

Attention Deficit Hyperactivity Disorder Among Minority Children: Diagnoses and Treatment Challenges

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Abstract

The present literature review was conducted to explore the factors that can prevent minority children from or delay them in receiving attention deficit hyperactivity disorder (ADHD) diagnoses and treatment services. A total of 38 studies were located and reviewed. The results indicated that the complex nature of ADHD can be associated with many factors that make diagnosing ADHD symptoms among minority children complicated. Furthermore, the results revealed that minority parents' lack of knowledge about ADHD and their low socioeconomic statuses are fundamental factors that can delay minority children in receiving suitable ADHD intervention. The limitations of this study and recommendations for future research and practices are discussed.

Keywords: ADHD, Diagnoses, Treatment, Minority children

1. Introduction

Attention deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder defined in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) as a repeated pattern of symptoms that can be recognized in childhood; it presents as inattention and/or hyperactivity-impulsivity (American Psychiatric Association, 2013). In recent years, the prevalence rate of this disorder has significantly increased among school-aged children (Richardson et al., 2015). According to the Centers for Disease Control and Prevention (2017), the prevalence of ADHD among children between the ages of 4 and 17 has repeatedly risen, from 7.8% in 2003 to 9.5% in 2007 and to 11.0% between 2011 and 2012.

However, various studies that claim that the increasing rate of ADHD diagnoses is impacted by race, ethnicity, gender, and age have been published (Tatlow-Golden et al., 2016). In fact, multiple studies have revealed ethnic inequalities in diagnosing psychological problems in ethnic minority youth (Liang et al., 2016). The increased prevalence of ADHD notwithstanding, there is evidence that ethnic minority children and adolescents receive fewer diagnoses and treatment services than non-minority children and adolescents (Eiraldi et al., 2006). Mandell et al. (2008) analyzed the special education records for 4,852 children diagnosed with ADHD, and the results indicated that African-American children were less likely to receive health and rehabilitation services than white children even in similar clinical cases. Similar findings were also reported by Morgan et al. (2016): African-American children have fewer opportunities to receive special education services than white children.

It is important to note that the over-diagnoses or misdiagnoses of ADHD symptoms among minority children may occur in response to various factors (Bailey et al., 2010). For instance, studies have confirmed that although the severity of ADHD symptoms differs in regard to patients' gender and ethnic backgrounds, diagnostic tools such as ADHD rating scales treat all groups based on general norms and do not account for the differences between them (Sciutto & Eisenberg, 2007). Indeed, few studies have discussed how these factors can influence ADHD diagnoses (Asherson et al., 2012). Therefore, this study was conducted to identify common factors that can prevent minority children from or delay them in receiving suitable ADHD diagnoses and treatments. Solutions to provide adequate services to these children are discussed in accordance with the findings.

2. Methods

To identify the factors that can hinder the diagnosis and treatment of ADHD among minority children, this literature review followed six steps. First, five databases were selected to find potential articles (ERIC, EBSCO, ProQuest, Sage Journals, and Google Scholar). Second, five search terms were used to find related articles: "ADHD and minority children," "minority children with attention deficit hyperactivity disorder," "attention problems in minority children," "diagnosing ADHD among minority children," and "treating ADHD among minority children." Third, in the first search, the time period was set to include articles published between 2008 and 2017. Because only a few articles that discussed ADHD diagnoses and treatment challenges among minority children as a part of the studies were found, the time period was adjusted to include articles published between 2000 and 2017. Fourth, of the 320 studies found 68 studies related to the topic were selected. After reviewing the articles' titles and abstracts, 38 articles were chosen for a more in-depth analysis. Fifth, the information was divided into two categories: ADHD diagnosis and ADHD treatment. Of the articles selected, 25 were used as main resources, and the remaining 13 were used as supporting resources. Finally, solutions were offered to improve ADHD diagnoses and treatment practices among minority children.

2.1 Diagnoses of ADHD among minority children

ADHD is a complicated disorder that affects the academic and social performance of children, and therefore, there are different methods of identifying children with the disorder. Some methods are implemented in classroom settings, while others are used in individual settings and applied in response to teachers' or parents' referral (Eiraldi et al., 2006). However, many factors can hinder the diagnosis process (Asherson et al., 2012). One factor that renders making a definitive ADHD diagnosis difficult is the child's age. For example, some children are misdiagnosed with ADHD if they are born after the kindergarten eligibility cutoff date, given that the guidelines for ADHD diagnosis require teachers to compare the behavior of children with that of their peers. However, the comparison must be made with children of the same age (Evans et al., 2010). Moreover, the nature of ADHD symptoms can sometimes be misleading for practitioners because ADHD symptoms can overlap with the symptoms of other disorders, such as autism (Mayes et al., 2012), trauma (Szymanski et al., 2011), mood disorders, anxiety, attachment difficulties, and language and learning problems (Klein et al., 2015). In addition to these factors, other factors that have been discussed by some studies on ADHD can affect minority children. These factors are discussed in this review in terms of four main categories: factors related to teachers' evaluations, factors related to ADHD symptoms (generalizing symptoms), factors related to self-evaluation (self-recognition), and factors related to family status.

