THE EFFECTS OF ATTENTION DEFICIT HYPERACTIVITY DISORDER ON THE SOCIAL SKILLS OF SCHOOL-AGE CHILDREN

by

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A Research Paper

Submitted in Partial Fulfillment of the Requirements for the Master of Science in Education Degree With a Major in

School Counseling

Approved: 2 Semester Credits

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ABSTRACT

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The Effects of Attention Deficit Hyperactivity Disorder on the Social Skills of School-			
(Title)			
Age Children			
School Counseling	Rod Crist	08/2002	31
(Graduate Major)	(Research Advisor)	(Month/Year)	(No.of Pages)
American Psychologic	cal Association (APA)		

(Name of Style Manual Used in this Study)

Attention Deficit Hyperactivity Disorder (ADHD) is a prevalent emotional and behavioral disorder that can affect the scholastic and social functioning of school-age children. ADHD is characterized by developmentally inappropriate inattention, impulsiveness and motor activity. Children with attention problems create a special population with diverse needs within an educational setting. Although there are a myriad of problems associated with children identified as having ADHD, social skill deficits are one concern of many parents and school personnel. Topics addressed in the literature review include the definition and common interventions regarding ADHD, as well as the definition of social skills and social skill assessment and intervention programs. Also addressed is how ADHD is linked to social skill deficits in school-age children.

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CHAPTER I

Introduction

Disorders of attention and activity are amongst the most prevalent of emotional and behavioral disorders affecting children and adolescents. They are also currently considered the most controversial disorders in our society. Children with attention problems create a special population of students with a wide array of needs. The most commonly diagnosed childhood disorder among students is Attention Deficit Hyperactivity Disorder, also known as ADHD (Kronenberger & Meyer, 1996).

ADHD is marked by developmentally inappropriate inattention, impulsiveness and motor hyperactivity (Rosenhan & Seligman, 1995). In general, ADHD is defined by the presence of socially disruptive behaviors, either attentional or hyperactive, before the age of seven, which persist for at least six months (Sue, Sue, & Sue, 1997). Characteristics of children who suffer from ADHD primarily include inattention, impulsivity, and deficits in rule-governed behavior, not the restlessness or squirminess that has often been the focus of adults' concern. Those identified as having ADHD may show difficulty in focusing and sustaining attention, controlling impulsivity, and showing appropriate motivation (Kauffman, 2001).

Students with ADHD have attention problems that span several settings. ADHD is extremely apparent in a school setting and may have a grave impact on a child's educational experience. Traditional schools expect students to be patient, listen attentively, complete assignments, cooperate with peers, and pay close attention to the task at hand. These activities are difficult for children who have ADHD because they cannot control their behaviors. Behaviors that often accompany ADHD include the

inability to "think before you act," take turns, wait in line, and excessive fidgetiness and restlessness. School children who have ADHD may have a hard time remembering to do tasks, constantly run late, and turn in homework that is unfinished or past its due date. Students with ADHD may appear to be emotionally immature, quick-tempered, and easily frustrated (Kauffman, 2000). All of the above characteristics may make it difficult for children to function successfully in a school setting both academically and socially.

Recently, it has been discovered that students with ADHD may suffer from developmentally inappropriate social behaviors, which likely affects the development of friendships and relationships with peers. Many studies have found evidence that suggests that children with ADHD manifest social skills deficits with peers because of the behaviors that often accompany ADHD (disruptiveness and poor impulse control). Poor development of social skills can have very serious negative side effects, which include long-term effects that may carry over into adulthood. Children who demonstrate problems with social and peer relationships at an early age often continue to have socialization problems later in life (Dumas, 1998). In order for students with ADHD to positively participate in classroom and social settings, their academic and social deficits need to be addressed and accommodated.

Social skills deficits are not only experienced by students with ADHD, although it is predicted that fifty percent of students with ADHD experience relationship problems (Dumas, 1998). Low social functioning can be experienced by students with exceptional needs as well as regular education students. Poor social skill development in children can lead to adverse effects in the future. For example, poor social skills have been linked with a higher incidence of school dropouts, juvenile delinquency, loss of jobs, disorderly

conduct and law enforcement contacts (Landau & Milich, cited in Landau & Moore, 1991). Lack of adequate social skills can negatively effect the development of peer relationships, which can lead to having few friends. A study done by Weiss & Hechman (cited in Landau & Moore, 1991) indicated that students who have been identified as having ADHD are more likely to experience feelings of sadness and loneliness when compared to their non-ADHD peers. It also seems that students with ADHD are less involved in their communities as well as in school activities.

