

# Considering Cultural Diversity in the Management of ADHD in Hispanic Patients

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Attention-deficit/hyperactivity disorder (ADHD) is diagnosed less often in Hispanics than in Caucasian patients. Furthermore, Hispanic patients with ADHD are undertreated. The reasons for these disparities are unknown, although difficulties with access to care among this population may offer a partial explanation. In order to improve treatment outcomes in Hispanic patients with ADHD, healthcare providers must reflect on the diversity of the Hispanic population, which consists largely of persons of Mexican, Puerto Rican and Cuban descent. In spite of the fact that Hispanics share a similar language, religion and belief system, there are other significant cultural differences among these subgroups. In addition, English-language proficiency and socioeconomic variables, factors that are known to influence healthcare outcomes, may also differ markedly among Hispanic subgroups. Therefore, strategies to improve the treatment of ADHD in the Hispanic population must include overcoming language barriers by increasing the availability of Spanish-speaking professionals and medical translators and using culturally sensitive diagnostic instrumentation. Furthermore, improving knowledge of cultural practices of particular Hispanic subgroups may improve the therapeutic relationship between patients and clinicians, facilitate the diagnosis of ADHD and allow healthcare providers to make appropriate treatment recommendations.

**Key words:** Hispanics ■ attention-deficit/hyperactivity disorder ■ disparities

## INTRODUCTION

Epidemiologic data on the prevalence of ADHD in the Hispanic population are lacking because few population-based studies have been performed. One estimate by the National Center for Health Statistics reported that the prevalence of ADHD is 3.3% in Hispanics and 6.5% in whites.<sup>1</sup> Of those Hispanics who are diagnosed, many are undertreated.<sup>1-3</sup> A national study analyzed data from 26,000 office- and hospital-based primary care visits and reported that Hispanic children were significantly less likely than white children to be treated with a stimulant medication.<sup>4</sup> Similarly, a study of children in Maryland public schools reported that Hispanic students received methylphenidate at approximately one-third the rate of white students.<sup>3</sup> Also of concern are data from parent questionnaires, which suggest that treatment regimens are not adhered to by Hispanic patients with ADHD. One survey of almost 2,000 island-Puerto-Rican caregivers reported that only 3.6% of children with ADHD who received stimulants during the previous year were adhering to treatment one year later.<sup>2</sup> The treatment of ADHD in Hispanic patients must be improved, since untreated ADHD has been associated with multiple negative outcomes, such as comorbid conduct disorder, school failure, mood disorders, substance abuse and the development of adult antisocial personality.<sup>5,6</sup>

Possible reasons for the disparities in the diagnosis and treatment of ADHD in the Hispanic population may be partly explained by language barriers that interfere with the ability to report ADHD symptoms to the physician, degree of acculturation (less acculturated mothers may not recognize symptoms of ADHD), different developmental expectations by Hispanic mothers or physician bias that may cause dismissal of concerns regarding ADHD symptoms in the Hispanic population.<sup>4</sup> It is also possible that Hispanic patients are being diagnosed with more severe conditions or behavioral problems when the underlying diagnosis is actually ADHD. An example of this may be observed in the African-American population, as studies suggest that African Americans are overdiagnosed with schizophrenia compared with whites.<sup>7,8</sup> If a similar situation exists in Hispanic patients with ADHD, it is possible that these patients are receiving inappropriate treatment. Alternatively, the incidence of ADHD may truly be lower in Hispanic children, although data from a number of

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studies suggest that the incidence of ADHD is similar between Hispanic and non-Hispanic white children.<sup>9-12</sup>

### Impact of Diversity on Healthcare in Hispanic Populations

Before attempting to contemplate strategies that may aid in the diagnosis and treatment of ADHD in Hispanic children, it is necessary to reflect on the diversity of subgroups that comprise the Hispanic population in the United States. Increasing our knowledge regarding the diversity of this group is especially important, considering that the Hispanic population is now the largest minority group in the United States.<sup>13,14</sup> Therefore, to best meet the needs of this large and growing population, it is important for clinicians to recognize factors that contribute to the diversity of the Hispanic population and that may impact medical care.

