

Race Matters: Disparities in African-American Children with Attention Deficit Hyperactivity Disorder

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Abstract

Attention Deficit Hyperactivity Disorder, ADHD, has become one of the most commonly diagnosed childhood behavioral disorders. African American children, specifically, have been found to be less likely to be treated for ADHD even after receiving a diagnosis when compared to their Caucasian counterparts. The purpose of this analysis of literature is to examine the relationship between race and healthcare disparities, as many researchers acknowledge an association between the two variables. This review of literature examines race and ethnicity, individual and institutional racism, as well as negative stereotypes in the healthcare system as possible explanations for disparities in ADHD.

Introduction

Attention Deficit Hyperactivity Disorder, or ADHD, has become one of the most commonly diagnosed childhood behavioral disorders. As defined by the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders-IV (DSM-IV-TR), ADHD is a disruptive behavior disorder characterized by persistent inattention and/or hyperactivity-impulsivity occurring in several settings repeatedly and more severely than is typical for individuals in the same age group. In the third addition of the DSM, the diagnostic criteria for what is now ADHD was presented in two variations: ADD + H (Attention Deficit Disorder with Hyperactivity) and ADD-H (Attention Deficit Disorder without Hyperactivity). Although given three categories of symptoms: (1) inattention, (2) impulsivity, and (3) hyperactivity, the American Psychiatric Association (APA) believed that the DSM-III criteria were inadequate because the criteria did not distinguish between attention deficit disorders and conduct disorders (Jordan, 1998). In 1994, the APA presented new guidelines for labeling an individual as ADHD. ADD (+ or – H) and ADHD are not to be used interchangeably, as the DSM-IV provides a new definition and a new set of diagnostic criteria for the disorder. The fundamental characteristics of the ADHD diagnosis remain to be inattention, hyperactivity, and impulsivity. The following is a list of symptoms that characterize inattention, hyperactivity, and impulsivity (APA, 2000):

DSV-IV Criteria for ADHD

Inattention

- Often fails to pay close attention to details or makes imprudent mistakes in schoolwork, work, or other activities.
- Often has difficulty sustaining attention to tasks or play activities.
- Often does not seem to listen when spoken to directly.
- Often does not follow instructions and fails to complete schoolwork, chores, or duties in workplace (not due to oppositional behavior or failure to comprehend instructions).
- Often has difficulty organizing activities.
- Often avoids, dislikes, or is reluctant to engage in activities that require sustained mental effort (e.g. schoolwork or homework).
- Often misplaces items necessary for tasks and activities (e.g. toys, school assignments, pencils, books, or tools).
- Is often easily distracted.
- Is often forgetful in daily activities.

Hyperactivity/Impulsivity (1) Hyperactivity

- Often fidgets with hands or feet or squirms in seat.
- Gets out of seat in situations in which remaining in seat is expected.
- Often runs about or climbs when and where it is not appropriate (adolescents or adults may be limited to feelings of restlessness).
- Is often “on the go” and often acts as if “driven by a motor”.
- Often talks excessively.

(2) Impulsivity

- Often blurts out answers before questions have been completed.
- Often has difficulty waiting ones’ turn.
- Often interrupts or intrudes on others (e.g. butts into conversations or games).

In most mainstream school classrooms, children may display some of these symptoms, as children can sometimes be inattentive, impulsive or overactive. While under pressure, bored, or tired, most people will not be able to concentrate and can become easily distracted. Characteristics of ADHD that are temporary, episodic, and directly associated with situational factors should not be mistaken as the behavior disorder (Cooper & O’Regan, 2001). Based on the criteria previously listed, three types of ADHD are identified: ADHD Combined Type, ADHD Predominately Inattentive Type, and ADHD Predominately Hyperactive-Impulsive Type. An ADHD diagnosis is usually determined by the pervasiveness of the symptoms. For an ADHD diagnosis to be made, the following conditions must be met as listed in the DSM-IV-TR:

- The child must display six or more of the nine symptoms listed in the DSM-IV-TR for both inattention and/or hyperactivity/impulsivity to meet the criteria for one of the three types of ADHD.
- Some evidence of ADHD symptoms must have been observable prior to age seven.
- The child’s symptoms must have persisted for at least six months.

- ADHD symptoms must be present in two or more settings (i.e. school, work, and/or at home).
- There must be clear evidence of significant impairment within the social, school, or work setting.
- ADHD symptoms must not occur only during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder, and are not better accounted for by another mental disorder (i.e. Mood Disorder, Anxiety Disorder, Dissociative Disorder, or a Personality Disorder)

ADHD currently affects three to seven percent of children or an estimated two million children nationwide. On average, at least one child in every classroom in the United States needs clinical assistance with ADHD. Boys are diagnosed with ADHD two to three more times than girls (Matthews, 2002). One author estimated the prevalence of ADHD as high as ten percent or a total of three million children between five and 12 years of age (Millichap, 1998). ADHD often continues into adolescence and adulthood, which can lead to medication dependency and a lifetime of treatment.

