The New School Psychology Bulletin
2007, Vol. 5, No. 2

Print ISSN: 1931-793X; Online ISSN: 1931-7948

Research Report

Compensatory Efforts for Body Dissatisfaction: Some Gender and Ethnic Differences

Lorraine Benuto, M.A.
University of Nevada

Amanda Haboush, M.A.
University of Nevada

Sharon Jones-Forrester, M.A.
University of Nevada

Traditionally, research has characterized body dissatisfaction as occurring primarily among EuroAmerican women, although conflicting results exist. Using analysis of variance and chi-square analyses, the present study examined gender and ethnic differences in body dissatisfaction and externalizing compensatory behaviors (i.e., dieting, diet pill use, diet shake use) and desire to alter physical appearance via plastic surgery in a diverse sample of undergraduate college students (N = 82). Results indicated that more women than men diet, use diet aids, and endorse a desire for plastic surgery. No gender differences in body satisfaction were found. In terms of ethnic differences, Hispanic Americans endorsed less body satisfaction than other ethnic groups. No ethnic differences were identified in externalizing compensatory behaviors. These results suggest that body dissatisfaction is not exclusive to EuroAmerican women. Although male gender and non-EuroAmerican ethnicity were previously thought to be potential buffers against body dissatisfaction, the present study suggests the need to reexamine these assumptions.

Keywords: ethnic differences, body image, dieting

Both ethnic (e.g., Cook, 2002; Caradas, Lambert, & Charlton, 2000; Demarest & Allen, 2000; Moss, 2004) and gender differences (e.g., Iqbal, Shahnawaz, & Alam, 2006) have been identified in relationship to body image. Research studies have suggested that women feel greater pressure to achieve a sociocultural thin ideal and experience greater body dissatisfaction than do men (Striegel-Moore & Smolak, 2001). However, male body dissatisfaction is beginning to increase possibly due to emerging social pressures for men to achieve a lean and muscular body image ideal (Harvey & Robinson, 2003).

In reference to ethnic differences and body satisfaction, conflicting results have emerged in an equivocal body of literature (e.g., Aruguete, Nickleberry, & Yates, 2004; Perez & Joiner, 2003; Smith, Thompson, Raczynski, & Hilner 1999; White, Kohlmaier, Varnado-Sullivan, & Williamson, 2003). In fact, reviewers have noted that early body image research suggested greater body dissatisfaction among EuroAmericans while more recent research has suggested few concrete ethnic differences (Shaw, Ramirez, Trost, Randall, & Stice, 2004). This criticism aside, even recent research has continued to indicate that ethnic minority status serves as a protective factor against the development of body image disturbances (e.g., Freedman, Carter, Sbrocco, & Gray, 2004); however, the potential buffering effect of ethnicity has not been universally supported (e.g., Perez & Joiner, 2003; Smith, Thompson, Raczynski, & Hilner 1999). For example, some research studies have indicated that EuroAmericans report more body image disturbances than African Americans (Demarest & Allen, 2000; Caradas, Lambert, & Charlton, 2000; Molloy & Herzberger, 2002; White, Kohlmaier, Varnado-Sullivan, & Williamson, 2003; Aruguete, Nickleberry, & Yates, 2004), less body image disturbances than Asian Americans (Kennedy, Templeton, Gandhi, & Gorzalka, 2004; Koff, Benavage, & Wong, 2001), and similar levels of body image disturbances as Hispanic Americans (Miller, Gleaves, Hirsch, Green, Snow, & Corbett, 2000). Other research studies have reported that EuroAmericans and Hispanic Americans show more weight-related body image disturbance than African Americans and Asian Americans (Altabe, 1998) and some research has suggested that African Americans endorse less body satisfaction than EuroAmericans (Smith, Thompson, Raczynski, & Hilner 1999; Perez & Joiner, 2003).

