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Use of Treatment Services for Attention-Deficit/Hyperactivity Disorder in Latino Children

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Abstract This article reviews recent research that examines service use for attention-deficit/hyperactivity disorder among Latino children. Using MEDLINE, PsycInfo, and PubMed, literature searches were conducted for research published between January 2008 and April 2010 that specifically focused on Latino children or included a sufficient sample of Latino children and examined racial/ethnic differences between groups. Eight studies regarding general service use, treatment with medication, and parenting interventions were identified and are reviewed herein. Results of these studies highlight important factors associated with the continued mental health service use disparities among Latino children, such as parental attitudes toward service use. Results also provide much-needed data with regard to adapting and engaging Latino parents into parenting interventions. Suggestions for clinical practice and future research are discussed.

Keywords Latino · Attention-deficit/hyperactivity disorder · ADHD · Service utilization

Introduction

Attention-deficit/hyperactivity disorder (ADHD) is a chronic and debilitating condition that remains one of the most common reasons for referrals to mental health professionals among children, with a prevalence rate of about 3% to 7% in the United States [1]. Furthermore, ADHD represents the most common reason for referral across multiple service sectors, including pediatric, mental health, and school-based special education services [2–4]. Despite national and international prevalence rates similar to those found among other racial and ethnic groups in the United States [5, 6], Latino youth demonstrate significantly low rates of treatment use for ADHD, underscoring a high level of unmet need among this population. Unfortunately, research related to ADHD among Latino children is relatively scarce, significantly limiting our understanding of factors associated with the development, course, and treatment of ADHD among Latino children.

Census data indicating that Latinos comprise the largest minority group in the United States have called increased attention to examining mental health disparities among this population. This is especially the case for Latino youth, who make up 22% of children younger than 18 years of age in the United States [7], highlighting the need to understand and address service use disparities in this growing population. This article briefly reviews recent research regarding treatment use in general, and use of medication and parenting interventions specifically, conducted among Latino youth. It concludes by discussing clinical implications and highlighting several gaps in the existing literature.

Treatment Use

Research examining service use disparities suggests that receiving a diagnosis of ADHD increases the use of mental health services among Latino children. For example, Leslie et al. [8] found that having an ADHD diagnosis signifi-

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cantly predicted mental health service use across multiple sectors of care. Similarly, Pastor and Reuben [9] found that children with ADHD were more likely than children without ADHD to have contact with a mental health professional, use prescription medication, and to have frequent health care visits. Unfortunately, results of both studies also suggested that Latino youth were less likely than Caucasian and African American children to be diagnosed with ADHD, particularly as a function of parent-reported symptoms [8, 9]. This is particularly noteworthy because accurate assessment and diagnosis of ADHD relies heavily on parent reports, particularly when using tools such as standardized behavior rating scales.

Consistent with the findings of Leslie et al. [8] and Pastor and Reuben [9], a large study examining mental health service use for ADHD during a 3-year period among a sample of 2491 Puerto Rican children living in the South Bronx, NY (n=1138) and Puerto Rico (n = 1353) found that Puerto Rican children with ADHD were about three times more likely to use mental health services than children diagnosed with a different mental health disorder [5]. Results of this study also indicated that although prevalence rates of ADHD were similar across the two contexts (4%–7%), overall mental health service use was significantly lower among children living in Puerto Rico. This difference is likely at least partly related to a greater availability of mental health services in New York compared with Puerto Rico.

Overall, results of these studies suggest that receiving a diagnosis of ADHD may increase treatment use among Latino children but also suggest that Latino children are less likely to be diagnosed with ADHD compared with African American and Caucasian children. These findings have important implications with regard to assessment of ADHD among Latino children, as they highlight the need to consider factors such as parental perceptions of child behavior in the assessment process.

Treatment with Medication

Data from a recent study contribute to existing research suggesting that Latino children benefit from medication when they use it [10]. A large, open-label, multicenter trial of atomoxetine, a commonly prescribed alternative to stimulant medication for ADHD, was recently conducted among Latino (n=108) and Caucasian (n=1090) children. Latino children in this study responded to medication similarly to Caucasian children, demonstrating significant reductions in parent-reported ADHD symptoms. Some differences were noted in the side effects reported among children in each group, with Latino children reporting more loss of appetite and dizziness, and Caucasian children reporting more abdominal and throat pain. Overall, however, Latino children tolerated the medication similarly to Caucasian children. Despite the beneficial response to medication among children in this study, the sizable difference in the number of Latino versus Caucasian children recruited underscores the evident disparity in medication use among Latino children with ADHD. Results of this study are consistent with results of the large Multimodal Treatment Study of Children with ADHD (MTA), which indicated similar beneficial effects of medication among Latino, Caucasian, and African American children [11].

