Teachers' Bias in Referring Students with ADHD Characteristics for Special Education Services

by

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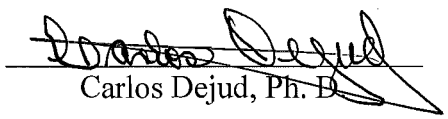

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ABSTRACT

Special education serves a number of students with disabilities. Learning Disabilities (LD) is the largest area, however, Emotional Disturbance (ED) also serves many students. Students who are diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) may be placed in special education under ED. ADHD is the most prevalent childhood psychiatric disorder. The diagnosis of ADHD is a multidimensional process that involves parent, teacher, and student interviews, psychological assessments, including cognitive, behavioral, and social/emotional measures; and direct observation in different contexts. Since teachers are primarily the first to notice ADHD symptoms, it is important that they are knowledgeable about ADHD. It is especially crucial that they have the skills and training to distinguish between what are culturally appropriate behaviors and what are ADHD type behaviors when working with ethnic minorities.

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Chapter I: Introduction

More and more children from culturally diverse groups are being diagnosed as having Attention Deficit Hyperactivity Disorder (ADHD). ADHD is a behavioral disorder affecting approximately three to seven percent of school-age children in the United States (APA, 2000). The disorder represents one of the most common reasons children are referred to mental health practitioners and is one of the most prevalent childhood psychiatric disorders. According to the Diagnostic and Statistical Manual of Mental Disorders, 4th edition, Text Revision (DSM-IV-TR)

> "ADHD is characterized by a pattern of inattention and/or hyperactivity-impulsivity that is exhibited to an extreme level, such that it is developmentally inappropriate relative to a person's age" (as cited in Reid, Riccio, et al., 2000).

The core symptoms of ADHD children: inattention, impulsivity, and/or hyperactivity, seem often to be at the center of what schools require of their students. As a function of these symptomatic behaviors, children and adolescents with ADHD are at higher than average risk to experience considerable academic difficulties throughout their school years (Hosterman, DuPaul, & Jitendra, 2008).

Due to the fact that ADHD occurs in children without problems as well as comorbid with other disorders, it is critical that a reliable assessment be used in diagnosing a child with ADHD (McBurnett, Lahey, & Pfiffner, 1993). Children with ADHD may have other comorbid emotional and mental disorders such as oppositional defiant disorder, anxiety disorder, or depression (Barkley, 1998). These coexisting disorders can impact a students' educational performance, which can make them eligible for special education services under emotional disturbance (ED). In this regard, ADHD symptoms may so severe at times that student's with the disability may be classified as ED. It is estimated that 3 to 6% of the student population's

behavior is so disruptive and difficult that special education services are needed (Kauffman, 2005). Fewer than 1% of children are found eligible in the school category of ED. Compared to children with learning disabilities (LD) and in speech/language (S/L), which encompass the two largest categories of special education services and who are mostly mainstreamed (over 80%), fewer than half the children under the ED category are mainstreamed (U.S. Department of Health and Human Services, 2001).

This is especially concerning due to the fact that student with ADHD may be classified under ED and not be receiving regular education instruction. Since students who are receiving services under ED are less likely to be mainstreamed, it is especially important that student with ADHD are distinguished from those with ED. Conversely, studies conducted in the United States and Canada indicated that between 50% and 66% of children with ADHD are served through special education, mostly through the LD category (Reid, Magg, Vasa, & Wright, 1994; Szatmari, Offord, & Boyle, 1989).

The diagnostic process is very long and there is not one single test that diagnoses ADHD. It is important that children with this disorder receive services from both the clinical and educational communities. Anyone who believes a child has a disability that interferes with his ability to learn can refer a child for an assessment. To be eligible for services under developmental delay, children must "exhibit delays in physical, cognitive, communication, emotional, social, or adaptive development" (Barkley et al., 2001, p. 2). Once a child is diagnosed with ADHD, he may receive services through the school under two different laws: Section 504 and the Individuals with Disabilities Education Act (IDEA). Section 504 requires that classroom modifications take place. In addition, under IDEA there is greater potential for

agreement between how ADHD is identified in DSM-IV and how it is identified in special educational guidelines (McBurnett et al., 1993).

In addition to the previously mentioned information, research has shown that cultural differences can directly affect both assessment and treatment of ADHD (Pierce & Reid, 2004). Ethnic minorities with ADHD have been understudied; it is still uncertain whether differences found were due to real differences in behavior among groups, rater bias due to ethnicity, or a combination of the two (Reid et al., 2000). Teachers have a major role in the assessment of academic and behavioral problems of children; however, teachers are not always accurate and objective raters of childhood behaviors. Steven (1980) found that ethnicity and social economic status (SES) produced negative halo effects on teachers' ratings. Children from diverse cultural groups may be over-identified as having ADHD.

