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Correlates of Appearance and Weight Satisfaction in a U.S. National Sample:
Personality, Attachment Style, Television Viewing, Self-Esteem, and Life Satisfaction.

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Abstract

We examined the prevalence and correlates of satisfaction with appearance and weight. Participants ($N = 12,176$) completed an online survey posted on the *NBCNews.com* and *Today.com* websites. Few men and women were very to extremely dissatisfied with their physical appearances (6%; 9%), but feeling very to extremely dissatisfied with weight was more common (15%; 20%). Only about one-fourth of men and women felt very to extremely satisfied with their appearances (28%; 26%) and weights (24%; 20%). Men and women with higher body masses reported higher appearance and weight dissatisfaction. Dissatisfied people had higher Neuroticism, more preoccupied and fearful attachment styles, and spent more hours watching television. In contrast, satisfied people had higher Openness, Conscientious, Extraversion, were more secure in attachment style, and had higher self-esteem and life satisfaction. These findings highlight the high prevalence of body dissatisfaction and the factors linked to dissatisfaction among U.S. adults.

Keywords: body image; weight satisfaction; personality; attachment style; self-esteem; body mass index

Body dissatisfaction is a prevalent problem among women and men in industrialized settings across the world (Frederick, Forbes, & Berezovskaya, 2008; Frederick, Jafary, Daniels, & Gruys, 2012). The majority of women in these settings wish to be thinner (Swami, 2015; Swami et al., 2010; Swami, Tran, Stieger, Voracek, & The YouBeauty.com Team, 2015) and many are dissatisfied with their weight and appearance (Forbes & Frederick, 2008; Frederick, Kelly, Latner, Sandhu, & Tsong, 2016). Dissatisfaction with body fat level and muscle tone is common in national samples of adult men (Frederick & Essayli, in press) and among college men (Frederick, Buchanan, et al., 2007; Gray & Frederick, 2012; Smith, Hawkeswood, Bodell, & Joiner, 2011). In a national sample of U.S. adults (Fallon, Harris, & Johnson, 2014), many women and men reported preoccupation with their weights (47% women vs. 39% men) and a small percentage reported negative overall evaluations of their appearances (13% women vs. 9% men) based on their scores on the overweight preoccupation and appearance evaluation subscales of the Multidimensional Body-Self Relations Questionnaire (Brown, Cash, & Mikulka, 1990; Cash, 2000). In a separate national sample of adults, many women and men felt self-conscious about their weights because they were too heavy (61% women vs. 41% men), rated their bodies as unattractive (21% women vs. 11% men), and avoided wearing a swimsuit in public because of their feelings about their bodies (31% women vs. 16% men; Frederick, Lever, & Peplau, 2007).

These findings are concerning because people who are more dissatisfied with their bodies are more likely to exhibit a compulsive need for excessive exercise (White & Halliwell, 2010), discomfort with sex lives (Peplau et al., 2009), interest in cosmetic surgery (Frederick et al., 2007; Swami, 2009), and development of potentially life-threatening eating disorders (Stice & Shaw, 2002). Given these negative outcomes, researchers have also turned their attention to factors promoting positive feelings about the body (Tylka & Wood-Barcalow, 2015). This view encourages researchers to bring attention to the factors underlying women's and men's high

evaluations of appearance (53% women vs. 67% men; Frederick, Forbes, et al., 2007), satisfaction with weight (35% women vs. 40% men), and satisfaction with appearance (61% women vs. 63% men; Fallon et al., 2014). These positive feelings about the body are known to be associated with subjective happiness (Swami, Tran, et al., 2015).

Large-scale studies of body image among adults have been relatively rare. In this investigation, we relied on a large national sample of men and women to examine the prevalence and predictors of body satisfaction (specifically, satisfaction with weight and overall appearance). The key question of interest in this study was how personality, attachment style, and self-esteem were associated with body satisfaction. These three key aspects of human psychology potentially have profound effects on body satisfaction. The internal working models of self that underlie personality, attachment styles, and self-esteem help to organize responses to events and experiences in the social and material environment (Fraley & Shaver, 2000; Hazan & Shaver, 1987). These aspects of human psychology can impact how sensitive people are to appearance-related pressures and how concerned they become with their appearance. As described below, we were particularly interested in whether Neuroticism and anxious attachment style are independent predictors of body dissatisfaction, and whether people who are high in both Neuroticism and anxious attachment style are at higher risk for body dissatisfaction. Finally, given the important role that body satisfaction plays in psychological well-being, we explored the extent to which appearance and weight satisfaction are linked to overall satisfaction with life.

In addition to examining these questions, this dataset provided a rare opportunity to examine body image in bisexual men and women, who remain an underrepresented population in the body image literature (Atkins, 2012). We also examined how body mass and frequency of viewing different TV genres were associated with appearance and weight dissatisfaction because these have been implicated as important predictors of body image in past research.

Correlates of Body Image

Personality. Broad consensus among psychologists indicates that personality can be classified into five broad domains labeled the “Big Five” (John & Srivastava, 1999; McCrae & Costa, 1999). This five-factor framework consists of five bipolar factors: Openness to Experience (intellectual, imaginative, unconventional), Conscientiousness (dependable, controlled, constrained), Extraversion (energetic, sociable, positive emotionality), Agreeableness (altruistic, cooperative, trustful), and Neuroticism (negative affect, nervousness, self-consciousness). A wealth of research suggests that personality is linked to important life outcomes, including general mental health (for a review, see Ozer & Benet-Martinez, 2006).

People who are high in Neuroticism are more sensitive to evaluations by others and feel a stronger desire for social approval (Kvalem, von Soest, Roald, & Skolleborg, 2006). This places more neurotic men and women at greater risk for negative body image. Consistent with this idea, women with higher Neuroticism report poorer appearance evaluation (e.g., Davis, Dionne, & Shuster, 2001), higher weight preoccupation (Davis, Shuster, Blackmore, & Fox, 2004), greater self-objectification (Miner-Rubino, Twenge, & Fredrickson, 2002), greater actual-ideal weight discrepancy (Swami, Taylor, & Carvalho, 2011; Swami et al., 2013), and greater social physique anxiety (Swami & Furnham, in press). In men, Neuroticism has been associated with greater drive for muscularity (Benford & Swami, 2014). In both genders, Neuroticism has been linked to lower body appreciation (Swami, Hadji-Michael, & Furnham, 2008) and higher body weight misperception (Hartmann & Siegrist, 2015; Sutin & Terracciano, 2016).

