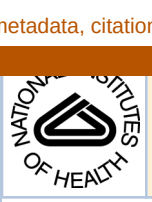

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Characteristics of Women with Body Size Satisfaction at Midlife: Results of the Gender and Body Image Study (GABI)

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Abstract

This study characterizes the profile of women (N = 1,789) ages 50 and over who report body size satisfaction on a figure rating scale. Satisfied women (12.2%) had a lower body mass index and reported fewer eating disorder symptoms, dieting behaviors, and weight and appearance dissatisfaction. Interestingly, satisfied women exercised more than dissatisfied women and weight and shape still played a primary role in their self-evaluation. Weight monitoring and appearance altering behaviors did not differ between groups. Body satisfaction was associated with better overall functioning. This end point appears to represent effortful body satisfaction rather than passive contentment.

Keywords

body satisfaction; body image; aging; eating disorders; silhouette; women

We know strikingly little about the intriguing minority of women who are satisfied with their body size. Defined as having a current body size equal to their ideal size, body satisfaction is endorsed by only about 11% of adult American women aged 45–74 years (Runfola et al., 2012). This statistic is concerning given body satisfaction is related to health behavior (Martin-Ginis, Eng, Arbour, Hartman, & Phillips, 2005; Reboussin et al., 2000) and quality of life (Reboussin et al., 2000). Further, body dissatisfaction may increase risk for eating disorder behaviors (Slevec & Tiggemann, 2011), which appear to be on the rise in middle-aged women (Hay, Mond, Buttner, & Darby, 2008; Wiseman, Sunday, Klapper, Harris, & Halmi, 2001). Elucidating the profile of body satisfied women may improve definitions of “successful aging” (Depp & Jeste, 2006) and inform interventions aimed to enhance wellness in maturing women.

The demographic correlates of mature women reporting body satisfaction, assessed by various techniques, consistently include lower body mass index (BMI) (de Souto Barreto, Ferrandez, & Guihard-Costa, 2011; McLaren, Hardy, & Kuh, 2003; Renee-Umstattd, Wilcox, & Dowda, 2011) and race/ethnicity, with African American and Hispanic women being more likely than women of other races or ethnicities to report satisfaction with their bodies (Anderson, Eyler, Galuska, Brown, & Brownson, 2002; Millstein et al., 2008; Reboussin et al., 2000). Reproductive variables including late menarche, postmenopausal

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status, and use of hormone replacement therapy prior to menopause have also been associated with greater body esteem in middle-aged women (McLaren et al., 2003).

Importantly, body satisfaction may be related to key health behaviors and adaptive cognitive processes. Appearance satisfaction (Renee-Umstattd et al., 2011) and body satisfaction (Martin Ginis et al., 2005) are associated with greater levels of physical activity, and body size satisfaction in overweight or obese individuals is related to fewer reports of currently trying to lose weight (Anderson et al., 2002). Further, satisfied women engage in less social comparison and body checking behavior, and report higher scores on dispositional mindfulness (Djikstra & Barelds, 2011). These preliminary studies suggest there may be some unique behavioral and cognitive features of older women with body satisfaction that warrant further exploration. The relation between body satisfaction and health behaviors is of primary interest given its potential implication in weight management and physical health.

It is important to note that although several studies explore body satisfaction in this age range, most fail to embrace the complexity of body image, using single assessment questions or surveys that only measure one aspect of body image. Such a narrow focus limits our ability to fully understand body image, as it cannot be assumed that satisfaction with one aspect of the body is tantamount to satisfaction with the entire body. Underscoring this important point, McLaren & Kuh (2004) found that women aged 54 years with high weight esteem actually reported more distress with other aspects of their appearance (e.g., skin). Thus, a multifaceted approach to body image is prudent, particularly in studies of older women.

To do so, we characterized mature women who report body size satisfaction on a commonly used figure rating scale (Kronenfeld, Reba-Harrelson, Von Holle, Reyes, & Bulik, 2010; Reba-Harrelson et al., 2009; Stunkard, Sørenson, & Schlusinger, 1983) on dimensions of eating disorder symptoms, dieting and weight control behaviors, weight and shape concerns, and quality of life. We hypothesized that satisfied women would report better functioning on all outcome variables. To our knowledge no prior studies have examined these variables comprehensively in mature women reporting body size satisfaction.