A person's social status greatly determines if an individual is accepted or rejected by their peers and determines if a person is acceptable to a group. Students who are labeled as hyperactive have a high incidence of being rejected by their same age peers. This negatively affects the hyperactive student's status as acceptable and makes it difficult for a student with ADHD to maintain healthy friendships (Landau & Milich, cited in Landau & Moore, 1991). A study conducted by Milich, Landau, Kilby, & Whitten suggested that children with hyperactivity are more unpopular and socially rejected than peers who are aggressive in nature (as cited in Landau & Moore, 1991).

Social skills training can be integrated into learning disabled and regular education curriculum to help students learn the skills necessary to develop and maintain relationships in and out of a school setting. School-based interventions can be planned and implemented to help students with ADHD form positive relationships with peers and teachers (Evans, Axelrod, & Sapia, 2000).

In order for students with ADHD to function appropriately in a classroom and at school in general they must be accepted and included by their peers and teachers. The opinions a teacher holds about certain students is communicated and reinforced by the

other children in the classroom. Teacher perceptions often influence how students respond to others, whether teachers are aware of this or not. It has been suggested that students who suffer from learning disabilities, including ADHD, are the recipients of more negative attention, less praise, and more disciplinary action by their teachers when compared to their non-disabled peers (Hepler, 1994).

The previous literature has suggested that, along with other difficulties, students with ADHD suffer from social skill impairments. Attitudes and attention from a student's peers, whether negative or positive, can have a huge impact on a student's educational experience. It is pertinent that professionals within the field of education better understand the social deficits and needs of children with ADHD. Therefore, the impact of social skill deficits of by students who have been identified as having ADHD needs further exploration. By understanding a student's social needs we can ensure that students identified as having ADHD have the best possible opportunities to develop social skills that are socially desirable by others. In turn, this allows a better chance to be accepted and active in healthy peer relations, both in childhood and adulthood.

Statement of the Problem

The purpose of this study is to further explore, through the published literature, the social effects that ADHD has on a student's social skill development and how a student's lack of social competence effects relationships with their peers. By exploring the subject of ADHD and its social manifestations, educational professionals will be better able to understand students who are lacking adequate social skills. This knowledge will assist in the implementation if interventions designed to assist students in the development of social skills ,which will lead to success within the classroom, as well as with their peer groups.

Definition of Terms

1998).

For the purpose of clarity, the following terms are defined.

Conduct Disorder (CD)- a disorder characterized by a repetitive and persistent pattern of behavior in which a young person violates the basic rights of others or major age-appropriate societal norms or rules (Hetherington & Parke, 1999).

Self-esteem – a good opinion of oneself, self-confident (Abate, 1997).

Social Competence – how social skills are linked to socially valid outcomes.

Social Skills – discrete molecular behaviors that, if present increase the probability that the child will be considered socially competent.

Social Skills Rating System (SSRS) – a clinically useful instrument that incorporates a broad multi-rater format that addresses social behavior (Dumas,

Social Status – peer nominations of acceptance or rejection, the personal appeal of the individual to the rest of the group (Landau & Moore, 1991).

Assumptions

There are several assumptions which are apparent in this research. This includes the assumption that ADHD is a real, diagnosable disorder, and that the lack of appropriate social skills is detrimental to the development of healthy relationships.

*Limitations**

There are several limitations associated with this research. These limitations include the fact that commonly prescribed ADHD medications may decrease the appearance of social skill deficits and that diagnosis for ADHD often varies. Another limitation is that peer socialization and interaction may vary between males and females, and females may not display as many outward behaviors associated with ADHD as compared to males (Landau & Moore, 1991)

CHAPTER II

Literature Review

Attention Deficit Hyperactivity Disorder

The term Attention Deficit Hyperactivity Disorder (ADHD) is relatively new within the medical and educational community. Over the past several decades, disorders of attention and activity have been described in a variety of terms, including hyperactive and hyperkinetic. Severe and chronic problems in regulating attention and activity are now commonly known as Attention Deficit Disorder (ADD) or Attention Deficit Hyperactivity Disorder (ADHD). Although the terms ADD and ADHD are both used and found in the published literature, the term ADHD is the official term found in the Diagnostic and Statistical Manual of Mental Disorders 4th edition. (American Psychiatric Association, 1994) (Kauffman, 2000).