Among the general population and those affected by ADHD, little is known about the depth and source of knowledge of teachers about ADHD (Bussing, Schoenberg, & Perwien, 1998). Langford, Anderson, Waechter, Madrigal, and Juarez (1979) found that the prevalence of teacher-rated hyperactivity may be related to both ethnicity and SES of the child; they found that African American children were perceived as hyperactive by teachers with greater frequency than would be expected. In addition, teacher and child ethnicity both play a factor in the referral of problem behaviors in children. In a study conducted by Eaves (1975), it was found that White teachers perceived a higher level of problematic behaviors in African American children than in White children, whereas White and African American children received equal ratings from African American teachers.

Previous research indicates that teachers have a good knowledge about symptoms and diagnosis of ADHD, but lack knowledge about causes and treatments of ADHD. A study

conducted by Jerome, Gordon, and Hustler (1994) found that both Canadian and American teachers had moderate levels of overall knowledge about ADHD. Teachers were able to identify ADHD symptoms, but did not show knowledge of treatment. Results similar to those by Jerome et al. (1994) were found in a study conducted by Sciutto, Terjesen, and Bender Frank (2000) in which teachers in a New York elementary school were given the Knowledge of Attention Deficit Disorders Scale (KADDS). They found that teachers knew more about the symptoms/diagnosis of ADHD, but less about general information and treatment of ADHD.

In addition, "teachers' knowledge" about ADHD clearly has the potential to impact students with ADHD in numerous ways, such as through an increased likelihood that a teacher will seek professional consultation, as well as that the teacher will be supportive of behavioral treatments in their classroom (Ohan, Cormier, Hepp, Visser, & Strain, 2008). Ohan and colleagues (2008) examined whether teachers' knowledge of ADHD had an impact on their perceptions and actions towards children with ADHD in their classrooms. Their research was consistent with previous studies in which teachers were most knowledgeable about the symptoms and diagnosis, but teachers had misconceptions about treatments and causes of ADHD.

Another area of concern pertains to the disproportionality of minority students in special education services, since many children with ADHD are eventually placed in special education. Minority students, particularly African Americans, are being disproportionately placed in special education. Results from study conducted by Oswald, Coutinho, Best, and Singh (1999) found that African American students are almost two and a half times more likely than non-African American students to be identified as having mild mental retardation (MMR), and one and a half times more likely to be identified with serious emotional disturbance (SED). It is unknown if

these higher behavioral ratings among minority groups are due to true cognitive or behavioral differences, teacher bias in the referral and assessment process, or a combination of these.

Lastly, ethnicity is another area that comes into question when discussing bias in teacher referrals. Assessments for ADHD have been standardized based on White, English-speaking children and this may be due to the disproportionality of minorities being referred for ADHD. It is hard to know if these differences are due to the child's actual behavior or the rater's perceptions of the behavior. Results from various studies (e.g. Weisz, Chaiyasit, Weiss, Eastman, & Jackson, 1995; Puig et al., 1999) comparing teacher behavioral ratings among Thai and United States students, as well Jamaican and African American students, found that Thai students were rated higher than U.S. students and that higher ratings were given to African American than Jamaican students. Yet, when structured observations were conducted, observers reported twice as many emotional and behavioral problems in U.S. students as with their counterparts (Ramirez & Shapiro, 2005).

Until recently, it was believed that course and outcome of psychological disorders such as ADHD were largely universal and independent of cultural factors (Marsella & Kameoka, 1989). There is a growing literature that suggests that cross-cultural differences may represent an important factor in assessment (Reid, 1995). Estimates are that nearly one third of public school children will be from culturally different backgrounds (Reid, Casat, Norton, Anastopoulos, & Temple, 2001). Due to the increase of student's in special education, in particular, those diagnosed with ADHD, it is especially important to understand the reasons for the increase in number of students in special education or referred for ADHD diagnosis. Teachers are often the primary source for student referral regardless of ethnicity, gender, or SES. As such, it is important for them to be knowledgeable about characteristics of the behavior, assessment, and

treatments for ADHD. In addition, teachers should be aware of their personal biases when completing behavioral ratings scales, conducting observations, and ultimately referring students for special education services.

Statement of the problem

The purpose of this study is to determine if there is ethnic bias in teacher referrals of children with characteristics of those with ADHD to special education services.

Purpose of Study

The purpose of this literature review study was to determine the referral rates of students with characteristics as those with Attention Deficit Hyperactivity Disorder by elementary school teachers across Wisconsin compared to Arizona. Data will be collected during the fall semester of 2010 through the use of surveys.

Assumptions of the Study

It is assumed that all information is current and correct. It is also assumed that there is ethnic bias among teachers and their referral of children with characteristics of those with ADHD.