Method

Participants and Procedures

Data were derived from the Gender and Body Image Study (GABI), a cross-sectional study that comprises a convenience, non-random sample of 1,849 women in the United States aged 50 years and over recruited between September 2010 and January 2011. GABI explored eating, weight and shape concerns, and attitudes about ageing in older women using previously fielded questionnaires (Bulik et al., 2003; Neale, Mazzeo, & Bulik, 2003; Wade, Bulik, Heath, Martin, & Eaves, 2001). Inclusion criteria were: (1) female sex, (2) 50+ years of age, (3) Internet access, and (4) English literacy. An invitation email describing the study and providing access to the online survey URL and online consent form was sent to participants via a combination of online methods (see methodological details in Gagne et al., 2012). Participants were also encouraged to forward the survey link to others. The survey was administered via Surveymonkey (www.surveymonkey.com), which restricted respondents to one response per computer (to avoid duplicate responses).

In total, 2,020 women consented to participate in the study. One hundred and seventy-one women were excluded for implausible, missing, or ineligible age values (< 50 years). Sixty women were excluded due to missing body satisfaction information, yielding a final sample of 1,789 women. Participation was anonymous and compensation was provided. This study

was approved by the Public Health-Nursing Institutional Review Board of the University of North Carolina at Chapel Hill.

Measures

Demographics—Participants reported their age, race, ethnicity, and height and weight without shoes. We used National Institutes of Health criteria for reporting race and ethnicity (NIH, 2001). Racial categories included: (1) White, (2) Black or African American, (3) Asian, (4) American Indian or Alaska Native, (5) Native Hawaiian or other Pacific Islander, and (6) Other. Two or more responses were classified as "multiracial." Ethnicity was coded as Hispanic (Spanish, Hispanic, or Latina), non-White/non-Hispanic, or White/non-Hispanic. Body mass index (BMI; kg/m^2) was calculated and weight status coded (< 18.5: underweight; 18.5 – 24.9: normal; 25 – 29.9: overweight; ≥ 30: obese) based on Centers for Disease Control & Prevention criteria (CDC, 2011). Participants were asked what their highest adult weight was at their current height in order to code whether participants ever had a history of overweight/obesity (yes/no) based on CDC criteria outlined above.

Body size satisfaction—Body size satisfaction was estimated using figural stimuli adapted from the Stunkard et al. (1983) silhouettes fielded in prior investigations (Kronenfeld et al., 2010; Reba-Harrelson et al., 2009). Participants select one of nine silhouettes (1, very thin, to 9, very large) in response to questions assessing current body size ("Which silhouette is closest to what you currently look like?") and preferred body size ("Which silhouette would you most prefer to look like?"). A discrepancy between current and preferred silhouette denotes body size dissatisfaction (Fallon & Rozin, 1985; Rozin & Fallon, 1988). Participants were classified as having either "body size satisfaction" (current silhouette = preferred silhouette) or "body size dissatisfaction." As a reliable and valid measure (Altabe & Thompson, 1992; Beebe, Holmbeck, & Grzeskiewicz, 1999; Thompson & Altabe, 1991) that is easy to use, the silhouette method is particularly useful for large epidemiological investigations (Bulik et al., 2001).

Core eating disorder symptoms profile groups—Questions based on the Structured Clinical Interview for the DSM-IV Axis I Disorders (First, Spitzer, Gibbon, & Williams, 1996) assessed current and past core symptoms of eating disorders (e.g., low weight, binge eating, purging). Algorithms captured five eating disorder symptom profiles including: 1) low BMI (BMI < 18.5); 2) binge and purge (binge eating at least once per week and purging at least once in the last five years); 3) binge only (binge eating at least once per week and no purging in the last five years); 4) purge only (vomiting, laxatives, diuretics, diet pills, or excessive exercise in the last 5 years to control weight, excluding individuals with a low BMI or current binge eating); and 5) no core eating disorder symptoms (did not meet criteria for any of the above groups). Groups were further distinguished based on whether symptoms were "current" (last symptom occurred at the age of survey completion) or in the "past" (last symptom occurred prior to age of survey completion). To meet criteria for "current low BMI" participants also had to report that their lowest adult weight occurred at their current age. We were unable to differentiate between "current" and "past" purging because our survey only inquired about the presence of purging in the last 5 years (participant's age of last episode was not recorded). Thus, purging was included in definitions of both "current binge eating and purging" and "past binge eating and purging."