The DSM-IV (American Psychiatric Association, 1994) is published by the American Psychiatric Association and is used to classify and diagnose mental disorders in individuals. ADHD is defined by the DSM-IV (American Psychiatric Association,1994) as a persistent pattern of inattention and/or hyperactivity-impulsivity that is more frequent and severe than is typically observed in individuals at a comparable level of development. Some hyperactive, impulsive, and inattentive symptoms must be present before the age of seven in order for individuals to be diagnosed as having ADHD. In addition, symptoms must be present in at least two settings (school, home, work, etc.) in order for a diagnosis to be valid (American Psychiatric Association, 1994; Barlow & Durand, 1999).

The DSM-IV (American Psychiatric Association,1994) classifies ADHD into two separate subtypes: Predominately Inattentive Type and Predominately Hyperactive-Impulsive Type. There is Combined Type as well, which is a combination of the above two subtypes. The DSM-IV (American Psychiatric Association,1994) specifies that the frequency and intensity of the symptoms must be "maladaptive and inconsistent" with developmental level. Some symptoms described in the DSM-IV (American Psychiatric Association,1994) include: failure to give close attention to details, difficulty sustaining attention in tasks or play activities, does not listen when spoken to, and is easily distracted and forgetful (American Psychiatric Association, 1994; House, 1999).

In general, definitions of ADHD assume many things. It is a developmental disorder of attention and activity and is evident relatively early in life (some symptoms before age seven). ADHD persists throughout adulthood, involves both academic and social skills, and is frequently accompanied by other disorders. Such disorders include Conduct Disorder (CD) and Oppositional Defiant Disorder (ODD), which usually have overlapping symptoms (Sue, Sue, & Sue, 1997). Approximately three to five percent of the school-age population suffers from ADHD, with boys outnumbering girls 4 to 1. This large gender difference may be due to the fact that adults may be more tolerant of hyperactive boys as compared to hyperactive girls (Barlow & Durand, 1999). In addition, it is important to note that British doctors are less likely to diagnose children with ADHD compared to American doctors (Berger & Thompson, 1995).

The basic problems of children with ADHD primarily involve inattention and impulsivity. Problems with inattention and impulsivity lead to difficulties in focusing and sustaining attention, controlling impulsive actions, and showing appropriate

motivation. It is these behaviors make a person with ADHD a challenge for parents, siblings, teachers, peers, or co-workers.

Children with ADHD are often rejected by their classmates and peers, because the symptoms of ADHD are often socially disruptive and annoying to those around them (Dumas, 1998; Sue, Sue & Sue, 1997). When interacting with peers, children with ADHD are often disorganized and intrusive (Rosenhan & Seligman, 1995). For example, a child with ADHD may be an annoyance in a small cooperative learning group because they tend to appear unprepared and scattered.

Causes of ADHD

In the past, brain dysfunction has been the presumed cause of ADHD, although there are many other hypotheses. With today's technology, researchers are investigating biological causes through specialized anatomical and physiological tests involving blood flow to the brain and neurotransmitters. It is assumed that most cases of ADHD have a biological cause, but the exact cause is still unknown (Kauffman, 2000; Kronenberger & Meyer, 1996).

It has been suggested that food substances such as dyes, sugars, and preservatives may play a role in ADHD. In addition, it has been suggested that environmental toxins (i.e. lead) and allergens cause hyperactivity as well. A once popular assumption was that ADHD was linked to the consumption of sugar and caffeine, although this theory has since been discounted. None of the above factors have been demonstrated to be a frequent cause of ADHD, but a small number of cases pay these theories merit (Berger & Thompson, 1995).

It appears that genetic factors play a role in the acquisition of ADHD. ADHD is more commonly found in biological relatives of children who have this disorder, when compared to the general population. Genetic factors suggest that some individuals are more likely than others to be predisposed to ADHD when combined with other psychological and biological factors (Berger & Thompson, 1995).

Diagnosis and Assessment of ADHD

Interventions for ADHD

Diagnosis and assessment for ADHD varies from clinicians, teachers, and parents. Usually assessment involves a medical examination, a clinical interview, parent and teacher ratings of behavior regarding attention, direct observation, or a combination of all of the above. Clinicians are usually interested to see if a child meets certain diagnostic criteria (DSM criteria) and teachers are typically more interested in developing a behavior management plan for use in the classroom. On the other hand, parents are usually concerned with why their child behaves inappropriately and how they should respond to this behavior (Kauffman, 2000; Kronerberger & Meyer, 1996).

