Cultural Issues in Eating Pathology and Body Image Among Children and Adolescents

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Eating pathology and body image issues are now recognized as affecting all racial and ethnic groups. This article reviews eating pathology and body image concerns in four diverse groups in the U.S. (African Americans, Latino/as, Asians, and Native Americans). The major conclusion based on this review is that eating disturbances and body dissatisfaction occur to some degree in children and adolescents from all four major ethnic groups in the U.S; however, there is substantial variability across studies. Future directions include the need for studies of prevalence, prevention and treatment research, and investigations of neurobiological and genetic variables.

Key words adolescents; children; culture; diversity; eating disorders.

Introduction

The occurrence of eating disorders (EDs), body dissatisfaction, and problematic eating behaviors in youth is alarmingly high (McDermott & Jaffa, 2005). Eating concerns are now recognized as affecting all racial and ethnic groups (Franko, Becker, Thomas, & Herzog, 2007; Ruiz, Pepper, & Wilfley, 2004) and examining ethnic diversity is important for several reasons. The frequency of eating issues and body dissatisfaction differs across ethnic groups, both in the recognition of these problems and access to care (Becker, Franko, Speck, & Herzog, 2003). Moreover, risk factors for these problems may vary due to social, cultural, and economic factors (Field et al., 2008; Rubin, Gluck, Knoll, Lorence, & Geliebter, 2008) and few culturally relevant treatments exist (Lester, 2007). This article reviews eating pathology and body image in four diverse groups in the U.S., including African Americans (AA), Latino/as, Asians, and Native Americans (NA).

Health Disparities in Eating Pathology

Why might we expect that there would be differences in the prevalence, and potentially the presentation, of eating pathology across diverse groups, and why is this important to study?

The study of health disparities, defined as observed, statistically significant differences in health status, health outcomes, or health care provision between less-vulnerable groups and vulnerable ones, such as ethnic/racial minorities, is a high priority for the U.S. (Kilbourne, Switzer, Hyman, Crowley-Matoka, & Fine, 2006). According to Kilbourne et al. (2006), in order to eliminate health disparities, they must first be *detected* and *understood*. *Detection* involves defining the health disparity, defining the vulnerable population, and measuring the disparity. *Understanding* involves the examination of various social, psychological, and biological processes—as well as methodological issues such as selection bias—that might account for observed statistically significant differences (Alegria et al., 2004).

Health disparities in obesity have been well documented (Hedley, Ogden, Johnson, Carroll, Curtin, & Flegal, 2004) and the highest rates of obesity occur in ethnic minority children and adolescents (Ogden, Flegal, Carroll, & Johnson, 2002), particularly those of lower socioeconomic status (SES). Interestingly, relatively little attention has been paid to potential ethnic and racial disparities in eating pathology in children and adolescents, even though the intersection between obesity and EDs has been well-articulated (Neumark-Sztainer, 2009; Shaw, Stice, & Becker, 2009). Both arise from the interplay of genetics and environmental factors, have direct ties to

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Journal of Pediatric Psychology 35(3) pp. 231–242, 2010
doi:10.1093/jpepsy/jsp064
Advance Access publication August 24, 2009

social and cultural influences, and involve behaviors of eating and activity. Thus, we might expect that the influences that play a role in the development of obesity would be important to consider in the understanding of EDs. EDs are known to be related to the cultural mores of the majority which extols the virtues of thinness while vilifying bodies that do not conform to the thin ideal (Nasser, Katzman, & Gordon, 2001). Yet many individuals from ethnic minority backgrounds, notably AA and Hispanic cultures, celebrate a larger body ideal, often have higher body weight, and may be influenced by cultural and socioeconomic factors related to eating behaviors and physical activity (Nasser et al., 2001). The clashes between majority values around thinness and issues specific to minority groups may put youth who grow up in the majority culture, but live in a minority family, at risk for the development of various forms of eating pathology and body dissatisfaction. Understanding potential ethnic differences in prevalence rates and symptom presentations has important implications for the development of culturally-relevant prevention and treatment programs.