Dieting and weight control behaviors—Frequency of body size or shape checking behaviors (e.g., looking in mirrors, pinching stomach) was examined (coded as "frequent: daily or more" or "infrequent: less than daily") as well as frequency of weighing (coded as "frequent: couple times a week or more" or "infrequent: once a week or less"). We coded whether participants were "currently trying to lose weight" (yes/no) and spent "about half of

the time or more" dieting in the past five years (yes/no). Current exercise was self-reported as the average number of hours exercised each week. Current (last five years) use of extreme weight control behaviors, including vomiting, laxatives, diuretics, diet pills, and excessive exercise, were examined separately and coded as "yes" or "no" to signify their use. Lifetime history of dieting (prescription to a diet program, vegetarianism, restricting intake, eliminating foods, and lacking variety to control weight) and lifetime history of extreme weight control behaviors (extreme calorie counting, fasting, cleanses, low calorie diet, and skipping meals) were examined for their presence. Participants also reported whether they ever had cognitive behavioral therapy (yes/no) and bariatric surgery (yes/no) to aid with weight loss. Lastly, participants reported whether they did any of the following (yes/no) to alter or improve their appearance: cosmetic surgery, Botox® or laser treatment, use of dermatologic or anti-aging cream, or color treatment of hair.

Weight and shape concerns—Frequency of thoughts about weight (coded as "daily to always*"* or "less than daily") and feelings associated with gaining five pounds (coded as "moderately to extremely upset" or "not at all to slightly upset") were examined. Participants rated their overall satisfaction with their weight, shape, stomach, arms, thighs, face (facial features, complexion), skin (elasticity, pigmentation), and overall appearance in comparison with when they were younger. Dichotomous codes were formed for each item as "less satisfied" or "neutral/more satisfied." Participants rated how envious they were of younger women's physical appearance and ability to do more things with their bodies because of their youth. Envy was considered either "present" (*somewhat envious* or *very envious*) or "not present" (*not at all envious*). Participants also reported whether they felt they received more or less attention (yes/no) and respect (yes/no) from others because of their age. Lastly, importance of weight or body shape on self-evaluation was coded as having either an "important role" (*moderate* to *most important*) or "not important role" (*small part* or *not at all important*).

Quality of life—Participants were asked, "To what extent do concerns about eating, weight, or shape impact your life?" Responses were dichotomized as "significantly" (*somewhat* or *a lot*) or "not significantly" (*very little* or *not at all*). Sleep problems were queried (difficulty falling asleep, falling asleep during waking hours, difficulty sleeping through the night, or quality of sleep; yes/no) over the last five years as were physical or medical conditions that affected weight and/or appetite (yes/no).

Statistical Analyses

Range and value checking was performed to examine missing data or implausible values. Demographic and descriptive statistics included percent tabulations for categorical variables and means and standard deviations for continuous variables. A *t*-test and Fisher exact test were used to test differences between women with body size satisfaction and body size dissatisfaction on continuous and categorical outcome variables, respectively. *p*-values were adjusted using the permutation method (Westfall, Tobias, Rom, Wolfinger, & Hochberg, 1999). This method as applied to this sample has been discussed elsewhere (Gagne et al., 2012). In brief, this approach is used to indirectly account for the possibility of non-independence in a convenience sample.

The adjusted *p*-value is obtained from a distribution of *p*-values generated without replacement from the observed sample. For each iteration, the response values were randomly shuffled across predictor values and this occurred across 20,000 iterations. Importantly, because the *p*-values are based on a sampling from the data set, external generalizability is not possible and inference is appropriate to this sample only. Each group of comparisons was adjusted using the Benjamini-Hochberg false discovery rate (FDR)

method with each outcome as a separate family (Benjamini & Hochberg, 1995). All analyses were performed using SAS/STAT® software, Version 9.2 of the SAS System for Windows (SAS Institute Inc., 2008).

