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Comparing disordered eating and feeding practices in African American and Caucasian treatment-seeking youth with obesity

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Abstract

Objectives: Examine racial differences in disordered eating and parental feeding in youth with obesity.

Methods: A diverse sample of 131 treatment-seeking youth ($M_{age} = 12.84$ years; $Range_{age} = 8–18$ years; 65.6% African American, 34.4% Caucasian) with obesity ($M_{BMIz} = 2.60$) completed a disordered eating questionnaire; parents completed a questionnaire about feeding practices.

Results: No significant differences in disordered eating between African American and Caucasian youth emerged. Significant differences were found on parent feeding where parents of African American children endorsed more frequent use of pressure to eat, including ensuring and monitoring enough is eaten.

Conclusions: Generally, comparisons of disordered eating and parent feeding practices between African American and Caucasian youth with obesity were not significant. Racial differences on some aspects of parental feeding practices were found. Future research should identify cultural factors impacting these differences. Clinical implications include providing culturally sensitive psychoeducation and interventions to address unhealthy feeding practices in diverse families.

SPANISH ABSTRACT

Examinar las diferencias raciales en conductas alimentarias de riesgo y alimentación parental en jóvenes con obesidad.

Una muestra diversa de 121 jóvenes que buscan tratamiento ($M_{edad} = 12.84$ años; $Rango_{edad} = 8–18$ años; 65.6% Afroamericanos, 34.4% Caucásicos) con Obesidad ($M_{IMCz} = 2.60$) completaron un cuestionario de conductas alimentarias de riesgo; los padres completaron un cuestionario sobre prácticas alimentarias.

No emergieron diferencias significativas en las conductas alimentarias de riesgo entre jóvenes Afro Americanos y Caucásicos. Se encontraron diferencias significativas en las prácticas alimentarias de los padres, cuando los padres de niños Afro Americanos respaldaron el uso más frecuente de presión para comer, incluyendo el monitorear y asegurar que se come suficiente.

En general, la comparación de las conductas alimentarias de riesgo y las prácticas parentales de alimentación entre jóvenes Afro Americanos y Caucásicos con obesidad fueron no significativas. Se encontraron diferencias raciales en algunos aspectos de las prácticas de alimentación parental. Las futuras investigaciones deberán identificar factores culturales que impactan estas diferencias. Las implicaciones clínicas incluyen proporcionar psicoeducación culturalmente sensible e intervenciones para abordar las prácticas de alimentación poco saludables en diversas familias.

Keywords

Pediatric obesity; disordered eating; feeding practices; health disparities; racial differences

Keywords

Obesidad pediátrica; conductas alimentarias de riesgo; prácticas de alimentación; disparidades de salud; diferencias raciales

In the U.S. childhood obesity is a significant public health issue, with over 30% of children considered overweight (85th %ile BMI) and 17% considered obese (95th %ile BMI) (Ogden et al., 2016). Pediatric obesity negatively impacts children's physical health (Daniels, 2006) and puts children at risk for a number of psychosocial difficulties, such as peer victimization, weight-related teasing, and weight stigma (Puhl, 2011; Puhl & Luedicke, 2012; Puhl, Luedicke, & Heuer, 2011; Storch et al., 2007). There are significant health disparities related to pediatric obesity. Specifically, rates of obesity are higher in children who are non-Hispanic Black and Hispanic compared to children who are non-Hispanic White (Ogden, Carroll, Kit, & Flegal, 2014). Though there are likely numerous reasons for these health disparities, such as socio-economic status and prejudice, it is important to determine whether racial differences exist in child eating behaviors and parent feeding practices – particularly given that such differences could impact the prevalence of pediatric obesity in some populations.

Disordered eating attitudes and behaviors are relatively common in children and adolescents (Combs, Pearson, Zapolski, & Smith, 2013). Engagement in disordered eating attitudes and behaviors are more frequent in children who are overweight compared to their non-overweight peers (Tanofsky-Kraff et al., 2004). Rates of clinically significant disordered eating attitudes and behaviors in children with overweight and obesity are over 17% (Gowey, Lim, Clifford, & Janicke, 2014). In adolescents, rates of more severe eating disordered symptomatology, such as vomiting and using diet pills or laxatives, has been found to range from 6 to 18% in those with obesity (Neumark-Sztainer, Story, Hannan, Perry, & Irving, 2002). These rates of disordered eating attitudes and behaviors are concerning given they represent risk factors for impaired emotional functioning (Gowey et al., 2014), as well as future weight gain and the development of eating disorders (Neumark-Sztainer et al., 2006).