Definition of Terms

To understand the content area of ADHD, special education, teacher bias and perceptions, there are certain terms that need to be defined. The terms are:

Bias - "Variation in teacher ratings of behavior based on student ethnicity" (Chang & Stanley, 2003).

Comorbid - "Having more than one disorder" (Sattler & Hoge, 2006, p. 16).

Disproportionality - "when the percentage of minority students exceeds the percentage of minority students in the whole student population" (Hosterman et al., 2008).

Emotionally Disturbed - "A condition exhibiting one or more of the following characteristics over a long period of time: The inability to learn that cannot be explained by intellectual, sensory, or health factors; inability to build or maintain satisfactory interpersonal relationships with peers and teachers; inappropriate types of behavior or feelings under normal circumstances; a general pervasive mood of unhappiness or depression; or a tendency to develop physical symptoms or fears associated with personal or school problems" (Kauffman, 2005).

Ethnicity - "A micro-cultural group that shares a common history and culture, common values, behaviors, and other characteristics that cause members of the group to have a shared identity" (Banks & Banks, 1993).

Other Health Impaired - "Having limited strength, vitality, or alertness with respect to the educational environment" (20 U.S.C. 1401, as cited in Arnpriester & Morris, 2001, p. 6).

Referral - "A formal request to have the child evaluated for potential problems" (Sattler, 2008).

Special education - "Free special instruction specifically designed to meet the unique needs of the child with the disability" (Arnpriester & Morris, 2001, p. 5-6).

Limitations of the Study

A limitation to this study would be that there have not been many studies conducted using ethnic differences in teacher bias in referrals of children with characteristics of ADHD. There have been some cross-cultural studies conducted; little research has been done among teachers perceptions among African American and Hispanic students versus Caucasian students in the United States.

Chapter II: Literature Review

This chapter will include general information about attention deficit-hyperactivity disorder (ADHD): definition, prevalence, diagnosis, treatments, and teacher knowledge. In addition, special education requirements will be included such as: federal mandates, the referral process, assessments and eligibility for services. Issues pertaining to ethnic referral bias and the disproportionality of minorities in special education will also be discussed.

General Information about ADHD

Definition

Children with ADHD have trouble maintaining attention, are impulsive, and/or hyperactive (APA, 2000). There are three subtypes of ADHD: inattentive, hyperactive-impulsive and the combined type. Children with ADHD inattentive type have difficulties paying attention to detail on tasks or activities, make careless errors on schoolwork and other types of activities, and have difficulty listening, following directions, organizing, and are distracted easily. Children with the hyperactive-impulsive type have difficulty staying seated, fidgets or squirms excessively, excessively runs or climbs, has difficulty waiting turns, blurts out answers without raising a hand, problems interrupting, excessive talking, and always seems to be on the go. The combined type involves a combination of characteristics of the other two types (U.S. Department of Health and Human Services, 2001). Children with ADHD have difficulty controlling their behavior, but it is manageable with appropriate interventions, parent training, medications and/or behavioral therapy.

Prevalence

ADHD is a behavioral disorder affecting approximately three to seven percent of school-aged children in the United States (APA, 2000). Approximately 2 million children in the United

States currently have an ADHD diagnosis. In a classroom of 30 students, it is likely that at least one will have a diagnosis of ADHD (National Institute of Mental Health, 2003). Males are three to six times more likely to be identified than females. ADHD affects children at all socio-economic levels (Arnpriester & Morris, 2001). The disorder represents one of the most common reasons children are referred to mental health practitioners. It is also one of the most prevalent childhood psychiatric disorders (Reid et al., 2000).

Diagnostic Process

There is not a single test that can diagnose ADHD, so a complete evaluation needs to be conducted. To be considered for an ADHD diagnosis, a child's behavior of inattention and/or hyperactivity-impulsivity must be more severe than other individuals at the same level of development (Reid et al., 2000). Symptoms must have been present before the age of seven, behaviors must be present in at least two settings of a child's life (such as school, home, day-care settings, or friendships), and behaviors must last for at least six months (DSM-IV-TR, 2000). These behavior concerns are documented through the observations of both teachers and parents. These concerns are brought to the attention of family practitioners and psychologists so evaluations can be conducted. Family physicians are primarily responsible for evaluating and treating a child with ADHD, but they may also refer the child to a specialist (i.e. psychiatrists, psychologists, and neurologists) (National Institute of Mental Health, 2003).

Treatments

ADHD is not curable, but is manageable through pharmacological treatments and behavioral therapy. Each person is different in regards to how each of the treatments will work for him. Pharmacological treatments include the use of stimulant medications, non-stimulants, and antidepressants (McBurnett et al., 1993). Doctors will try different approaches when

determining which will be the best for a child with ADHD. Behavior therapy attempts to change a child's behavior using a number of different techniques. Behavioral therapists will help parents create a routine for their child, get them organized, avoid distractions, limit choices down to just a couple of options, change interactions, create goals and rewards, and discipline strategies (Kingsley & Tynan, 2008). Educational interventions and parent training are also ways to help manage ADHD symptoms.