The conflicting results discussed above may in part be related to the variability in terms of ethnocultural group sampling. Specifically, some researchers include several ethnocultural groups (e.g., Cook, 2002; Moss, 2004) while other studies are ethnicity specific and only include individuals from two given ethnocultural groups, only African Americans and EuroAmericans, for example (e.g., Caradas, Lambert, & Charlton, 2000; Hrabosky & Grilo, 2007, Molloy & Herzberger, 2002). While research studies on ethnic

Correspondence concerning this article should be addressed to Lorraine Benuto, M.A., Department of Psychology, University of Nevada, Las Vegas, 4505 Maryland Parkway, Box 455030, Las Vegas, Nevada, 89154-5030. Tel: 702-281-8235. Fax: 702-895-0195. Email: panque7@yahoo.com

minorities and body image disturbances are relatively common (e.g., Aruguete, Nickleberry, & Yates, 2004; Caradas, Lambert, & Charlton, 2000; Molloy & Herzberger, 2002; White, Kohlmaier, Varnado-Sullivan, & Williamson, 2003), studies including men are relatively rare. Thus, this study aimed to explore gender and ethnic differences in reference to body image among a sample of diverse college students, including a fair proportion of male participants.

The goals of the present study were threefold. First, given the variable results with regard to the role of ethnicity in body image disturbance in the extant literature, the present study sought to clarify the relationship between ethnicity and body image. Second, given that male body image dissatisfaction is increasing, the present study sought to examine gender differences in body image. Finally, given that body dissatisfaction is a potential precursor to eating disorder development, the present study investigated the relationship between body dissatisfaction and compensatory behaviors among male and female college students.

With regard to ethnicity and gender differences, it was predicted that EuroAmerican participants would report greater body dissatisfaction than would the ethnic minority participants; and that men would endorse less body dissatisfaction than women (although it was expected that these differences would not be as large as those identified in earlier body image studies). With regard to compensatory behaviors, it was predicted that participants with higher levels of body satisfaction would endorse healthier compensatory efforts; that EuroAmerican participants would endorse making healthier compensatory efforts; and that men would endorse making healthier compensatory efforts to achieve an ideal body image. For the compensatory behavior predictions, "healthier compensatory efforts" were operationally defined by a lower frequency of dieting, health being the primary reason for dieting, no use of diet aids, and an absence of desire for plastic surgery.

Although a thorough examination of the cause of body dissatisfaction is beyond the scope of the present study, it is hoped that an examination of gender and ethnic differences in body image and compensatory behaviors may facilitate a deeper understanding of potential differences in the development and maintenance of body dissatisfaction. Although body dissatisfaction has been associated with eating disorder risk (Cattarin & Thompson, 1994; Thompson, Coovert, Richards, Johnson, & Cattarin, 1995); and vulnerability to media pressure to achieve a sociocultural thin ideal (James, 2001; Smith & Rieger, 2006; Slater & Tiggemann, 2006; Kalodner, 2003), it is possible that gender and ethnicity may somewhat moderate these associations.

Although compensatory behaviors are diagnostic criteria for the eating disorders (APA, 2000) there has been less focus on the use of compensatory behaviors in the context of body dissatisfaction; and substantially even less on the role that gender and ethnicity may play in compensatory behaviors. However, at a time of increasing availability of diet aids, and plastic surgery as means for obtaining the body image ideal, it seems sound to hypothesize that diet aid use and desire for plastic surgery may be related to body dissatisfaction. Furthermore, examining the motives individuals endorse for dieting has utility in determining whether individual's dieting behavior can be categorized as relatively healthy or potentially dangerous. O'Brien and colleagues (2007) and Reas, Masheb, and Grilo (2004) found that appearance, health, and mood improvement were predominant motives for individuals seeking weight loss treatment. However, greater investigation of potentially less healthy weight loss motives among non-eating disordered individuals is warranted. Finally, because research has indicated gender and ethnic differences in relation to body image, these differences are also hypothesized in relation to the use of compensatory behaviors.

Method

Participants

A total of 82 participants completed the protocol, and no student refused to participate after a detailed description of the study was disclosed. Analyses, however, were limited to participants who were between the ages of 18 and 29 (to lessen the potential of age acting as a moderating variable) and who had missing data on no more than 5% of items on any one of the measures used in this study. The final sample thus consisted of 76 undergraduate university student participants, 23 men and 53 women. More than two-thirds (69.7%) of the sample were women and the mean age was (M = 20.61). In terms of self-identified ethnicity, approximately 14 % identified as African American, 16% identified as Hispanic American, 33% identified as EuroAmerican, and 37% identified as Asian American. In terms of religious affiliation, the majority of the sample self-identified as Christian or Catholic. Tests of significance were performed to determine if age (a demographic variable) and questionnaire presentation order were associated significantly with the independent variables (i.e., gender or ethnicity). Results indicated no gender or ethnic differences with respect to participant's age and questionnaire order presentation.

