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Racial-Ethnic Differences in Parental Body Image Perceptions of Preschoolers: Implications for Engaging Minority Parents in Weight-Related Discussions

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Abstract

Parental misperception of minority preschoolers' body image remains a major barrier to obesity prevention. Differences in child body image perception between Latino and African-American parents may inform etiologies to obesity disparities. Using pooled data from studies implementing validated child body sketches, frequency of parental misperception in these two populations are analyzed and associations with provider commentary and parental acculturation reported. Two convenience samples were utilized (Latino parents: n=73, African-American parents: n=150). Over half of Latino parents (58%) compared to 5% of African-American parents misperceived their obese child as lighter than a healthy weight (p=.002). In contrast to our prior study, provider commentary was not associated with reduced risk of misperception in Latino parents. Misperception occurred most frequently in mild-moderately acculturated Latino parents. Increased rates of misperception and limitations on the potential role of the provider commentary indicate a critical need to better strategize communication with low-income, moderately acculturated Latino parents.

Keywords

Parental perceptions; preschool; minority families; acculturation; visual scales; obesity; health disparities

Background

Parental misperceptions regarding preschoolers' weight remain a major challenge to initiating early and effective obesity management strategies.^{1,2} Studies suggest high levels of parental misperception in African American and Latino parents,^{3–5} two groups whose children are at greatest risk for obesity,^{6–8} yet few studies have compared rates of parental

misperception in these groups. Such comparisons could inform the design of provider-based interventions targeting childhood obesity in at-risk families.

In a prior study exploring factors that predict parental misperception of weight among low-income African-American parents of preschoolers, provider commentary on the child's weight was strongly associated with a decreased risk of misperception.⁵ Similar information for the Latino population is lacking despite well-known disparities in obesity risk.^{6,9,10} Such an assessment is particularly relevant given the high prevalence of known communication barriers with limited English proficiency (LEP) families.¹¹ Studying the role of provider commentary on parental misperceptions could inform how providers can better engage minority families. Additionally, given a growing body of work correlating acculturation as a childhood obesity risk factor,^{9,11,12} study of the relationship between parental acculturation and parental misperceptions of preschooler's body image in low-income Latino parents is needed.

Utilizing pooled data from three distinct but similar studies focusing on early childhood growth and nutrition, we compared rates of child body image misperception in low-income African-American versus low-income Latino parents. In the Latino subsample, we also assessed the relationship of both provider commentary and level of parental acculturation with parents' perceptions of their child's body image. Given known health disparities for Latino children, we hypothesized that the prevalence of parental misperceptions among parents of Latino preschoolers was greater than among African-American parents.

Methods

We completed three independent research studies focused around understanding and promoting optimal early childhood nutrition among a convenience sample of parents of preschool-age children (2–6 yrs. old) recruited in two urban, academic-based, primary-care clinics. Two of the studies specifically recruited Latino parents, the other study sampled African American parents and serves as the comparison for this analysis.⁵ English and Spanish-speaking parents/guardians (herein referred to as parents) were eligible. Individuals were excluded if the index child had any medical issue that affected their oral intake/nutrition or if they had previously participated in a nutrition-focused study. All participants consented prior to study participation. The Johns Hopkins Institutional Review Board approved each of the studies.

The studies utilized identical survey components that serve as the central comparison component between Latino and African-American samples. Parents completed a brief survey that included the following domains: 1) parent/child demographics, 2) perceptions of their child's current body image, and 3) perceptions of a healthy weight child body image. Perceptions were evaluated using validated visual sketches that were gender and age specific.⁴ Parents were also asked if their child's physician ever expressed concern over their child's weight.^{4,5} Acculturation was assessed using the Marin Short Acculturation Scale for Hispanics.¹³ A summative score was computed for 5 questions, and categorized as follows: low acculturation to US English culture (≤ 5), mild acculturation to US English culture (>5–9), and moderate acculturation to US English culture (≥ 9). Anthropomorphic data were

collected from the child's medical record. All data collection took place between March 2010 and November 2011.