There are many ways to intervene to help a child with ADHD. The most popular

and controversial intervention technique is medication. It has been suggested that between sixty to ninety percent of children with ADHD are prescribed some kind of drug therapy (Landau & Moore, 1991). Psychostimulants such as Ritalin (methylphenidate), Dexedrine (dextroamphatamine), or Cylert (pemoline) are the most often prescribed medication to children who have been identified as having ADHD. Those opposed to the use of medication for ADHD have described the drugs' possible negative side effects, the medication's unknown long-term effects, and the possible encouragement of drug use in

young children as reasons to choose not to medicate (Kronenberger & Meyer, 1996; Rosenhan & Seligman, 1995).

Research has shown that the right dosage of the correct medication results in a marked improvement of behavior and facilitates learning in around ninety percent of children who are identified as having ADHD. The effects of the above-mentioned stimulants are usually apparent within 30 minutes of taking a dose and usually last up to 3 to 4 hours (Kauffman, 2000). The short-term effects of these medications allow students and parents to be flexible about when and where they use the medication. For example, some children only use medication to control ADHD during school hours or choose not to use medication during summer vacations.

Behavior modification is commonly used in educational environments by teachers, counselors, and psychologists to control the unwanted behaviors of children with ADHD, as well as children with other emotional and behavioral disabilities. The basic principle behind behavior modification is to reward the positive behaviors, thus making them appear more often, and punishing the negative behaviors, so they will cease to surface (Kronenberger & Meyer, 1996). In order for behavior modification programs to be successful, they must be well organized and easy to implement. What motivates the individual student must be considered to encourage behavior change, as well as how easy the program is to implement by the teacher or other school personnel.

Another intervention often used alone or in conjunction with medication to support children with ADHD is parent training. This approach is used frequently by psychologists or counselors who work with children with ADHD and their families.

Parent training helps parents control unwanted behaviors in their children by using such systems as a token economy or time out in their home (Kauffman, 2000).

Teacher training is a useful technique as well. In a school setting teacher training helps school personnel understand the functions of ADHD behaviors in the classroom. The most likely function of ADHD behaviors is to escape tasks, especially those that involve long writing activities or extended sequences. Another function of ADHD behavior is related to stimulation. Some children will get distracted because the task at hand is not stimulating enough to hold their attention (Kauffman, 2000). Teachers can also use behavior modification techniques, like a token reward system, to help students with ADHD stay on task.

Cognitive Strategy Training is another behavioral intervention that has proven to be beneficial when working with students identified as having ADHD. This type of training includes self-instruction and self-monitoring. Self-instruction involves teaching students to talk to themselves about what they are doing and what they should do. An example is a student who verbalizes each math problem while working on an assignment. Self-monitoring has been used with students who have difficulty staying on task, especially while doing seatwork. A tape recorder can be used to play tones at certain intervals that remind students to ask themselves if they are on task or not on task (Kronenberger & Meyer, 1996).

ADHD has many characteristics, descriptors, and comorbid disabilities that often accompany the disorder. It is important to recognize that each individual's case is different and that ADHD manifests itself in many different aspects of an individual's daily life. Many strategies have been developed to help children, parents, and teachers

lessen the impact of ADHD on an individual's scholastic and social achievement (Kronenberger & Meyer, 1996).

Social Skills

A primary concern of educational professionals and parents of children identified with ADHD is the effects that ADHD has on a student's social functioning. As humans, almost everything we do surrounds the ability of interacting and communicating with others both verbally and non-verbally. The importance of successful communication is extremely apparent in an educational setting. Students must be able to interact successfully with teachers, and especially with their peers. Understanding the basic social rules of society and being able to put them into practice enables us to maintain healthy relationships with our peers and deems us socially competent and socially desirable (University of Cincinnati, 2001).

Social skills are complicated, observable behaviors that include problem-solving skills. They are usually developed through learning and involve giving, receiving, and interpreting messages. Social skills also involve detailed verbal (speech, words, sentences) and nonverbal (posture, eye contact, voice, facial expressions) behaviors. Social skills allow children to experience positive experiences in social situations (L.K. Elksnin, 1996; cited in Elksnin & Elksnin, 1998). Social skills can be divided into several categories. These categories are interpersonal behaviors, peer-related social skills, teacher-pleasing social skills, self-related behaviors, assertiveness skills, and communication skills.