Federal and State Legal Mandates

Section 504

A range of special education services are available to children with ADHD who are having difficulty in the classroom, namely the Individuals with Disabilities Education Act of 1997 (IDEA) and Section 504 of the Rehabilitation Act of 1973. Children may receive special education services under Section 504 of the Rehabilitation Act of 1973 if they do not qualify under IDEA. "The Rehabilitation Act is not an education act but a civil rights law that prevents any institution receiving federal monies from discriminating against persons with disabilities" (Arnpriester & Morris, 2001, p. 6). Anyone can qualify for protection under Section 504 if they have, had, or may have a mental or physical impairment that limits one or more major life activities. According to the Rehabilitation Act of 1973, Section 504 may provide, but are not limited to:

> "providing a structured learning environment, repeating and simplifying instructions about in-class and homework assignments; supplementing verbal instructions with visual instructions; using behavioral management techniques; adjusting class schedules; modifying test delivery; using tape recorders, computer-aided instruction, and other

audiovisual equipment; selecting modified textbook or workbooks; and tailoring homework assignments" (as cited in Arnpriester & Morris, 2001, p. 7).

Individuals with Disabilities Education Act (IDEA)

IDEA is a federal law that requires each state to ensure that a free appropriate public education (FAPE) is available to all eligible children with disabilities residing in that state (U.S. Department of Education, 2008). Children who receive special education services under IDEA are given an individualized education plan (IEP) that specifically states what types of services will be provided. IDEA was originally called the Education of all Handicapped Children Act in 1970, but in 1990 it was renamed IDEA, reauthorized by Congress in 1997, and most recently in 2004 (renamed the Individuals with Disabilities Education Improvement Act, IDEIA).

For a student to be eligible for services under IDEA, they must meet two separate requirements. The first requirement is that a student with ADHD may receive services if they have a disability that fits into at least one of the following categories: other health impairments (OHI), specific learning disability (SLD), emotional disturbance (ED) and developmental delay (DPI, 2009). They may qualify under SLD if they have coexisting learning disability. ADHD is not considered a disability under IDEA, however, if they meet requirements for a disability in one of the following: mental retardation, deafness or hearing impairment, speech or language impairment, blindness or visual impairment, serious emotional disturbance, orthopedic impairment, autism, traumatic brain injury, other health impairment, specific learning disabilities, deaf-blindness, or other multiple disabilities then the student may receive services under IDEA (Overton, 2000).

The second requirement is that the student's disability must be interfering with their ability to learn in a way that special education services are needed. "With respect to ADHD, this

definition has been interpreted to mean that a child is eligible for services under IDEA if she or he has limited alertness due to ADHD, whose learning has been affected by the ADHD, and who would benefit from special services" (Arnpriester & Morris, 2001, p. 6).

Special Education Requirements

Referral Process

The referral process for ADHD is critical. There are many steps that take place. Anyone who believes a child has a disability that interferes with her ability to learn can refer a child for an assessment (McBurnett et al., 1993). A referral does not automatically give a student a diagnosis and does not give special accommodations to the student. It is the beginning process in determining if the child needs additional help to be successful in school. Parents/guardians, foster parents, social workers teachers, and other community members may request a referral. The referral should include the child's name, grade, current teacher, the referring individual's name and relationship to the child, observations relevant to the child's behavior (i.e. poor grades, attendance, and inattentiveness), any modifications implemented by the school and at home, and a request for special education services. An assessment plan developed is developed using this information (Barkley et al., 2001).

When a student is suspected of having a disability, the teacher may begin a special education referral. The first step includes screening the child for the particular disability (Overton, 2000). Once the screening has taken place, interventions must be implemented to collect data on the student's behavior. The referral process begins once this has been done. The school must obtain permission to evaluate the student from the parents. When the school acquires permission, a comprehensive evaluation is conducted. A school psychologist (or another professional who is qualified to interpret the assessment data) reviews the evaluations and

determines if the student qualifies for special education. If a student qualifies, then an Individual Education Plan (IEP) team is formed consisting of the child, child's parents, a special education teacher, the child's regular teacher, school representatives, and school psychologists (or another professional who is qualified to interpret the evaluation data). The team puts together an IEP specifically for the child. If the parents agree to the services suggested, then the IEP is implemented and the student's progress is monitored (DPI, 2009).

After a referral is submitted to the school, a designated person (usually a student support team) will review the referral to determine what modifications have taken place and this information is recorded. A case manager (special education teacher, speech and language specialist, program specialist, or school psychologist) will be assigned to follow through with the referral. They may contact the parent to discuss information and may ask the parent to sign a release of information so the school can release and exchange information with other agencies and other people involved with the child. After a diagnosis, a written assessment plan will be developed and presented to the parent for approval (IDEA, 1997).