Culture as a Variable

It is important to note that culture is neither a monolithic nor a discrete variable, but instead one that is highly nuanced. The terms ''Latino/a,'' ''Asian,'' and ''African American'' cover groups that can differ widely in linguistic, historical and generational backgrounds. Recently, Taylor, Caldwell, Baser, Faison, and Jackson (2007) documented this variability in a study that compared Caribbean Black Americans to AAs and found differences in the prevalence of all ED types. The identification of variables that carry the influences (both risk and protective) of culture on EDs are yet to be determined, though postulated variables include the influence of popular culture, familial factors, SES, acculturation, and the intersection between these variables with ethnic group-specific cultural values and beliefs.

Influence of Popular Culture and Familial Context on Eating Behaviors

Although ethnicity-specific cultural issues likely influence the development of eating pathology, it is likely that the media and popular culture, as well as the more proximal familial context, also play important roles. On one hand, children and adolescents are repeatedly exposed to messages that ''fat is bad and thin is good'' (Kappos, 2007; Strasburger, 2006), while at the same time they are bombarded with high calorie foods, ''kid-friendly'' fast food restaurants, and video/computer games (Miller, Taveras, Rifas-Shiman, & Gillman, 2008; O'Donnell, Hoerr, Mendoza, & Tsuei Goh, 2008). The interplay between the environmental factors that increase risk for obesity and the contrasting messages that being overweight is to be avoided at all costs conspire to make overweight and EDs (and the related body dissatisfaction and problematic eating behaviors) significant issues for youth. The societal directive to ''not be fat'' may in fact increase the potential for body dissatisfaction, dieting, use of extreme weight loss behaviors, and potentially, clinical EDs such as anorexia nervosa (AN) and bulimia nervosa (BN) (Neumark-Sztainer, 2009). However, the degree to which such directives interact with ethnic group values to heighten the risk for EDs is an area yet to be explored.

Familial influences on the development of disordered eating and distorted body image have been recognized (Brown, Schreiber, McMahon, Crawford, & Ghee, 1995). Family connections, positive family communication, parental supervision/monitoring, and maternal presence have been found to be protective factors against unhealthy eating behaviors (Fonseca, Ireland, & Resnick, 2002), while family dysfunction has been associated with psychological and behavioral traits common in AN and BN (Rodriguez Martin, Novalbos Ruiz, Martinez Nieto, Escobar Jimenez, & Catro De Haro, 2004). The only study published to date looking specifically at familial relations in ethnic minority families in which the adolescent had an ED (BN) found no differences between White and ethnic minority patients' or parents' perceived and ideal levels of family cohesion, adaptability or level of satisfaction with family functioning, (Hoste, Hewell, & le Grange, 2007). Future research is needed to better understand the role of the family in the development of eating concerns in ethnic minority youth.

Interactions Between Culture and Other Variables

Potentially complex interactions between culture and other important variables in the development of eating disturbances have been investigated, although only with adult samples. Social class, SES, and education level have been found to exercise greater influence on variability *within* cultural groups than exists *across* cultural groups (Farmer & Ferraro, 2005). As an example, an epidemiological study of AA and White women found that recurrent binge eaters were more likely than non-binge-eaters to be in the lowest category of educational attainment and less likely to be college graduates in *both* ethnic groups (Striegel-Moore, Wilfley, Pike, Dohm, & Fairburn, 2000). In a second study, binge eating disorder (BED) was associated with lower educational attainment in a national study of Latinos (Alegria et al., 2007). Despite this evidence, the relationship with SES may be mediated by

a number of additional variables, suggesting even greater complexity in the interaction of potential etiological variables in the development of eating disturbances in diverse groups. For example, financial strain (e.g., ''difficulty paying for basics'') was associated with ED symptoms in a multi-ethnic community sample of women but more traditional measures of SES (e.g., education) were not. However, when body mass index (BMI), current and past depression, and childhood abuse were covaried, financial strain was no longer significant (Marcus, Bromberger, Wei, Brown, & Kravitz, 2007). In this context, our thinking about the development of EDs in diverse ethnic and racial groups in the U.S. may need to be broadened to include larger social and economic issues.