Therefore, investigation of disordered eating attitudes and behaviors has been recognized as an important avenue for pediatric obesity prevention and treatment (Loth, Wall, Larson, & Neumark-Sztainer, 2015).

Eating behaviors in general have been recognized as being influenced by sociocultural factors (Green et al., 2003), which has led to the examination of racial and ethnic differences in engagement of disordered eating attitudes and behaviors. Research with adults has demonstrated differences between Caucasian and African American women, where Caucasian women are more likely to engage in disordered eating and dieting behaviors (Akan & Grilo, 1995). In addition, population-based studies with adolescents have found that youth who are African American have fewer weight-related concerns, disordered eating attitudes, and engage in less disordered eating behaviors compared to adolescents who are Caucasian (Neumark-Sztainer, Croll, et al., 2002). However, this and similar studies have largely been conducted with adolescents who range in weight status (i.e., include non-overweight and overweight). In contrast, recent research examining racial differences in middle-school children with overweight has revealed some differences between Caucasian and African American youth. Specifically, 7.94% of African American girls and 14.86% of African American boys with overweight endorsed engaging in disordered eating behaviors to control weight (e.g., vomit, use laxatives, take diet pills without doctor's permission) compared to 2.97% of Caucasian girls and 2.56% of Caucasian boys with overweight (Rodgers et al., 2017). Though the differences were not statistically significant, likely as a result of the study's relatively small sample size, this is still an important distinction that has newly emerged in the literature. Unfortunately, there is a lack of research examining racial differences related to disordered eating attitudes and behaviors in diverse treatment-seeking pediatric obesity samples, which could be important to inform the development of sensitive and appropriate treatments to address obesity in racially diverse youth, who are disproportionately impacted by obesity and related medical co-morbidities.

Parents play a critical role in the development of eating habits and behaviors in children and are often targeted as change agents in pediatric weight management interventions (Janicke et al., 2014). Parental feeding practices are recognized as behaviors parents use to influence their child's eating (Shloim, Edelson, Martin, & Hetherington, 2015). Coercive feeding practices can diminish natural hunger-driven eating behaviors that children innately possess (Fox, Reidy, Karwe, & Ziegler, 2006). For example, specific parental feeding practices, such as excessive control, may result in children engaging in emotional eating (Farrow, Haycraft, & Blissett, 2015). A recent systematic review found strong evidence that restrictive parental feeding practices were more strongly linked to increased weight status in school-age children than other feeding practices reviewed (e.g., pressure, monitoring) (Shloim et al., 2015). However, this area of research is limited in that most previous research has included children who are non-overweight and overweight, with limited inclusion of parents of youth with obesity.

In addition, the role of parents in regards to feeding also changes during the course of child development. Parents have more control of the feeding environment when children are younger (Wake, Nicholson, Hardy, & Smith, 2007). However, when children become old enough to attend school they spend more meal times away from parents; for example, eating

breakfast and lunch while at school. This continues in adolescence when teens spend more time with friends or are involved in after school activities. However, parent feeding practices may still impact eating behaviors in older youth as eating habits are difficult to modify once established (Nicklaus, Boggio, Chabanet, & Issanchou, 2005). Moreover, the examination of racial differences in parental feeding practices is somewhat limited. Some findings indicate that African American parents may pressure children to eat more than Caucasian parents (Wehrly, Bonilla, Perez, & Liew, 2014). In addition, restrictive feeding practices are associated with increased weight status in racial minority youth but not for non-racial minority youth (Blissett & Bennett, 2013) and these differences may impact later risk for engaging in unhealthy weight management practices (e.g., extreme dieting or binge eating and purging). Some limitations in the existing literature examining racial differences in parental feeding practices are the primary focus on younger children, even though parent feeding practices can influence child eating behaviors and weight status throughout childhood, and lack of focus in treatment-seeking pediatric obesity populations.