Assessments

A comprehensive diagnostic assessment for ADHD should include teacher rating scales (American Academy of Child and Adolescent Psychiatry, 1991; American Academy of Pediatrics, 2000). Under IDEA, schools must identify children with disabilities or those with suspected disabilities that are in need of special education services, determine if they have a disability and if they are in need of special education services, and re-evaluate children who are already receiving special education services every three years to determine if they are still in need of those services. Children who are suspected as having a disability are assessed through a comprehensive evaluation consisting of "functional and developmental information about the

individual child; cover all areas related to the suspected disability; assess the contribution of cognitive, behavioral, physical, and developmental factors; and identify all service needs-whether or not commonly linked to a disability category" (Barkley et al., 2001, p. 3). If an evaluation has been done in the past that data must also be reviewed, as well as any information the parents, teachers, and any other service providers have supplied, and any information that was acquired from classroom observations. Teacher rating scales are also included in a comprehensive evaluation.

Instruments used may have large numbers of subjects use in developing and norming them; however, large numbers do not necessarily guarantee that the norming group is representative of the population (Salvia & Ysseldyke, 1988). There is evidence that culturally different groups are not represented in the norm groups of many of the scales in use. There is also some evidence that there are cross-cultural differences across raters, and that cultural different groups may be over identified (Reid et al., 2001). More research is needed when using the behavioral rating scales in cross-cultural contexts, because there is little information concerning the validity of the behavioral ratings with different cultural groups (Reid, 1995).

Eligibility for Services

After it has been determined that a student meets eligibility requirements and will need special education services, the next step is determining where the best placement would be. IDEA requires that students be placed in the least restrictive environment (LRE) and receive aids and services in the general education classroom as much as possible (IDEA, 1997). When aids and services are not effective in the general education setting, children may be placed in more restrictive educational settings. Typically a student with ADHD can receive services by staying in the general education classroom with other non-disabled peers with intervention,

accommodation, program modification, and support. Although schools some times recommend students be placed in "separate classes or resource rooms because of their challenging behavior or because teachers feel unqualified or are unwilling to teach children with special needs" (Barkley et al., 2001, p. 4).

IDEA does not require a medical diagnosis for a student to receive special education services, although, medical professionals recommend that a child be diagnosed for ADHD by a clinician using the DSM-IV criteria. According to Goldman, Genel, Bezman, and Slanetz (1998) medical professionals "support closer work with schools to improve teachers' abilities to recognize ADHD and appropriately recommend that parents seek medical evaluation of potentially affected children" (as cited in Barkley et al., 2001, p. 4). Eligibility for special education services must be determined after a child ahs been diagnosed with ADHD or any other impairment listed under IDEA and the evaluations have been completed. To receive special education services, the impairment must adversely affect the student's educational performance.

Factors Affecting the Referral Process

Teachers Knowledge

Teachers play a crucial role in the referral process of a student for special education services since they may be the first to notice the behavior. In a study conducted by Snider, Frankenberger, and Aspensen (2000) it was found that teachers were involved in making the initial referral nearly 40% of the time. Teachers are often the first ones to recognize the symptoms of ADHD and as such, it is important that teachers are knowledgeable about ADHD. Previous research indicates that teachers have a good knowledge about symptoms and diagnosis of ADHD, but lack knowledge about causes and treatments of ADHD. "Teachers with high knowledge were significantly more likely to report that children with ADHD would benefit from

professional assessment services, and that they would seek and/or encourage the child's parents to seek professional assessment services" (Ohan et al., 2008, p. 444). Teachers with low knowledge about ADHD reported that seeking services for a child with ADHD may be damaging to the student who may ultimately need these services. According to Ohan and colleagues (2008) "these concerns assume that pursuing services for ADHD will be beneficial for elementary school children" (p. 444).

Vereb and DiPerna (2004) conducted a study assessing teacher's knowledge about ADHD. They surveyed elementary schools in Pennsylvania and New Jersey using the Knowledge of ADHD Rating Evaluation (KARE). The KARE is a teacher survey that was developed for this study. Four domains were included which are: Knowledge of ADHD, Knowledge of Treatments commonly used for ADHD, Medication Acceptability, and Behavior Management Acceptability. The evaluation consisted of a true/false/don't know format. On the core knowledge area, teachers scored well, but on the area of treatment knowledge they score lower. Similarly, Bekle (2004) conducted a study where practicing and student teachers, in Australia, were asked to complete Jerome et al.'s (1994) ADHD knowledge questionnaire. Then they were asked to rate how they viewed student's with ADHD on a scale from "unfavorable" to "favorable." Teachers rated students with ADHD more favorably when they knew more about the disorder.