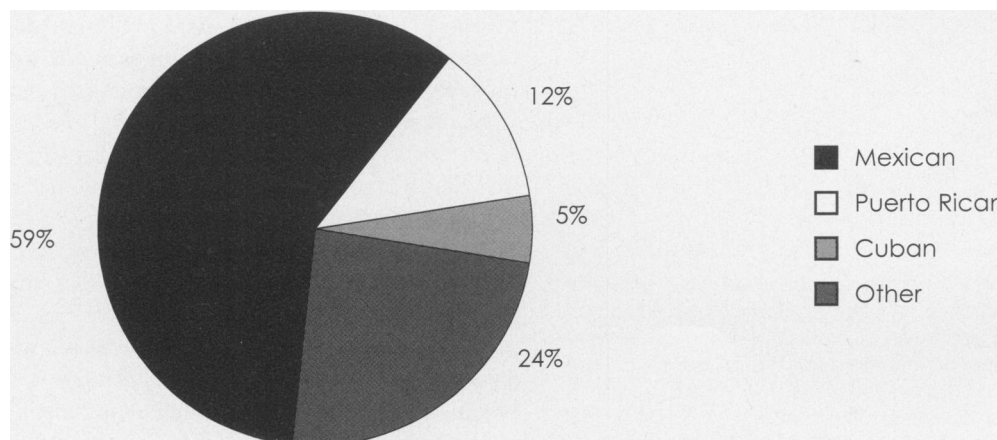
Although many Hispanics share the same language, religion and fundamental beliefs in hard work and the importance of family, they follow different migration patterns and come from countries with diverse histories and cultural beliefs.<sup>15,16</sup> According to the U.S. Bureau of Census, the Hispanic population in the continental United States is comprised mostly of people from Mexico (59%), followed by those from Puerto Rico (12%) and Cuba (5%) (Figure 1).<sup>13</sup> Other groups (24%) originate from Central or South America, are of European Spaniard descent or are of unknown Spanish origin. These groups are distinctly distributed throughout the United States, with Mexican-American families living primarily in the west, Puerto Rican families in the northeast region and Cuban-American families in the southeast. Differences in levels of acculturation, immigration history, socioeconomic status, access to the healthcare system, education, literacy and assimilation must be considered because these factors may have an impact on the diagnosis and treatment of disease.

Socioeconomic backgrounds of Hispanic patients vary among each subgroup. For example, in the early-to-mid-1990s, 34% of Cubans had a family income of  $\geq$ \$35,000,

compared with only 20% of Mexicans and 22% of Puerto Ricans. Furthermore, the percentage of Cubans (12%) who reported living below the poverty level was similar to that of the total (all races/ethnicities) population (11.9%) but less than half that reported by Mexicans (27%) or Puerto Ricans (28%).<sup>13</sup> The Cuban population had a higher percentage of employed individuals (63.4%), compared with the Puerto Rican (49.2%) or Mexican (57.3%) populations. Data describing the educational status among Hispanics aged  $\geq$ 25 years revealed that the majority of Mexicans (55.3%) did not graduate from high school, with somewhat lower rates reported in Puerto Ricans (42.1%) and Cubans (31.2%). The highest percentage of Hispanics who graduated from college were Cubans (21.3%); only 8.6% of Mexicans and 12.8% of Puerto Ricans reported receiving a college degree. Several studies have reported that socioeconomic variables, such as income, occupation and education, influence ADHD treatment outcomes.<sup>17-19</sup> For example, more educated mothers may be better able to understand and cooperate with multimodal treatment plans that include behavioral treatment compared with less educated mothers.<sup>19</sup> In addition, multiple stressors are inherent in low-income, single-parent households, and these stressors may decrease treatment adherence. Low-income status also may result in the inability to afford appropriate medical care.

English proficiency may differ among Hispanic subgroups. This is an important consideration because language barriers may interfere with the ability of caregivers to report ADHD symptoms to the primary care physician. In 1990, approximately 78% of Hispanics who lived in the United States reported speaking Spanish in the home.<sup>20</sup> Of those who spoke Spanish at home, the majority of Dominicans (63.7%) and Central Americans (65.5%) reported that they did not speak English "very well," compared with only 41.4% of Puerto Ricans, 54.5% of Cubans and 50.9% of Mexicans. Not surprisingly, because English is taught from kindergarten to high school to all island-Puerto-Rican children, this

**Figure 1. Percentages of Hispanic groups residing in the United States according to race or country of origin**



group was the most likely of all Latin American subgroups to speak English “very well” (58.6%).