Differences in disordered eating attitudes and behaviors and parental feeding practices could account for obesity-related health disparities due to associations with increased weight status. To date there is limited research examining racial differences in disordered eating attitudes and behaviors and parental feeding practices in youth with obesity. The purpose of this study was to examine differences in disordered eating attitudes and behaviors and parental feeding practices in African American and Caucasian youth in order to inform culturally sensitive and appropriate interventions for treatment-seeking youth with obesity. Given racial disparities in the prevalence rates of pediatric obesity, we hypothesized that African American youth would report significantly more disordered eating attitudes and behaviors compared to Caucasian youth and that African American parents would report engaging in significantly more problematic feeding behaviors compared to Caucasian parents.

Methods

Participants and Procedure

Participants included 131 youth 8–18 years of age who were obese (i.e., BMI at or above the 95th %ile based on age and gender norms) and attending a multidisciplinary pediatric obesity clinic with their parent or caregiver. Questionnaires utilized in this study were completed by youth and caregivers as part of a psychological evaluation conducted in the clinic. Patients in the clinic are referred for a psychological evaluation by the medical providers if there are suspected emotional or behavioral disorders and/or disordered eating behaviors. The psychological evaluation consists of a clinical interview with the clinic psychologist and the completion of child self-report and caregiver-report questionnaires. The questionnaires were completed independently by youth and caregivers, which took approximately 15 minutes to complete. Parents and youth provided consent and assent, respectively, for the psychological evaluation. The examination of clinical data for research purposes was approved by the governing institutional review board.

Measures

Disordered Eating Attitudes and Behaviors.—The Children's Eating Attitudes Test [ChEAT; (Maloney, McGuire, & Daniels, 1988)], was used to assess child-reported disordered eating attitudes and behaviors. The ChEAT is a 26-item questionnaire validated for youth, 8–18 years old. A composite score reflective of overall eating disorder risk, is used to determine clinically-significant risk (cut-off score >20). The ChEAT has demonstrated adequate reliability and validity in non-overweight youth (Maloney et al., 1988; Smolak & Levine, 1994) and overweight samples (Gowey et al., 2014). In the current sample, the ChEAT Total Score demonstrated acceptable internal consistency (Cronbach's α = 0.80). Subscales were calculated based on previous research examining the factor structure of the measure in youth with overweight and obesity (Ranzenhofer et al., 2008), which included Body/Weight Concern, Food Preoccupation, Dieting, and Eating Concern. Cronbach's α for these ChEAT subscales were as follows: Body/Weight Concern = 0.66, Food Preoccupation = 0.72, Dieting = 0.72, and Eating Concern = 0.25. Due to poor reliability Body/Weight Concern and Eating Concern subscales were not included in primary analyses.

Parental Feeding Practices.—Caregivers/parents completed the Child Feeding Questionnaire [CFQ; (Birch et al., 2001; Kaur et al., 2006)] to assess parental feeding practices. The CFQ was initially developed for parents of children 2 to 11 years of age (Birch et al., 2001) but was later modified for use with parents of adolescents (Kaur et al., 2006). Given the pediatric obesity clinic sees both children and adolescents the words “child or teen” were used throughout the measure to refer to youth, which is similar to changes made in prior research (Kaur et al., 2006). The CFQ completed by parents in this study consisted of six scales: perceived responsibility, monitoring, restricting, pressure to eat, concern, and perceived child weight status. The 28-items were answered using a 5-point likert scale, with higher scores indicating higher monitoring, restriction, responsibility, pressure to eat, concern, and increased child weight. Previous research has demonstrated Cronbach's α ranging from 0.60 to 0.88 for the subscales (Kaur et al., 2006). Cronbach's α for the subscales in this sample were 0.68 (Perceived Responsibility), 0.89 (Monitoring), 0.83 (Restricting), 0.66 (Pressure to Eat), 0.58 (Concern), and 0.89 (Perceived Child Weight). However, preliminary analyses revealed that removing one item from each of the Perceived Responsibility (i.e., item regarding responsibility for meals) and Pressure to Eat (i.e., item about youth eating all food on plate) subscales improved reliabilities, to 0.75 and 0.70, respectively. The revised subscales with these items removed were used in primary analyses. The Concern subscale was not included in primary analyses.