Types of Social Skills

- •Interpersonal behaviors- also called friendship-making skills, include behaviors such as introducing oneself, joining in activities, asking someone for a favor, offering yourself to help others, giving and accepting a compliment from another, and the ability to apologize.
- •Peer-related Social Skills- are skills that are most valued by peers and classmates and lead to acceptance by classmates. Peer-related social skills include working in cooperative groups, asking and receiving information from others, and identifying the emotions of others.
- •Teacher-pleasing Social Skills- these behaviors are connected to success in an educational environment. These skills include following directions from teachers, obeying school rules, exerting your best effort while doing class work and homework, and listening to teachers and peers while they are speaking.
- •Self-related behavior- these skills help children determine what a social situation entails and helps them select the skills that are the most appropriate and effective for use in the situation. Self-related behaviors consist of following through, dealing healthfully with stress, understanding the feelings of self and others, and controlling anger and aggression.
- •Assertiveness Skills- these skills allow children to express their needs and feelings without using aggressive behaviors.
- •Communication Skills- Communication skills are made-up of appropriate listening responses, taking turns with others, maintaining attention during conversations, and giving feedback to the person you are speaking to (Elksnin & Elksnin, 1998).

Developing effective social skills is an important milestone in child development. Previous research has shown that social and relationship problems in childhood directly correlate with problems in socialization and mental health difficulties in adulthood (Strain & Odom, 1986; cited in Elksnin & Elksnin, 1998). Social skills such as understanding the feelings of self and others, being able to control your emotions, and making others feel comfortable, are important in predicting whether or not an individual will be socially successful in life. School performance and adequate social skill development also seem to be related. It has been suggested in a study conducted by Gresham (1981) that students who have inadequate social functioning have more school-related problems. This puts students with poor social skills at higher risk for dropping out of school and achieving at lower rates when compared to their same age peers with appropriate social skills.

Elksnin and Elksnin (1998) demonstrated that poor and lacking social skills are also directly correlated to our nation's unemployment rates and underemployed population. Employer's value well developed interpersonal skills in their employees and consistently rank interpersonal skills as more valued than job preparedness skills. It was also reported in a study conducted by Johnson and Johnson (1990; cited in Elksnin & Elksnin, 1998) that ninety percent of lost jobs were related to social difficulties.

Social skills are very important in order for students to function successfully in a social environment. Social skills are especially critical for students who are identified with a disability. Students who are identified as having an emotional or behavioral disorder (including ADHD) are consistently identified as lacking the pertinent social skills they need to be accepted by their peers. In general, students with emotional and

behavioral disorders are most in need of social skill development and training, compared to students in other disability categories (Elksnin & Elksnin, 1998). It is also important to recognize that social skill deficits seem to persist with age and will not improve by themselves as a child moves through each stage of development. The United States Department of Education (1996) reported that twenty-nine percent of students who graduated from high school in 1995 required social skills training beyond that provided by their formal education. This demonstrates that social skills are skills that not only effect functioning as a student, but also as an adult in the world outside of school. *Identifying Social Skills Deficits*

Identifying students who have social skill deficits can be achieved many ways. A common avenue to assess the social skills of a child is through a rating scale. Rating scales, like the Social Skills Rating System (SSRS), are especially useful when a large population of students is being assessed. Rating scales are also useful when one wants to gather information from a variety of sources. A rating system also allows one to pinpoint other behaviors that interfere with a student's ability to use and develop adequate social skills (Elksnin & Elksnin, 1998).

When administering a rating scale system, one should keep in mind the effects of rater bias and minimize this effect by using several raters. A researcher should also be aware that rating scales do not typically allow the cause of the social skill deficit to be identified. Another limitation to the use of rating scales is that the results from the rating scale system may be different than what is observed in the student's environment (Elksnin & Elksnin, 1998).

Interviews with parents, teachers, counselors, and peers are also a sufficient way to determine if a student lacks the social skills necessary to develop and maintain relationships. Using interview techniques is useful when one wishes to identify social skills that are lacking or extremely important to the individual interviewee. Interviews also allow researchers to determine the difference between a child's current social skill status and the desired skill level (Elksnin & Elksnin, 1998).