Associations between body image and the other Big Five traits are less clear. For example, studies have found that people higher in Extraversion report greater body appreciation (Benford & Swami, 2014; Swami et al., 2008), more positive appearance evaluation (Kvalem et al., 2006), and lower social physique anxiety (Swami & Furnham, in press), but also greater

dissatisfaction with facial appearance (Thomas & Goldberg, 1995). A limited set of studies have found that people higher in Conscientiousness report healthier eating habits and better health in general (Bogg & Roberts, 2004; Lodi-Smith et al., 2010), which may translate into more positive body appreciation (Swami et al., 2008, 2013). Swami and Furnham (in press) have noted that the links between Extraversion and body image should vary depending on the specific body image outcome of interest (e.g., stronger associations with Extraversion should be expected for outcomes that have a social component, such as social physique anxiety). Swami et al. (2013) further note that only Neuroticism has emerged as a reliable predictor of body image across studies, but that conclusions are limited because of the relatively small sample sizes used in existing studies.

Attachment styles. In addition to personality, attachment styles play an important role in psychological well-being, and could contribute to body image. Bowlby (1979) proposed that attachments to others play a powerful role in adults' emotional lives, and Hazan and Shaver (1987) applied attachment theory to understand attachment styles in adult romantic relationships. Bartholomew and Horowitz (1991) assessed four attachment styles in adults: secure (feeling comfortable becoming close to others and depending on them), preoccupied (anxious; wanting complete emotional intimacy with others but worrying that others do not want to become as close to them), fearful (a form of avoidance where people want close relationships but are uncomfortable trusting or depending on others), and dismissing (a form of avoidance where people do not want close emotional relationships). Attachment style was later conceptualized along two dimensions: anxiety (fear of rejection and abandonment) and avoidance (discomfort with closeness and depending on others; Brennan, Clark, & Shaver, 1998).

Considering that attachment theory is one of the most influential and well-researched perspectives in psychology, there has been surprisingly little attention paid to the links between

attachment style and body image, particularly for men. In a study of college students (Cash, Theirault, & Annis, 2004), both men and women with more preoccupied attachment styles reported poorer body image across three different measures ($r_s = |.25|$ to $|.48|$). More secure men reported positive body image across all three measures and more secure women reported positive body image in two of the measures. Fearful and dismissing attachment styles were unrelated to body image. The link between greater anxious attachment and body dissatisfaction has been identified in samples of college women (Cash et al., 2004; Cheng & Mallinckodt, 2009; DeVille, Ellmo, Horton, & Erchull, 2015; Hardit & Hannum, 2012; Keating, Tasca, & Hill, 2013; Levi-Ari, Baumgarten-Katz, & Zohar, 2014; Patton, Beaujean, & Benedict, 2014). Results for attachment avoidance and body image are less clear, with some studies finding no association (Cash et al., 2004; Levi-Ari et al., 2014) and others finding that women with more avoidant attachment styles reported poorer body image (Deville et al., 2015; Keating et al., 2013).

Self-esteem and life satisfaction. How people feel about their bodies likely plays an important role in their overall self-esteem and satisfaction with life. There is likely a bidirectional relationship between self-esteem and body satisfaction, and body satisfaction may be a component of self-esteem. Men and women with higher self-esteem report more body satisfaction (Frederick, Bohrnstedt, Hatfield, & Berscheid, 2014; Johnson & Wardle, 2005; Swami, von Nordheim, & Barron, 2016), and adults who report greater body satisfaction and healthier eating behaviors also report greater life satisfaction (McCreary & Sadava, 2001) and subjective happiness (Swami, Tran, et al., 2015). Furthermore, many people report that their feelings about their bodies have a negative impact on their overall quality of life (Cash & Fleming, 2002; Peplau et al., 2009). The extent to which body image is an important predictor of overall life satisfaction in adults, even when controlling for other contributors to life satisfaction, remains to be seen.

Television viewing. Exposure to popular media has been implicated as a major cause of body dissatisfaction (Harrison, 2000). Slender women are routinely featured as attractive in popular media, and women who internalize these slender ideals are less satisfied with their bodies (Cafri, Yamamiya, Brannick, & Thompson, 2005). In fact, many people report feeling pressure from the media to embody these conventional ideals (Schaeffer et al., 2015).

Correlational studies, however, have generally found weak or null associations between overall TV viewing and body image (Ferguson, 2013). Tiggemann (2005) proposed that it is important to assess not only overall TV viewing, but also the specific genre consumed in order to clarify the relationships between TV viewing and body image concerns.

Personal characteristics. Past research has identified gender, sexual orientation, and body mass as important predictors of body image. Many men and women are dissatisfied with their bodies, but women are more likely to be dissatisfied (Feingold & Mazzella, 1998; Frederick, Lever, & Peplau, 2007). Meta-analyses show that heterosexual men report more satisfaction than gay men ($d = 0.29$), but heterosexual women and lesbian women do not differ ($d = 0.02$; Morrison, Morrison, & Sager, 2004). A recent examination of body image among 111,958 heterosexual men and 4,398 gay men across five different national datasets found only small differences between gay and heterosexual men in body satisfaction, but moderate differences in attempts at body modification, surveillance, perceived objectification, perceived pressure from the media to be attractive, and appearance-related social comparisons (Frederick & Essayli, in press).

Body mass index (BMI) is strongly related to men's and women's feelings about their bodies. Slender women are represented as desirable in popular media, and correspondingly, slender women tend to feel more satisfied with their bodies than heavier women. In contrast, men who are toned or who appear physically powerful are represented as prestigious (Frederick,

Fessler, & Haselton, 2005) and women tend to rate muscular men and toned men as most attractive (Frederick & Haselton, 2007). Correspondingly, men in the normal and overweight ranges feel more satisfied than very slender and heavy men (Fallon et al., 2014; Frederick, Forbes, et al., 2007; Frederick, Lever, & Peplau, 2007).

The Present Study

Although the extant literature points to a number of consistent relationships between body image and the key aspects of psychology reviewed above, one of the limitations of this work is the focus on negative aspects of how people feel about their bodies. By contrast, although emergent work is beginning to rectify this by focusing on positive body image (see Tylka & Wood-Barcalow, 2015), there remains much room for extending these findings. Moreover, there is a need to ascertain the generalizability earlier research given the tendency to rely on college samples. Here, we focused specifically on satisfaction with appearance and weight, two aspects within a broader framework of positive body image, and examined associations with the afore-mentioned factors in a national sample of US adults.