Weight Status.—Children's height and weight were measured using standard procedures by nursing staff within the multidisciplinary pediatric obesity clinic. Standardized body mass index (BMI) units (i.e., BMIz) based on Center for Disease Control and Prevention (CDC) age and gender-matched norms were calculated and used in the current analyses (Kuczmarski et al., 2000).

Demographics.—Parent/guardians reported demographic information for their child, including child age, race/ethnicity, and gender.

Data Analyses

Descriptive statistics, consisting of means, standard deviations, and percentages, were conducted to describe sample demographics and main variables of interest (e.g., ChEAT subscales and items, CFQ subscales and items). Tests of normality (e.g., skewness, kurtosis) were also conducted on the main variables of interest prior to analyses. Pearson-product bivariate correlational analyses were conducted between the variables of interest and potential covariates (child age, BMIz, dummy coded gender) with a modified Bonferroni correction applied. In effort to assess differences in disordered eating attitudes and behaviors, as well as parent-reported feeding practices between African American and Caucasian children, subscale-level group comparisons were conducted for select ChEAT and CFQ subscales, using two-tailed independent samples t-tests if covariates were not indicated or ANCOVAs if results of preliminary analyses revealed the need to include covariates. Missing data were considered missing at random. Mean substitution was applied for cases with less than twenty percent of data missing. Pairwise deletions were applied, leading to minor fluctuations in sample size across analyses. Statistical significance was set at $p < .05$. All statistical analyses were conducted using SPSS 24.0 for Windows (SPSS Inc., Chicago, IL, USA).

Results

Preliminary Analyses

The final sample consisted of 131 youth 8 to 18 years of age ($M_{age}=12.84$ years) who were obese ($M_{BMIz}=2.60$) and attending an outpatient multidisciplinary pediatric obesity medical clinic and their parent/caregiver. A little more than half of participating youth were female (51.9%, $n = 68$). In regards to race, 65.6% of youth were African American and 34.3% were Caucasian. In regards to disordered eating, the ChEAT Total mean score for the sample was 13.63 ($SD = 8.59$) and 19.1% of youth endorsed disordered eating above the established clinical cutoff (Smolak & Levine, 1994).

Tests of normality were all within normal limits on the main variables of interest (ChEAT and CFQ subscales), with the exception of the ChEAT Food Preoccupation. Square root transformations were applied to improve the distribution of the variables. The transformed variable was used in primary analyses but for ease of interpretation untransformed data are presented in Table 1. There were no significant bivariate correlations between child BMIz and variables of interest. When the modified Bonferroni correction was applied to account for multiple comparisons, significant correlations were found for child age and CFQ Perceived Responsibility, $r(131) = -.28$, $p = .001$, subscale, with older child age being associated with parents reporting less responsibility for their child's eating. In addition, gender was significantly associated with BMIz, $r(131) = -.28$, $p = .001$, with males ($M = 2.68$, $SD = .31$) having a significantly higher BMIz compared to females ($M = 2.50$, $SD = .26$). Therefore, ANCOVAs controlling for child age and gender were conducted to examine group differences between the variables of interest.

Racial Differences in Disordered Eating (ChEAT Subscales)

Primary analyses are presented in Table 1. ANCOVAs demonstrated no statistically significant group differences between African American and Caucasian youth on mean scores for the ChEAT Total and subscales examined while controlling for child age and gender ($ps > .05$).

Racial Differences in Parental Feeding Practices (CFQ Subscales)

ANCOVAs examining group differences on the CFQ subscales revealed no significant differences on the CFQ Monitoring or Restriction subscales with child age and gender entered as covariates ($ps > .05$). Significant differences were found on the CFQ Pressure to Eat subscale, $F(1,130) = 9.57, p = .002$, where African American parents ($M = 7.37, SD = 3.08$) reported significantly greater use of pressure to eat with their children than Caucasian parents ($M = 5.64, SD = 2.73$). In addition, the ANCOVA for the CFQ Perceived Responsibility subscale was trending towards significance, $F(1, 130) = 3.87, p = .051$, with African American parents ($M = 7.98, SD = 1.62$) reporting more perceived responsibility compared to Caucasian parents ($M = 7.35, SD = 1.59$).

