Disordered eating, socio-cultural media influencers, body image, and psychological factors among a racially/ethnically diverse population of college women

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ABSTRACT

This study examined disordered eating, socio-cultural media influencers, body image, and psychological factors among a large, racially/ethnically diverse sample of college women (n = 1445; 58% White, 21% Asian, 11% Hispanic, 11% Black) who completed an online survey. Black women were significantly more satisfied with their weight and shape and had lower eating concerns, disinhibited eating, and emotional eating than all other racial/ethnic groups. Black women tended to have significantly higher levels of self-esteem, were less likely to compare their body to those of people in the media, felt less pressured to attain the physical appearance standard set by the media, and had less awareness of the societal appearance norms set by the media than other racial groups. Findings suggest that Black college women, independent of weight status, may be protected from disordered eating, negative body image, and societal media pressures.

1. Introduction

In the United States, body dissatisfaction is highly prevalent (Bearman, Presnell, Martinez, & Stice, 2006; Grabe & Hyde, 2006) and is a public health concern given its associations with emotional distress (Johnson & Wardle, 2005), depression (Siegel, 2002; Stice & Bearman, 2001), and eating disorders (Keel, Baxter, Heatherton, & Joiner, 2007; Menzel et al., 2010). College-age women may be at particular risk for body dissatisfaction and disordered eating practices due to the unhealthy weight gain that often occurs during this life stage (Hoffman, Policastro, Quick, & Lee, 2006; Mokdad et al., 2001). For instance, many U.S. college women perceive themselves as overweight and diet to lose weight (Wardle, Haase, & Steptoe, 2006). Their desires to "fit-in" with peers and/or achieve the media's "ideal" body shape likely promote body dissatisfaction and compel weight loss efforts (Rozin, Bauer, & Catanese, 2003; Stice, 2002). In fact, media use predicts college women's disordered eating, drive for thinness, and body dissatisfaction (Harrison & Cantor, 1997).

Some racial/ethnic groups may be at greater risk for body dissatisfaction and disordered eating. African American women tend to experience less body dissatisfaction and disordered eating than white women (Grabe & Hyde, 2006; Roberts, Cash, Feingold, & Johnson, 2006; Wildes, Emery, & Simons, 2001). Similarly, European American college women have significantly greater disordered eating attitudes and behaviors than African American peers (Abrams, Allen, & Gray, 1993). Ethnic/racial variations in body dissatisfaction may result from differing cultural and social contexts (Crago & Shisslak, 2003). For example, White adolescents describe beauty ideals in terms of fixed physical attributes (e.g., tall, thin, high cheekbones), whereas Black adolescents tend to describe beauty ideals in terms of personality traits (e.g., style, attitude) (Parker et al., 1995). Additionally, among Black and Hispanic women, large and full-bodies (e.g., curvy, large breasts, round buttocks) are considered healthy and of high status (Gil-Kashiwabara, 2002); therefore, their view of "beautiful" is less narrowly defined than that presented in the U.S. media. Unlike Black and Hispanic women who may not find mainstream media beauty images relevant to themselves, Asian women tend to endorse mainstream beauty standards similarly to White women thereby placing them at risk for negative body image (Evans & McConnell, 2003).

Limited research has broadly examined disordered eating, body image, and psychological factors in a large diverse sample of women. Given the deleterious consequences of negative body image and high prevalence of body dissatisfaction and disordered eating (Hudson, Hiripi, Pope, & Kessler, 2007; Neumark-Sztainer, Wall, Larson, Eisenberg, & Loth, 2011), it is important to investigate whether disordered eating,

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body image, and psychological factors differ among women of various racial/ethnic groups. Thus, this study comprehensively examined disordered eating, body image, and psychological factors among a large, racially/ethnically diverse sample of college women.

2. Materials and methods

2.1. Sample and study design

This cross-sectional survey of female college students, aged 18 to 26 years, was approved by the Institutional Review Board at Rutgers University. Females were recruited to participate in an online survey about "their eating practices" during 2009–2010 via verbal and electronic announcements at three large U.S. public universities.

2.2. Measures

Table 1 provides more complete descriptions of study measures. In brief, disordered eating was assessed with Eating Disorder Examination Questionnaire (EDE-Q), 6th edition (Fairburn, Cooper, & O'Connor, 2008) scales (i.e., Restraint, and Eating, Weight, and Shape Concerns) as well as the Emotional Eating and Disinhibited Eating scales from the Three Factor Eating Questionnaire (TFEQ-18) (Karlsson, Persson, Sjostrom, & Sullivan, 2000).

Societal influences on body image were assessed with the Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ-3) (Thompson, van den Berg, Roehrig, Guarda, & Heinberg, 2004) scales: Internalization-General, Pressures-Media, and Information-Media. Body Checking and Body Image Avoidance were assessed with one item from the Body Checking Questionnaire (i.e., "During the past 28 days, how often have you pinched areas of your body to see how much fat there is?") (Reas, Whisenhunt, Netemeyer, & Williamson, 2002) and one from the Body Image Avoidance Questionnaire (Rosen, Srebnik, Saltzberg, & Wendt, 1991) (i.e., "During the past 28 days, how often have you avoided wearing clothes that make you particularly aware of the shape of your body?").