Most past research has reported mean levels of body image or the percentage of people who score below the midpoint on a Likert scale. Extreme body dissatisfaction is particularly important to address at a societal and clinical level, and therefore we present the percentage of men and women with both with different degrees of body dissatisfaction and satisfaction. Extreme body satisfaction is important to study so that the traits potentially promoting these positive feelings can be identified.

Hypotheses. We expected that people would be more satisfied with their appearance and weight when they watch less TV (H1), were less neurotic and possibly more extraverted (H2), and had attachment styles that were more secure, less preoccupied, and less fearful (H3). Consistent with the proposal that feelings about the body are an important component of people's

daily happiness and integral to self-esteem, we also hypothesized that people who were more satisfied with their appearance and weight would have higher self-esteem and be more satisfied with their life overall, even when controlling for other sources of life satisfaction (H4).

Heterosexual men were expected to be more satisfied with their appearance and weight than other groups (H5), as were people with lower BMIs (H6). We also took this opportunity to present the prevalence of very low and very high levels of appearance and weight satisfaction for men and women of differing body masses.

Method

Participants and Procedures

The surveys were posted on the websites of *NBCNews.com* and *Today.com*, and then other sites also picked up and shared the survey. Participants were volunteers who clicked on banner advertisements for the surveys that appeared on the main page and subsections webpage. The invitations did not specify that the surveys were on body image, but rather on another topic (attitudes towards reality TV, which is one of the most widely watched genres of television shows, with over 70% of people watching reality TV on a regular or occasional basis; Hill, 2005). A software program denied multiple responses from any given computer to prevent people from completing the survey more than once. Informed consent was obtained from all participants.

Overall, 26,874 participants clicked on the survey and began the first question, and 18,953 completed all questions in the survey. The analyzed sample included 12,176 participants who fit the following criteria: completed the survey via the *NBCNews.com* ($n = 9,485$; 2,950 men and 6,535 women) or the *Today.com* websites ($n = 2,691$; 276 men and 2,415 women); aged 18-65 years; reported living in the U.S.; completed the full survey; BMIs 14.5-50.5 kg/m² (based on self-reported height and weight); and indicated their sexual orientation in response to an item

asking them to classify their sexual orientation as heterosexual, bisexual, or gay/lesbian. Age and BMI restrictions were placed on the sample to prevent outliers from having a disproportionate effect on results. We also divided the participants into six BMI categories commonly used in the medical literature (Panel, NHLBI Obesity Education Initiative, 1998): Underweight (< 18.50), Normal (18.50-24.99), Overweight (25.00-29.99), Obese I (30.00-34.99), Obese II (35.00-39.99), and Obese III (40.00 or greater). Ethnicity was not assessed in this survey. In a previous survey conducted with samples drawn from the official websites of *NBC News*, the ethnic composition was 86% White, 3% Black, 3% Hispanic, 2% Asian, 1% Native American, 1% Other, 1% Biracial, and 2% prefer not to say (Frederick, St. John, Garcia, & Lloyd, 2016). Key demographics are presented in Table 1.

Market research on NBCNews.com (formerly msnbc.com) shows that, at the time of the surveys, it routinely ranked among one of the most popular websites in the United States. Its 58 million unique monthly visitors included a broad diversity of people in terms of age, income, and political orientation (NBCNews.com Media Kit, 2012). It is important to note that msnbc.com, the general news website, was a different entity than MSNBC TV and had substantially different demographics, including approximately equal numbers of Democrat and Republican visitors. Datasets on various topics garnered through this site between 2002 and 2012 have been used to examine mate preferences (Fales et al., 2016), sexual jealousy (Frederick & Fales, 2016), sexual regrets (Galperin et al., 2013), sexual experience (Frederick & Jenkins, 2015), sexual satisfaction (Frederick, Lever, Gillespie, & Garcia, in press), gender differences in beliefs about who should pay for dates (Lever, Frederick, & Hertz, 2015), friendship (Gillespie, Frederick, Harari, & Grov, 2015; Gillespie, Lever, Frederick, & Royce, 2015), and aspects of body image (Frederick, Lever, & Peplau, 2007; Frederick, Peplau, & Lever, 2006, 2008; Lever, Frederick, Laird, & Sadeghi-Azar, 2007; Lever, Frederick, & Peplau, 2006; Peplau et al., 2009). The *Today.com* sample was

retained because this is also a widely accessed website associated with NBC's *The Today Show*. It presents news, interviews, and lifestyle features, receiving 23 million visits per month (per similarweb.com as of 6/1/2014).

Some data from this survey were included as part of a larger five-study examination of body image differences between heterosexual and gay men (Frederick & Essayli, in press) and between heterosexual women and lesbian women (Frederick, Allyn, Smolak, & Murnen, 2016). The current manuscript presents analyses not previously reported, including associations among body image, personality, attachment style, TV viewing, and psychological well-being. We additionally present novel analyses and data, including responses of bisexual men and women, comparisons between heterosexual men and women, and frequency distributions showing the prevalence of feeling very-extremely satisfied or dissatisfied with appearance and weight across BMI categories commonly used in the medical literature.

Body Image Measures

Participants were asked "How dissatisfied or satisfied are you with your [physical appearance] [weight]?" (1 = *Extremely dissatisfied*, 4 = *Neutral*, 7 = *Extremely satisfied*). Four studies establishing the validity of these measures revealed moderate to high intercorrelations between established measures and the measures used in this study (Sandhu & Frederick, 2015). Scores on the Appearance Evaluation Scale (Cash, 2000) were highly correlated with our Satisfaction with Physical Appearance item ($r = .77$). Scores on our Satisfaction with Weight item were significantly correlated with scores on Cash's (2000) Overweight Preoccupation Scale ($r = -.55$) and Garner, Olmstead, and Polivy's (1983) Drive for Thinness scale ($r = -.73$).

Proposed Correlates of Body Image

Television viewing. Participants were given the item "Tell us how frequently you watch TV shows (including shows you watch on network TV, cable, satellite, Netflix, Hulu, iTunes,

and other online sources). On average, how many HOURS PER WEEK do you watch TV shows.” A drop down box allowed answers ranging from 0 to 10, followed by 11-15, 16-20, 21-25, 26-30, 31-35, 36-40, 41-45, 46-50, 51+. The responses were recoded into the midpoint of each category (e.g., 11-15 was recoded as 13) and 51+ was recoded as 55. Participants were then asked how often they watched the following types of TV shows: news programming, dramas, comedies, late night shows, sports, reality TV shows featuring competition (*Survivor*, *Big Brother*, etc.), and reality TV shows featuring different lifestyles (*Kardashians*, *Hoarders*, *Deadliest Catch*, *Teen Mom*, *Real Housewives*, etc.). For each item, they recorded the viewing frequency on a following 5-point scale (1 = *Rarely or never*, 2 = *Several times per month*, 3 = *Several times per week*, 4 = *Almost every day*, 5 = *Every day*).