Exploratory Racial Differences in Specific Parental Feeding Practices (CFQ Items). To further examine specific parental feeding practices that may differ between African American and Caucasian parents, independent samples t-tests were conducted with the CFQ items that comprised the Pressure to Eat and Perceived Responsibility subscales (See Table 1), given that group differences on these subscales were significant or trending towards significance. On the CFQ Pressure to Eat subscale parents of African American children endorsed needing to be careful their child eats enough ($M = 3.05, SD = 1.40$) compared to parents of Caucasian children ($M = 2.14, SD = 1.46$), as evidenced by statistically different scores on item 17, $t(129) = 3.46, p < .001$. Results also demonstrated a significant difference on item 19 – “If I did not guide or regulate my child or teen’s eating, he/she would eat much less than he/she should,” $t(129) = 2.36, p = .020$, such that parents of African American children endorsed greater agreement with this statement ($M = 1.89, SD = 1.17$) than parents of Caucasian children ($M = 1.43, SD = .80$). On the Perceived Responsibility subscale of the CFQ, significant group differences were found on item 3, $t(129) = 2.07, p = .041$, with parents of African American children reporting being more responsible for ensuring their child eats the right kind of foods ($M = 4.13, SD = .84$) compared to parents of Caucasian children ($M = 3.83, SD = .75$). Parent ratings also somewhat differed on item 2 – “How often are you responsible for deciding what your child or teen’s portion sizes are?”, $t(129) = 1.76, p = .081$, such that parents of African American children endorsed greater responsibility ($M = 3.85, SD = .99$) than parents of Caucasian children ($M = 3.53, SD = 1.00$); however, this was trending towards the $p < .05$ significance level.

Discussion

Pediatric obesity is a major public health concern in the United States, with significant racial and ethnic disparities (Ogden et al., 2016). Elevated rates of obesity in African American youth could be explained by differences in disordered eating and parental feeding practices across racial groups, given past research demonstrating racial differences in disordered

eating attitudes and behaviors and parental feeding strategies (e.g., Blissett & Bennett, 2013; Neumark-Sztainer et al., 2002; Wehrly et al., 2014). Increased understanding of individual difference factors (e.g., race/ethnicity) that influence eating and feeding behavior in youth struggling with obesity may inform culturally sensitive and appropriate prevention and intervention efforts. Thus, the current study examined group differences in disordered eating attitudes and behaviors and parental feeding practices in a sample of treatment-seeking African American and Caucasian youth with obesity.

Contrary to hypotheses, results showed no significant racial differences on disordered eating attitudes and behaviors. This finding is somewhat inconsistent with prior research in adults (Akan & Grilo, 1995) and with youth (Neumark-Sztainer, Croll, et al., 2002) that have demonstrated those from Caucasian backgrounds report more disordered eating attitudes and behaviors. Overall, Caucasian youth in our sample endorsed more disordered eating attitudes and behaviors but significant differences were not found on the ChEAT subscales. However, our results are somewhat similar to Rodgers and colleagues who did not find statistically significant differences in disordered eating behaviors between African American and Caucasian youth with overweight (Rodgers et al., 2017). Yet, in their study African American youth endorsed more engagement in disordered eating behaviors to manage weight. Our lack of racial differences regarding disordered eating attitudes and behaviors could be explained by our sample including only treatment-seeking youth with obesity who were referred for a psychological evaluation. Our sample of treatment-seeking youth endorsed similar overall scores on the ChEAT compared to other samples of youth with overweight (Gowey et al., 2014) but lower compared to samples of non-overweight youth (Smolak & Levine, 1994). However, youth in the current study endorsed dieting-specific behaviors and attitudes more frequently than other types of disordered eating assessed by the ChEAT, which could be due to receiving obesity related medical treatment in a multidisciplinary outpatient clinic. Another possible explanation for the lack of differences in disordered eating attitudes and behaviors is the unequal distribution of African American and Caucasian youth who participated in this study, which may have impacted our ability to detect group differences. Given that disordered eating attitudes and behaviors are associated with increased symptoms of disordered eating and weight gain, more research examining possible racial differences in larger and more diverse samples, as well as across periods of child development, is needed to confirm our findings.