In parents with children 2–6 years of age, we compared parental responses of the visual sketches for *current child body image* and *healthy weight body image* in overweight (OW) and obese (OB) children. Three groups emerged from the sketch comparison: 1) OW/OB child reported as heavier than a preschool healthy weight, 2) OW/OB child reported as the same as preschool healthy weight and 3) OW/OB child reported lighter than a healthy weight preschooler. Parents of children falling in groups 2 and 3 were identified as having misperceived their at-risk child's current weight. The proportion of body image misperception was compared among Latino and African-American parents. Frequency of child body image misperception, provider commentary, and parental acculturation were calculated and associations determined by chi-square and Fisher's exact statistical tests. All analyses were completed using Stata 10.1 (College Station, TX: StataCorp LP).

Results

Detailed characteristics of the African-American sample (n=150) are described elsewhere.⁵ The two samples of Latino parents were pooled with 110 parents having an index child meeting our age eligibility. Thirty-seven of these participants were excluded, (12 mothers had participated in a nutrition focused study and 25 children had incomplete anthropometric records) leaving a final analytic sample of 73 parents.

In the Latino sample, the overall prevalence of overweight and obesity was 19% and 26% respectively. Respondents were predominantly Mexican (58.9%) and reported living in the US for an average 7.8 years. Sixty-seven percent of the sample had low levels of acculturation to US English culture (n=49). Only 15% of respondents recalled being told by their pediatrician that their child was gaining weight too fast or was overweight.

Rates of misperception (Figure 1) were comparable among both racial-ethnic groups in assessing their overweight child. Among obese children, 58% of Latino parents were statistically significantly more likely to perceive their child as "lighter" than a healthy weight child compared to only 5% of African-American parents. Similarly a greater proportion of African-American parents (55%) accurately perceived their obese child as heavier than a healthy weight child compared to only 26% of Latino parents. These differences were statistically significant.

Among children with BMI 85th percentile, provider commentary was not associated with rates of misperception in the Latino sample (Figure 2). However, compared to parents with low levels of acculturation, we noted that parents with mild-moderate self-reported acculturation levels more frequently misperceived their child's weight (p=0.02).

Discussion

We determined that among low-income Latino parents of preschooler, the risk of misperceiving their obese child's weight is statistically significantly greater than that of low-income African American parents. This supports prior work indicating that cultural

expectations of child growth among Latino parents prevent recognition of problematic growth.^{11,14} These results also supports the need to include the practice of assessing parental perceptions of their child's weight as a first step before engaging in weight management discussions. Furthermore, our observed rates of misperception among preschoolers parallel those identified in prior studies where the prevalence of misperception neared 50%.³ However, our analysis outlines that Latino parents exhibit significantly greater misperception prevalence (58–74%) than do African-American parents (40–45%) of preschoolers with a BMI 95th percentile.

Contrary to the results from our prior study, provider commentary was not associated with decreased misperception among low-income Latino parents. The limited impact of provider commentary on perceptions of their child's weight may reflect factors including but not limited to divergent cultural expectations on growth, language barriers surrounding weight focused terminology among Latino families, and parental recall bias of provider commentary. Due to the small sample size of this preliminary study, it is also possible that our null finding is due to limited power.

Greater levels of acculturation have previously been found to be a risk factor for adverse weight outcomes in children.^{9,15} Our results support prior studies by demonstrating that parents with greater levels of acculturation were at increased risk of body image misperception. Focused studies focused on potential linguistic and cultural factors specific to this growing US population of parents are necessary to begin to address the barriers in communication surrounding child growth.

Conclusion

In this preliminary study, we conclude that clinical practices that address parental perceptions of child body image with actual weight risk are necessary to reduce obesity disparities. This strategy is potentially of greatest benefit among parents of Latino preschoolers where rates of misperception of greater than those observed among African-American parents. Observed limitations related to the impact of provider commentary among Latino parents merit further exploration particularly among acculturated Latino parents.

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Figure 1.
Racial-Ethnic Differences In Parental Perceptions of At- Risk Preschooler's Body Size

Figure 2.
Association of Provider Commentary and Acculturation with Parental Misperception