Many studies suggest that limited proficiency of the English language is associated with a substantial reduction in both access to care and the quality of services rendered.<sup>21-23</sup> For example, in patients for whom English is a second language, limited literacy skills may have an adverse impact on the ability to understand and follow prescribed healthcare regimens. In one study, researchers who questioned 203 parents of Latino children who visited inner-city clinics reported that parents cited language problems as the most common barrier to healthcare for their children.<sup>24</sup> The majority of parents in that study rated their ability to speak English as “not very well” (46%) or “not at all” (26%). Other challenges involve lowering the reading level of patient education materials because it is too high for most patients, especially those whose native language is not English.<sup>25,26</sup>

Aside from differences in socioeconomic background and language skills, many Hispanic subgroups display varying degrees of acculturation. When treating Hispanic patients, assessing the degree of acculturation is important because it often provides clues to patients’ health-related beliefs and practices and may predict if these practices stem from the culture of origin or from the American culture.<sup>27</sup> It is important to note that the degree of acculturation may be related to parental perceptions of ADHD symptoms. Research has shown that less acculturated mothers are less likely to recognize symptoms of ADHD than more acculturated mothers.<sup>4,28</sup> Furthermore, less acculturated mothers may not perceive ADHD symptoms as being problematic and may not feel the need to discuss behavioral issues with a healthcare provider.

It has been reported that Mexican Americans may resist assimilation simply because the proximity of their homeland to the United States facilitates frequent visits, which provide a constant infusion of culture. A numerically significant subgroup of Mexicans who originate from the poorest areas of Mexico survive in the United States as illegal aliens living an “underground” lifestyle and in constant fear of apprehension and deportation.<sup>27</sup> This fear may result in a lower use of healthcare services, especially when the need for treatment is not considered as urgent. Often, duration of residence in the United States provides a rough index of the degree of acculturation. The majority of foreign-born Cubans (~68%) have lived in the United States for ≥15 years, compared with approximately 56% of foreign-born Mexicans.<sup>13</sup>

The beliefs and customs of less acculturated Hispanic groups may differ dramatically from the traditional practices and beliefs of acculturated U.S. residents. For example, some patients from Colombia, the Dominican Republic and Guatemala report that they prefer a natural or holistic approach to treatment over the use of conventional prescription drugs.<sup>29</sup> Furthermore, although more acculturated Mexican Americans no longer use folk medicine (*curanderismo*), less acculturated Mexican Americans still prefer self-treatment or folk healing over Western medicine.<sup>30,31</sup> Some Mexican patients may use the services of a *curandera* (practitioner

of folk medicine) to abrogate the *mal puesto* (hex), which is thought to cause symptoms of disease. It has been reported that traditional Mexican beliefs, such as these, are encountered frequently enough to merit the attention of the medical community.<sup>27</sup>

The preferred use of a natural approach to healing by certain Hispanic subgroups may be partly the result of concerns about the addictive or toxic effects of long-term treatment with medications, which have been reported in both Mexicans and Puerto Ricans.<sup>27,32</sup> One study that questioned mothers from Cuba, Puerto Rico and the Dominican Republic reported that a substantial number of parents thought stimulant medications had serious side effects, such as the risk of addiction or dulling of cognitive processes.<sup>33</sup> These misconceptions led mothers to decrease the dose of the prescribed ADHD medication or to administer the medication inconsistently or not at all.<sup>33</sup>

A number of Puerto Ricans believe in *espiritismo*, which is a belief system consisting of an invisible world populated by spirits that surrounds the visible world and is described in the work of Allan Kardec.<sup>32</sup> *Espiritismo* is also a form of psychotherapy that is consistent with the Puerto Rican concept of mental health; thus, clinicians who work with Puerto Rican families who practice *espiritismo* may be asked to collaborate with *espiritistas*, a medium who communicates with the spiritual world.

## Disparities in Cultural Beliefs between Hispanics and Whites

In addition to the distinguishing features of individual Hispanic subgroups, clinicians who treat Hispanic children with ADHD must consider important cultural differences that distinguish the overall Hispanic population from non-Hispanic white children. A large national survey conducted for McNeil Consumer & Specialty Pharmaceuticals by Harris Interactive online and through telephone interviews sought to explore cultural differences among more than 3,300 parents or caregivers of children from 6–17 years of age. A random selection process with two sampling methods was used to sample respondents. The first sample was generated through random-digit-dialing procedures and was comprised of respondents who completed a survey within the past two years. The second sample was also a random-digit telephone sample but was targeted to exchanges with a higher-than-average number of minority residents. This ensured inclusion of minority participants who might have been excluded if the survey were limited to Internet users alone. People who chose not to answer ≥3 questions were not included in the total sample. The survey asked questions about ADHD, including how familiar the caregivers were with the symptoms and treatment of ADHD and how they believed race or ethnicity might have an impact on the diagnosis of ADHD. Approximately 30% of these respondents were Hispanic (1,034), including persons from Latin America, Mexico, Puerto Rico and Cuba.