Results

Demographics

Demographic characteristics of total sample (N = 1,789) are presented in Table 1. The mean age was 59.1 years (*SD* = 6.8), and the majority of participants reported being of White/non-Hispanic descent (90.3%). The mean BMI was 27.4 (*SD* = 6.5), with 42% of women falling in the normal weight range, which is commensurate with the average body mass of women in the United States (McDowell, Fryar, Ogden, & Flegal, 2008). Only 12.2% of women (n = 218) reported body size satisfaction (current silhouette = preferred silhouette).

Satisfied women did not differ significantly from dissatisfied women on age or ethnicity (Table 1). However, satisfied women had significantly lower BMIs (21.4 vs. 28.3, $p < .01$), with fewer women in the overweight and obese weight category.

Core Eating Disorder Symptoms Profile

Table 2 contains results of tests examining group differences in both current and past core eating disorder symptom profiles. Satisfied women were significantly more likely to meet current criteria for “no core eating disorder symptoms.” The frequency of current low BMI, binge eating and purging, binge eating only, and purging only (in the last 5 years) did not differ significantly between groups. However, satisfied women were significantly more likely to report a history of low BMI and were less likely to report a history of overweight than dissatisfied women.

Dieting and Weight Control Behaviors

Frequent body checking was significantly less common in satisfied women (Table 4), but groups did not differ significantly on weighing behavior: 38.0% of satisfied women versus 40.2% of dissatisfied women endorsed frequent weighing.

Satisfied women were significantly less likely than dissatisfied women to report currently trying to lose weight and they spent less time dieting in the last 5 years. However, the total number of hours of exercise per week was higher in satisfied women. With the exception of diet pill use, which was less commonly reported in satisfied women, use of extreme weight control behaviors in the last five years did not differ significantly between groups.

In examining lifetime dieting behaviors, satisfied women were significantly less likely than dissatisfied women to report having ever been involved in a structured diet program, adhered to a low calorie diet, or skipped meals to control weight or shape. Groups did not differ significantly on other lifetime dieting variables, extreme weight control behaviors, or prior attempts at improving or altering their appearance (e.g., use of Botox® or laser treatment), except satisfied women were less likely to report coloring their hair (see Table 4).

Weight and Shape Concerns

Differences in weight and shape concerns between groups are presented in Table 3. Satisfied women were significantly less likely than dissatisfied women to report frequent thoughts about their weight and to report being upset if they were to gain 5 pounds. Satisfied women were also less likely to report dissatisfaction with their current weight, overall shape, specific body parts (stomach, arms, and thighs; not face and skin), and overall appearance

compared with when they were younger. Envy of younger women's ability to do more with their bodies or receiving less attention from others were also significantly less common in satisfied women. No differences emerged on envy of younger women's appearance or reports of receiving more or less respect from others due to their age. The majority of women in both groups reported that weight and shape played a primary role in their self-evaluation (77.1% of satisfied women and 79.3% of dissatisfied women), with no difference between groups.

Quality of Life

Reports of eating, weight, or shape having a significant ("somewhat" to "a lot") impact on life were significantly less frequent in satisfied women than dissatisfied women (27.4% vs. 66.6%, $p < .001$). Satisfied women were less likely to report that a physical or medical condition affected their weight or appetite (9.2% vs. 30.3%, $p < .001$). No differences emerged between groups on self-reported sleep-problems (67.9% vs. 78.7%, $p = .051$).

Discussion

This is the first study to characterize comprehensively the profile of women 50 and older who report body size satisfaction based on silhouettes. Supporting prior research (Bedford & Johnson, 2006), only a minority of women (12.2%) indicated satisfaction with their body size. Consistent with our hypothesis, satisfied women reported better overall functioning, including less dieting and unhealthy weight control behaviors and fewer weight and shape concerns. Intriguingly, satisfied women appeared to exert considerable effort in achieving and maintaining their satisfaction—a sizable number of satisfied women engaged in weight monitoring, weight management behaviors, and reported that their self-evaluation was moderately or strongly influenced by weight and shape status. Thus, in contrast to effortless satisfaction, achieving body size satisfaction appeared to be an effortful endeavor that included some of the same behaviors seen in body dissatisfied women.

