appropriate evaluation procedures. This is important because problems with attention and behavioral control are the two most common reasons for a referral to school and clinical child psychologists (DuPaul & Stoner, 2003). With this, school professionals need to be ready to conduct an assessment of ADHD. It is also crucial for school professionals to understand the process and the diagnoses of ADHD because children may be eligible for special education services.

Due to the increase number of children in special education services, it is important to do a proper assessment with ADHD children to see if they would qualify for special education services. Furthermore, between 85% and 90% of ADHD students are still served in general education classrooms. ADHD students often have problems in school where rules and procedures require them to sit still, be attentive, and stay focused on academic tasks and classroom discussions. They may receive some assistance from special education teachers who typically have smaller classes and who rely on the use of behavioral techniques in managing students. The importance of doing an appropriate assessment for each child with ADHD is crucial in the process of diagnosing students with ADHD.

The number of children using psychotropic medications for the treatment of ADHD has increased over the past twelve years (Cooper & Jensen, 2002). With this comes much controversy on whether stimulant medication is the best source of treatment for ADHD students. Stimulant medication is by far the most commonly used treatment in managing children with ADHD. Teachers and school professionals need to be in communication with a child's parents and/or physician whenever stimulant medication is prescribed. It is important because these medications are most active in affecting a child's behavior during school and children with

ADHD display their greatest problems in school settings, thus, the success of treatment is determined by changes in their school performance (DuPaul & Stoner, 1994).

School professionals play a role in providing sources of treatment for students with ADHD. Teacher input should be sought prior to initiating medication treatment. Also, changes in the student's behavior control and academic performance should be among the primary measures used to determine the best dose of medication (DuPaul & Stoner, 2003). School professionals need to communicate any significant changes in student performance that may occur once the medication is prescribed.

The need for school counselors to become involved in working with ADHD students is essential in helping each child succeed. School counselors need to continue to gain knowledge and education on ADHD and how it ADHD affects them in the school setting. School counselors work with ADHD students and are involved in diagnosing, treatment, and intervention process of evaluating ADHD students. With this, the need for school counselors to seek training and updates pertaining to working with students with ADHD to keep current on the latest trends is essential for all school counselors to assist each student so they can be successful in their education.

### *Conclusion and Recommendations*

School counselors are educators who work in the schools to provide academic, career, college readiness, and personal/social competencies to all students through advocacy, leadership, systemic change, and teaming and collaborating with other educators as part of a comprehensive developmental school counseling program. In conclusion, school counselors play a huge role in the involvement of ADHD students and becoming more familiar with ADHD and how it affects the students in school is essential for school counselors. School counselors are part of a support



system for students with ADHD and they help provide interventions in the school to help ADHD students succeed in the classroom. School counselors have a goal of helping all students learn more effectively and efficiently and they play a huge role in helping all children succeed in their education.

Thus, the following recommendations are offered for areas of improvement and training of school counselors:

1. School counselors can help be a positive advocate for ADHD students by knowing the disorder and preparing different interventions strategies to help each individual child succeed.

2. School counselors need to take the first step by continuing their education in order to increase their knowledge on the different disorders that affect students in the school setting, such as ADHD.

3. In addition, graduate programs also need to have more resources for school counseling students to help prepare them in working with students with specific disorders. Graduate programs should have more opportunities for school counseling students to learn the different disorders that affect students in their education. For example, having a class to learn more about ADHD, the diagnosis, the different treatments, and intervention strategies would be a great way to prepare school counselors in better understanding and working with students with ADHD in helping them succeed in school.

4. School counselors play a huge role in the process of diagnosing and treating ADHD. Providing support groups and services will help the student, parents, and teachers understand the disorder and how it may affect them in school and the student's everyday life.

5. As research and new developments in the treatment of ADHD, it is recommended for school counselors to incorporate evidence-based practices and interventions.

## References

- American Psychological Association. (1994). *Publication manual*. Washington D.C: American Psychological Association.
- American School Counseling Association. (2003). *A group counseling intervention for children with attention deficit hyperactivity disorder*. Retrieved December 3, 2009, from: [www.schoolcounselor.org](http://www.schoolcounselor.org)
- ADHD update: New data on the risks of medication. (2006, October). *Harvard Mental Health Letter*, Retrieved June 24, 2009, from Academic Search Elite database.
- Ambalavanan, G., & Holten, K. (2005, December). How should we evaluate and treat ADHD in children and adolescents? *Journal of Family Practice*, 54 (12), 1058-1059. Retrieved September 18, 2009, from Academic Search Elite database.
- Anastopoulos, A., & Shelton, T. (2001). *Assessing attention-deficit/hyperactivity disorder*. New York, NY: Kluwer Academic/Plenum Publishers.
- Barkley, R.A., (1998). *Attention deficit hyperactivity disorder: A handbook for diagnosis and treatment*. New York, NY: Guildford Press
- Barkley, R. A., (1995). *Taking charge of ADHD: The complete authoritative guide for parents*. New York: Guilford Press.
- Brown, T, E., (2005). *Attention Deficit Disorder: The unfocused mind in children and adults*. Yale University Press: Health and Wellness
- Cains, R. (2000). Children Diagnosed ADHD: factors to guide intervention. *Educational Psychology in Practice*, 16 (2), 159-180.
- DuPaul, G. J. & Stoner, G. (2003). *ADHD in the schools: Assessment and intervention strategies*, (2<sup>nd</sup> ed.). New York, NY: The Guilford Press.

- DuPaul, G. J. & Stoner, G. (2003). *ADHD in the schools: Assessment and intervention strategies*. New York, NY: The Guilford Press.
- Gardill, M., DuPaul, G., & Kyle, K. (1996). Classroom strategies for managing students with attention-deficit/hyperactivity disorder. *Intervention in School and Clinic*, 32, 89-94.
- Greenbaum, J., Markel, G. (2001). *Helping adolescents with ADHD and learning disabilities: Ready to use techniques for school success*. San Francisco, CA: Wiley Imprint.
- Guevara, J., Lozano, P., Wickizer, T., Mell, L., & Gephart, H. (2002). Psychotropic medication use in a population of children who have attention-deficit/hyperactivity disorder. *Pediatrics*, 109 (5), 733. Retrieved June 24, 2009, from Academic Search Elite database.
- McKinley, L., & Stormont, M. (2008). The school supports checklist. *Teaching Exceptional Children*, 41(2), 14-19.
- Myrick, R, D., & Webb, L, D. (2003). *A group counseling intervention for children with attention deficit hyperactivity disorder*. Retrieved September 17, 2009, from: [www.schoolcounselor.org](http://www.schoolcounselor.org)
- Pierangelo, R. & Giuliani, G. (2008). *Classroom management techniques for students with ADHD*. Thousand Oaks, CA: Corwin Press.
- Pliszka, S. R. (2009). *Treating ADHD and comorbid disorders*. New York, NY: The Guildford Press.
- U. S. Department of Education. (2007). *Free and appropriate public education for students with disabilities: Requirements under Section 504 of the Rehabilitation Act of 1973*. Retrieved October 15, 2009, from: [www.ed.gov/about/offices/list/ocr/docs/edlite-FAPE504.html](http://www.ed.gov/about/offices/list/ocr/docs/edlite-FAPE504.html)

Waller, R. J. (2006). *Fostering child & adolescent mental health in the classroom*. Thousand Oaks, CA: Sage Publications, Inc.