Some studies conducted have focused primarily on teachers' knowledge about ADHD and their attitudes towards those children, but few have examined teachers' knowledge and attitude toward the treatment of ADHD using stimulant medication. In a study conducted by Reid et al. (1994), they examined "teachers' perceptions of instructional barriers and their self-efficacy in working with students with ADHD based on their previous training and experience"

(Snider, Busch, & Arrowood, 2003, n. p.). They found that teachers who had more training and experience had more confidence than teachers who did not have as much experience. Both groups recognized many difficulties in order to have effective instruction, including "lack of time to administer specialized interventions, lack of training, large class size, and severity of students' problems" (Snider et al., 2003, n. p.). In another study that evaluated teachers' knowledge of concepts related to ADHD, Jerome and colleagues (1994) found that many teachers had little training or no knowledge regarding ADHD.

Since teachers have such an important role in identifying ADHD, it is crucial that they are knowledgeable. However, many studies (Kasten, Coury, & Heron, 1992; Reid et al., 1994) have shown that special education teachers received little to no training on ADHD. Piccolo-Torsky and Waishwell (1998) have done more recent studies and found that teachers, in their sample, reported having little pre-service training in the area of ADHD. Even though teachers have reported having little training in the area of ADHD, in a study conducted by Snider et al. (2003), "78% of teachers surveyed indicated that they attempt pre-referral programs, and 73% indicated that they refer students who they believe exhibit symptoms of ADHD (Snider et al., 2003, n. p.).

Rater/Ethnic Referral Bias

Ethnicity is another factor that comes into question when talking about teacher bias in the referrals of students with characteristics of ADHD. Instruments designed to assess a child's behavior, have been developed and standardized based on White, English-speaking children. So the question remains, are these differences in the prevalence of ADHD rates due to a difference in a child's actual behavior or a difference among the raters' perceptions on the behavior? One of the reasons for these differences was explained by Jacobson (2002), "such variations is that the

characterization of behaviors is a cultural process in which concepts to classify people as normal or abnormal are culturally variable and subjected to social interpretation" (as cited in Ramirez & Shapiro, 2005, p. 269).

A few studies (Weisz et al., 1995; Puig et al., 1999; Ramirez & Shapiro, 2005; Vega, Zimmerman, Warheit, Khoury, & Gil, 1995; and Zimmerman, Khoury, Vega, Gil, & Warheit, 1995) have been conducted to examine adults' perceptions of children's behavior. Weisz and colleagues (1995) conducted a study comparing teacher behavior reports among Thai and U.S. students. They reported that U.S. students were rated lower on behavior ratings than Thai students. That is, U.S. students were reported to have more emotional or behavioral problems than Thai students.

Similarly, in structured observations, U.S. students were reported having twice as many emotional and behavioral problems than the Thai students. Another study, conducted by Puig and colleagues (1999), studied teacher behavioral reports versus direct observations among Jamaican and African American children. The study showed that higher problematic scores were given for African American children than Jamaican children on behavioral reports, although when direct observations were used, Jamaican children were reported to have more behavioral reports than African American children (Weisz et al., 1995). These studies have shown that there are differences among teachers' perceptions among different cultures.

Ramirez and Shapiro (2005) conducted a study to examine how Hispanic and Caucasian teachers rated children of different ethnicities on hyperactive and inattentive behaviors. Using direct observations through a videotape of either a Hispanic student or a Caucasian student, teachers (both Hispanic and Caucasian) were asked to complete the ADHD-IV Rating Scale, and were asked to rate the target child "as compared to all of the other children you have ever

known" (Ramirez & Shapiro, 2005, p. 275). Hispanic teachers reported consistently higher ADHD behaviors on the hyperactivity-impulsivity scale for Hispanic students. The Hispanic student's behavior was rated more extreme by Hispanic teachers than Caucasian teachers; however, the Caucasian student's behavior was rated similarly among Hispanic and Caucasian teachers. The findings of this study suggest that Hispanic teachers have a lower tolerance towards the level of restless/disruptive behaviors as compared to Caucasian teachers (Ramirez & Shapiro, 2005). Studies conducted by Ramirez and Shapiro (2005), Vega and colleagues (1995), and Zimmerman and colleagues (1995) have had similar findings in their studies with Hispanic children.

Disproportionality of Minority Students in Special Education

Children with ADHD are at a high risk for educational and behavioral problems (APA, 2000). In fact, almost half of the children with ADHD will be placed in special education programs for learning disabilities and behavioral disorders (Reid et al., 2001). Due to the fact that 50% of children with ADHD are eventually placed in special education programs for behavioral disorders or learning disabilities, it is important to address the disproportionality of minorities in Special Education (Hosterman et al., 2008). "Disproportionality occurs when the percentage of minority students exceeds the percentage of these students in the total student population" (Zhang & Katsiyannis, 2002, p. 180).