The majority of Hispanic respondents were female (69%),

30–49 years of age (70%), and had graduated from high school (23%) or completed ≥1 years of college (66%). The percentage of Hispanics (25%) who reported having an income <\$25,000 was more than double that of white respondents (10%), whereas the percentage of Hispanics (16%) who reported an income of \$50,000–\$74,999 was nearly half that of white respondents (28%). One-third of Hispanic respondents (33%) completed the interview/questionnaire in Spanish.

Findings from this large survey revealed salient differences between Hispanic and white respondents (Figure 2). Specifically, Hispanics were more likely than white respondents to be “not at all” familiar with ADHD and were more likely to report that they would not know where to seek treatment for ADHD. Hispanics were somewhat more likely than whites (23% vs. 14%, respectively) to believe that ADHD is misdiagnosed in Hispanic children. In addition, 16% of Hispanics and 8% of whites believed that Hispanics were told they had ADHD more often than whites, and 25% of Hispanics and 12% of whites believed that teachers were more likely to blame ADHD for learning and behavioral problems in Hispanics, compared with students from other racial or ethnic backgrounds. Of those with a child who had been diagnosed with ADHD, Hispanic respondents were much more likely to use prescription medication on an as-needed basis. Compared with 5% of white respondents, twice as many Hispanics (10%) were “very concerned” about what others would think if their child were diagnosed with ADHD.

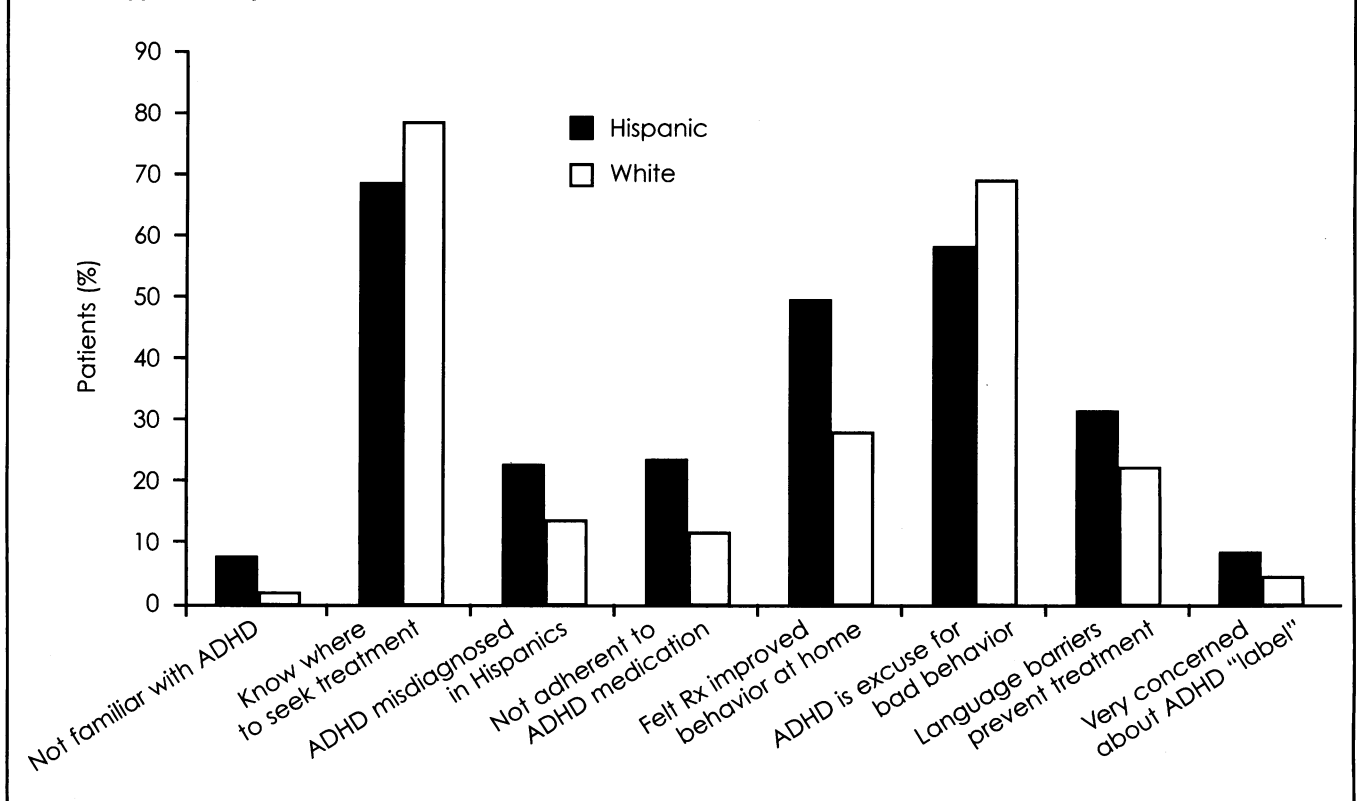
Among those with children who received prescription