Interviewing a student whose social skills are in question can be a helpful technique as well. Interviewing the student can make the researcher aware of the student's own level of self-awareness concerning his or her social skill deficits. Through student interviews one can also explore the child's willingness and motivation to learn necessary social skills. Student interviews also present the opportunity for the interviewer to conduct an on-site observation of the student. While conducting an interview one can observe such social skills as communication style, eye contact, and the ability to hold a conversation (Elksnin & Elksnin, 1998).

When deciding to conduct an interview, whether it is with a parent, teacher, counselor, or student, a researcher must be aware of time-constraints. Interviewing individuals can be very time consuming. Researchers must also recognize that interviewees may provide unreliable information. To avoid collecting unreliable information is it important to keep the interview as structured as possible (Elksnin & Elksnin, 1998).

A behavioral observation is another excellent way to gather information about a student's social skill development. Behavioral observations directly determine if a student needs direct instruction on how to develop his or her social skills. Observation of

a child interacting with his or her peer group allows an observer to compare one student's social skills to another. Direct observation also allows a researcher see if the intervention that was implemented has improved the particular student's social skills. While observing a child in his or her natural setting is useful, one must recognize that it takes a significant amount of time and is not useful when assessing a behavior that occurs infrequently (Elksnin & Elksnin, 1998).

Interventions Designed to Improve Social Skills

Role-playing is a frequently used intervention when teaching social skills to students. It is especially useful when the researcher does not have ample time to do a complete observation or if the skill in question does not appear frequently. Role-playing is also helpful when the researcher wants to see how a child performs the skill, rather than how others perceive how the skill is preformed (Elksnin & Elksnin, 1998). Role-playing in groups is a fun way to motivate students to practice skills is a safe setting that mimics social situations that students will likely come in contact with in the future.

Teaching social skills to students effectively can be done in several steps that allow school personnel to break the skill down, allowing children to master the skill. A study done by Hazel, Schumaker, Sherman, and Sheldon (1995) specified an effective method to teach social skills to students. This method first defines the social skill, which provides students with a clear-cut definition of the skill in question. Second, the skill is described. A description clearly explains the steps that are needed to correctly perform the skill and includes any verbal (what the student should say), nonverbal (what the student should do), and cognitive (what the student should think) steps that are necessary. The third part of the Hazel et al. (1995) method is providing rationale as to why the

student needs and should learn the skill. Using positive statements like "If I learn to control my temper at school I won't get into fights, and students will want to play with me more." There are several social skill curricula that are available for school personnel to implement in the classroom for both the elementary and secondary levels.

The fourth step of the Hazel et al. (1995) study specified the importance of describing the situation where students will use the social skill. Having students brainstorm where the skill can used appropriately is important if we expect children to put it to use. Encouraging and brainstorming common situations and settings is also a useful tool is determining when students should use the skill. For example, asking students to list situations when it would be a good idea to use "please" and "thank you."

The fifth and final step in the Hazel et al (1995) technique is to use role-playing strategies to help children apply their skills to familiar scenarios. It is helpful to let students make up their own role-playing situations to facilitate acquisition of the skill. Furthermore, modeling the skill for students, guiding the student through the skill, providing feedback and letting the student practice the skill can enable students to put the skill into practice and will encourage students to use the skill on a regular basis.

While it is important to teach social skills in depth to students it is also important to teach problem-solving skills. Problem-solving skills can be described as defining problems, identifying possible solutions, selecting alternative solutions, predicting the outcome, and evaluating the outcome (D'Zurrilla & Goldfried, as cited in Elksnin & Elksnin, 1998). This above sequence for problem solving can be taught to children as young as preschool-age and can be the basis of a routine for children who have problems controlling their anger (Elksnin & Elksnin, 1998).

Roadblocks Associated with Acquiring Social Skills

It is possible that failure to acquire social skills is not due to lack of knowledge by the student about appropriate social skills. Lack of social skills can be due to interfering behaviors. Interfering behaviors can be anything from high anxiety in social situations to attention or impulsivity problems that might interfere with social skill acquisition.

Interfering behaviors need to be addressed before school professionals begin to implement a social skill development program.

Lack of opportunity may also interfere with a student's use of social skills because they might not have the opportunity to use them at regular intervals. If this is the reason for social skill deficiencies, educators must provide students with opportunities to use their skills. Cooperative learning, peer tutoring, and varying group activities will promote the usage of social skills on a daily basis, thus enabling students to develop the skills they need to function successfully in a social setting.