Treating children with ADHD requires medical, educational, behavioral, and psychological treatment. This comprehensive approach is called multimodal and includes parent training, behavioral intervention strategies, an appropriate educational program, education regarding ADHD, individual and family counseling, and medication when required (Matthews, 2002). Treatment plans are tailored to the specific need of the child and his/her family. For most children, medication is a vital part of treatment. Medication is used to improve ADHD symptoms, allowing the child to function more effectively. Psychostimulants are the most commonly used medication for the treatment of ADHD. Common psychostimulants include methylphenidate (Ritalin), Adderall, and dextroamphetamine (Dexedrine, Dextrosat). The most common side effects of psychostimulants are reduction in appetite and difficulty sleeping. Some children experience stimulant rebound—a negative mood or an increase in activity when the medication loses its effect (Matthews, 2002).

The cause of ADHD is still unknown, although researchers have examined several theories. In previous years, health professionals adopted the notion that ADHD stemmed from the home and environment. Researchers hypothesized that ADHD was the result of watching too much television, food allergies, excess sugar intake, and poor home or school life. Conversely, scientists at the National Institute of Mental Health (NIMH) currently suggest that ADHD has a biological basis. Scientists at the NIMH found a link between a person's ability to pay continued attention and his/her level of brain activity. Researchers measured the level of glucose used by the areas of the brain that inhibit impulses and control attention, as glucose is the brain's main source of energy giving a good indication of the brain's level of activity. In persons diagnosed with ADHD, the brain areas that control attention used less glucose, indicating less activity. Researchers suggest that lower levels of brain activity may cause inattention (NIMH, 1996). There is also consistent evidence that ADHD is heritable.

There is a higher rate of concurrent and past ADHD symptoms in immediate family members of children with ADHD relative to their non-ADHD counterparts (Faraone et al., 1993). The most practical explanation regarding the etiology of ADHD is that various neurobiological factors may predispose children to exhibiting higher rates of impulsivity along with shorter than average attention spans compared to other children (DuPaul & Stoner, 2003). While several researchers have focused on the causes of ADHD, many others have examined the treatment of the disorder, the relationship between ADHD and learning disabilities, special education, and the use of healthcare services. Unfortunately, most of the studies conducted on ADHD are not generalizable to an entire population, as most of the research participants have been Caucasian males. African American children have accounted for a small number of participants in several research studies on ADHD.

Data reported from a national health survey conducted by researchers with the Center for Disease Control and Prevention (CDC) estimated the prevalence of diagnosed Attention Deficit Disorder (ADD) and/or Learning Disorder (LD) in U.S. children. In 1997-98, over 2.6 million children aged six to 11 were reported to have an ADD or LD diagnosis. Three percent of children aged six to 11 had been diagnosed with only ADD, four percent with only LD, and four percent with both conditions. White non-Hispanic children were diagnosed more often with ADD than black non-Hispanic children. Caucasian non-Hispanic children represented over 65% of the participants surveyed.

Addressing various limitations to the current research done on ADHD, the review of literature here is set to examine several disparities in the diagnosis of ADHD. As noted earlier, most of the studies conducted on ADHD focus on Caucasian males. The analysis here will examine the prevalence of ADHD among African American children, as many African American children are currently faced with this disorder. Secondly, several researchers suggest that although African American children are diagnosed with ADHD, many fail to receive adequate treatment for the disorder, as their needs for services are left unmet (e.g. Samuel et al., 1998; Bussing et al., 2003). Others have noted racial disparities in the use of prescription medication and primary healthcare (e.g. Hahn, 1995; Zito et al., 1998; Zima et al., 1999). While several of these authors have discussed financial barriers (e.g. socioeconomic status, poverty) and inadequate health insurance as explanations for disparities in ADHD among African Americans, this review of literature is set out to examine race, racism, and discriminatory practices as the underlying reasons behind the inadequate treatment of ADHD for African American children. The purpose of this paper is to answer the following research question: Is there a relationship between race and healthcare disparities in Attention Deficit Hyperactivity Disorder in children? I hypothesize that race, racism, and discriminatory practices will dictate which group is given adequate treatment for ADHD. It is my inference that due to discriminatory practices and racist ideology within the healthcare system, African American children will be less likely to receive treatment for ADHD when compared to their Caucasian counterparts.

Disparities in ADHD: Review of Literature

In contrast to the plethora of research on ADHD in Caucasian children, there is limited information about ADHD among African American children. To further explore this inadequacy, Samuel et al. (1998) interviewed 19 African American children with DSM-III-R ADHD and 24 African American children without ADHD. Interviewers conducted a psychiatric assessment of the participants using the Schedule for Affective Disorders and Schizophrenia for School-Age Children—Epidemiologic Version (5), as well as material based on the DSM-III-R. Compared with children who did not have ADHD, African American children with ADHD had higher levels of psychiatric disorders other than ADHD (e.g. disruptive disorders, mood disorders, anxiety disorders, substance disorders). The findings of this study were compared with an earlier study of Caucasian children with ADHD. The comorbidity of ADHD with other disruptive behavior disorders has been associated with poor prognosis, delinquency, and substance abuse in Caucasian children. These preliminary findings suggest that the currently accepted definition of ADHD identifies a disorder with similar—but not identical—psychiatric correlates to those previously identified in Caucasians (Samuel et al., 1998). The results of this study should be interpreted with caution, as the number of participants was relatively small and it was difficult to detect group differences. We can infer that as compared to Caucasian children, the comorbidity of ADHD in African American children may have an association with poor prognosis and insufficient treatment. Several other epidemiological studies have shown that African American children with ADHD and/or psychiatric disorders remain untreated.