Personality. Personality was assessed using the Five Item Personality Inventory (Gosling, Rentfrow, & Swann, 2003). Participants were given the prompt “I see myself as” and then an item assessing Openness (“open to new experiences”), Conscientiousness (“dependable and self-disciplined”), Extraversion (“extroverted and enthusiastic”), Agreeableness (“warm and sympathetic to others”), and Neuroticism (“anxious and easily upset”). Participants recorded their responses on a 5-point Likert-type scale (1 = *Strongly Disagree*, 3 = *Neutral*, 5 = *Strongly Agree*). Responses on these items have been shown to be moderately-to-highly correlated with other validated indicators of personality ($r_s = .60-72$; Gosling et al., 2003).

Attachment style. Attachment style was assessed using the Relationship Questionnaire (Bartholomew & Horowitz, 1991). This measure presents four short paragraphs, each describing a different attachment style: Secure, Preoccupied, Dismissive-Avoidant, and Fearful-Avoidant. Participants were asked to rate the degree to which each of the paragraphs accurately described who they are (1 = *Not at all like me*, 3 = *Somewhat like me*, 5 = *Exactly like me*). Higher scores indicated greater belief that the attachment style describes them. Bartholomew (1989) found that

the four attachment styles had moderate stability over a 2-month period ($r_s = .49-.71$) and Bartholomew and Horowitz (1991) reported that the four styles related in theoretically consistent ways with self-reports and friend-reports of respondents' self-esteem and sociability.

Psychological well-being. Self-esteem was assessed with a one-item self-esteem measure (Robins, Hendin, & Trzesniewski, 2001). Participants reported their agreement with the following statement "I have high self-esteem." Responses were made on a 5-point Likert-type scale (1 = *Strongly Disagree*, 3 = *Neutral*, 5 = *Strongly Agree*). Robins et al. (2001) indicated that this measure had very good validity in college and community adults. To assess other aspects of psychological well-being, participants were asked "How dissatisfied or satisfied are you with your [life overall] [sex life] [financial situation] [relationships with your friends] [relationship with your romantic partner] [relationship with your family]?" Participants recorded their responses on a 7-point Likert-type scale (1 = *Extremely Dissatisfied*, 4 = *Neutral*, 7 = *Extremely Satisfied*). Participants could indicate not applicable to the item and these participants were excluded only from analyses involving that variable: life satisfaction ($n = 2$), sex life ($n = 543$), financial situation ($n = 25$), relationship with friends ($n = 44$), relationship with romantic partner ($n = 1,848$), relationship with family ($n = 82$).

Results

Due to the fact that numerous statistical tests were conducted and thus Type I errors may be a concern, we highlight whether the results were statistically significant at the $p < .05$, $.01$, or $.001$ levels. Given our large sample sizes, even miniscule effects can emerge as statistically significant. Thus, we elected to highlight statistically significant results when they reflect β values greater than $|.09|$ and Cohen's d greater than $|0.19|$. What is considered a small, moderate, or large effect size can vary dramatically based on the research question of interest. As a very rough guide, Cohen (1988) suggests that effect size d can be interpreted as small (0.20),

moderate (0.50), or large (0.80). These values correspond to Pearson's r correlations of .10, .24, and .37. Ferguson (2009, p. 533) suggested somewhat higher thresholds for what should be considered the "recommended minimum effect size representing a 'practically' significant effect for social science data" ($d = 0.41$; β or $r = .20$).

Hypotheses 1-3: Correlates of Body Image: Television Viewing, Personality, and Attachment Style

For each gender by sexual orientation group, we calculated the correlation (Pearson's r) between the proposed correlates of body image and appearance satisfaction (Table 2) and weight satisfaction (Table 3). We then conducted hierarchical regression analyses including key predictors of these body image outcomes (Table 4). In the first step of the regression, we included age, TV viewing frequency, personality factors, and attachment styles. In the second step, we added self-esteem, BMI (linear), and BMI² (curvilinear). The curvilinear term was included because some past research has found that the association between BMI and body image is not always strictly linear, particularly for men (e.g., Frederick, Forbes, et al., 2007; Frederick, Peplau, & Lever, 2006), although not all research has consistently found this pattern (Frederick & Essayli, in press). Self-esteem was held out of the first model because appearance satisfaction is potentially a source or component of overall self-esteem rather than an outcome of self-esteem. BMI was held out of the original model because it is generally a powerful predictor of body image and we wanted to test the relative influence of the psychological variables in the first step.

Multicollinearity was low among the predictors (all variance inflation factors < 1.05) and all skewness and kurtosis values were less than |2.0|, with almost all less than |1.0|. Due to the relatively small samples among the non-heterosexual participants and the large number of predictors, we examined the associations for men as a whole and for women as a whole rather

than examining the interactions between gender, sexual orientation, and the other predictors. In addition to these planned analyses, we also conducted exploratory analyses involving interaction terms using z-scored variables (e.g., interactions between BMI and all other predictor variables; interactions between Neuroticism, preoccupied, and fearful attachment style). No interactions were both statistically significant and with β s less than $|\beta| < .05$, and therefore we focus on our original planned analyses.

Hypothesis 1: Television viewing. Consistent with the hypotheses, people who watched more hours of TV per week were less satisfied with their appearance ($r = -.13$; Table 2) and weight ($r = -.14$; Table 3). The associations were statistically significant for heterosexual men, heterosexual women, and gay men, but not in the smaller lesbian and bisexual samples. In terms of specific genres, the strongest correlation was that people who watched dramas were most likely to report lower appearance satisfaction ($r = -.09$) and weight satisfaction ($r = -.11$). In regression analyses, people who watched TV more frequently reported less appearance satisfaction and weight satisfaction, but no associations were greater than $\beta = |\beta| > .09$ when BMI and self-esteem were added as predictors (Table 4).

Hypothesis 2: Personality. People who were more satisfied with their appearance (Table 2) and their weight (Table 3) reported higher Extraversion ($r_s = .22; .14$), higher Conscientiousness ($r_s = .22; .18$), and lower Neuroticism ($r_s = -.21; -.14$). They also reported greater Openness ($r_s = .15; .11$), and the association with Agreeableness was technically significant despite being miniscule ($r_s = .07; .02$). These associations were consistently significant in heterosexual men, heterosexual women, and gay men, but not in the smaller lesbian and bisexual samples. In the regression models excluding self-esteem and BMI, we highlight the significant associations with personality where β exceeded $|\beta| > .09$ (Table 4). Men and women who were more conscientious, more extraverted, and less neurotic were more satisfied with their

physical appearance. Women who were more conscientiousness, and men who were more extraverted and conscientious, were more satisfied with their weight. No associations exceeded $\beta = .09$ once BMI and self-esteem were added as predictors.