Corroborating prior research (Anderson et al., 2002; McLaren et al., 2003; Millstein et al., 2008), satisfied women weighed significantly less than dissatisfied women and, based on retrospective recall of weight, maintained relative thinness throughout their life. A novel finding was that the maintenance of thinness appeared to be a fairly active endeavor for many women. Although the majority of satisfied women were in the normal weight range (88%), almost half (40.6%) reported that a 5-pound weight gain would have made them moderately to extremely upset. In addition, a substantial percentage of satisfied women (77.1%) reported that weight and shape played a primary role in their self-evaluation, implying that changes to body size would still greatly affect (negatively or positively) their self-evaluation. It is possible that maintaining a weight in at least the normal range was important to the achievement of body size satisfaction for many of these women. However, not all body size satisfied women were normal weight (5.5% were overweight, 1.5% were obese) and body satisfaction has been previously observed in overweight middle-aged women (e.g., Anderson et al., 2002; Anderson, Janes, Ziemer, & Phillips, 1997). Therefore, more complex designs exploring potential mediators and moderators of BMI and body satisfaction (e.g., weight related teasing; Slevec & Tiggemann, 2011) are needed to clarify whether different profiles of body size satisfaction exist.

Together with prior research (Bedford & Johnson, 2006; Millstein et al., 2008; Slevec & Tiggemann, 2011), our findings suggest that body size satisfaction may be a potent protective factor against eating disorder symptoms and unhealthy weight control behaviors. More satisfied than dissatisfied women met current criteria for "no core eating disorder symptoms," and the prevalence of current binge eating (0.5% vs. 3.6%) and purging in the last 5 years (2.1% vs. 8.6%) were less common in satisfied women, although not statistically

significant so. Less extreme but concerning dieting and unhealthy weight control behaviors (e.g., diet pills, a low calorie diet, and skipping meals) were also significantly less common in satisfied women, supporting and extending prior research (Millstein et al., 2008).

In fact, satisfied women may engage in healthier lifestyle behaviors. We found that body size satisfied women exercised more than dissatisfied women, averaging five hours per week (two hours more per week than dissatisfied women), approaching the CDC (2008) and Institute of Medicine (Brooks, Butte, Rand, Flatt, & Caballero, 2004) adult physical activity recommendations. A positive relation between exercise and other core aspects of body image, specifically appearance satisfaction (de Souto Barreto et al., 2011; Renee-Umstattd et al., 2011) and body function satisfaction (e.g., Arbour & Martin Ginis, 2008; de Souto Barreto et al., 2011; Renee-Umstattd et al., 2011), in middle-aged women has been previously documented. Thus, exercise may directly (and indirectly) enhance body esteem in women. Indeed, clinical trials reveal that structured exercise, even of short duration, result in improvements in various aspects of body image (Arbour & Martin Ginis, 2008; Campbell & Hausenblas, 2009; Martin Ginis et al., 2005; Renee-Umstattd et al., 2011), although motivation to exercise may be an important moderator (Tiggemann & Williamson, 2000). Given the beneficial effects of exercise on not just body image but weight management (Catenacci & Wyatt, 2007) and mental and physical health (Penedo & Dahn, 2005), it is likely prudent to recommend the incorporation of physical activity into body image interventions for women.

Our observation that fewer satisfied women reported trying to lose weight is consistent with other studies (Anderson et al., 2002; Millstein et al., 2008; Anderson et al., 1997). Intriguingly, one quarter of the satisfied women in our sample reported currently trying to lose weight. We did not examine motivation for weight loss, but it is possible that a subset of these women, although satisfied with their body size, were dissatisfied with their weight (number on the scale) and were motivated to lose weight for that reason. As some body size satisfied women were borderline or clinically overweight or obese, it is also possible that weight loss attempts were appropriately motivated by achievement of health, enhanced mobility, or prevention of weight-related morbidity and disease. Better understanding how women can maintain body satisfaction while simultaneously trying to regulate weight may help inform body image and obesity interventions, enhancing their long-term efficacy.

Of further clinical interest, although body size satisfied women were less likely to report dissatisfaction with various aspects of their appearance (weight, shape, stomach, arms, thighs, overall appearance), over 50% still reported dissatisfaction with their stomach (56.2%), face (53.8%), and skin (78.8%). These body parts change significantly with age (Sjerobabski-Masnec & Situm, 2010; Wells et al., 2010), suggesting that although these women are not dissatisfied with body size, they are dissatisfied with other aging-related appearance changes. Indeed, 50% of satisfied women reported being envious of younger women's physical appearance, and they were no less likely than dissatisfied women to report using products aimed to alter their appearance (e.g., cosmetic surgery, anti-aging creams). Although concerning, these results are not surprising given ubiquitous social pressures to retain a youthful appearance (Wolf, 2002), and influence of a multi-billion dollar anti-aging cosmetics industry (BCC, Inc., 2005; Huang & Miller, 2007). Our findings underscore the need for a multifaceted approach to studying and assessing body image, particularly in women whose bodies undergo constant age-related change.