Analyses for parental feeding practices demonstrated significant differences on some aspects of parental feeding attitudes and behaviors. Specifically, African American parents endorsed more attempts to pressure their child to eat compared to Caucasian parents. Item-specific differences were found for African American parents endorsing being careful to make sure their child ate enough more often than Caucasian parents. In addition, parents of African American youth also endorsed needing to monitor what their child eats or their child may eat less than they should. The feeding practices that evidenced racial differences in this study are largely externally-driven feeding practices, which may impact children's internally-driven eating behaviors (e.g., hunger) and may lead to engagement in more loss of control eating and emotional eating (Braden et al., 2014).

Although the current study did not specifically assess emotional eating or other binge eating characteristics, emotional eating has been identified as a key correlate of binge eating characteristics, including eating in the absence of hunger and loss of control eating in overweight youth (Goossens, Braet, Van Vlierberghe, & Mels, 2009). Given that emotional eating and loss of control eating behaviors may contribute to excess caloric intake and weight gain over time (Neumark-Sztainer et al., 2006), additional research is needed to better understand how particular parental feeding practices relate to increased risk for eating pathology in treatment-seeking youth with obesity. Moreover, given preliminary evidence from this study of racial differences in some aspects of feeding practices, additional investigation of race-specific associations between parental feeding practices and eating pathology in children with obesity seems warranted.

The finding that parents of African American youth endorsed more use of pressure to eat than parents of Caucasian youth may be explained by the importance of food, specifically “soul food” (Poe, 1999) and a greater acceptance of larger body sizes in African American communities (Freedman, Carter, Sbrocco, & Gray, 2004). The finding of African American parents believing they should make sure their child eats enough could be explained by the belief that having a body size that is more “full” or “curvy” is desirable. For example, Freedman et al. (2004) found that compared to Caucasian men, African American men preferred women who were more “curvaceous,” based on selecting those with a lower waist-to-hip ratio. Furthermore, Freedman and colleagues found that African American men disliked women who weighed less, more often than Caucasian men. They attributed these findings to potentially serving as protective factors for the development of eating disorders in African American women. This hypothesis is in part supported by data in this study in that African American parents perceived their child’s weight to be lower than Caucasian parents despite African American youth having a higher weight status (African American $M_{BMIz} = 2.62$, Caucasian $M_{BMIz} = 2.54$). In addition, past research has demonstrated that even though African American girls had the highest rate of obesity they also endorsed the highest body satisfaction compared to other ethnic groups (Neumark-Sztainer, Croll, et al., 2002). An additional study showed that in a sample of African American women who were overweight, 40% considered their body attractive (Kumanyika, Wilson, & Guilford-Davenport, 1993). Taken together, these findings may suggest that feeding practices could be impacted if parents and children hold a heavier ideal body weight or larger ideal body shape than the often-studied “thin ideal” (Thompson & Stice, 2001). However, parental endorsement of some feeding practices could also be impacted by food insecurity and socio-economic status, which have also been found to be associated with increased weight status (Kaur, Lamb, & Ogden, 2015). Further research is necessary to support these speculations and to investigate other possible explanations for racial differences in specific parental feeding practices in children with obesity.

One strength of this study is that it includes a diverse sample of participants, which past research focused on disordered eating and parental feeding styles have not frequently included (Gowey, Stromberg, Lim, & Janicke, 2017; Shloim et al., 2015). Further, results from this study add to the literature on obesity among African American youth, which is a major health concern in this population (Ogden et al., 2014). Though few racial differences were found in this study, results highlight the importance of considering racial and cultural

factors impacting eating and feeding behaviors, which has been encouraged due to the long-term impact that feeding and eating problems may have on children's health and development (Shloim et al., 2015).

Limitations of the study include the relatively small sample size and unequal sizes of the racial groups. In addition, some subscales from the measures used to examine disordered eating attitudes and behaviors and parental feeding practices demonstrated low reliability in the current sample; thus, items were taken out of the subscales to improve internal consistency or the subscales were not included in primary analyses. Researchers should consider further examining the factor structures of these measures in diverse and treatment-seeking samples in order to revise the current measures or develop new measures to assess problematic eating behaviors and feeding practices more applicable to diverse populations with obesity and who are receiving weight management treatment. An additional consideration would also be to examine the cultural validity of eating and feeding measures to determine whether they incorporate aspects of eating and feeding that may be impacted by cultural practices and beliefs. Our study is also limited in that we controlled for child age to account for possible developmental differences in our constructs of interest. Future research should also examine aspects of development (e.g., cognitive, emotional, social, etc.) and how they may interact to impact engagement in disordered eating behavior in youth and use of feeding practices by caregivers. Last, at the time of assessment, all participants were living in the Southern region of the U.S., which is disproportionately impacted by the obesity epidemic and has a distinctive eating culture (Smith et al., 2006). Thus, these findings may not generalize to children in other regions of the country. Future research using larger sample sizes, additional racial/ethnic groups, inclusion of developmental differences, and conducted in multiple regions of the country are merited.