Body Image Distortion was assessed by comparing actual BMI category (i.e., underweight [BMI <18.5], normal weight [BMI = 18.5–24.9], overweight [BMI >25], scored 1, 2 and 3 respectively) to perceived current body weight (i.e., very thin/thin, average, slightly heavy/overweight, scored 1, 2 and 3 respectively). Scores were derived by subtracting actual BMI category score from perceived current body weight score. Scores closer to zero indicate accurate body image perception. Positive scores indicate that individuals perceive that they are heavier than they actually are, whereas negative scores indicate that individuals perceive that they are thinner than they actually are.

Self-Evaluative Salience and Motivational Salience scales from the Appearance Schema Inventory−Revised (ASI-R) (Cash & Labarge, 1996) assessed the extent participants measured their worth physical appearance and invested themselves in their appearance. The Patient Health Questionnaire−8 (PHQ-8) evaluated depression severity (Kroenke, Spitzer, & Williams, 2001). Self-esteem was measured using items from the Rosenberg Self-Esteem (Rosenberg, 1965) scale.

Self-reported height and weight were used to calculate body mass index (BMI). Demographics included ethnicity/race (i.e., White, Asian, Hispanic, Black, Other) and age.

2.3. Data analyses

Internal consistency scores for disordered eating and body image-related scales were calculated. Descriptive statistics were computed for demographic characteristics and survey scales by race/ethnicity. The few participants (n = 88) categorized as either "Multi-racial" or "Other" were eliminated from further analyses. Analysis of variance,

and when the main effect was significant, post-hoc tests (Bonferroni) were conducted for age and BMI to determine whether significant differences occurred among racial/ethnic groups. Analysis of covariance, controlling for BMI, and when a main effect was significant among racial/ethnic groups post-hoc tests (Bonferroni), were conducted for all survey scales. Statistical significance was set at 5%. All analyses were conducted in PASW Statistics 19 (SPSS, Inc., Chicago, IL).

3. Results

Participants (n = 1445) were mostly in their early 20s (mean age 19.6 ± 1.5SD years) and White (58%) with fewer being Asian (21%), Hispanic (11%), and Black (11%). Most were of normal weight (71%). BMI differed significantly among all racial/ethnic groups (Table 2). Black women had significantly higher BMIs than all other groups. Analysis of covariance, controlling for BMI, revealed significant differences among racial/ethnic groups on all survey measures, except depression. Follow-up tests, correcting for multiple comparisons (Bonferroni), showed that Black women had significantly lower Eating-, Shape-, and Weight Concerns, and lower Emotional Eating and Disinhibited Eating than all other groups.

Similar trends occurred with socio-cultural media influencers. Specifically, Black women tended to be significantly less likely to frequently compare their bodies to those in the media, felt less pressured to achieve physical appearance standards set by the media, and had less awareness of the societal appearance norms set by the media than all other racial/ethnic groups.

Differences between racial/ethnic groups on body image factor scales, except the Body Checking and Body Image Avoidance scales, were less clear. Specifically, Black women were significantly less likely to pinch areas of their bodies to discern fatness and avoid clothes that would make them more aware of their bodies than other groups. Asian women were the only group to have positive Body Image Distortion scores indicating that they perceived that they were heavier than they actually were. There were few significant differences among groups in how they measured self-worth by their physical appearance and overall investment in their appearance. Additionally, Black women had significantly higher levels of self-esteem than other groups, and Asian women had significantly lower levels of self-esteem than other groups.

4. Discussion

Black women were heavier than other racial/ethnic groups yet were significantly more satisfied with their weight and shape, had higher self-esteem, and had lower eating concerns, and disinhibited and emotional eating than other racial/ethnic groups. Additionally, Black women were less likely to compare their body to people in the media, felt less pressured to attain physical appearance standards set by the media, and had less awareness of the societal appearance norms set by the media compared with most other racial groups. These findings suggest that Black college women are more comfortable with their bodies being at higher weight values and are less likely to adopt the dominant culture messages in the media that equate thinness with beauty than other racial/ethnic groups.

This study's findings are consistent with those from previous research in that Black women, relative to other racial/ethnic groups, had more body satisfaction, despite often having higher body weight values (Flynn & Fitzgibbon, 1998; Roberts et al., 2006). Also congruent with previous findings, this study found that Black women perceive themselves as smaller than they are (Kronenfeld, Reba-Harrelson, Von Holle, Reyes, & Bulik, 2010). Granberg and colleagues reported that family racial socialization, defined as educating children about various aspects of being Black, reduced negative influences of being overweight among Black girls (Granberg, Simons, & Simons, 2009). Parker and