Furthermore, international research has identified that the conflicts experienced when women are asked to juggle two cultural worlds, that of their ethnic culture and the popular mainstream culture (i.e., cultural intersection), can result in the development of eating pathology (Dolan, 1991; Katzman, 1993; Katzman & Lee, 1997). For example, a Latina woman who receives the message from her family to celebrate a curvy figure and eat traditional foods in abundance, but is also attuned to the popular cultural media messages that thin is desirable, may struggle with issues of eating, weight, and shape concerns in an attempt to both please her family and respond to idealized beauty standards of the mainstream culture. In a study of Curacao women that utilized quantitative and qualitative methods, women who developed AN: (a) had been exposed to different cultures off of the island; (b) were part of a rarified community while on the island; and (c) described themselves as *different* from the norm (Katzman, Hermans, van Hoeken, & Hoek, 2004). Based on this study, Katzman et al. (2004) encouraged a conceptualization of EDs as an instrument in achieving self-determination, self-expression, and control when confronted with ambivalent and sometimes conflictual cultural demands. Katzman (1993) promotes shifting our understanding of the development of EDs to thinking about them as problems of disconnection (using eating as a coping method when living between two cultures), transition (attempting to move between two worlds), and oppression (efforts to adapt to a new or popular culture resulting in an attempt to perfect the physical self as a method of coping with prejudices and isolation), rather than disorders of dieting, weight, and fear of fat.

Examinations of the intersections of culture with other related variables raises additional research questions. How might mainstream cultural values, acculturation, and SES interact with race and ethnicity to determine eating pathology risk or resilience? Are different racial and ethnic groups more or less susceptible to the media or familial influences, which in turn might influence whether eating pathology or body image disturbances develop? Viewing the factors that protect and increase risk for EDs as complex and interactional will likely result in increased identification and understanding of EDs and fruitful culturally-sensitive prevention and intervention strategies for use with diverse groups.

In our review, we begin by defining terms and follow with an examination of the available data in each of the four diverse groups. Of note, little information about the actual prevalence of clinical EDs among children and adolescents is available (Nicholls & Bryant-Waugh, 2009) and therefore it is difficult to document differences in the frequency of ED diagnosis by race/ethnicity. As a result, we have focused this review on body image, body dissatisfaction, and problematic eating behaviors. Finally, we conclude with a discussion of areas for future direction, which include prevalence studies and investigations of prevention, treatment, and neurobiological variables.

Relevant Definitions

Anorexia nervosa (AN), bulimia nervosa (BN), and ED not otherwise specified (EDNOS), are the EDs classified in the *Diagnostic and Statistical Manual of Mental Disorders-IV-Text Revision (DSM-IV-TR)* (American Psychiatric Association, 2000). AN and BN occur in 1–5% of adolescents and adults and represent difficult to treat and sometimes life-threatening forms of psychopathology. Prevalence estimates of these disorders in children are currently not known; however, recent efforts to examine the diagnostic criteria for children and adolescents will likely lead to prevalence studies (Bravender et al., 2007). AN is characterized by refusal to maintain a normal weight, misperception of size, and amenorrhea, whereas BN is defined by episodes of binge eating followed by various forms of compensatory behaviors. In both AN and BN, self-evaluation is greatly influenced by the individual's perception of weight and shape.

Individuals with disordered eating behaviors that resemble AN or BN, but whose eating behaviors do not meet the full diagnostic criteria, may be diagnosed with EDNOS. For example, individuals who meet all the other criteria for AN but continue to menstruate or individuals who purge but do not binge eat may both be diagnosed with EDNOS. The *DSM-IV-TR* includes Binge Eating Disorder (BED) in the EDNOS category. BED describes individuals who binge eat but do not regularly use inappropriate compensatory weight control behaviors, such as fasting or purging to lose weight. Binge eating may involve the rapid consumption of food with a loss

of sense of control, uncomfortable fullness after eating, and eating large amounts of food when not hungry. BED is the ED that occurs with highest frequency in samples of ethnically diverse adults, though it is not recognized as a distinct diagnosis in the *DSM-IV-TR* (Striegel-Moore & Franko, 2008).