In 1992, according to the U.S. Department of Education, 16% of the total student population was African American (Zhang & Katsiyannis, 2002). In a study conducted by Dunn (1968), he found that 60 to 80% of children in Special education were from low socio-economic status (SES) backgrounds or were minorities (as cited in Guiberson, 2009). Although this study was conducted nearly 30 years ago, disproportionate representation still exists. Congress has

found that children from diverse backgrounds are increasing significantly in schools across the nation.

Minority children who live in poverty are at higher risks for educational failure due to the misidentification of disabilities, placement of these students in Special education, and Special education services. "Among a group of one million American students, 160,000 more African American students than Caucasian students will be placed in special education" (Hosterman et al., 2008, p. 418). The U.S. Department of Education reported that minority students, particularly African American students, are being overrepresented and placed in Special Education. According to the report, when student's are removed from the general education classroom and are not receiving the general education curriculum, there are significant consequences for the student (Zhang & Katsiyannis, 2002).

In a study conducted by Oswald and colleagues (1999), they found that African American students are almost two and a half times more likely than non-African Americans to be identified as having mild mental retardation (MMR), and one and a half times more likely to be identified with serious emotional disturbance (SED). Hosp and Reschly (2003) found that 132 African American and 106 Hispanic students are referred for every 100 Caucasian students. Studies by Gerber and Semmel (1984) as well as Lambert, Puig, Lyubansky, Rowan, and Winfrey (2001) have shown that teacher tolerance is a primary indicator for identification of behavior problems. Teachers are less tolerant of behaviors that are inconsistent with their cultural expectations.

A study conducted by Puig et al. (1999) showed teacher ratings of overall problem behavior in African American student's greatly exaggerated observed levels of problem behavior. Epstein et al. (2005) conducted a study looking at teacher bias in their behavioral ratings of children with ADHD on 528 participants. Of those participants, 333 were Caucasian

(63.1%) and 100 were African American (18.9%). The study found ethnic differences on teacher ratings of children's ADHD behaviors between the Caucasian and African American students. The differences were reduced by as much as 50% in classroom-observed behavior.

Similarly, Harry (1992); Manni, Winikur, and Keller (1980); Serwatka, Deering, and Grant (1995) studied African American students, whereas Chinn and Hughes (1987); Reschly and Ward (1991); and Ochoa, Pacheco and Omark (1988) studied Hispanic students who were referred for ADHD services. All studies found that "Anglo American students are less likely to be identified as having a disability or to be placed in restrictive school settings than students from other cultures, particularly African Americans" (Oswald et al., 1999, p. 195). Ramirez and Shapiro (2005) looked at whether differences in ADHD ratings were due to the ethnicity of the teacher or the ethnicity of the student being rated. Their study concluded that Hispanic teachers rated Hispanic students consistently higher on the Hyperactivity-Impulsivity Scale than did White teachers, but both groups of teachers rated the behavior of White students similarly.

Chapter III: Summary, Critical Analysis, and Recommendations

The purpose of the literature review was to document general information about Attention Deficit Hyperactivity Disorder (ADHD). This chapter will discuss the findings of the previous literature review on the role of the teachers' knowledge and/or biases in the referral process, by differentiating typical ADHD behavior of children from those who come from an ethnic minority group (i.e. African American, Hispanic). This chapter includes a critical analysis of the literature review related to children being referred for ADHD, as well as general recommendations for further research.

Summary

When a student's ADHD symptoms are so severe that it interferes with their educational performance, they may receive special education services under Emotionally Disturbed (ED). Approximately 3 to 6% of children with ADHD have symptoms so severe that special education is needed, yet less than 1% of children are found eligible for special education under ED. Two of the largest categories of special education are learning disabilities (LD) and speech/language (SL). Over 80% of children receiving services under these categories are mainstreamed into general education, but less than half of children classified as ED are mainstreamed (U.S. Department of Health and Human Services, 2001). This is especially concerning due to the fact that many children diagnosed with ADHD are classified under ED. With the increase in demographics of children who are culturally and linguistically diverse in the public schools, it is of particular importance to pay attention to this area.

ADHD is a behavioral disorder affecting many school-aged children. Children with ADHD have trouble maintaining attention, are impulsive, and/or hyperactive. A complete evaluation needs to be conducted to determine if a child has ADHD because there is not a single

test that can diagnose it (Barkley et al., 1997). Teachers and parents document the behavior through observations and present the data to family practitioners or psychologists who can evaluate and treat the child if needed. ADHD is not curable, but it is manageable with educational interventions, parent training, medications, behavior therapy, or a combination of both (McBurnett et al., 1993). The Individuals with Disabilities Act of 1997 (IDEA) and Section 504 of the Rehabilitation Act of 1973 are two federal mandates that provide special education services to children with ADHD who are struggling in the regular classroom. If a child is suspected of having a disability that is interfering with their ability to learn, they may be referred for an assessment. Once a student has qualified they may begin receiving services. Typically, students with ADHD can receive aids and services through the general education classroom, however, when these aids and services are not effective in this environment, children may be placed in more restrictive educational settings.