Materials

Socio-demographic questionnaire. A brief sociodemographic questionnaire inquiring about age, gender, ethnicity, and religious affiliation was administered.

Questions Regarding Externalizing Behaviors. To obtain information regarding externalizing behaviors employed by participants, questions regarding purpose of dieting, diet-

ing frequency, diet pill use, diet shake use, and desire to have plastic surgery if money were no object were asked.

Beliefs About Appearance Scale (BAAS; Spangler & Stice, 2001). The BAAS is a brief, 20-item self-report measure that uses a 5-point Likert scale to assess beliefs about the effect of appearance on relationships, emotions, self-concept, and achievement, with higher scores indicating a higher endorsement of the importance of appearance on several of these thematic domains. The BAAS has an internal consistency of .94 to .96 across sampled groups, and a .83 test-retest reliability.

Procedure

This study was approved by the Institutional Review Board of the University of Nevada, Las Vegas. Participants were recruited on a volunteer basis from the University of Nevada, Las Vegas psychology subject pool. Each participant was administered a packet containing the measures described above with instructions requesting that upon completion of the questionnaires they bring the packet in a sealed envelope to the researcher. To account for the possibility of order effects of the measures, the instruments were counterbalanced. These instruments were presented in their original English versions.

Results

Results from a 2 (gender) X 2 (ethnicity) ANOVA with ethnicity and gender (ethnicity was collapsed into 2 categories: EuroAmericans and ethnic minority group members) as the independent variables and body image as the dependent measure, indicated a main effect for ethnicity only $F(3, 75) = 4.66$, $p < .01$. An examination of mean differences indicated that EuroAmericans endorsed more body satisfaction than ethnic minority group participants. No gender differences were identified. A subsequent 2 (gender) X 4 (ethnicity) ANOVA with gender and ethnicity (African American, Asian American, Hispanic American, EuroAmerican) as the independent variables and body satisfaction as the dependent measure supported the ethnicity main effect described above $F(3, 75) = 6.17$, $p < .001$. Again no gender differences surfaced. Post hoc results (Tukey's test) indicated that Hispanic Americans endorsed less body satisfaction than EuroAmericans, African Americans, and Asian Americans ($p < .05$). Table 1 presents the means and standard deviations for body satisfaction as a function of gender and ethnicity.

Results from a six-way 2 (dieting purpose) X 2 (type of diet) X 2 (dieting frequency) X 2 (diet pill use) X 2 (diet shake use) X 2 (desire for plastic surgery) ANOVA with body satisfaction as the dependent measure indicated a number of main effects. Participants who indicated that they dieted for appearance-related reasons reported significantly less body satisfaction than participants who indicated that they dieted for health-related reasons, $F(1, 74) = 7.38$, $p < .01$. Furthermore, participants who indicated that they would have plastic surgery if money were no object reported significantly less body satisfaction than participants who reported that they had no desire to have plastic surgery, $F(1, 74) = 5.94$, $p < .05$. Table 2 presents the means and standard deviations for body satisfaction as a function of compensatory behaviors.

Chi-square analyses were used to investigate ethnic and gender differences in relationship to dieting purpose, type of diet, dieting frequency, diet pill use, diet shake use, and desire to have plastic surgery. No ethnic differences were identified. In terms of gender differences, more women than men endorsed: dieting always or almost always χ^2 $(2, N = 76) = 9.64$, $p < .01$, using diet pills χ^2 $(2, N = 76) = 4.35$, $p < .05$ and diet shakes χ^2 $(2, N = 76) = 8.11$, $p < .01$, and using crash diets as a means of losing weight χ^2 $(2, N = 76) = 3.51$, $p < .05$. Finally more women than men indicated that they would have plastic surgery if money were not an object χ^2 $(2, N = 76) = 5.36$, $p < .05$ (see Table 3). Body satisfaction was not related to type of diet, dieting frequency, and diet pill use. No gender differences were found for body satisfaction and type of diet. No ethnic differences