Hypothesis 3: Attachment style. People who were more satisfied with their physical appearance (Table 2) and with their weight (Table 3) reported more secure attachment ($r_s = .15; .10$), less preoccupied attachment ($r_s = -.13; -.09$), less fearful attachment ($r_s = -.20; -.13$), and more dismissive attachment (although the associations were miniscule, $r_s = .03; .06$). These associations were consistently significant in heterosexual men and heterosexual women, usually in gay men, but not in the smaller lesbian and bisexual samples. The only significant association where $\beta = .09$ in the regressions was that women with more fearful attachments reported less appearance satisfaction in the model excluding BMI and self-esteem (Table 4).

Hypothesis 4: Body Image, Self-Esteem, and Satisfaction with Life

Body image was consistently associated with psychological well-being (Tables 2 and 3). People who were more satisfied with their appearance and weight reported greater self-esteem ($r_s = .44; .33$) and greater satisfaction with life ($r_s = .46; .31$), sex life ($r_s = .42; .38$), friends ($r_s = .32; .23$), romantic partners ($r_s = .28; .20$), family ($r_s = .28; .18$), and financial situation ($r_s = .37; .32$). These associations were consistently significant in heterosexual men, heterosexual women, and gay men (except satisfaction with romantic partner), but not in the lesbian and bisexual samples.

We examined the extent to which body image was linked to life satisfaction, controlling for self-esteem, BMI, age, and the other sources of life satisfaction for both men and women. Separate regressions were conducted with weight satisfaction and appearance satisfaction as predictors because they were highly correlated for both men ($r = .76$) and women ($r = .79$), raising concerns regarding multicollinearity (Table 5). Men and women who were more satisfied

with their appearances and weights were more satisfied with their lives overall. Appearance satisfaction was one of the strongest predictors for men ($\beta = .20$) and women ($\beta = .20$), behind only satisfaction with financial situation for men and behind only satisfaction with financial situation and romantic partner for women.

Hypotheses 5 and 6: Gender, Sexual Orientation, and BMI Category Differences in the Prevalence of Satisfaction and Dissatisfaction with Appearance and Weight

Group differences in mean body image. To examine gender and sexual orientation differences, we conducted 2 (Gender) X 3 (Sexual Orientation) ANOVAs with appearance and weight satisfaction as dependent variables, with follow up *t*-tests comparing specific subgroups. The means are reported in Table 1. For appearance satisfaction, there was no significant main effect of gender, $F(1, 12170) = 1.65, p = .20, \eta_p^2 < .01$, a significant main effect of sexual orientation $F(2, 12170) = 4.44, p = .01, \eta_p^2 < .01$, and no significant interaction $F(2, 12170) = 0.12, p = .89, \eta_p^2 < .01$. When comparing specific groups, the only significant differences were that heterosexual men were more satisfied than heterosexual women ($d = 0.11, p < .001$), lesbians ($d = 0.21, p = .018$), bisexual women ($d = 0.24, p = .011$), and gay men ($d = 0.11, p = .047$), but not bisexual men ($d = 0.23, p = .092$).

For weight satisfaction, there was a significant main effect of gender, $F(1, 12170) = 6.67, p = .01, \eta_p^2 < .01$, such that men were more satisfied with their weight than women, no significant main effect of sexual orientation $F(2, 12170) = 2.39, p = .09, \eta_p^2 < .01$, and no significant interaction $F(2, 12170) = 1.52, p = .22, \eta_p^2 < .01$. When comparing specific groups, heterosexual men were significantly more satisfied than heterosexual women ($d = 0.17, p < .001$), lesbian women ($d = 0.32, p = .001$), and bisexual women ($d = 0.21, p = .24$). Gay men were more satisfied than heterosexual women ($d = 0.16, p = .002$) and lesbians ($d = 0.31, p = .002$). No other comparisons were significant at the $p < .05$ level.

We conducted 2 (Gender) X 5 (BMI Category) ANOVAs to examine overall group differences in appearance and weight satisfaction among heterosexual participants, with follow up *t*-tests comparing specific groups. Underweight participants were excluded due to small sample sizes. For appearance satisfaction, there was a significant main effect of gender, $F(1, 11262) = 65.75, p < .001, \eta_p^2 = .01$, a significant effect of BMI category, $F(4, 11262) = 594.37, p < .001, \eta_p^2 = .17$, and a significant interaction $F(4, 11262) = 14.41, p < .001, \eta_p^2 = .01$. For weight satisfaction, there was a significant main effect of gender, $F(1, 11262) = 165.75, p < .001, \eta_p^2 = .02$, a significant effect of BMI category, $F(4, 11262) = 1215.28, p < .001, \eta_p^2 = .30$, and a significant interaction $F(4, 11262) = 23.69, p < .001, \eta_p^2 = .01$. Comparisons of men and women with *t*-tests showed that gender differences in appearance satisfaction were largest among overweight and obese participants, and gender differences in weight satisfaction were largest among normal weight, overweight, and obese participants (Figure 1).

We had adequate sample size to plot the actual weight and appearance satisfaction at each BMI data point (with associated confidence intervals), rather than relying on predicted values (e.g., with a regression analysis, although we also report regression results in Table 4). Figure 2 shows the association between BMI and appearance satisfaction for men and women and Figure 3 shows the association with weight satisfaction. For both men and women, there was a narrow BMI band in which weight and appearance satisfaction were high, with satisfaction decreasing sharply starting at BMIs of 22 for women and 25 for men.

Prevalence of body satisfaction and dissatisfaction: frequency distributions. Means are valuable for examining group differences, but we were also interested in identifying the prevalence of extreme body dissatisfaction and satisfaction. The frequency distributions for appearance and weight satisfaction are shown in Table 6. On the satisfied end of the distribution, only about one-fourth of men and women felt very-extremely satisfied with their appearance

(28% men; 26% women) and their weight (24% men; 20% women). Few men and women were very-extremely dissatisfied with their physical appearance (6% men; 9% women), but feeling very-extremely dissatisfied with weight was more common (15% men; 20% women). Most men and women felt somewhat dissatisfied to somewhat satisfied with their appearance (66% men; 65% women) and weight (61% men; 60% women). As shown in Table 2, the groups most likely to be very-extremely satisfied with their appearances and weights were underweight and normal weight women, and men in the middle of the weight distribution (normal weight and overweight men).