Lack of feedback can also effect the development of social skills, especially for students who have emotional and behavioral disorders like ADHD. Providing specific feedback about student's social skills can facilitate change in future social situations. Environmental cues should also be explored when children fail to acquire necessary social skills. Some children have the appropriate social skills, but don't know the appropriate time and place to use them. Teaching students when to use skills is equally important as teaching students what social skills are. Lack of reinforcement can also effect the usage of social skills by children. Students with and without social deficits need to be positively reinforced in order for students to continue to use the skills. Skills

that are highly valued by peers, teachers, and parents should be highly reinforced when performed correctly (Elksnin & Elksnin, 1998).

Effects of ADHD on Social Skills

It was stated earlier that approximately fifty percent of children identified with ADHD have social skill deficits and peer relationship problems (Dumas, 1998). Poor development of peer relationships has been a major predictor in future social adjustment problems and mental health problems in later life. Socialization problems, social incompetence, and peer rejection are directly linked to low self-esteem, depressed mood, and anti-social behavior in childhood and beyond (Robbins, 1966; cited in Dumas, 1998). Peer adjustment problems involving children with ADHD have also shown to have detrimental effects on a child's self-esteem (Wheeler & Carlson, 1994). Behavioral traits that accompany ADHD, such as poor impulse control, inattention to peers, and intrusiveness, put students with ADHD at-risk to develop social deficits. It seems that students with ADHD receive few, if any, positive peer nominations, such as "most liked," yet receive a disproportionate number of nominations as "least liked" (Erhardt & Hinshaw, 1994; cited in Dumas, 1998).

In a study conducted by King and Young (1982; cited in Wheeler & Carlson, 1994) it was shown that students with ADHD are aware of their negative social status and their problems with social functioning. Another study conducted by Lahey (1982; cited in Wheeler and Carlson, 1994) showed that students with ADHD consistently rated themselves as being more depressed, having lower self-esteem, being less popular and having more behavior problems than there non-ADHD peers. In the same study, students

with ADHD also rated themselves has having more physical appearance concerns, anxiety, and general unhappiness compared to their non-disabled peers.

Another area that is of social concern with children who have ADHD is the affect ADHD related behaviors have on others. Evidence has shown that students with ADHD can cause negative behaviors in teachers and peers that interact with them. For example, students who are non-disabled may exert more controlling behavior on their peers, which in turn may escalate negative behaviors in students who have ADHD, thus leading to an overall more disruptive classroom. A study conducted by Campbell, Endman, and Bernfeld (1977; cited in Wheeler & Carlson, 1994) also showed negative interactions with teachers. Classrooms that contained students with ADHD had higher rates of negative teacher-child interactions among all students.

Children who have been identified as having ADHD also tend to be more disagreeable in nature and have more negative social interactions at school and at home. Parents of children who have ADHD report that their child's behavior often annoys others. The presence of aggression in child with ADHD can also negatively effect social interaction. It was reported by Clark, Cheyne, Cunningham, & Siegel (1988; cited in Dumas, 1998) that children identified as having ADHD tend to be more disruptive and domineering, as well as quicker to resort to aggressive behavior with peers.

Children who have been identified as having ADHD are at risk to develop many problems related to socially unacceptable behavior and social maladjustment, among other problems that accompany ADHD such as disruptive behavior disorders (conduct disorder), substance abuse, and academic underachievement (Dumas, 1998). A large percentage of children with ADHD appear to be at risk for developing significant social

and peer relationship deficits. Students with social deficits or social delays need to be identified and treated in order for these students to be successful in many social aspects of life (relationships, peers, employment). Schools are very social institutions, and as educators we need address the array of social issues that affect children with ADHD in order to improve the social functioning of these students. By addressing social skill deficits, educators can make school a more positive and friendly place for students with ADHD.

CHAPTER III

Summary, Critical Analysis, and Recommendations

Summary of Chapter Two

Chapter two begins by exploring the definition of Attention Deficit Hyperactivity Disorder (ADHD) and what it means to be diagnosed with ADHD. It uses the Diagnostic and Statistical Manual's (American Psychiatric Association, 1994) definition as the main definition for this disorder. The DSM-IV's (American Psychiatric Association, 1994) definition for ADHD is as follows: a persistent pattern of inattention and/or hyperactivity-impulsivity that is more frequent and severe than is typically observed in individuals at a comparable level of development. Some hyperactive, impulsive, and inattentive symptoms must be present before the age of seven in order for individuals to be diagnosed as having ADHD.