2.2 Factors related to teachers' evaluations

The reliability and validity of teachers' evaluations have been debated by many researchers, and assessment results can provide misleading information about children if the rater has not been sufficiently trained to administer the assessment (Rezaei & Lovorn, 2010). In addition, teachers may assess the target behavior differently even when they utilize multiple tests that contain the same content, meaning that such assessments can be impacted by the teachers' understanding of the subject and by their understanding of the children's prior knowledge and experiences (Darling-Hammond et al., 2012).

Teachers may also evaluate children differently according to their ethnicity (Bates & Glick, 2013). After reviewing 13 studies, Mason et al. (2014) found evidence suggesting that teacher biases occurred due to the teachers' culture and the students' ethnicity. Reid et al. (1998) noted that African Americans across all age groups (from age 5 to age 18) were rated higher than Caucasian students in all ADHD symptoms in the ADHD-IV. The same results were reported by Miller et al. (2009) who suggested that the apparently higher prevalence of ADHD among African Americans may indicate the inappropriateness of the existing assessment tools to respond to cultural differences.

Another study conducted by Rabiner et al. (2004) examined the relationship between inattention and academic achievement across 600 students from different ethnic groups: African American, Caucasian, and Hispanic. The results of 33 teachers' ratings revealed that African-American students scored higher in inattention behaviors than Caucasian and Hispanic students. African Americans also received lower academic achievement ratings because of their attention difficulties. Similarly, in a survey study conducted by Bailey and Owens (2005), African Americans stated that they were more often identified by their teachers as having ADHD than their Caucasian peers because teachers often attribute learning and behavioral problems to African Americans. Teachers' ratings can also be affected by children's language abilities: students who have low language abilities are regarded as more inattentive and hyperactive (Gooch et al., 2017).

2.3 Factors related to ADHD symptoms (generalizing symptoms)

Despite myriad studies confirming that ADHD symptoms differ between genders, ages, and ethnic groups, the common diagnostic criteria for ADHD are based on primary school-aged European-American boys (Lefler et al., 2015). Some studies even suggest conceptualizing ADHD as a cultural construct to better understand ADHD symptoms (Timimi & Taylor, 2004). In some cultures, children are nurtured to behave according to different cultural criteria. For example, fewer children in Thailand are diagnosed with ADHD because Thai children are raised to behave and talk quietly in public and to show respect to their parents and elders (Moon, 2012). Furthermore, the cultural values of Latino communities emphasize close relationships among family members, making parents more accepting of their children's behavior; thus, they are less likely to identify externalizing ADHD symptoms as problematic behavior (Haack & Gerdes, 2011). Therefore, ADHD symptoms are regarded differently across different cultures, and what is considered problematic behavior in some cultural views is not considered problematic in other cultures.

2.4 Factors related to self-evaluation (self-recognition)

Practitioners can use self-evaluations as a diagnostic tool to help them find more information about children's feelings and behaviors (Sistere et al., 2014). Indeed, using a self-report scale can provide reliable and valid information about children with ADHD. In a comparison study of children with ADHD and children without attention problems, Klimkeit et al. (2006) confirmed that children with ADHD reported more disorganized,

impulsive behavior as well as lower self-esteem and social skills. However, studies that have discussed applying self-report scales to minority children have asserted that this method can be misleading for educators because minority children might present information about themselves differently from non-minority children or children from other minority groups. For instance, Houck et al. (2011) studied self-concept among children with ADHD and found that Caucasian children have lower self-concepts than children of other ethnic groups, such as African Americans and Hispanics. Minority children might also describe their feelings toward their ADHD symptoms differently: Slimmer (2004) discovered that Caucasian children think of themselves as weird and that Hispanic children feel like they will get into trouble, whereas African-American children regard themselves as bad more often than Caucasian or Hispanic children.