Reality TV Viewing and Assessing Sample Bias

One concern we had was whether the results of the study would be biased due to the fact that the study was advertised as assessing attitudes towards reality TV. The results would be biased if people interested in reality TV were substantially overrepresented in the survey and if they systematically differed in body image from people who are not interested in reality TV. Only 48% watched reality TV featuring competition and 44% watched TV featuring different lifestyles. In contrast, the majority of the sample reported watching news (89%), dramas (80%), comedies (84%), and sports (62%). A minority watched late night shows (33%).

Overall, there were only weak associations (most r s < $|.10|$) between reality TV show watching and physical appearance satisfaction (Table 2) and weight satisfaction (Table 3) across the different gender and sexual orientation groups. These correlation strengths are consistent with the correlation strengths between viewing other types of TV shows and appearance and weight satisfaction (Tables 2 and 3). Partial correlations between watching reality TV and body image, controlling for frequency of watching other types of television show, revealed that no associations exceeded *partial* $r = |.08|$ for any gender and sexual orientation group.

Discussion

This study provided the rare opportunity to examine the prevalence and correlates of body image in a national sample. One advantage of the large sample size is that we were able to examine the prevalence of extreme levels of body satisfaction and dissatisfaction across different BMI groups. Body dissatisfaction was common, particularly among overweight and obese men and women. Very few men and women were very-extremely satisfied or very-extremely dissatisfied with their appearance, leaving most people feeling somewhat dissatisfied to somewhat satisfied. Underweight women, normal weight men and women, and overweight men were most likely to be very-extremely satisfied with their appearance and their weight.

These findings are consistent with the emphasis placed on the importance of being slender for women and for appearing athletic and/or lean for men in industrialized settings. There is diversity in body type preferences, but many people consider a woman attractive if she is slender (Swami et al., 2010; Swami & Tovée, 2005a) and a man attractive if he is muscular and lean (Frederick & Haselton, 2007; Gray & Frederick, 2012; Swami & Tovée, 2005b). In Western contexts, women report substantial pressure to modify their bodies to conform to media ideals (Schaeffer et al., 2015). Stigma for being overweight is faced by both children (Puhl & Latner, 2007) and adults (Puhl, & Heuer, 2009). This stigma is communicated not only through popular entertainment media (Himes & Thompson, 2007), but also through news reports on medical studies of obesity (Saguy, Gruys, & Gong, 2010). News reports that emphasize the dangers of obesity and emphasize that weight is under personal control can increase negative attitudes towards people with higher body masses, especially compared to news reports that emphasize the importance of being healthy at every size and/or the importance of combatting antifat stigma (Frederick, Saguy, Gruys, in press; Frederick, Saguy, Sandhu, & Mann, in press; Saguy, Frederick, & Gruys, 2014).

Our results are broadly consistent with previous work indicating that heterosexual men are more satisfied with their bodies compared with other sexual orientation groups (Frederick & Essayli, in press; Morrison et al., 2004). Age was not associated with body satisfaction for men. In women, older age was associated with greater appearance satisfaction and lower weight satisfaction. With older age, women may develop resources that focus attention on body functionality rather than appearance, but may feel they deviate more from idealized appearance for women. Nevertheless, it should be noted that the effects of age were generally weak, which is consistent with previous large-sample findings (Swami, Tran, et al., 2015). Overall, our findings highlight the ubiquity of both positive and negative body image across demographic groups.

Our results showed that people lower in Neuroticism and higher in Extraversion were more satisfied with their appearance. These findings are broadly consistent with previous findings showing that personality factors are associated with body image issues (e.g., Davis et al., 2001; Kvaalem et al., 2006; Swami et al., 2008, 2011, 2013; Swami & Furnham, in press). Converging evidence points to Neuroticism as a “[trait] of public health significance requiring attention by body image scholars” (Swami et al., 2013, p. 146). However, our findings add to the literature by showing that Extraversion may provide a protective function, which is consistent with emerging work suggesting that this personality trait may be particularly relevant for understanding aspects of body image that have a more social component (Swami & Furnham, in press). In our study, we also found that higher Conscientiousness was associated with greater satisfaction with appearance and weight. In previous work, this personality factor has been associated with higher body appreciation (Swami et al., 2008) and also higher psychological well-being more broadly (Steel, Schmidt, & Schultz, 2008). Taken together, the present results highlight the important role that personality could play in shaping body image.

Our results also showed that people with more preoccupied (anxious) and fearful attachment styles were more dissatisfied with their appearance and weight. This is consistent with previous work relying on college samples (Cash et al., 2004; Cheng & Mallinckrodt, 2009; DeVille et al., 2015; Lev-Ari et al., 2014), although our work shows that this relationship exists in men as well as women. An anxious attachment style can cause people to develop sensitivity to factors that might influence whether partners or potential partners might reject them, including how potential partners evaluate their appearance. People with anxious attachment styles fear they might not be able to attract a partner, be attractive to a partner, or keep a partner, leading them to develop more concerns with appearance. The direction of causality could run both ways: people who are more anxious and fearful may become more concerned with their appearance, and people who are more concerned with their appearance will become more anxious and fearful that romantic partners will stray. In contrast, people with secure attachment styles were more satisfied, which is consistent with past work (Cash et al., 2004). Taken together, these findings highlight the importance of attachment styles in understanding women's and men's body image.

People who were more satisfied with their weight and appearance were more satisfied with their life overall, even when controlling for other contributors. These findings speak to recent developments in our understanding of positive body image (Tylka & Wood-Barcalow, 2015; Wood-Barcalow, Tylka, & Augustus-Horvath, 2010) and highlight the important role that body image plays in shaping broader indices of well-being. Indeed, the present findings are consistent with recent studies indicating that positive body image is positively associated with subjective happiness (Swami et al., 2015) and well-being (Tiggemann, 2015). Of course, it is important to note that the concept of positive body image goes beyond indices of satisfaction with appearance and weight. As Tylka and Wood-Barcalow (2015) have noted, positive body image is multi-faceted (e.g., it includes facets of body appreciation, body acceptance, adaptive

appearance investment, and filtering information in a manner that is protective to the self) and, as such, it would be useful in future work to re-examine the present findings within the context of this broader definition.