Body image, body dissatisfaction, eating disturbances, and disordered eating are defined in a number of ways. Simply put, body image is the perception of one's body shape and size (Cash, 1991). Body dissatisfaction is the difference between that perception and one's preferred body shape and size. The larger the discrepancy between one's perception and preference, the greater one's body dissatisfaction. Eating disturbances and disordered eating behaviors refer to a variety of problematic eating and activity behaviors, including extreme dieting, binge eating, vomiting or laxative use, diet pill use, fasting, and excessive exercise, each of which has been linked to the development of EDs (Jacobi, Hayward, de Zwaan, Kraemer, & Agras, 2004).

We will now review what is currently known about body image and problematic eating behaviors (often a precursor to EDs) in AA, Latino(a), Asian, and NA youth. Although AN and BN likely only affect a small number of children and adolescents, problematic eating behaviors and body dissatisfaction are quite common in diverse groups (Neumark-Sztainer, Eisenberg, Fulkerson, Story, & Larson, 2008). As a result we hope to illuminate potential issues to be considered when designing culturally relevant treatment and prevention programs, noting that there is great variability both within and between these groups.

Body Image and Disturbed Eating Among African American Youth

Overall, studies of body dissatisfaction and eating disturbances indicate that AA girls prefer a larger body size and have less propensity to endorse a thin-body ideal (Ruiz et al., 2004) when compared with other groups. In a meta-analysis, Roberts, Cash, Feingold, and Johnson (2006) reported that differences in body dissatisfaction were consistently found between AAs and White samples across various age groups ($d = 0.28$, 95% CI = 0.25, 0.32; samples ranging from age 8 to age 43), with the most pronounced contrast during the college years. In addition, AA girls tend to choose a larger figure as ideal and are less likely to view themselves as overweight, even with a higher BMI, relative to other groups (Flynn & Fitzgibbon, 1998). Moreover, in comparison to White adolescent girls, AA adolescents have higher self-esteem, even when at higher weight (Biro, Striegel-Moore, Franko, Padgett, & Bean, 2006). Grabe and Hyde (2006), in a meta-analysis of 98 studies with 222 effect sizes, found that AA women scored lower on body dissatisfaction as compared to White women ($d = 0.29$, 95% CI = .23/.35, $p < .05$). Thus, the majority of published studies indicate that AA girls and young women tend to have higher body ideals and generally less body dissatisfaction, at least in relation to comparisons with White girls (Franko & Striegel-Moore, 2002).

AA mothers have been found to convey their positive weight-related attitudes to their daughters (Brown et al., 1995), who may in turn share these views with their peers. Parker, Nichter, Vuckovic, Sims, and Ritenbaugh (1995) concluded that rather than using thinness as a standard for beauty, AA girls emphasized appreciating their bodies and described themselves as being very supportive of each other in regard to body size and physical characteristics. This suggests that in general AA girls take pride in their bodies in a manner that sets them apart from other ethnic groups, which may in turn be protective against the development of clinical EDs, particularly AN, which is rarely found in AA women (Striegel-Moore et al., 2003).

Although some EDs are less likely to develop in AAs than other groups, problematic eating behaviors do occur in this group and in fact, binge eating is relatively frequent, particularly in AA boys. Johnson, Rohan, and Kirk (2002) reported that binge eating prevalence was highest among AA boys relative to the other demographic groups, with 26% of AA boys, 17% of AA girls, 19% of White boys, and 18% of White girls reporting binge eating. In a large study of 3rd grade students, Robinson, Chang, Haydel, and Killen (2001) found that AA and Latina girls manifested equivalent or higher levels of disordered eating attitudes and behaviors as White and Asian American girls. And, in a study of suburban female high school athletes of various sports conducted during their competitive season, Pernick et al. (2006) reported the prevalence for disordered eating to be 19.2%, 18.4%, and 23.3% for AAs, Caucasians, and Latinas, respectively. A meta-analysis conducted by O'Neill (2003) concluded that differences between AA and White girls and women may manifest for certain eating symptom types, such as drive for thinness, but not for others, such as BN and binge eating. O'Neill found that AA women who demonstrated a drive for thinness had significantly lower rates of eating disturbances than White women with the same drive for thinness (Hedges' $d = -.1650$, 95% CI = –.22/–.11, $r = -.08$, $p < .001$[1]). AA women were not significantly

[1]A negative effect size indicates that the White female group had a higher level of eating disturbances than the AA female group.

different in the rates of BN (Hedges' $d = -.0150$, 95% CI = −.07/+.04, $r = -.01$, $p = .56$) or BED (Hedges' $d = +.0151$, 95% CI = −.04/+.05, $r = +.002$, $p < .86$).