treatment for ADHD, Hispanic respondents were almost twice as likely as white respondents to cite a “significant improvement” in behavior at home. This difference may have been the result of a disproportionate appreciation of improved child behaviors by Hispanic parents; although intolerance of parental disrespect is not limited to one ethnic group, it has been described as especially troubling to Latino parents.<sup>34,35</sup> Hispanics (59%) were less likely than whites (69%) to feel that parents “use ADHD as an excuse for inappropriate behavior.” One-third of Hispanics (32%) acknowledged that language barriers prevented appropriate treatment of ADHD “a great deal,” compared with 23% of whites. These analyses are limited because no statistical test data were available and potential confounders, such as education and acculturation, were not controlled for in these analyses.

### Implications for Improving Care of Hispanic Children with ADHD

The cultural, socioeconomic, linguistic and other differences between Hispanics and whites as well as those differences among Hispanic subgroups create a need for specialized care in Hispanics. Specialized care includes provisions to effectively overcome language barriers and an increased knowledge among healthcare providers regarding culture-specific practices that may have an impact on the ability of the parent to recognize the symptoms of ADHD or to seek or accept treatment. Furthermore, strategies must be employed to offset many of the socioeconomic barriers, such as lower

**Figure 2. Differences between Hispanic and white parents in practices, knowledge and beliefs about attention-deficit/hyperactivity disorder**



educational status and lack of health insurance, which may be common in newly immigrated, economically disadvantaged or unemployed families.

To begin, one of the most obvious ways to overcome language barriers is to increase the availability of Spanish-speaking physicians, nurses and other healthcare providers among primary care sites that serve a significant number of non-English-speaking Hispanics. If no member of the healthcare team speaks Spanish, the use of a professional medical interpreter is recommended. Unfortunately, interpreters are frequently not formally trained or are unavailable in times of need.<sup>36</sup> According to one study, interpreters made an average of 18 clinically significant errors during each pediatric patient encounter.<sup>23,37</sup> Therefore, it is important to ensure that medical translators are fluent in Spanish and are well trained. Some physicians may be reluctant to use trained interpreters because of financial constraints. If no other options are available, clinicians may ask Spanish-speaking families to bring adult family members who are fluent in English to medical appointments; however, children should not be asked to serve as interpreters because they often do not have the cognitive or language skills needed to accurately interpret conversations of this nature.<sup>15</sup> Furthermore, when children instead of adults serve as medical interpreters, the reversal of roles may be detrimental to the therapeutic alliance, as children may be unable to fully comprehend treatment plans, and they may be unable to understand the importance of the prescribed treatment. If the interpreter is also the patient, it is possible that an unwillingness to undergo treatment may cause a lack of compliance with the prescribed treatment. In addition, children who have been inappropriately exposed to emotionally charged material may be troubled.