Cuffe et al. (1995) examined race and gender differences in the treatment of adolescent psychiatric disorders. Data was collected on 478 adolescents during a two-stage, school-based, epidemiological study of depression using the Schedule for Affective Disorders and Schizophrenia for School-Age Children and the Children's Global Assessment Scale (K-SADS). Items covered in the K-SADS included the diagnostic criteria for affective, schizophrenic, anxiety, phobic, and conduct, and eating disorders during the past 12 months as defined by the DSM-III. The diagnostic evaluation consisted of a semi-structured interview of the adolescent and his or her mother. Symptom information was obtained independently from the adolescent and the parent to arrive at summary diagnoses. Diagnoses were grouped into three categories: affective disorders, non-affective disorders, and affective disorders comorbid with nonaffective disorders. Affective disorders included major depressive disorder, bipolar disorder, mania, hypomania, and schizoaffective disorder. Non-affective disorders included schizophrenia, generalized anxiety, separation anxiety, phobia, panic disorder, obsessive-compulsive disorder, conduct disorder, anorexia, and bulimia. African Americans and Caucasians had similar prevalence rates of an affective disorder and an affective disorder comorbid with a nonaffective disorder. Caucasians had a higher prevalence of having a nonaffective disorder than did African Americans. Caucasian males were more likely to receive outpatient treatment than any other race-gender group. Caucasians were also more likely to receive outpatient treatment than African Americans in all disorder categories. In addition, the frequency of receiving more than two weeks of treatment was 13 and six percent for Caucasians and African Americans, respectively. Increased risk

for under treatment was found for African Americans. African American subjects reported higher levels of symptomatology on the Center for Epidemiologic Studies Depression Scale (CES-D). After controlling for CES-D scores, African American males received treatment at half the rate of Caucasian males. After controlling for demographic variables (e.g. race, gender, socioeconomic status), Cuffe et al. (1995) found that low socioeconomic status was not a significant factor for the underutilization of treatment services. This finding suggests that income is not a barrier to receiving care in this sample. There may be referral bias against African Americans (Cuffe et al. 1995).

To further explore disparities in the treatment of ADHD, Bussing, Zima, Gary, and Garvan (2003) conducted a study to identify barriers to detection, help seeking, and treatment. For help-seeking analysis, 389 children were chosen who were considered high risk for ADHD according to scores on the Swanson-Nolan-and Pelman-IV (SNAP-IV), or had a previous diagnosis for ADHD, and/or were currently under treated. For the barriers to care analysis, 91 children were selected who met the DSM-IV criteria for ADHD identified as having unmet service needs for ADHD care in the past year. Caucasian children were more than twice as likely to receive an evaluation, be diagnosed, or be under current treatment for ADHD than African American children. Fifty percent of the unserved children with ADHD were African American. Seventy percent of the unserved children received subsidized school lunch. ADHD treatment was higher for non-poor children than for their impoverished peers. ADHD treatment was also higher for students receiving regular or gifted education services compared to children receiving special education services. After controlling for enabling and need variables (e.g. health insurance status, SNAP-IV scores), Caucasian children were more likely to receive an ADHD evaluation than were African American children. Barriers to care included not being sure as to where to go for help, system barriers (e.g. could not get an appointment), and financial barriers. African American parents had higher rates of negative treatment expectations than did Caucasians. This may be a reflection of the racial disparities in the quality of care, including mental health treatment (Bussing et al., 2003). Several other studies indicate that minority children are significantly less likely to receive ADHD treatment, including psychotropic medications, than Caucasians.

A retrospective investigation was conducted to analyze racial disparities in psychotropic medication prescribed to African American and Caucasian children with Medicaid insurance in Maryland. Zito, Safer, Dosreis, and Riddle (1998) analyzed (1) quantitative estimates of the medication prevalence (defined as the proportion of eligible recipients with any prescription claims) of the leading types of psychotropic and non-psychotropic medication classes in relation to race (Caucasian opposed to African American); the relationship between race and enrollment status (continuous versus non-continuous) for the study year; and (3) the relationship between race and region (county of residence) for psychotropic and non-psychotropic medication classes. Psychotropic classes included psychostimulants, antidepressants, antipsychotics, benzodiazepines, and lithium. Non-psychotropic classes included antibiotics, skin preparations, antitussives, antihistamines, and ear, eye, nose, and throat preparations. The sample consisted of 99,217 African American and Caucasian children aged five to 12 years of age that were enrolled and eligible to receive health services during the study year. Caucasian children

with Medicaid insurance were more likely to have prescription claims for the five classes of psychotropic medications than African American children. Caucasian children were twice as likely to receive a psychotropic prescription compared with African American children. After adjusting for geographic region, Caucasians remained twice as likely to receive psychotropic prescriptions compared to African Americans. Within the stimulant pharmacological class, methylphenidate was the most frequently prescribed medication, accounting for 89.6% of the stimulant use. For methylphenidate, there was a 2.5-fold lower use among African Americans than Caucasians. Moreover, these findings suggest that there are racial differences in the use of psychotropic medications despite having comprehensive, cost-free access to medical services and medications through the Medicaid insurance program. Explanations for unequal access to healthcare and medication include questions of quality and discriminatory practices among healthcare providers (Zito et al., 1998).