Although data suggest that AA groups tend to embrace a larger body ideal and restrictive dieting is not a common behavior, research on children and adolescents indicate that other types of eating pathology, particularly binge eating, do occur with some frequency in this group, particularly in AA boys.

Body Image and Disturbed Eating Among Latino/a Youth

Early studies reported comparable rates of binge eating (Lachenmeyer & Muni-Brander, 1988; Smith & Krejci, 1991), body dissatisfaction (Smith & Krejci, 1991), and weight concerns (Snow & Harris, 1989) between Latina girls and White girls. For example, binge eating among Hispanic youth (13.1%) was comparable to White adolescent girls (10.1%) in a study conducted in the southwest (Smith & Krejci, 1991). In two studies by Gardner, Friedman, and Jackson (1999a, 1999b) that compared perceived and ideal body sizes, no differences between White and Latino children (ages 6–13) were found.

Work by Granillo, Jones-Rodriguez, and Carvajal (2005) illustrates some of the specific areas of concern in Latina adolescents. Employing data from the National Adolescent Health Study (Add Health) to estimate the occurrence of EDs and body image disturbance in a sample of Latina adolescents (e.g., Mexican-American, Cuban-Americans, Puerto Ricans, and mixed Latina groups), they found that 2.5% reported a BMI of 17 or less, 5.5% had stopped menarche, 53.3% reported current dieting, and 1.9% had bulimic symptomatology. Relative to the non-Latina Add Health participants, Latinas were less likely to be of low weight, had higher dietary restraint, and were similar in rates of amenorrhea and bulimic symptomatology. In response to the question ''How do you think of yourself in terms of weight?'' 43.5% reported feeling overweight, and these participants were more likely to be dieting and to exhibit bulimic symptoms. However, it should be noted that this question is not a typical measure of body dissatisfaction and is also potentially problematic because the response ''overweight'' may in fact be an accurate estimate of body weight rather than a measure of body image concerns.

Acculturation is an issue that has been studied in this group, with mixed results. Although Granillo et al. (2005) did not find an association between acculturation level (as measured by primary language and generational status) and ED symptoms, they did report an association between symptoms and parental education, suggesting that social class is a factor meriting future research. Conversely, Nieri, Kulis, Keith, and Hurdle (2005) found that less acculturated Latina/o girls and boys in the Southwest reported poorer body image than their more acculturated counterparts. The less acculturated Latino boys reported the highest levels of dissatisfaction with their looks. Nieri et al. (2005) concluded that their findings may reflect feelings of being ''in between'' two cultures and, therefore, an outsider to both groups. Thus, poor body image among some Latinos may result less from adoption of American thinness ideals, but rather from attitudes and behaviors that devalue the characteristics of Latino appearance. Although the studies are relatively few in number, it does appear that this is a group at risk and research that examines etiological factors, as well as treatments, should be a priority.

Body Image and Disturbed Eating Among Asian Youth

The findings in studies with Asian youth are mixed, with some reporting high rates of body dissatisfaction, and others finding lower levels, relative to other groups. For example, among the leanest 25% of a sample of over 900 6th and 7th graders, Asian girls described more body dissatisfaction than White girls (Robinson et al., 1996). However, among U.S. high school students, Asian adolescents reported the lowest rates of abnormal eating and weight control (Forman-Hoffman, 2004). Bisaga and colleagues (Bisaga et al., 2005) found that rates of ED symptoms in Asian girls fell in between Hispanic and non-Hispanic White girls. Some studies of Asian adolescents and adults have found that that the ''fear of fat,'' so common in majority cultures in cases of AN, is not always present in this group, suggesting that symptom presentation at least for this ED symptom may be different in Asian women than in other groups (Lee, Chan, & Hsu, 2003). Interestingly, Asian American boys (as well as AA boys), were found to be at greater risk for potentially harmful weight-related concerns/behaviors than White boys in a large-scale epidemiological study (Project Eating Among Teens; Neumark-Sztainer et al., 2002), suggesting there may be gender differences within Asian youth in regard to body image and eating disturbances. Overall, the very small number of studies of Asian youth precludes drawing any conclusions at this time, and clearly more research is needed to better understand the prevalence of and risk for eating concerns in this group.