The enhanced quality of life observed in body size satisfied women may in part be explained by the absence of medical and physical conditions affecting weight and shape. Fewer body size satisfied than dissatisfied women reported having a physical or medical condition that affected their weight or appetite. Functional, attentional, or aesthetic physical changes occur

secondary to medical conditions (e.g., breast cancer; Helms, O'Hea, & Corso, 2008), treatments (e.g., medications such as psychotropics; McCloughen & Foster, 2011), and procedures (e.g., surgery; Fingeret et al., 2011) and can negatively impact body image (de Souto Barreto et al., 2011; Pruzinsky, 2004). As cross-sectional self-report survey, we were unable to obtain reliable data on medical conditions and unable to explore the impact of such factors on BMI and body size satisfaction in mature women.

Limitations

Together with the strengths of large sample size and a broad range of variables measured, limitations of this study must also be considered. First, use of permutation test methodology prohibits generalizability of findings to other samples, and the distribution of racial and ethnic minorities did not match that of the U.S. women (U.S. Census Bureau, 2010). The use of Internet sampling may have constituted a selection bias and skewed our sample to more affluent participants (U.S. Census Bureau, 2009). Second, data were based solely on self-report, precluding verification of responses. Under or over-reporting may have occurred, particularly for height, weight, and exercise (Engstrom, Paterson, Doherty, Trabulsi, & Speer, 2003; Jakicic, Polley, & Wing, 1998). On the other hand, anonymous Internet surveys may reduce social desirability effects (Joinson, 1999) and render participants more comfortable disclosing sensitive information (Bethlehem & Biffignandi, 2012). Third, although our sample was large (N = 1,789), we may have lacked adequate power on some analyses to detect differences between groups. Fourth, our cross-sectional design did not allow determination of direction of causation between body size satisfaction and outcomes. Fifth, as we did not inquire about cause of low BMI, we could not determine whether prior low BMI was due to an eating disorder or other factors associated with low weight, such as constitutional thinness (Bossu et al., 2007), cancer (Dewys et al., 1980), or depression (Weissenburger et al., 1986). Finally, we did not inquire about menopausal status; there is limited overall support for the role of menopausal status in body dissatisfaction (Slevec and Tiggemann, 2011) and additional research is needed to understand this relation.

Conclusions

Women with body size satisfaction report better overall functioning, including less use of dieting and fewer unhealthy weight control behaviors. However, body size satisfied women appear to exert considerable effort to achieve and maintain this satisfaction, and they are not impervious to experiencing dissatisfaction with other aspects of their appearance, particularly those aspects affected by aging. Health care providers are encouraged to assess and discuss weight, shape, and aging-related concerns with all mature women, and to maintain sensitivity when talking about weight management. Exercise may be a primary mechanism for enhancing body image, and future studies should explore best practices for how to incorporate exercise and physical activity into body image interventions. Detailed longitudinal studies are needed to understand body satisfaction in diverse populations and by weight status. Our results underscore that the achievement of body size satisfaction in mature women is associated with an effortful process, which may counter inaccurate stereotypes that body size satisfaction is an effortlessly achieved state and inform interventions aimed to improve body image, prevent eating disorders and obesity, and enhance wellness in this growing and understudied population.