The second section of the review of literature addresses the causes of ADHD.

Although there is no one specific cause of ADHD, it is speculated that ADHD is caused by a biological brain dysfunction, but the exact cause is still unknown (Kauffman, 2000).

ADHD is also presumed to be genetic because it is more commonly found in the relatives of children who have the disorder.

Diagnosis and assessment of ADHD is also addressed in this section. Assessment of ADHD is usually done by medical personnel, but can include interviews of parents, children, and teachers, as well as observations done at the child's school. It is important to get a complete assessment when dealing with ADHD so the parent and teacher can be as informed as possible and make the accommodations necessary.

This paper explores several common interventions used with children who are identified as having ADHD. The most common of the interventions is medication, yet also the most controversial. The use of medication for ADHD lessens symptoms in around ninety percent of children who have ADHD (Rosenhan & Seligman, 1995). The use of medication is controversial because of the medication's unknown long-term effects and the possible negative side effects.

Other interventions for ADHD include behavior modification interventions such as teacher training and parent training, as well as cognitive strategy training for students who have ADHD. When using behavior modification techniques one must keep in mind that the program must motivate the child and be easy to implement. Behavior modification is not likely to work if it requires a lot work on the part of the teacher or parent.

The definition of acceptable social skills and the types of social skills are also addressed in the second half of the literature review. A clear definition is important when addressing social skills because social skills encompass so many aspects of an individual's life. Examples of social skills are given to help clarify the different types of social skills that are experienced by children on a regular basis. Important reasons behind the necessity of developing acceptable social skills, such as peer acceptance, friendships, and less negative attention are stated to support the claim that social skills are important developmental milestones.

Ways to identify social skill deficits and social skill delays are also addressed in this paper, similarly to the way ADHD is identified. Social skills deficits are identified a number of ways. These techniques also include rating scale systems (Social Skill Rating System), parent, teacher and student interviews, and behavioral observations. Improving a child's social skills are also addressed several ways. Intervention techniques include role-playing activities and teaching strategies. When addressing the social skill development of a child it is important to determine if lack of social skill is due to a performance deficit or a skill deficit before implementing an intervention.

Finally, previously published literature about the effects of ADHD on students social skill development is addressed. Many professional journal articles are included in this research and strongly suggest that ADHD is linked to significant deficits in the social skill development of students who are diagnosed with the disorder. Because of the nature of the symptoms associated with ADHD (impulsivity, inattention, inability to control actions), children with ADHD are at a higher risk to develop poor peer relationships than children who do not have ADHD.

Critical Analysis and Recommendations

A review of the relevant literature concerning ADHD, social skills, and the effects ADHD can have on the social skill development in children was explored. Although there is a lot of research regarding ADHD, its causes, and interventions, it continues to be a controversial topic, especially for schools and parents. The most controversial topic surrounding ADHD is the medication that is commonly prescribed to children who have been identified as having ADHD. This controversy is met with the fact that ninety percent of students who take medication to lessen the symptoms of ADHD benefit from it (Rosenhan & Seligman, 1995). It is also met with the fact that there is not a lot of knowledge about the medication's long-term effects, possible side-effects, and whether or not it promotes drug use in children and teens. One must keep in mind that students

need to have a medical diagnosis of ADHD in order to receive medication to treat the disorder. Parents of students with ADHD or ADHD type tendencies should seek a doctor in the medical field that is well respected and has experience working directly with children who have ADHD.

Another controversial issue surrounding ADHD is the validity and reliability surrounding the assessment techniques used to identify students with ADHD. These controversial issues also pertain to social skill assessments and identification techniques. Techniques such as interviews, rating scales, and direct observation are subjective and can result in observer or rater bias. Interviews can also be unreliable, so it is important that interviewers follow a structured format. Also, the person conducting the assessment should be properly trained to conduct assessments regarding ADHD in order for a correct and appropriate assessment or diagnosis to take place.

Continued research surrounding ADHD and its effects on social skills is an important topic in our schools today. Because of the risk to children who have ADHD and how this disorder manifests itself in a child's social environment, it is important to be aware of the detrimental social deficits that these children may suffer. Through continued education, identification, and intervention regarding social skill training in students with ADHD, as educators we can make school a more positive experience for children who are at risk to suffer social rejection and social skill deficits.

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