Table 1
Body Satisfaction Means (Standard Deviations) as a function of Gender & Self-Identified Ethnicity

Ethnocultural Identification	Men	Women	Men & Women
African American	74.00 (3.46)	70.00 (4.47)	71.09 (4.46)
Asian American	62.20 (10.46)	67.17 (8.44)	65.39 (9.34)
EuroAmerican	71.29 (5.74)	68.17 (7.08)	69.74 (6.78)
Hispanic American	59.00 (8.72)	56.22 (11.68)	56.92 (10.71)
Ethnic Minority Group Members	63.81 (10.22)	65.00 (10.03)	66.08 (9.26)

surfaced in reference to compensatory behaviors.

Discussion

Contrary to our stated hypotheses, ethnic minority group participants endorsed less body satisfaction than EuroAmericans. As previously denoted, research on ethnic differences in body satisfaction has generated mixed results. The buffering effect of ethnicity has not been universally supported (e.g., Perez & Joiner, 2003; Smith, Thompson, Raczynski, & Hilner 1999) and the results of the present study support previous research that has indicated that ethnic minority group membership may not protect against the development of body dissatisfaction. When we examined ethnic differences in a more gradated manner we found that Hispanic Americans reported less body satisfaction than other ethnic groups. Research has indicated that Hispanic Americans score similarly to EuroAmerican on body satisfaction (Miller, Gleaves, Hirsch, Green, Snow, & Corbett, 2000) and EuroAmericans and Hispanic Americans show more weight-related body image disturbance than African Americans and Asian Americans (Altabe, 1998). Our results support this line of research to the extent that Hispanic Americans report less body satisfaction than African Americans and Asian Americans. However, in our sample, Hispanic Americans endorsed greater (not equal) body dissatisfaction than EuroAmericans. Interestingly, the ethnic difference identified in the current sample was not borne out in externalizing compensatory behaviors as no ethnic differences were identified. These results suggest that while Hispanic Americans do endorse greater body dissatisfaction than other ethnic groups, they do not, as a group, endorse more externalizing compensatory behaviors as would be logically expected. This finding suggests that lower levels of body satisfaction may manifest themselves differently depending on ethnicity.

Also contrary to the previously stated hypotheses, no gender differences were identified in relationship to body satisfaction, thus suggesting that the levels of male and female body satisfaction are becoming more parallel with the passage of time. Our findings align with research that

Table 2
Body Satisfaction Means (Standard Deviations) as a function of Externalizing Compensatory Behaviors by Gender

Externalizing Compensatory Behaviors	Men	Women	Men & Women
Dieting Purpose			
Health	65.63 (3.65)	68.40 (2.09)	67.71 (1.81)
Appearance	60.33 (3.20)	62.82 (1.84)	62.08 (1.61)
Type of Diet			
Healthy	62.07 (2.76)	66.08 (1.77)	64.86 (1.49)
Crash	63.33 (4.80)	64.30 (2.21)	64.08 (2.03)
Dieting Frequency			
Always/Almost always	62.00 (4.80)	65.33 (1.77)	64.80 (1.73)
Rarely/Never	62.64 (2.76)	65.51 (2.21)	64.33 (1.67)
Diet Pill Use			
No	63.39 (2.51)	63.99 (1.66)	63.41 (1.40)
Yes	54.00 (8.31)	67.65 (2.42)	63.77 (2.33)
Diet Shake Use			
No	62.45 (2.41)	67.30 (1.71)	65.44 (1.40)
Yes	[a]	62.35 (2.33)	62.35 (2.33)
Desire for Plastic Surgery			
No	68.25 (2.91)	67.65 (2.03)	67. 85 (1.67)
Yes	53.75 (4.16)	63.46 (1.89)	61.31 (1.73)

[a] This level combination of factors was not observed, thus the corresponding population marginal mean was not estimable.

has indicated an increase in male body dissatisfaction (e.g., Harvey & Robinson, 2003) over the past 25 years. In regards to gender differences in externalizing compensatory behaviors, there was a significant gender difference with more women using methods such as diet pills, diet shakes, extreme diet techniques, and women having a significantly greater desire for plastic surgery.