However, in the MTA study, parents of Latino children reported less improvement among their children after treatment than Caucasian and African American parents. Moreover, Latino children were receiving lower doses of medication at the conclusion of the study. Given that medication titration was partially based on parent ratings of child behavior and side effects, these results suggest that Latino parents may have reported fewer positive effects or more side effects of medication as medication doses increased [12]. In the Bird et al. [5] study discussed previously, results indicated that medication use was relatively low in the South Bronx and Puerto Rico, with only one in four children with ADHD receiving medication. Moreover, results indicated that strong positive caretaker attitudes toward medication use were significantly associated with stimulant medication use for ADHD. Children with ADHD whose caretakers expressed positive attitudes toward medication use were 11 times more likely to receive medication than those whose caretakers expressed ambivalent (“maybe”) or negative (“no”) attitudes regarding their willingness to give their child medication for mental health concerns.

Considered together, these results suggest that Latino children benefit from medication when they use it; however, negative parental attitudes regarding medication may be a significant barrier to medication use among Latino parents.

Parenting Interventions

Parenting interventions have been established as an empirically supported treatment for ADHD, demonstrating superior efficacy in reducing child attention and behavior problems and increasing parental use of effective behavior management strategies [4, 13]. Unfortunately, research that carefully examines factors associated with parent training use and outcomes among racial and ethnic minority families is relatively sparse and has yielded mixed findings. The available research suggests that ethnic minority families, particularly those of low socioeconomic status,

underutilize parenting interventions and demonstrate poorer engagement, retention, and compliance compared with Caucasian parents [14, 15]. It has been argued that lower rates of participation in parenting interventions among diverse families may be at least partly related to a lack of culturally sensitive programs [16, 17]. To address this gap, research efforts have been aimed at elucidating factors associated with treatment engagement and outcomes and adapting parent training for Latino and low-income families [18–20].

A notable program of research in this area is being conducted by Matos et al. [21], who adapted Parent–Child Interaction Therapy (PCIT) [22] using a systematic adaptation model for use with Puerto Rican children diagnosed with ADHD and comorbid oppositional defiant disorder [23]. Most recently, Matos et al. [21] conducted a randomized pilot efficacy study of the adapted PCIT (n=20) versus wait-list control (n=12) with Puerto Rican preschoolers 4 to 6 years of age living in Puerto Rico. Results indicated that PCIT was associated with a significant reduction in reported and observed hyperactivity, inattention, and oppositional and aggressive behavior, as well as self-reported parenting stress associated with the child's behavior and increased use of positive parenting strategies. Effect sizes were large, ranging between 1.37 and 2.04, and treatment gains were maintained at 3.5-month follow-up [24]. This study supports the use and efficacy of culturally adapted PCIT with Puerto Rican children. An important next step in this line of research will be to compare the adapted PCIT with the original version to determine the incremental benefit of the adapted program.

Another recent study by Gross et al. [25] examined the efficacy of the Chicago Parent Program, an 11-week parenting program based on the Incredible Years BASIC Program [26], which was adapted for use with low-income Latino and African American parents. The study included a sample of 253 parents (135 intervention group, 118 control group) of 2- to 4-year-old children recruited from day care centers serving low-income families. Results indicated that parents who attended at least half of the sessions (ie, 6–11 sessions) reported improvements in their ability to consistently follow through on child discipline and in parenting self-efficacy, and less use of corporal punishment. Moreover, parents who attended at least six sessions also reported fewer child behavior problems on the Eyberg Child Behavior Inventory [27] compared with parents in the control group. However, results also indicated low participation rates among mothers enrolled in the parenting intervention. Indeed, parents only attended an average of 4.3 of 11 sessions, and about 37% of mothers enrolled in the parenting group did not attend any sessions. These results are consistent with results of a recent meta-analysis that found that low socioeconomic status had the largest effect on poor participation and treatment response in parent training [15]. It is important to note that because this study specifically focused on low-income parents and did not examine data by race/ethnicity, results only generalize to other low-income populations, and no conclusions can be drawn regarding working with Latino parents specifically.

In an effort to address challenges related to recruiting Latino parents into parenting interventions for child attention and behavior problems, the CUIDAR (Children's Hospital of Orange County/University of California, Irvine Initiative for the Development of Attention and Readiness) model of service delivery was recently developed and tested by Lakes et al. [28]. The primary aim of the study was to examine whether the CUIDAR early intervention parent training program, based largely on the COPE (Community Parent Education Program) [29], would be "accessed proportionally" by Latino, African American, and Caucasian families and whether it would successfully recruit self-referred parents with children at risk of developing behavioral problems. The CUIDAR parenting program recruited a large number of parents who had children who could be considered at-risk based on elevated pretreatment scores on the Strengths and Difficulties Questionnaire [30] and resulted in reductions in post-treatment scores. Among Latino families (n=117), participation rates were significantly higher than rates reported by other publicly funded mental health services in that geographic region (Orange County, CA), suggesting a positive impact of the CUIDAR service delivery model with regard to treatment use. In addition, data suggested that Latino parents attended more sessions when the parenting group was implemented in Spanish-language groups as compared with English-language groups. Unfortunately, additional data regarding sociodemographic variables associated with participation were not reported. Additionally, as noted previously, this study specifically targeted low-income Latino families, which makes it difficult to disentangle ethnicity/culture from socioeconomic status.