Body Image and Disturbed Eating Among Native American Youth

Among NA youth, more attention has been paid to obesity than to body image and disordered eating

(Story et al., 2003). That said, a number of studies have been published. In one study of 155 NA youth (ages 5–18) living in an urban setting, younger NA children selected thinner ideal body figures than adolescents, and overweight NA youth chose ideal figures similar to those of normal-weight youth (Rinderknecht & Smith, 2002). Just over 40% of the boys and 61% of the girls expressed a desire to be thinner and those with the highest dissatisfaction were the girls who were overweight.

In contrast, Story, French, Resnick, and Blum (1995) in a study of 7–12th graders reported that AA and NA females were more likely to be satisfied with their body than White or Hispanic students. A larger study by Story and colleagues (Story et al., 2001) with 1,441 2nd and 3rd graders from seven tribes living in the Southwest found that 42% of the children were overweight or obese, and these children were more likely than normal weight children to have tried to lose weight or were currently trying to lose weight. Consistent with these findings, Croll, Neumark-Sztainer, Story, and Ireland (2002) found that NA youth (and Hispanic youth) reported the highest prevalence of disordered eating in a large study of 9th and 12th graders. Native ethnicity was associated with significantly higher dieting and restricting/purging scores, relative to White girls 10- to 18-years old (mean = 14.2 years), and both Native ethnicity and low BMI were associated with higher restricting/purging scores and social pressure/oral control scores on the Eating Attitudes Test (Lynch, Eppers, & Sherrodd, 2004). A larger study of 2,558 5–10th graders indicated that among the sample of White (59.4%), NA (26.8%), and other minority groups (6.5%), the NA group had the highest BMI (Lynch, Heil, Wagner, & Havens, 2007). BMI was correlated with purging behaviors among NA boys, who reported the highest scores on a measure of weight control efforts. Interestingly, more than twice as many NA girls, relative to the other groups, reported wanting a *larger* body size, a finding that contrasts with the results found in a small sample of NA youth (Rinderknecht & Smith, 2002).

In summary, the literature is mixed regarding the degree of body dissatisfaction and disturbed eating behaviors in NA youth; however, studies converge in the finding that NAs engage in problematic eating behaviors, have high rates of overweight, and may begin to have difficulties at a very young age.

Summary

Most striking in this literature are the consistent *inconsistencies* across studies. For each of the four ethnic groups examined in this review, there are studies that find both *differences* and *similarities* when comparing ethnic minority groups to White youth. The one exception here is in the research on AAs, which indicates some degree of convergence in relation to lower rates of body dissatisfaction and drive for thinness in this group. The sources of these inconsistencies in the literature potentially lie in the myriad of differences that characterize published studies, some of which include sample characteristics (e.g., age, sample size), means of assessment (e.g., brief screening questions vs. validated surveys), and the particular variable of interest (e.g., body dissatisfaction vs. restrictive dieting vs. binge eating). Future research should be directed towards determining the source of this variability, which may involve closer examinations of acculturation, ethnic group-specific cultural values, and additional within-group differences that might impact outcomes.

Based on the literature published to date, four overall conclusions can be drawn: (a) many types of eating disturbances and body dissatisfaction occur to some degree in all four major ethnic groups in the U.S.; (b) whether rates of these behaviors and attitudes are greater or lesser than reported by White participants depends on the study; (c) AA youth are inclined to embrace a larger body ideal and while this groups tends not to engage restrictive dieting, binge eating does occur with some frequency, especially in AA boys; and (d) greater attention is needed to the development and testing of both prevention and treatment programs that address ethnic minority eating concerns.