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Table 1

Sample Characteristics n (%) by Body Size Satisfaction Status

Variable	Total sample N = 1,789	Body size satisfaction *n* = 218	Body size dissatisfaction *n* = 1,571
Age, years (*M, SD*)	59.1 (6.8)	59.4 (7.1)	59.0 (6.7)
Race			
White	1,640 (92.3)	200 (92.2)	1440 (92.4)
Black or African American	79 (4.4)	5 (2.3)	74 (4.7)
Asian	14 (0.8)	5 (2.3)	9 (0.6)
American Indian, Alaska Native	2 (0.1)	0 (0.0)	2 (0.1)
Native Hawaiian, Pacific Islander	0 (0.0)	0 (0.0)	0 (0.0)
Other	20 (1.1)	4 (1.8)	16 (1.0)
Multiracial	21 (1.2)	3 (1.4)	18 (1.2)
Ethnicity			
Hispanic	48 (2.7)	5 (2.3)	43 (2.8)
Non-White/non-Hispanic	122 (7.0)	14 (6.6)	108 (7.0)
White/non-Hispanic	1,580 (90.3)	194 (91.1)	1,386 (90.2)
BMI (*M, SD*)	27.4 (6.5)	21.4 (3.7)	28.3 (6.4)
BMI category			
Underweight (< 18.5)	25 (1.5)	10 (5.0)	15 (1.1)
Normal (18.5 – 24.9)	678 (42.0)	176 (88.0)	502 (35.5)
Overweight (25 – 29.9)	477 (29.6)	11 (5.5)	466 (33.0)
Obese (≥ 30)	434 (26.9)	3 (1.5)	431 (30.5)

Note. Percentages may not sum to 100 percent due to rounding error. BMI = body mass index.

Table 2

Association Between Body Size Satisfaction and Core Eating Disorder Symptoms Profiles

Eating disorder symptoms profile	**Total sample N = 1,789**	**Body size satisfaction *n* = 218**	**Body size dissatisfaction *n* = 1,571**	
Current	***n* (%)**	***n* (%)**	***n* (%)**	***p*-value[a]**
Low BMI	2 (0.1)	2 (1.1)	0 (0.0)	.75
Binge and purge[b]	3 (0.2)	0 (0.0)	3 (0.2)	> .99
Binge only	52 (3.2)	1 (0.5)	51 (3.6)	.64
Purge only (last 5 years)	120 (7.8)	4 (2.1)	116 (8.6)	.07
No core eating disorders symptoms	1,172 (82.4)	169 (94.4)	1,003 (80.6)	**< .001**
Past				
Low BMI	301 (19.3)	70 (37.0)	231 (16.8)	**< .001**
Binge and purge[c]	21 (1.3)	5 (2.4)	16 (1.1)	> .99
Binge only	67 (4.1)	8 (3.9)	59 (4.1)	> .99
No core eating disorders symptoms	788 (51.2)	98 (52.4)	690 (51.0)	> .99
History of overweight	934 (58.4)	43 (21.9)	891 (63.6)	**< .001**

Note. Sample sizes differ across eating disorder symptom profiles and proportions do not sum to unity within current and past groups.

[a] *p*-values from permutation-adjusted Fisher exact tests. FDR method was used to adjust the entire family of *p*-values.

[b] Binge eating at least once per week at current age and purging at least once in last 5 years.

[c] Binge eating at least once per week in the past (not at current age) and purging at least once in the last 5 years.

Table 3

Association Between Body Size Satisfaction and Dieting and Weight Control Behaviors

Variable	Total sample N = 1,789	Body size satisfaction *n* = 218	Body size dissatisfaction *n* = 1,571	
	***n* (%)**	***n* (%)**	***n* (%)**	***p*-value[a]**
Body checking (daily or more)	734 (41.3)	59 (27.2)	675 (43.2)	**< .001**
Weighing (couple times a week or more)	710 (39.9)	82 (38.0)	628 (40.2)	> .99
Trying to lose weight	1,269 (71.4)	51 (23.5)	1,218 (78.0)	**< .001**
Spent about half time or more dieting (last 5 years)	631 (35.6)	23 (10.6)	608 (39.1)	**< .001**
Exercise (average hrs/wk)	4.0 (4.1)	5.7 (5.1)	3.7 (3.8)	**< .001**
Extreme weight control behaviors (last 5 yrs)				
Vomit	23 (1.3)	0 (0.0)	23 (1.5)	> .99
Laxatives	40 (2.2)	0 (0.0)	40 (2.5)	.66
Diuretics	47 (2.6)	0 (0.0)	47 (3.0)	.36
Diet pills	136 (7.6)	3 (1.4)	133 (8.5)	**< .006**
Excessive exercise	125 (7.0)	7 (3.2)	118 (7.5)	.78
Dieting (lifetime)				
Diet program	1,009 (56.4)	56 (25.7)	953 (60.7)	**< .001**
Vegetarianism	217 (12.1)	28 (12.8)	189 (12.0)	> .99
Restricting	385 (21.5)	33 (15.1)	352 (22.4)	.74
Eliminating foods	648 (36.2)	56 (25.7)	592 (37.7)	.06
Lack variety	301 (16.8)	22 (10.1)	279 (17.8)	.29
Extreme weight control behaviors (lifetime)				
Extreme calorie counting	272 (15.2)	19 (8.7)	253 (16.1)	.28
Fasting	152 (8.5)	19 (8.7)	133 (8.5)	> .99
Cleanses	127 (7.1)	11 (5.0)	116 (7.4)	> .99
Low kcal diet	383 (21.4)	22 (10.1)	361 (23.0)	**< .001**
Skipping meals	451 (25.2)	33 (15.1)	418 (26.6)	**< .02**
Treatment for weight control (lifetime)				
Cognitive behavioral therapy	55 (3.1)	5 (2.3)	50 (3.2)	> .99
Bariatric surgery	28 (1.6)	2 (0.9)	26 (1.7)	> .99
Attempts to improve/alter appearance (lifetime)				