Zima, Bussing, Crecelius, Kaufman, and Berlin (1999) conducted a study to also investigate the use of psychotropic medication use among school-aged children. Two phone interviews were conducted among foster parents to determine the levels of psychotropic medication use among their school-aged foster children and how these levels relate to severe psychiatric disorders for which medication use is a fundamental component of treatment. In addition, the study also examined potential predictors (e.g. socio-demographic characteristics, placement history) of receiving medication treatment. Psychotropic medication use was assessed from the foster parent reports. Of the 472 children randomly selected for the study, 82% of the children were from minority backgrounds. Sixteen percent of the subjects were reported to have ever taken psychotropic medication, and most of these children (89%) had received treatment in the previous year. Stimulants were the most common class of medication taken in the previous year. Fifty-two percent of the children whose clinical status merited medication evaluation had not received any psychotropic medication in the previous year. Children with ADHD were more likely than those without the disorder to have taken each of the classes of psychotropic medication in the previous year. However, almost 49% of the children in this study with ADHD had not received any psychotropic medication in the previous year. These findings are consistent with Zito et al. (1998) in that disparities in the treatment of ADHD persist among minority populations, as the majority of participants in this study were from minority backgrounds. Researchers have consistently found racial differences in the use of services and prescription medication.

Using data from the 1987 National Medical Expenditure, Hahn (1995) examined the relationship between race, ethnicity, physician visits and the use of prescription medication for two samples of children: 1,347 children aged one to five and 2,155 children aged six to 17. Of the children with at least one physician visit, black and Hispanic children in both age cohorts averaged one fewer physician visit compared with white children. The percent of children whom their mothers reported as in fair or poor health for both groups of minority children was over 2.5 times higher than that of white children. Hispanic and black children of any age had lower incomes compared with whites. Nearly half of minority children were in families with an income at or near the poverty level compared with 17% of white children. Black and Hispanic children were

significantly more likely to be uninsured compared with white children. Young minority children were also less likely to have a regular source of care compared with white children and were more likely to use hospital based treatment, such as emergency rooms, as their usual source of medical care. After controlling for predisposing and enabling variables, black children were approximately half as likely to receive a prescription medication compared with white children. Predisposing variables included the child's age and education of the child's mother. Enabling variables consisted of the type of health insurance coverage, poverty status, usual source of medical care, and geographic location. Despite the age group, whether or not predisposing and enabling variables or number of physician visits were included, white children had the highest use of prescription medication and black children had the lowest. These findings suggest that the relationship between racial and ethnic status and the use of prescription affirms that minorities receive fewer services than whites. Differences may be due to forms of discrimination in treatment of minority patients compared with white patients (Hahn, 1995). Other researchers have demonstrated that disparities in access to basic health care services have been a result of race, income, and insurance status.

Newacheck, Hughes, and Stoddard (1996) examined the use and access patterns to primary health care for four groups of children: (1) children in families with incomes below the federal poverty line; (2) children representing minority ethnic or racial groups; (3) children without health insurance; and (4) children exhibiting none of the above characteristics. Using the National Medical Expenditure Survey (NMES), a national household survey conducted for the Agency for Health Care Policy and Research, Newacheck et al. (1996) sampled 7,578 children aged one to 17 to determine access to healthcare. Children without any health insurance were least likely to have usual sources of health insurance. These children were more than twice as likely than children from white, non-poor, and insured families (the reference group) to report not having usual sources of care. Children from poor families and minority children were also less likely than white, non-poor, and insured children to have usual sources of care. Minority children and those from poor families reported having usual sources of care approximately 11% less often than children in the reference group. Although not an exhaustive list, usual sources of care included physician's office or group practice physician's clinic, company industrial clinic, school clinic, family health center, hospital outpatient clinic, hospital emergency department, walk-in center and/or patient's home. The children in the reference group were identified as using the physician's offices as their location for usual care approximately one third more times than minority children and children from poor families. Children from poor families were nearly nine times as likely to identify neighborhood or family health centers as their usual source of care compared to the reference group. Children from poor families, minority children, and uninsured children were all at increased risk of having no access to after-hours emergency care. Children from white, non-poor, insured families had significantly higher rates of annual physician visits per 100 bed days than children from the three at-risk groups. These results indicate that minority children, children who live in poverty, or are uninsured are at a much greater risk than their white, non-poor, insured counterparts to experience barriers in access to primary healthcare (Newacheck et al.,

1996). These results also indicate that minority and poor children have difficulties obtaining primary care even when insurance status was statistically held constant.

To further explore disparities in the diagnosis and treatment of ADHD, several researchers have examined behavior rating scales. Behavior rating scales are one of the most commonly used methods in the assessment of ADHD (Reid, Casat, Norton, Anastopoulos, & Temple, 2001). Concerns over the possibility of disproportionate diagnosis of ADHD among African American children, researchers have examined the validity and reliability of behavior rating scales.