Future Directions

Prevalence Studies

Research is needed to accurately estimate the prevalence of eating pathology, specifically clinical EDs, in ethnically diverse youth, but is complicated by difficulties with clinical detection and diagnosis, a lack of culturally sensitive ED diagnostic criteria, and differences in treatment-seeking behaviors. School-based screening for EDs, as well as routine screening in healthcare settings, would be excellent ways to identify cases and to focus early intervention efforts.

Clinical Detection, Diagnosis, and Treatment Seeking

The detection of EDs in individuals of color has been found to be problematic, although studies have only been conducted with adults. In a study conducted on college campuses, healthcare professionals were less likely to ask ethnic minorities about eating behaviors than non-ethnic minority participants. When ethnic minority participants acknowledged eating concerns to a provider,

they were significantly less likely to receive a recommendation to see a health professional (31%) than non-ethnic minority subjects (60%), suggesting the need for education of healthcare providers on this issue (Becker et al., 2003). In an analogue study, AAs were less often diagnosed with an ED than their White or Latina counterparts (Gordon, Brattole, Wingate, & Joiner, 2006) and treatment-seeking Mexican American women have been found to be diagnosed with an ED less often when compared with treatment-seeking European American women (Cachelin & Striegel-Moore, 2006). Current stereotypes and clinician bias that impede detection in adult samples likely influence detection of eating concerns in youth—particularly when clinical presentations may differ from currently held ideas about EDs (i.e., that they are seen mainly in White youth). Research is needed to more closely examine these questions with pediatric and adolescent healthcare providers.

The language of the current *DSM-IV-TR* may also be contributing to difficulties with identifying and classifying EDs in ethnically diverse youth and may influence research investigating prevalence rates and treatment response in these groups (Franko, 2007). The *DSM-IV-TR* does not adequately address the fact that EDs occur in diverse groups of children and adolescents, and that sub-threshold presentations may be as common in some minority groups as in the majority culture. In addition, *DSM-IV-TR* does not sufficiently highlight that the presentation of ED symptoms may differ across race and ethnicity. Alegria and colleagues (2007) recommended that the next edition of the *DSM* take into account differences in symptom presentation in order to more accurately distinguish and adequately understand EDs in diverse groups. For example, AAs with BN and BED have been found to have a relatively shorter duration of illness, indicating that typical length of illness and potential course of illness may vary among diverse groups (Taylor et al., 2007). In addition, the issue of simultaneity of symptoms is one that may be of particular relevance in diverse groups, as indicated by studies of Chinese girls with AN who display low weight, but not the characteristic concurrent fear of fat seen in other groups (Lee, Lee, Ngai, Lee, & Wing, 2001) Finally, Alegria et al. (2007) proposed the exclusion of certain diagnostic criteria and the development of new criteria that will prompt clinicians and researchers to ask questions about unhealthy eating and weight control behaviors for less acculturated diverse youth.

Evidence from adult samples suggests that even if clinicians are able to effectively recognize, assess, and diagnose EDs, ethnic minority individuals may still be less likely to seek help (Cachelin & Striegel-Moore, 2006). Cachelin, Rebeck, Veisel, and Striegel-Moore (2001) found that the most frequently endorsed reasons for not seeking treatment by a community sample of ethnically diverse women with EDs (43% Hispanic, 11% Asian, 20% Black, and 26% White) included financial difficulties and lack of health insurance, followed by not believing that others could help, fear of being labeled, not being aware of available resources, feelings of shame, and fear of discrimination. Each of these issues must be attended to in order for ethnic minority individuals to have a higher likelihood of seeking treatment for an eating concern.

In the case of an ED in a child or adolescent, it is the parents' responsibility to initiate treatment. Data from the obesity literature indicates that ethnically diverse mothers of young overweight children (low-income Hispanic and AA) did not perceive their child's being overweight as unhealthy, felt overweight would be outgrown, and reported that parenting concerns (e.g., lack of time, multiple children's needs, unsafe neighborhoods) competed with nutrition and feeding issues (Crawford et al., 2004). Findings from such studies might be extrapolated to examine whether ethnic minority families would be less likely to identify or seek treatment for eating disturbances, such as binge eating or severe body dissatisfaction. Moreover, acculturation may play a role in parental identification of eating concerns, particularly in cases where parents subscribe to one cultural value with respect to weight and shape, and adolescents, who might be more acculturated, are in conflict with those values. Questions such as these will need to be addressed in future research that explores parental understanding of EDs and the barriers to treatment-seeking in diverse groups.