It is important to note that, as noted above, using self-reports to obtain information on individuals' perceptions of their behaviors can be misleading for practitioners. Therefore, more research is required to adequately evaluate the validity of this type of tool (Kormos & Gifford, 2014). This is exemplified in a study by Hoza et al. (2004) in which the self-perceptions of children with ADHD were compared with those reported by their teachers and parents. The results indicated that children with ADHD tended to overestimate their abilities in domains in which they demonstrated massive deficits. Thus, practitioners should exercise caution when they utilize this type of tool.

2.5 Factors related to family status

Many factors can delay minority children in receiving suitable ADHD diagnoses; their families' knowledge, attitudes, and beliefs can play major roles in seeking ADHD assessment and treatment (Haack & Gerdes, 2011). Parents in some cultures do not recognize ADHD symptoms as indicators of attention disorders; they think they are simply part of normal development. Indeed, a lack of knowledge about ADHD symptoms has been reported more from African-American parents than from white parents (Bailey & Owens, 2005). Furthermore, African-American parents have different perceptions of ADHD-related symptoms, leading them to rate their children differently than white parents do (Hillemeier et al., 2007). In general, parents' ratings of ADHD symptoms are more vulnerable to bias than teachers' ratings (Hartman et al., 2007); thus, giving parents instructions about how they can interpret and rate ADHD symptoms in their children can reduce the discrepancies between their ratings and those of other raters. It can furthermore limit the impact of socioeconomic status on parents' ratings (Johnston et al., 2014). The lack of knowledge about ADHD can be aggravated in some African-American and Latino families, in which parents are more likely to seek counseling from family members, neighbors, or faith leaders, delaying the diagnosis of ADHD among their children (Mattox & Harder, 2007).

Minority parents' reports of ADHD symptoms can be affected by the family's status, a lack of proficiency in English, the safety of the neighborhood, and the family's economic level (Collins & Cleary, 2016). Children who belong to lower socioeconomic statuses tend to be reported as hyperactive or impulsive by both their teachers and parents and as inattentive by their parents (Lawson et al., 2017). The correlation between family income and ADHD has also been reported by Martel (2013), who found a positive relationship between low family income and increased ADHD symptoms and temperament.

2.6 Treatment of ADHD among minority children

For minority families, seeking medical health services can be guided by a lack of knowledge about ADHD and cultural beliefs (Paidipati et al., 2017). For instance, minority children are less likely to utilize mental health services than non-minority children, and minority parents have concerns about using medication and prefer to seek alternative paths, while non-minority parents recommend ADHD medication to others because they are conscious of the effectiveness of using medication to control ADHD symptoms (Berger-Jenkins et al., 2012). African Americans serve as an example of a minority group that is uncomfortable with using ADHD medication—they worry about the side effects. Additionally, they believe that using stimulants to control behavior can lead their children to become addicted to drug use in the future (Dosreis et al., 2007).

Minority parents' knowledge of and attitudes toward ADHD differ from group to group. Bussing et al. (2007) compared Caucasian and African-American parents' knowledge about ADHD, finding that African-American parents are ten times less familiar with ADHD symptoms. Their approaches to seeking information about ADHD, such as information obtained from social media or from teachers, are limited, and they often take sugar intake into account. Further comparisons conducted by Hervey-Jumper et al. (2006) revealed that African Americans are also less likely to give information about a family history of ADHD and are more likely to wait long periods between clinical visits. Differences between Caucasian and African Americans were also noted in terms of attitudes toward ADHD and school intervention—Bussing et al. (2003) discovered that African Americans are less likely than Caucasians to direct the identification of ADHD to the school system, are less concerned about school problems caused by ADHD symptoms, and are more negative toward school intervention.

However, the situation seems to be different in other minority groups, such as Hispanics and Latinos. Hispanic children often do not have the chance to benefit from mental health services because they are unfamiliar with the system and face issues related to citizenship (Alvarado & Modesto-Lowe, 2017). Latinos recognize the core

symptoms of ADHD and know that they must obtain professional support, but they do not have enough information about the etiology of ADHD and do not know what effective interventions for ADHD are (Gerdes et al., 2014). Thus, understanding educational, social, and financial factors can help illustrate how minority families seek treatment for their children.

Additionally, it is important to consider that practitioners should understand parents' perceptions of ADHD. Some parents think about ADHD as a source of shame because it focuses on a person's weaknesses; thus, to avoid stigma, they do not ask for help. This attitude can aggravate problems because parents can pass it on to their children (Bailey et al., 2014). Hence, to develop reliable interventions, practitioners and researchers should understand the diverse backgrounds of different families and the ways they can interfere with family attitudes toward receiving treatment (Paidipati et al., 2017). Finally, it is clear that minority parents' lack of knowledge hinders them in confronting social and financial issues to improve the lives of their children with ADHD.