Whenever appropriate, ADHD information should be disseminated in Spanish and patient education materials should be written at appropriate reading levels. Because a disproportionate number of Hispanic parents are not familiar with ADHD, it is necessary to educate this group about the symptoms of ADHD and to make distinctions between behaviors associated with ADHD and those of children who are normally active. As with all caregivers, parents of Hispanic children should be advised about possible outcomes of untreated ADHD, such as increased parenting stress, difficult parent-child or sibling interactions, and marital discord.<sup>38</sup>

Clinicians who suspect ADHD in a Hispanic child may benefit from the use of culturally sensitive diagnostic instruments. The validity of ADHD diagnostic instruments whose criteria were formulated for non-Hispanic children has been questioned because the behaviors of Hispanic children are influenced by their unique culture.<sup>39</sup> Perhaps even more important is the use of English scales that have been translated into Spanish by medical professionals. Ensuring appropriate translation may decrease potential complications arising from the lay person's translation of Spanish terms for which there are no precise English equivalents. Other strategies to decrease the likelihood of misdiagnosis include the use of a multimethod, multi-informant evaluation procedure that considers functional impairment rather than symptoms alone.<sup>15</sup>

Among families with children who have been diagnosed and are undergoing treatment, clinicians should use direct nonjudgmental questioning to ensure that patients are adhering to treatment regimens.<sup>33</sup> Because inadequate adherence may be related to parental concerns that ADHD medications will have a negative impact on their children, physicians or other healthcare providers must be able to elicit these feelings from parents in order to allay their fears by discussing current medical knowledge about ADHD medications.

Healthcare providers should be aware of certain cultural values that have been reported to influence treatment-seeking behaviors. For example, as a group, many Hispanics believe in personalismo—that is, the ability to develop a warm, personable relationship with individuals rather than with institutions—and familismo, which is a strong attachment to family expressed through loyalty, reciprocity and solidarity as well as veneration and respect for the older members of the family.<sup>15</sup> The failure to include key family members, such as grandmothers, in treatment decisions may cause the excluded family member to undermine the physician's treatment efforts.<sup>16</sup> Therefore, clinicians may increase rapport with patients by seeking the opinion of respected family members, decreasing personal space during interactions, using friendly gestures and displaying a genuine interest in the life of the patient to increase the probability of patient adherence and earn the trust of the patient.<sup>15</sup> Other cultural values of Hispanics that are highly valued include *simpatia* (lightheartedness) and *respeto* (respect). As a result, physicians who are reserved and nonexpressive may encounter decreased patient satisfaction and a lack of patient cooperation. Common forms of respect include the use of formal terms when addressing parents in Spanish and asking parents for their opinions during medical visits.<sup>15,40</sup>

Another way of showing respect towards the Hispanic patient is to ask patients about their countries of origin and about the particular cultural characteristics of their countries. This practice not only demonstrates interest on the part of the physician towards the patient as a human being but also acknowledges the patient's individuality and uniqueness, thus solidifying the treatment relationship.<sup>15</sup> Physicians who treat Hispanic patients must be careful to assure that the patient is truly in agreement with the suggested treatment plan because in the Hispanic culture, especially among members of the lower socioeconomic groups, "giving assent" is considered a sign of respect towards authority figures and not necessarily a sign of "being in agreement" with the issue in question.<sup>12</sup> Once physicians have gained and have been awarded the family trust (*confianza*), they may be consulted for a variety of family matters and will be considered a member of the family's trusted inner circle.<sup>16,34</sup> Cultural competence of physicians has been reported to improve patient satisfaction by Hispanic patients.<sup>40</sup>

Finally, health insurance coverage must be improved for Latino children. Zambrana and Carter-Pokras have suggested a number of useful strategies to increase coverage in this population. These strategies include raising awareness about

the availability of Medicaid through community outreach centers, using trained health educators, streamlining the application process for Medicaid and increasing the availability of bilingual staff to assist those who perceive the application process as overly complex.<sup>21</sup> Other strategies for those who do not use employer-provided benefits include offering Medicaid to families of low-wage earners and decreasing copayment and deductible requirements of public health insurers.

## CONCLUSION

Hispanic children with ADHD must be diagnosed so that appropriate treatment may be recommended. Cultural issues, socioeconomics and language barriers, which may vary among Hispanic subgroups, are important considerations in the treatment and diagnosis of these patients. Although challenging, a number of strategies may be employed to improve the health-care of Hispanic children with ADHD. These strategies include an increased knowledge of cultural practices among various Hispanic groups, an increased use of trained Spanish-speaking translators whenever appropriate and the use of Spanish-language diagnostic tools. To optimize treatment outcomes, health providers who care for Hispanic children at risk for ADHD must be aware of the many challenges that are involved in treating this diverse population.

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