The majority of special education referrals come from teachers. Due to this, it is important that teachers have adequate training in the area of assessment, treatment, and an awareness of cultural differences. Teachers must develop competence in the referral process of children who manifest ADHD type behaviors. Instruments used to assess a child's behavior have been standardized for white, English-speaking children, so it is unknown if the prevalence of ADHD is due to an actual difference in the child's behavior or the rater's cultural misperceptions of the behavior. Many children with ADHD are eventually placed in special education programs. Given this fact, it is important to discuss the disproportionate number of minority students in special education. Minority students living in poverty are at higher risk for educational failure (Hosterman, DuPaul, & Jitendra, 2008).

Critical Analysis

In the last several years, there has been a huge increase in the number of school-aged children being diagnosed with ADHD. From 1990 to 2001, the production of methylphenidate (a psycho-stimulant drug) increased 900% according to the U.S. Drug Enforcement Agency in 2002 (Snider et al., 2003). Ninety percent of the medication was used in the treatment of ADHD. Production of other medications to treat ADHD, such as amphetamines (Adderall), increased 5,767% from 1993 to 2001. Amphetamine production accounted for 44% of the stimulant medication produced to treat ADHD by 2001. This is another reason why it is important for teachers to be knowledgeable in the treatment of ADHD.

Teachers are involved in making initial referrals 40% of the time (Snider et al., 2000). Due to this statistic, it is important that teachers have an adequate amount of training in behavior and mental health. Furthermore, some studies have been conducted on teachers' training, experience, and treatment of ADHD and results have found that teachers are knowledgeable about symptoms and diagnosis of ADHD, but lack knowledge about causes and treatments (Ohan et al., 2008). Since teachers play an important role in screening for ADHD, it is critical that they are knowledgeable in the diagnosis and treatment of ADHD.

Fifty percent of children diagnosed with ADHD are eventually placed in special education (Hosterman et al., 2008). It is important to note this statistic as well as recognize the disproportionate numbers of minorities placed in special education as well. In studies conducted by Dunn (1968); Oswald and colleagues (1999); Hosp and Reschly (2003); Gerber and Semmel (1984); Lambert and colleagues (2001); and many others, they found that minorities, particularly African Americans and Hispanics, are placed in special education much more than Caucasian students.

Conclusion and Recommendations

Special education serves a number of individuals. Students with ADHD may receive special education services under ED. ADHD is a growing disorder in the United States. Teachers are primarily responsible for referring students for ADHD. Due to this and the increase of ADHD among school-aged children, it is important that teachers have adequate training and knowledge in ADHD. It is also imperative that teachers are able to differentiate ADHD behaviors from other culturally appropriate behaviors of ethnic minority students.

The following recommendations are suggested for areas of further research regarding teachers' training and knowledge of ADHD:

1. Due to the fact that many children with ADHD are referred for special education services, a great place to start would be to study the ethnic bias in teacher referrals of children with ADHD. A way to better understand this over-referral, is by acquiring knowledge on the curriculum provided to teachers in training, as well as teacher in-services on assessments and treatment of children with ADHD type behaviors.
2. More research needs to be conducted in order to understand why a disproportionate number of minorities are being referred for ADHD assessments. It would be important to determine if this difference is due to lack of teacher's knowledge with ADHD assessments, due to bias ADHD instruments, or if there is actually a difference in the prevalence of ADHD among minorities.
3. A way to understand the overrepresentation of minorities is to study ethnic bias in teacher referrals. Until teachers understand their own views of ADHD behaviors, they are not able to provide services for culturally diverse students' behaviors.

4. Due to the increase of school-aged children being diagnosed with ADHD, it is important to look at teacher training in emotional and behavior disorders. Teacher training programs and pre-service training curriculum need to be reviewed in order to realize that academia needs to provide more instruction to teachers on emotional and behavior disorders. Teachers do not have the adequate training, awareness, knowledge, and skills to identify and refer students for special education who manifest ADHD type behaviors. Until teachers develop knowledge and skills to identify students with ADHD, they are not competent in referring culturally diverse students. Teachers need to continue their education to better assess children with ED, in particular ADHD.
5. ADHD is hard to detect due to the fact behaviors are subjective to the person rating the child. It takes time for teachers to determine what a typical behavior for a particular age will be manifested in the school environment. Since ADHD is co-morbid with many other disorders, it is also important that teachers can distinguish which behaviors are interfering with the student's learning.

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