2.7 Removing ADHD Diagnoses and treatment barriers

To improve ADHD services for minority children, specialists should focus on providing appropriate diagnoses and school accommodations while educating parents in behavior management and medical treatments (Eiraldi et al., 2006). To achieve this goal, specialists should recognize that the parents of ADHD children may face barriers that prevent them from seeking help (Smith et al., 2015). Similarly, specialists should recognize that ethnic, geographic, sociodemographic, and economic factors can play a role in the diagnosis rates and treatment of ADHD (Morley, 2010). Furthermore, they must understand that minority parents might interpret their children's behavior differently and may have different levels of trust in school workers and health providers (Hervey-Jumper et al., 2008). Therefore, specialists must work with parents to overcome these challenges, which can delay effective early parenting interventions.

Indeed, fostering cooperation between parents and specialists can give children the chance to receive at both home and school-intensive interventions endorsed by the American Academy of Pediatrics (Wolraich et al., 2011), which recommended that treating ADHD in children between the ages of 4 and 5 should utilize evidence based on behavior therapy administered by parents and teachers. This confirms the importance of assisting preacademic and behavioral performance at an early age to reduce ADHD symptoms by developing early intervention programs that respond to children's needs (DuPaul et al., 2011). Furthermore, Piffner et al. (2011) suggested other types of cooperation between mental health clinicians and schools to transfer clinical-based behavioral interventions to a school setting. This cooperative work gives both minority and non-minority students with ADHD opportunities to improve their behavior and social skills in a natural environment.

Specialists can also utilize media as a robust awareness tool to reduce the mental health stigma among the public (Parcesepe & Cabassa, 2013). They can achieve this goal by applying the entertainment strategy, which is designed to produce messages that simultaneously entertain and educate people to increase their awareness about important issues, promote appropriate attitudes, and positively change their behavior in regard to particular issues (Singhal & Rogers, 2012). Furthermore, schools and the mental health community should use their services to increase awareness and educate parents about ADHD in empowered environments (Pham et al., 2010). Employing various methods to develop ADHD awareness is an essential requirement for a healthy community.

3. Conclusion

This literature review was conducted to explore the factors that can impede minority children from receiving reliable ADHD diagnoses and treatment services. Its goal was to identify solutions that can support families and specialists in overcoming these challenges. It is clear that the complexity of ADHD symptoms can overlap with cultural issues that are not accounted for by the diagnostic tools currently utilized by specialists, given that these tools are not sensitive enough to handle different cultural characteristics among minority children. Additionally, families' knowledge and socioeconomic statuses often emerge as important factors that can play a role in affecting ADHD diagnoses and treatments among minority children. However, to overcome these challenges, specialists in schools and mental health institutes should cooperate to develop sophisticated plans that can provide suitable interventions to children while involving their families in all processes, both to understand the distinct characteristics of the individual families and to educate the families about ADHD and how they can support their children by using the health and educational services available to them and applying suitable practices at home.

3.1 Implications and future research

ADHD diagnoses and treatment services should be obtainable for all individuals and should respond to their unique needs without discrimination. To achieve this goal, specialists must examine the validity and reliability of the existing ADHD assessment tools to ensure that they are applicable to minority children. Furthermore, it is necessary to develop new assessment tools that use standardized criteria designed by including samples of different communities that contain minority groups. To successfully implement these tools, practitioners and teachers must be carefully trained to apply and interpret the results of these tools while taking the differences between minority

and non-minority children into consideration. Further research is needed to understand the factors that can prevent minority children from or delay them in receiving educational and medical services. Moreover, researchers and specialists should work to develop an ideal framework that can be applied by schools to deliver both medical and educational services to students with ADHD in regular environments. Finally, further research is also needed to promote public awareness, which can be part of an overall approach to educating communities about ADHD.

3.2 Limitations

This review focused on the factors that can prevent minority children from receiving ADHD diagnoses and treatment services; it did not address ADHD among adults. Furthermore, the articles included in this review were selected from five databases, of which only 25 were used as main resources and 13 as supporting resources. Most of the articles discussed the challenges in regard to diagnosing and treating ADHD only as a subtopic, which means that very few articles discussed this topic as the main topic. All of the selected articles were written in English. Furthermore, this study solely discussed minority children with ADHD; further research should investigate this issue with other conditions.

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