Surprisingly, there was a discrepancy in our results such that there was not an overall gender difference in body satisfaction. However, more women than men endorsed engaging in externalizing compensatory behaviors. These results suggest that while there may be a societal increase in body dissatisfaction among men, it appears that body image dissatisfaction does not carry the same risk for men as it does for women. These results lend support to the idea that gender may continue to serve as a buffer against the significant risks of body image disturbances or that body image disturbances may have significantly greater gender-specific manifestations than has been previously assumed.

Research in the realm of Body Dimorphic Disorder (BDD) (a disorder characterized by impaired functioning due to an extreme preoccupation with perceived flaws in appearance) (APA, 2000) has yielded similar results whereby women with BDD are more likely to have weight concerns than men, and individuals with weight concerns are more likely to diet, excessively change their clothes, and excessively exercise in an attempt to improve their appearance (Kittler, Menard, & Phillips, 2007).

Results from the present study also indicated that lower body satisfaction was related to dieting for appearance-related reasons and a desire to have plastic surgery. These results align with research that has indicated that people seeking weight loss treatment for health-related reasons have a more positive evaluation of their appearance than people citing appearance and mood improvement as their motivation (O'Brien et al., 2007; Reas et al., 2004). Results from the current study and extant research suggest that exploring the motive behind weight-loss goals may be important from a clinical perspective. More specifically O'Brien and colleagues (2007) suggest that a person seeking to lose weight primarily for appearance reasons may come with a different set of psychosocial characteristics and expectations than a person whose primary reason is health. This may impact success. In our sample body satisfaction was not related to type of diet, dieting frequency, and diet pill use. However, the results discussed above demonstrate an association between body satisfaction and certain externalizing compensatory behaviors, lending support to the idea that studying the even relatively mild effects of body dissatisfaction is important.

In sum, body satisfaction was related to certain externalizing compensatory behaviors. In our sample men and women endorsed similar levels of body dissatisfaction although more women than men endorsed engaging in externalizing compensatory behaviors. Furthermore, Hispanic Americans endorsed less body satisfaction than other ethnic groups although no ethnic differences surfaced in reference to externalizing compensatory behaviors. Despite these significant findings, a number of caveats are in order. One major limitation is the sample itself. Our sample was relatively small and was one of convenience that consisted mostly of undergraduate college freshmen. It is possible that the relative homogeneity of age, socioeconomic, and educational status of this sample may limit generalizability. Furthermore, the questions asked to gauge respondents' engagement in externalizing compensatory behaviors were more female-centered. Women may be more likely to use diet aids to lose weight, whereas men may be more likely to use steroids or protein supplements to aid in the attainment of a muscular body ideal (Harvey & Robinson, 2003). Future research may wish to implement a questionnaire that is more gender-neutral. Finally, the questions we asked were categorical in nature thus limiting the variability of responses and in turn limiting the type of analyses we could

Table 3
Prevalence (%) of Externalizing Compensatory Behaviors among Men & Women

Externalizing Compensatory Identification	Men ($N = 23$)	Women ($N = 53$)	χ^2 (1)
Dieting purpose (appearance)	34.78	47.17	1.00
Type of diet (crash)	13.03	33.96	3.51*
Dieting frequency (almost always)	13.04	50.94	9.64**
Diet pill use (yes)	4.35	25.53	4.35*
Diet shake use (yes)	0	28.30	8.11**
Desire to have plastic surgery (yes)	17.39	45.28	5.37*

**$p < .01$, *$p < .05$.

employ. Future researchers may wish to ask questions with a continuous response set so as to obtain more detailed data.

Clearly, more research is required to determine the extent to which body image disturbance and externalizing compensatory efforts may vary by gender and ethnicity. Given the rapid acceleration in the availability and advertising of dietary aids, additional exploration of gender and cultural variability in both body image dissatisfaction and resulting compensatory efforts may prove to have utility in preventing increased risk to student (and potentially other) populations. Future researchers should administer a more finely gradated, gender-neutral questionnaire that investigates externalizing compensatory behaviors with a larger, more heterogeneous sample.

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