Variable	Total sample N = 1,789	Body size satisfaction *n* = 218	Body size dissatisfaction *n* = 1,571	
	***n* (%)**	***n* (%)**	***n* (%)**	***p*-value[a]**
Cosmetic surgery	156 (8.7)	25 (11.5)	131 (8.3)	> .99
Botox® or laser treatment	105 (5.9)	18 (8.3)	87 (5.5)	> .99
Dermatologic/anti-aging creams	949 (53.0)	114 (52.3)	835 (53.2)	> .99
Color hair	1,182 (66.1)	116 (53.2)	1,066 (67.9)	**< .007**
Other	165 (9.2)	25 (11.5)	140 (8.9)	> .99

Note. Columns ≠ 100% due to missing data.

[a] *p*-values from permutation-adjusted *t*-tests (continuous variables) or Fisher exact tests (categorical variables). FDR method was used to adjust the entire family of *p*-values.

Table 4

Association Between Body Size Satisfaction and Weight and Shape Concerns

Variable	Total sample N = 1,789	Body size satisfaction *n* = 218	Body size dissatisfaction *n* = 1,571	
	***n* (%)**	***n* (%)**	***n* (%)**	***p*-value[a]**
Thoughts about weight (daily-always)	1,136 (63.9)	74 (34.1)	1,062 (68.0)	< **.001**
Upset if gain 5 lbs (mod-extreme)	1,132 (63.7)	88 (40.6)	1,044 (66.9)	< **.001**
Compared with when younger, less satisfied with:				
Weight	1,248 (71.2)	36 (16.9)	1,212 (78.7)	< **.001**
Shape	1,284 (73.4)	56 (26.5)	1,228 (79.8)	< **.001**
Stomach	1,466 (83.9)	118 (56.2)	1,348 (87.7)	< **.001**
Arms	1,142 (65.7)	82 (38.7)	1,060 (69.5)	< **.001**
Thighs	1,000 (57.4)	61 (28.6)	939 (61.4)	< **.001**
Face	942 (54.1)	114 (53.8)	828 (54.2)	> .99
Skin	1,217 (70.1)	167 (78.8)	1,050 (68.9)	.26
Overall appearance	1,121 (66.4)	58 (28.9)	1,063 (71.5)	< **.001**
Envy younger women's:				
Physical appearance	1,036 (59.3)	107 (50.7)	929 (60.4)	.56
Ability to do more with bodies	885 (50.5)	80 (37.9)	805 (52.2)	< **.02**
Treated differently due to age:				
Less attention	763 (42.6)	69 (31.7)	694 (44.2)	< **.048**
More attention	174 (9.7)	20 (9.2)	154 (9.8)	> .99
Less respect	251 (14.0)	16 (7.3)	235 (15.0)	.16
More respect	772 (43.2)	103 (47.2)	669 (42.6)	> .99
Importance wt/shape on self-evaluation (mod-most important)	1,404 (79.1)	165 (77.1)	1,239 (79.3)	> .99

Note. Columns ≠ 100% due to missing data.

[a] *p*-values from permutation-adjusted Fisher exact tests. FDR method was used to adjust the entire family of *p*-values.