Assessment of ADHD

In a study of 3,998 (2,124 African American and 1,874 European American) elementary school children aged five to 11, Reid et al. (2001) examined the normative and construct equivalence of the teacher IOWA Conners Rating Scale (IOWA). IO referred to Inattention/Overactivity and WA referred to Aggression. African American children screened positive for IO and WA at a much higher rate than the European American group. There were significant main effects for ethnicity, as the scores on the IO and WA subscales were higher for African American children compared with European American children. Differences were found in the distributions of IOWA scores and means across African American and European American children, which lead to an increased likelihood of African American children screening positive for IO and WA. On average, African American boys were approximately 2.5 times more likely to screen positive for IO and WA. African American girls were 3.5 times more likely to screen positive for IO and WA. All of the participants were selected from schools with a high proportion of at risk, low socioeconomic status children. There were no pronounced differences in the socioeconomic statuses of the participants, therefore socioeconomic status alone could not account for the observed differences (Reid et al., 2001). For both the IO and WA subscales, teachers rated the African American students higher than the European American students. More specifically, African American girls were much more likely to screen positive for IO and WA when rated by European American teachers. Disparities in Reid et al. (2001) study adds the IOWA to the list of behavior rating scales that have documented significantly higher scores for African American children when compared to their European American counterparts.

Like the IOWA behavior-rating scale, The Conners Teacher Rating Scale has also documented racial differences on ratings of hyperactivity and impulsivity. The CTRS is a commonly employed rating scale used to assess classroom behavior problems related to ADHD (Epstein, March, Conners, & Jackson, 1998). In a study of 1,027 children aged 10 to 16 years old, Epstein et al. (1998) examined mean differences on the CTRS between African American and Caucasian children. For both male and females, teachers tended to rate African American children higher than Caucasian children on factors relating to externalizing behavior (e.g. conduct problems, hyperactivity). Of the 39 items on the CTRS, the most profound differences between the races were found on the Conduct Problems and Hyperactivity factors, with African American males scoring significantly higher than Caucasian males. Effect sizes for these differences were

moderate suggesting that there is a tendency for teachers to rate African American children higher on CTRS items that reflect externalizing behaviors (Epstein et al., 1998). African American females were rated significantly higher on the Conduct Problems factor than Caucasian females. African American females were also rated higher on Anxious/Passive factors than their Caucasian counterparts. These findings suggest that there is a possible teacher bias on ratings of hyperactivity for African American children.

To further explore the assessment of culturally different students for ADHD, Reid et al. (1998) examined the cross-cultural equivalence of the ADHD-IV Rating Scale School Version. Three hundred African American and 1,359 Caucasian public school students aged five to 18 years old were selected for the study. Teachers were asked to rate the behavior of two randomly selected students from their class roster. The mean scores for the African American group were significantly higher than the Caucasian group for both Hyperactivity-Impulsivity (HI) and Inattention (IA). Moreover, there were significant differences in group variances and distinctly different distributions across both racial groups for HI and IA factors. These findings suggest that if Caucasian norms were used for African American students, approximately twice the number of African American students would screen positive on the HI and/or IA factors. The norms for the Caucasian group may not be appropriate for the African American group. The ADHD-IV scale may not satisfy the conceptual equivalence requirement across groups. This suggested that at least some of the observed group differences are due to variations in the performance of the scale across groups as opposed to differences in the actual behavior exhibited by the participants (Reid et al., 1998).

As research on behavior-rating scales became more popular in ADHD literature, growing evidence suggested that African American children consistently have higher scores on inattention and hyperactivity measurements compared with Caucasian children. Based on a review of research studies using ADHD behavior rating scales with culturally different groups, Reid (1995) made the following conclusions: (1) insufficient data existed to determine the extent to which psychometric properties of rating scales were consistent across different groups; (2) evidence suggested that culturally different individuals may be over identified; (3) culturally different individuals were not adequately represented in the norm groups of many of the available scales; and (4) the possibility of rater bias could exist when individuals from one cultural group rate children from a different cultural group. Racial biases could be inherent in behavior-rating instruments. Behavior-rating scales and symptom checklists may not be equivalent across ethnicities (Cuffe, Waller, Cuccaro, Pumariega & Garrison, 1995). Both ADHD and behavior-rating scales were derived from the perspective of Western professionals, using Western concepts of disorder and measurement, and without regard to cultural differences (Reid et al., 1998).

Although several studies have investigated behavior-rating scales and the assessment of ADHD, few studies have examined the perceptions of educators and other professional staff who work with ADHD children. Davison and Ford (2002) interviewed 25 participants consisting of African American and White educators, medical personnel, and social workers/counselors who work with parents of children attending four inner

city schools within a large African American population. The interview questions focused on the perceptions of individuals working with children with ADHD within the school, home, and medical setting. African American and those interacting with African American parents expressed a socially constructed view of ADHD and were less likely to accept a biological determinist point of view as opposed to their white counterparts. Five themes emerged from the participants: (1) distrust of the educational system; (2) perceived lack of cultural awareness of White educators; (3) perceived social stigma of the ADHD label; (4) concern about drug addiction; and (5) pressure from political forces. To provide an example of one of the above themes, a white counselor offered an explanation during her interview as to why African American parents distrust the system:

The rating scales we use to determine ADHD are ethnocentric. They are made to the white woman system, which is what elementary school teachers basically are. There is also a problem with a minority student going to schools with a white majority...they don't fit into the norm there and are seen as having ADHD because they don't fit into how those teachers would define the norm. (p. 269)

This idea is concurrent with several studies (e.g. Reid et al., 1998; Reid et al., 2001; Epstein et al., 1998) suggesting that many behavior and teacher-rating scales are culturally biased resulting in more African American children being misdiagnosed with ADHD. Majority culture norms may not be practical in the assessment of children and adolescents of color (Cuffe et al., 1995). The current reality of African American children being misdiagnosed with ADHD has led several authors to investigate the relationship between misdiagnosis and the overrepresentation of African American children in special education classes. High prevalence rates of ADHD have been found among children in special education classes (Bussing, Zima, Belin, & Widawski, 1998). Almost 50% of children with ADHD will be placed in special education programs for learning disabilities and behavioral disorders (Reid, Maag, Vasa, & Wright, 1994). Teacher biases in the referral process combined with biases in the assessment of ADHD contribute greatly to the overrepresentation of African American children in special education classes.

Overrepresentation of African American Children in Special Education

The overrepresentation of African American children and youth in special education programs for students with learning, severe emotional or behavioral, and mental disabilities has remained a persistent reality throughout our history. The proportion of African Americans identified as mentally disabled has not changed much within the past few decades. In 1975, African Americans identified as mentally disabled constituted for 15% of the nation's school population and 38% of the special education population. In 1991, African American children constituted for 16% of the nation's school population and 35% of the special education population. Conversely, it has been well documented that African American males are particularly overrepresented in certain special education programs, as well as other disciplinary practices (i.e. recipients of corporal punishment and suspension). African American males have also been found to receive their special education in segregated classrooms or buildings (Patton, 1998). The underlying assumption is that the proportion of different ethnic groups in any program

should be equal to the proportion of that ethnic group in the general school population if there is no discrimination (MacMillan & Reschly, 1998). To no coincidence, the problems of overrepresentation are only evident in categories that we characterize as “judgmental”—that is, “those in which subjective judgments may influence decisions because the disabilities involved do not have a clear biological basis and in which contextual factors are important and in which cases are filtered through the referral process of general education teachers” (MacMillan & Reschly, 1998, p. 16). ADHD is a leading example of a disability in which the etiology is unclear and the definition is often socially constructed.

The overrepresentation of African American students in special education classes is quite problematic in part because students are not receiving adequate, effective services. The reliance on standardized examinations as measures of intelligence and success burden poorly taught children with worries of diploma denial and grade level retention. Secondly, the relationship between special education and larger sociopolitical issues tends to be overlooked. As one researcher stated, “special education, grounded in structured power relationships, is designed to serve the interests of the dominant, social, political, and economic classes and to place [and keep] African Americans in a disvalued position” (Patton, 1998, p. 27). The current reality of the disproportionate representation of African American children in special education perpetuates the sociopolitical history of the United States. Issues of inequality and oppression predate the field of education and continue to manifest today leaving African Americans in a disvalued position.

African American children in special education are especially adversely affected because they are not only discriminated against on the grounds of race, but also on the grounds of disability. The overrepresentation and misclassification of African American children in special education have resulted in a denial of equal opportunity. African American children are not only misdiagnosed for ADHD, but also, when given a correct diagnosis African American children remain under treated. Health disparities in ADHD have greatly impacted the number of children represented in special education, as African American children with ADHD are oftentimes labeled with a learning disorder. The larger sociopolitical issue behind these disparities is often sugarcoated with sprinkles of explanations and further justifications that all overlook, and furthermore, discount the impact of race. Explanations often include discussion of socioeconomic status and other financial barriers. It is imperative that we look beneath the surface and consider race, racism, and discrimination within the healthcare system as forces behind disparities in ADHD. It is also imperative that we understand the meaning of race, as it is a sociopolitical construct that is oftentimes misconstrued and misunderstood.

Why Race?

Defining Race and Ethnicity

In the recent decades, there has been debates regarding which concepts should be used as the most appropriate research and/or census variables depicting differences in population groups: race, ethnicity, or both race/ethnicity (Kendall & Hatton, 2002). Race and ethnicity, often interpreted as the same concept and also used interchangeably, have very different definitions. Race is defined as “a local geographic or global human population distinguished as more or less a distinct group by genetically transmitted physical characteristics; perceptions of genetics and physical characteristics; biologically based” (The American Heritage, 2001). Race is a socially constructed classification system that was created to define individuals by some physical characteristic (e.g. skin color, facial features). Ethnicity is defined as common ancestry through which individuals share behavioral attitudes, beliefs, lifestyles, food, spirituality, and language.