A recent case study of behavioral parent training conducted with a Spanish-speaking, Mexican-American mother of an 8-year-old girl with ADHD further highlights this concern [31]. The authors provided a detailed discussion of challenges and necessary accommodations when working with ethnically diverse parents, including use of a Spanish-language interpreter, translated materials, flexible appointment scheduling, and a sliding-fee scale. Of these, only the accommodations made to address the language barrier can be considered "culturally sensitive," whereas flexible scheduling and providing services on a sliding-fee scale are related to socioeconomic status, not to ethnicity or culture. This is an important clarification because clinicians should be careful not to consider

changes to their standard clinical practice "culturally sensitive" simply because the client is an ethnic minority. This case study supports the use of a translated version of standard behavioral parent training without modifications to actual program content.

Overall, these studies are valuable contributions to the literature with regard to use of parenting interventions among low-income Latino parents. Research in this area should continue to explore ways to increase the cultural sensitivity of programs, as well as effective recruitment and engagement strategies that increase treatment use among Latino families.

Conclusions

As reviewed herein, recent research among Latino children with ADHD and associated behavior problems continues to demonstrate significant service use disparities with regard to both medication and parenting interventions, the two empirically supported treatments for ADHD. Although research suggests that a formal ADHD diagnosis increases the likelihood that Latino children will seek and use treatment, findings also indicate that Latino children are less likely than Caucasian and African American children to be diagnosed with ADHD, and that parental report of ADHD symptoms was lower among Latino children [8, 9]. Considered together with research suggesting similar rates of ADHD among Latino children as those found in other populations [5, 6], these findings highlight the role of parental perceptions of behavior in the assessment process. For example, parents may report impulsive and inattentive behavior (eg, "fails to complete tasks or chores") as purposeful defiance, which may lead to a diagnosis of oppositional defiant disorder rather than ADHD.

This has important clinical implications with regard to assessment practices. Specifically, it is suggested that clinicians should assess child behavior by conducting a thorough clinical interview, during which parental beliefs and ideas about their child's behavior are explored in more depth, rather than asking simple "yes-and-no" questions. For example, following the example above, clinicians might ask parents, "Why do you think your child fails to complete tasks or chores?" Similarly, items endorsed by parents on behavior rating scales can be reviewed with parents so that clinicians can get a better sense of their thoughts underlying various ratings. Information gathered in this manner will allow clinicians to gain a good understanding of the child's level of problematic behavior, as well as parental perceptions and beliefs that can be incorporated or addressed in subsequent psychoeducation and treatment engagement efforts.

With regard to medication use, recent data indicate that Latino children use medication for ADHD at less than half the rate of Caucasian children in the United States [32], despite beneficial outcomes associated with medication use [10, 12]. These data are consistent with international data demonstrating similar disparities in medication use for ADHD among children across several Latin American countries [6, 33]. The findings of Bird et al. [5] suggest that Latino parents may hold negative attitudes toward medication use that play an important role in the likelihood that they will initiate or comply with pharmacologic treatment for ADHD. Thus, when recommending or prescribing medication, clinicians should be sure to elicit and address negative parental attitudes and erroneous beliefs regarding medication. Providing good psychoeducation that specifically addresses the parents' concerns about medication rather than very general psychoeducation regarding the prescribed medication itself may increase parental willingness to use medication for treating their child's ADHD.

Research focusing on parenting interventions has recently centered on increasing the cultural sensitivity of the PCIT parenting program [21] and increasing access to programs by addressing language and other instrumental barriers [25, 28, 31]. Results of these studies provide preliminary support for an adapted version of PCIT and suggest that Latino parents can be recruited effectively into parenting programs [28]. However, results also suggest that low-income, ethnically diverse parents demonstrate poor retention rates, highlighting the importance of discussing and addressing access barriers with parents and consistently working toward increasing their engagement in the program [25].

Limitations of Existing Research

Existing research is limited by the fact that it has been conducted largely among treatment seekers and therefore does not necessarily generalize to the large proportion of Latino parents who have not sought mental health services for child ADHD. This represents a significant limitation in the existing literature given the notable gap between high levels of estimated risk and unmet need among Latino children [34, 35]. Available theoretical help-seeking models suggest that problem recognition is the first step in treatment seeking [36, 37] and that a significant barrier to mental health service utilization among racial and ethnic minority parents is a lack of perceived need for professional services [38, 39]. Thus, future research efforts should focus on better understanding parental perceptions of and response to child ADHD prior to seeking services in order to better understand factors that promote treatment use among Latino families.

Research focusing on parenting interventions is significantly limited in size and scope. Large clinical trials of parent training among Latino families have never been conducted, and research that does include sufficient numbers of Latino families often focuses specifically on low-income populations. It can be argued that low-income families should be the focus of this research, given that they have the lowest participation rates and highest levels of unmet need. However, this research makes it difficult to examine the influence of socioeconomic status versus ethnicity or culture on treatment use. This research is useful with regard to increasing access to services. However, such research may erroneously inform future "cultural" adaptations of parenting programs that do not actually address concerns regarding the cultural sensitivity of parenting programs. Thus, research that specifically examines cultural and sociodemographic factors related to parent training engagement, retention, and compliance among Latino families is sorely needed.

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