Limitations

A common problem with surveys conducted with community and college samples is that participants self-select into the survey. The generalizability of the findings are limited in this study by the fact that participants were visitors to a news website who self-selected into the sample. Women are likely overrepresented in the sample because women are more likely to watch reality TV and consume life-style oriented media (Hill, 2007). This raises the concern that people interested in taking a survey on reality TV might systematically differ in body image from other people. Reality TV viewing in this sample, however, was only weakly associated with body image. Internet samples, moreover, have the advantage of being more diverse with respect to gender, sexual orientation, age, socioeconomic status and geographic region than most convenience samples (Gosling, Vazire, Srivastava, & John, 2004). Surveys can be completed with ease from the privacy of respondents' homes or workplaces, reaching individuals who would not otherwise have the opportunity to participate in research. In contrast to most prior research, gay, lesbian, and bisexual participants were not recruited from different sources (e.g., classrooms versus political activist groups). This study, therefore, provided a rare opportunity to examine body image across sexual orientation groups recruited using the same methods (with the caveat that our item on sexual orientation was based on self-reported identity, rather than behavior or attraction; Lindley, Walsemann, & Carter, 2012).

Another limitation was that the study relied on a series of one-item measures. Measures with multiple items are superior to one-item measures, but survey length restrictions in national studies often preclude use of longer measures. Although we relied on validated measures, the

use of single-item measures may have impacted the findings. Future studies should seek to replicate the present findings using more comprehensive measures. Attachment styles, for example, are more routinely measured with longer measures that separately assess attachment anxiety and avoidance (e.g., the 36-item Experiences in Close Relationships Revised measure; Fraley, Waller, & Brennan, 2000), whereas more comprehensive measures of the Big Five would allow for detailed analyses at the lower-order level of personality facets. In a similar vein, one concern with the BMI analyses is that participants may inaccurately report their height and/or weight. A review of 64 studies on self-reported versus directly measured height and weight found that self-report measures differ only slightly from people's actual heights and weights (Gorber, Tremblay, Moher, & Gorber, 2007), although individual response biases could impact the pattern of results.

Although we were able to examine sexual orientation and body image, we did not collect information about participant ethnicity. This is an important limitation, not only because there may be ethnic differences in appearance and weight satisfaction (Swami, *in press*; Swami, Airs, Chouhan, Padilla Leon, & Towell, 2009), but also because there may be important intersections between ethnicity and other sociodemographic variables that impact on body image. In future work it will be important to consider this neglected variable alongside other aspects of ethnicity, such as ethnic identity and affiliation. In addition, the focus of the present study was on appearance and weight satisfaction, but the latter in particular may be less relevant to men's body image than muscularity satisfaction (McCreary, 2012). Future studies would do well to include this aspect of body image in large-scale studies. These limitations notwithstanding, we suggest that our study has wider generalizability than most college and community samples and offers a unique look at body image issues at a national level.

Concluding Comments

This study provided an exceptional opportunity to examine correlates of weight and appearance satisfaction in a national sample of gay, lesbian, bisexual, and heterosexual men and women. Despite the fact that BMI is a powerful predictor of body image, several psychological traits remained significant predictors even when BMI was included in the model. In particular, men and women higher in Neuroticism and anxious attachment style were more dissatisfied with their bodies. One implication of this finding is that interventions to improve body image do not necessarily need to focus on body satisfaction per se. Research has demonstrated that personality (Roberts, Walton, & Viechtbauer, 2006) and attachment styles (Baldwin, Keelan, Fehr, Enns, & Koh-Rangarajoo, 1996) demonstrate some malleability across the lifespan and across relationships, respectively, so it is worth investigating whether therapy effective for addressing unhealthy Neuroticism (Barlow, Sauer-Zavala, Carl, Bullis, & Ellard, 2014) and anxious attachment style (Levy et al., 2006) could have beneficial downstream effects of enhancing body image. Furthermore, promoting secure attachments may reduce body dissatisfaction and appearance concerns, and reducing appearance concerns may promote more secure attachments, albeit the directionality of these assertions would need to be examined in prospective research.

More broadly, this study highlights the high prevalence of body dissatisfaction, particularly among overweight and obese men and women, and shows that most people feel only somewhat satisfied to somewhat dissatisfied with their bodies. It would seem, therefore, that we still have a long way to go before we achieve the goal of Americans being truly happy with their bodies.

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Table 1

Sample Characteristics

	Heterosexual		Gay/Lesbian		Bisexual		Overall Sample
	Men	Women	Men	Women	Men	Women	All
Sample Size (<i>N</i>)	2756	8686	402	142	68	122	12176
Age <i>M</i> (<i>SD</i>)	50.1 (10.8)	45.4 (11.8)	47.2 (11.1)	47.1 (10.8)	49.0 (11.7)	39.5 (12.8)	46.5 (12.8)
BMI <i>M</i> (<i>SD</i>)	29.1 (5.3)	27.2 (6.2)	27.5 (5.2)	29.0 (6.9)	29.2 (5.2)	28.7 (6.6)	27.7 (6.1)
Satisfaction with Physical Appearance <i>M</i> (<i>SD</i>)	4.71 (1.30)	4.57 (1.40)	4.56 (1.39)	4.43 (1.38)	4.43 (1.18)	4.39 (1.40)	4.60 (1.38)
Satisfaction with Weight <i>M</i> (<i>SD</i>)	4.25 (1.56)	3.98 (1.65)	4.23 (1.64)	3.75 (1.54)	3.91 (1.39)	3.91 (1.63)	4.05 (1.6)
Education (%)							
Some high school or less	1	1	1	1	0	2	1
High school graduate	9	8	5	9	6	9	8
Some college or A.A.	32	34	32	24	40	45	33
College graduate	31	33	38	31	28	21	33
Advanced degree	27	24	24	35	26	23	25
Relationship Status (%)							
Married	72	63	7	25	38	38	62
Cohabiting	5	7	40	41	9	19	8
In relationship (not cohabitating)	4	6	6	7	9	9	6
Casually dating (one person)	2	2	3	0	0	1	2
Casually dating (more than one person)	2	1	5	0	6	3	2
Not currently dating	15	21	39	28	38	30	20
BMI Groups (%)							
Underweight	1	2	0	1	0	3	1
Normal weight	20	42	34	33	19	30	37
Overweight	43	29	42	30	37	30	33
Obese I	23	15	15	19	34	19	17
Obese II	9	7	5	7	6	11	7
Obese III	4	5	4	10	4	7	5