The Great Debate: Abandoning ‘Race’ as a Research Variable

Several researchers argue (e.g. Oppenheimer, Cooper) that we should abandon the concept of race because, ideally, we are all members of one human race. Many believe that we should no longer place surveillance on one particular group, and instead use ethnicity as an appropriate classification for public health and research practice. Shifting away from biological differences among racial groups should broaden our appreciation of various cultures and lifestyles that may in fact affect health. Others argue (e.g. Thomas, 2001; Kendall & Hatton, 2002) that the shift away from “race” to “ethnicity” will in many respects minimize the health impact of racism, especially for people of color subjected to prejudice and discrimination based on darker skin or facial features (Thomas, 2001). “Simply knowing the ethnicity of an individual or group of individuals does little to explain specific social, emotional, and mental health outcomes” (Phinney, 1996, p. 918). While we all belong to one human race, our experiences as members of different racial groups have varied.

To emphasize health differences between the races, Geronimus (2000) reported that by 1990, African American youths in some urban areas faced lower probabilities of surviving to age 45 than Caucasian youths nationwide faced to surviving to age 65. Media emphasizes the role of homicide among African American youth, although chronic diseases in early and middle adulthood are key contributors to health inequalities (Geronimus, 2000). African Americans have higher all-cause morbidity and mortality rates. African Americans also have an overall death rate that is higher than that of Caucasians. African Americans suffer from high-blood pressure, diabetes, heart disease, certain cancers (e.g. breast, prostate), lupus, and HIV/AIDS at much higher rates than Caucasians (Kendall & Hatton, 2002). The association between health and race is profound. “These disparities involve health experiences, health outcomes, and access to healthcare services and are driven by the sociopolitical realities of discrimination,

disparate educational attainment and income levels, poor working conditions, residential segregation, and material deprivation” (Kendall & Hatton, 2002, p. 22).

An important question to ask ourselves is, “Who really benefits when race is removed as a research variable”? We would lose the ability to link health status and race. We would be blinded to the subtle ways in which racism continues to shape the attitudes and behaviors of healthcare providers toward people of color (Thomas, 2001). Moreover, the dominant culture could easily overlook discriminatory practices and become “blind” to the fundamental role racist ideology plays in healthcare (Kendall & Hatton, 2002). It is important to preserve the term “race” in order to fully understand the impact of racism in the healthcare system, as racism has served as a root cause for inequalities in practices, services, and treatments.

Health Disparities and Racism

To further comprehend the impact of racism on the healthcare system, the definition of racism needs to be understood. Racism refers to “institutional and individual practices that create and reinforce oppressive systems of race relations whereby people and institutions engaging in discrimination adversely restrict, by judgment and action the lives of those whom they discriminate” (Kreiger, 2003, p. 195). Racism is any action, attitude (conscious or unconscious) that subordinates an individual group based on skin color or race. Racism can adversely affect health in that its perpetuation in societal institutions can lead to truncated socioeconomic mobility, differential access to material resources, access to healthcare, residential segregation, and poor living conditions (Williams & Williams-Morris, 2000). Racial prejudice and discrimination measured at both the individual and institutional levels are two very important indicators of the presence of racism and its’ adverse affects on health.

Individual Racism

Much of the individual racism includes assumptions and stereotypes about a person or group of people. Stereotypes are defined as unreliable generalizations and like prejudice, stereotypes “pre-judge” an individual based on assumptions. Prejudices are negative attitudes towards an entire group of people. Both prejudices and stereotypes are learned and support a larger system of social relationships. A key characteristic of racial prejudice has been an overt desire to maintain social distance from stigmatized groups. “Overwhelming support of egalitarian attitudes coexist with a desire to maintain at least some social distance from blacks and a less resounding commitment to policies to eradicate entrenched inequalities” (Williams & Williams Morris, 2000, p. 245).

Research on stereotypes revealed that many Caucasians view African American and other minorities negatively (e.g. Williams & Williams-Morris, 2000). Researchers found that 29% of Caucasians viewed most blacks as unintelligent, 44% believed that most blacks are lazy, and 56% that most blacks prefer to live on welfare. Moreover, only relatively small percentages of Caucasians portrayed positive stereotypes of blacks. Twenty percent of Caucasians believed that most blacks are intelligent, 17% that most

blacks are hard working, 13% that most blacks prefer to be self-supporting, and 15% that most blacks are not prone to violence (David & Smith, 1990 as cited in Williams & Williams-Morris, 2000).

Davison and Ford (2002) research study on the perceptions of ADHD in one African American community provides examples of assumptions, generalizations, and stereotypes that were made about African American parents and their children. Educators, medical personnel, social workers, and counselors who work with African American parents and their children were interviewed to explore their perceptions of ADHD. The following are statements from two of the interviewees.

A white medical practitioner who has worked extensively with African American families stated:

I always had a gut sense that they [African Americans] accepted much more activity and they expect more activity and voice response and less of the compulsively well-behaved kids. In white families, you're expected to sit and listen and you attend. You don't get into things that aren't yours. It's not necessarily the expectations of African Americans, but to be very open and busy and boisterous and robust is accepted. I have also noticed, over the years, that when we do intervene with medical systems, they [African American parents] aren't necessarily pleased with the results because it really changes their child a great deal, things they valued in that child were gone. They see it as a loss of spirit.

Similarly, a white nurse who has worked with the African American community stated:

I think there's a negative perception in the African American community. It's viewed as a control aspect. Physical expressiveness is more accepted in the African American culture and exuberance is a desired characteristic and not something to squelch. Moms tell me all the time—that it's [the ADHD diagnosis and stimulant treatment] taking the soul out [of African American children].