Clinical implications of the study include the need to provide education regarding healthy feeding behaviors to African American families. Providing programs about healthy eating and feeding practices at churches may be an effective venue, as religious institutions play an important role in African American families and communities (Pew Research Center, 2009). As previous studies have demonstrated that African Americans have a higher rate of obesity, but also had the highest rate of body satisfaction (Neumark-Sztainer, Croll, et al., 2002), it is important to provide psychoeducation about feeding practices while also integrating cultural norms specific to African Americans (e.g., focus on being healthy as opposed to ideal body shape or size of other cultural groups). Health providers may also benefit from receiving education and trainings focused on cultural norms for specific ethnic groups to find ways to balance patients' health needs and cultural beliefs about eating attitudes and feeding. Engaging members of the African American community, through community advisory groups or integration of qualitative research designs methods, would be key to assist with the development of obesity prevention and intervention programs that are culturally informed and sensitive treatments to cultural factors that may influence eating and feeding practices in youth and families.

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Clinical Implications

- Examined disordered eating and feeding practices in diverse youth with obesity.
- No differences in disordered eating between African American and Caucasian youth.
- African American parents more likely to use pressure to eat than Caucasian parents.
- Need for interventions to address unhealthy feeding practices in diverse families.

Table 1.
Comparing Disordered Eating and Parental Feeding in African American and Caucasian Treatment-Seeking Youth with Obesity

Disordered Eating (ChEAT Subscales)	African American (n = 86)			Caucasian (n = 45)		
	M	SD		M	SD	p
ChEAT Total	13.54	8.51		13.80	8.83	.02
ChEAT Dieting	2.94	3.10		3.18	3.37	.13
ChEAT Food Pre-Occupation	1.01	1.59		1.42	2.39	.30
						.583
Parent Feeding (CFQ Subscales)	M	SD		M	SD	p
CFQ Perceived Responsibility ^a	7.98	1.62		7.35	1.59	3.87
CFQ Monitoring	15.37	3.27		15.13	2.84	.06
CFQ Restriction	29.51	6.12		28.72	5.69	.24
CFQ Pressure to Eat ^b	7.37	3.08		5.64	2.73	9.57
CFQ Perceived Child Weight Status	25.78	3.70		26.02	3.86	.31
						.578
CFQ Perceived Responsibility Subscale Items	M	SD		M	SD	t-test
Item 2 – portion size responsibility	3.85	.99		3.53	1.00	1.76
Item 3 – healthy foods responsibility	4.13	0.84		3.83	.75	2.07
						.081 [†]
						.041 [*]
CFQ Pressure to Eat Subscale Items	M	SD		M	SD	t-test
Item 17 – need to be careful child eats enough	3.05	1.40		2.14	1.46	3.46
Item 18 – make eat when child says “not hungry”	2.43	1.36		2.06	1.18	1.54
Item 19 – need to monitor or child eat less than should	1.89	1.17		1.43	.80	2.36
						.001 ^{***}
						.125
						.020 [*]

Notes: ChEAT = Children's Eating Attitudes Test; CFQ = Child Feeding Questionnaire; ANCOVAs examining group differences on the ChEAT and CFQ subscales included child age and gender as covariates.

[†] $p < .10$

^{*} $p < .05$

^{**} $p < .01$.

^a One item was removed from the CFQ Perceived Responsibility subscale (Item 1 – meals responsibility) to improve internal consistency. The values presented are from the revised subscale.

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One item was removed from the CFQ Pressure to Eat subscale (Item 16 – need to eat all food on plate) to improve internal consistency. The values presented are from the revised subscale.
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