Research Methodology

The use of solely quantitative research methods and measures that use the *DSM-IV TR* criteria for identifying individuals with EDs likely inadequately describe the presentation, symptoms, and correlates of EDs within diverse groups of children and adolescents. The results of Katzman and colleagues' (2004) study of women from Curacao highlight the importance of ''*conversing* with, and not merely *counting*'' (p. 486) individuals from diverse groups in order to accurately identify and describe eating pathology across and within sub-cultures. Research methods that utilize a combination of quantitative methods, such as questionnaires, and qualitative methods, such as interviews and focus groups, are needed in order to fully understand the intricacies of EDs in diverse groups (Franko & Edwards George, 2008).

Research Examining Genetic Variation in Eating Pathology

Genetics research has paradoxically provided the potential for understanding the role of the environment by increasing our knowledge about the genetic variants that may make some individuals more vulnerable than others to environmental risks and insults. Currently, it is clear that environmental factors alone do not cause EDs, as the effect of neurobiological and genetic factors has been demonstrated to be related to the etiology of EDs in both family and twin studies (Wade, Bulik, Neale, & Kendler, 2000). Areas of the genome and candidate genes that might uniquely influence the risk for EDs have been identified through molecular genetic studies (Klump, Kaye, & Strober, 2001). This research has shown that EDs are in fact heritable and a variety of neurobiological, genetic association, and linkage studies have provided clues as to what factors might transmit vulnerability by identifying genomic regions and candidate genes that may be implicated in the risk for these disorders (Bulik, 2005). Nevertheless, the heritability of EDs among different ethnic groups is currently unknown, as the most scrupulous genetic studies of clinical EDs have been conducted with relatively homogeneous populations (Bulik, 2005). While there is no doubt that environmental factors do influence EDs, in order to improve the knowledge of the complex factors that contribute to the ethnic variation in the presentation and course of EDs, future research must examine genetic factors together with cultural and developmental factors.

Prevention Research

ED prevention programs have primarily focused on reducing risk for EDs and have met with some success (Mintz, Hamilton, Bledman, & Franko, 2008; Stice, Shaw, & Marti, 2007). In a meta-analysis, Stice and colleagues (2007) found that 51% of ED prevention programs reduced ED risk factors and 29% reduced current or future eating pathology, although effect sizes were small (0.10–0.18). Programs with larger effects sizes were targeted toward groups at risk, interactive, offered to participants over 15 years of age and delivered by professional interventionists. To date, prevention efforts have not been developed for or directed specifically toward ethnic minority children and adolescents, though a few efforts have focused on college-aged women (Franko & Edwards George, 2008; Rodriguez, Marchand, Ng, & Stice, 2008). Two studies that examined the effects of prevention programs on diverse samples of adolescents and young adults (ages 13–20) did not find differential effects among groups (Franko et al., 2005; Rodriguez et al., 2008). Given the limited number of studies, research is needed to develop and test the efficacy of prevention programs designed to address the concerns of diverse youth.

Conclusions

In conclusion, problematic eating behaviors and body image issues affect children and adolescents from diverse ethnic groups. The social, cultural, and economic risk factors that are specific to ethnically and racially diverse groups likely play an important role in the development of these concerns. The possible and likely interplay between environmental risk factors and neurobiological and genetic variants is currently of particular interest. Research in this area may perhaps undercover new ways of conceptualizing and treating eating difficulties in diverse youth. Despite well-documented health disparities and differences in access to care and treatment-seeking among diverse groups (Park, Mulye, Adams, Brindis, & Irwin, 2006), few culturally specific interventions have been designed or tested to address these concerns. The development of prevention and treatment programs that are culturally, racially, and ethnically relevant merits future research.

Conflicts of interest: Dr. Franko is a consultant at General Mills, Inc.

Received October 3, 2008; revisions received June 25, 2009; accepted July 3, 2009

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