The authors even noted that, “African American culture allows its members considerably greater freedom to assert and express themselves, whereas the White culture values the ability of individuals to rein in their impulses” (Davison & Ford, 2002, p. 269). Although the intentions of the authors were not to perpetuate stereotypes about African Americans, in many respects their findings contributed to several generalizations and assumptions. The perspectives above are the perceptions of educators and other personnel who work with African American parents and not that of the parents themselves. This study illustrates the importance of communicating with the primary source, which in this case would be the parents. It is dangerous to assume that African American parents want less for their children than other parents (Davison & Ford, 2002). Negative stereotypes and generalizations arise from our own assumptions about particular groups. Davison and Ford's (2002) research study is a prime example of how stereotypes can affect healthcare. Acknowledging that there are cultural differences and practices amongst the races, it is important for educators and physicians to increase their awareness of these differences, as they will work with children from races other than their own.

The perpetuation of negative stereotypes of African Americans, as they are not without consequence, suggests that there may be considerable cultural support for racist societal institutions and policies. Historically, the beliefs about the inferiority of African Americans have translated into policies that restricted the access of African Americans to educational, employment, and residential opportunities. Residential segregation has been driven by beliefs of black inferiority and an overt desire to avoid social contact with African Americans (Williams & Williams-Morris, 2000). Residential segregation in the United States illustrates institutional racism at its core.

Institutional Racism

Residential segregation has been the central mechanism by which racial inequality has been created and reinforced in the United States. Segregation has determined access to education and employment opportunities that have led to truncated socioeconomic mobility for African Americans. Segregation affects the quality of life for African Americans. African Americans reside in areas where the quality of schools is poor. Urban schools receive less funding, as it is controlled by the local government. Community wherewithal often determine the quality of the school and many urban communities do not have adequate resources. In the last several decades there has been a mass movement of low-skilled high-pay jobs from the urban areas where African Americans are mostly concentrated (Williams & Williams-Morris, 2000). The lack of educational opportunities for African Americans and the big shift in the job market have resulted in a 'spatial mismatch' and a 'skills mismatch'. Spatial mismatch refers to residing in an area where the residents lack proximity to entry-level jobs. Skills mismatch refers to the availability of jobs in an area where the residents do not have the level of skill and training required (Williams & Williams-Morris, 2000). Lack of job access leads to high rates of unemployment, underemployment, and poverty-stricken conditions.

The physical separation of the races continues only because of the cooperative efforts of major institutions, including real estate, banking institutions, and housing policies. The institutional policies combined with the efforts of individual discrimination ensured that African Americans were limited in housing choices to the least desirable residential areas (Williams & Williams-Morris, 2000). The individual discrimination includes 'white-flight', or the effort of Caucasians to move out of communities when the African American population increases. Isolating African Americans in segregated communities contribute to inadequate employment and educational opportunities, as well as access to healthcare.

Race continues to determine health status and the social allocation of resources and opportunities. Inequality in socioeconomic status, educational and work opportunities, and residential segregation remain the strongest indicators of the viability of racism within organized institutional structures. The vast majority of discriminatory practices lie within the macro societal structures of our society, not in individuals (Kendall & Hatton, 2002, p. 24).

It is important to understand the centrality of racism to further understand racial health disparities. At an institutional level, it is clear that discrimination influences the economic opportunities that people have, as well as the quality of health services they receive (Nazroo, 2003).

Conclusion

A basis indicator of health disparities among racial groups lie in the experiences of overt discrimination, fundamental inequalities that exist in this society, and the effects of living in a society that still binds its prejudices to the color of one's skin. The discussion of race and why race matters is fundamental because the experiences of people of color in the United States are often dictated by race and skin color. "We need to do a better job at understanding how to measure race, racism, and social inequality in medical care and public health practices" (Thomas, 2001, p. 1046).

To decrease the racial influence on health, further research needs to be conducted identifying the various health disparities among the races. Researchers should also continue to uncover the root causes of these health disparities acknowledging that socioeconomic status and financial barriers are not the only explanations. After controlling for possible mediating and/or moderating variables (e.g. socioeconomic status, maternal education, health insurance status), researchers, as noted earlier, have found health disparities in ADHD for African American children, as African American children have not received adequate treatment. It has become quite clear that an improved explanation is needed to understand why these health disparities exist between the races. The explanation behind racial health disparities, as presented in this paper, is racism. A comprehensive discussion of racism and the effects of discriminatory practices are long overdue. Eliminating racial disparities in healthcare will require the efforts of policymakers, educators, physicians and other medical personnel who will all need to make a conscious attempt to discuss the impact of racism on health.

A greater emphasis should be placed on multiculturalism. Multiculturalism values the perspectives and viewpoints of various racial groups, discussing issues related to race and race relations such as discrimination and individual and institutional racism. Multiculturalism is described as a perspective of cultural pluralism, which acknowledges the cultural context of all health processes, as they may differ from racial group to racial group (Kendall & Hatton, 2002). Diversity and multiculturalism training should be required for educators and healthcare providers. The impact of racism on the healthcare system needs to be greatly considered and understood before we can expect an elimination of health disparities in ADHD.

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