Table 2

Correlates of Satisfaction with Physical Appearance

	Heterosexual		Gay/Lesbian		Bisexual		Overall Sample
	Men	Women	Men	Women	Men	Women	All
	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>
Personal Characteristics							
Age	-.01	-.03	-.10*	-.09	.04	-.05	-.02
BMI	-.48***	-.53***	-.41***	-.50***	-.15*	-.44***	-.50***
Education	.10***	.09***	.06	-.03	-.02	.08	.09***
Media Consumption							
Frequency TV Viewing	-.14***	-.13***	-.16***	-.12	.19	-.17	-.13***
News Programming	.03	.03***	-.01	-.06	.04	.06	.03***
Dramas	-.08***	-.09***	-.08	-.12	-.01	-.04	-.09***
Comedies	-.05**	-.04***	-.09	-.02	-.03	-.07	-.05***
Late Night Shows	.04*	-.01	-.07	-.02	.20	.03	.00
Sports	.06**	.05***	.02	-.03	-.07	.10	.06***
Reality: Competitions	-.06**	-.08***	-.05	.02	-.10	-.11	-.08***
Reality: Lifestyles	-.06**	-.05***	.05	-.04	-.03	-.09	-.06***
Personality							
Openness to Experience	.15***	.16***	.10*	-.07	.17	.19*	.15***
Conscientiousness	.24***	.21***	.25***	.24***	.31*	.15	.22***
Extraversion	.24***	.21***	.21***	.18*	.20	.28**	.22***
Agreeableness	.07***	.09***	.04	-.12	.01	.14	.07***
Neuroticism	-.22***	-.21***	-.24***	-.06	-.30*	-.28**	-.21***
Attachment Style							
Secure	.13***	.17***	.14**	.11	.18	.01	.15***
Dismissive	.02	.03***	.02	.04	.13	-.01	.03***
Preoccupied	-.09***	-.15***	-.19***	-.16	-.16	-.01	-.13***
Fearful	-.16***	-.21***	-.22***	-.25**	-.16	-.17	-.20***
Psychological Well-Being							
Self-esteem	.39***	.45***	.43***	.36***	.40***	.51***	.44***
Life satisfaction	.49***	.46***	.53***	.44***	.49***	.38***	.46***
Sex life satisfaction	.46***	.42***	.50***	.19*	.25*	.23*	.42***
Friend satisfaction	.36***	.32***	.32***	.21*	.07	.30***	.32***
Romantic partner satisf.	.27***	.28***	.36***	.18*	.20	.11	.28***
Family satisfaction	.31***	.28***	.34***	.32***	.24	.26**	.28***
Financial situation satisf.	.37***	.37***	.40***	.47***	.46***	.15	.37***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3

Correlates of Satisfaction with Weight

	Heterosexual		Gay/Lesbian		Bisexual		Overall Sample
	Men	Women	Men	Women	Men	Women	All
	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>
Personal Characteristics							
Age	-.04*	-.04***	-.09	-.07	-.08	-.02	-.03**
BMI	-.64***	-.64***	-.60***	-.59***	-.41***	-.56***	-.62***
Education	.05**	.08***	.06	.01	.04	-.03	.07***
Media Consumption							
Frequency TV Viewing	-.15***	-.14***	-.14**	-.14	.06	-.17	-.14***
News Programming	.03	.01	.01	.03	.07	.10	.02
Dramas	-.11***	-.10***	-.07	-.16	-.24	-.13	-.11***
Comedies	-.07***	-.05***	-.09	.01	-.10	-.07	-.05***
Late Night Shows	.04*	-.02	-.09	.00	.04	-.03	.01
Sports	.05*	.02	.04	-.04	-.06	-.02	.04***
Reality: Competitions	-.09***	-.09***	-.04	.07	-.02	-.09	-.09***
Reality: Lifestyles	-.07***	-.05***	.06	.01	.01	-.12	-.06***
Personality							
Openness	.09***	.12***	.04	-.04	-.10	.10	.11***
Conscientiousness	.20***	.18***	.20***	.12	.24*	.14	.18***
Extraversion	.16***	.14***	.13*	.16	-.06	.21*	.14***
Agreeableness	.03	.04***	.01	-.07	-.02	.04	.02*
Neuroticism	-.15***	-.14***	-.15**	-.03	-.03	-.26**	-.14***
Attachment Style							
Secure	.08***	.11***	.09	.07	-.09	.01	.10***
Dismissive	.06**	.05***	.05	.04	.37**	.10	.06***
Preoccupied	-.07***	-.10***	-.12*	-.12	-.12	.02	-.09***
Fearful	-.10***	-.14***	-.10*	-.12	-.06	-.12	-.13***
Psychological Well-Being							
Self-esteem	.27***	.34***	.24***	.34***	.16	.39***	.33***
Life satisfaction	.32***	.32***	.32***	.26**	.37**	.24**	.31***
Sex life satisfaction	.41***	.39***	.37***	.09	.28*	.25**	.38***
Friend satisfaction	.26***	.24***	.21***	.11	.01	.15	.23***
Romantic partner satisf.	.18***	.21***	.24	.15	.09	.06	.20***
Family satisfaction	.20***	.19***	.21***	.20*	.13	.15	.18***
Financial situation satisf.	.30***	.32***	.30***	.39***	.44***	.10	.32***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 4

Linear Regressions Examining Personality, Attachment Style, and Self-Esteem as Predictors of Satisfaction with Physical Appearance and Weight

Predictors	Satisfaction with Physical Appearance				Satisfaction with Weight			
	Men		Women		Men		Women	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
	β	β	β	β	β	β	β	β
Age	.03	.03	-.06***	-.03***	-.02	.02	-.04***	-.01
TV Viewing	-.11***	-.06***	-.09***	-.03***	-.12***	-.05***	-.12***	-.04***
Openness	.02	-.02	.05***	-.02	-.01	-.02	.04***	-.01
Conscientiousness	.17***	.07***	.14***	.03***	.15***	.06***	.13***	.03***
Extraversion	.17***	.08***	.11***	.04***	.11***	.05**	.06***	.01
Agreeableness	-.06***	-.02	-.01	.01	-.04*	-.01	-.03**	-.01
Neuroticism	-.13***	-.07***	-.10***	-.04***	-.08***	-.04**	-.06***	-.02**
Secure	.06**	.04*	.06***	.04***	.04*	.03*	.05***	.04***
Dismissive	.04*	.01	.06***	.02*	.06**	.03*	.07***	.04***
Preoccupied	-.04	-.01	-.08***	-.03**	.04	-.02	-.05***	.01
Fearful	-.06**	-.03	-.11***	-.05***	-.03	.01	-.08***	-.04***
Self-esteem		.25***		.31***		.15***		.20***
BMI (linear)		-.43***		-.53***		-.74***		-.75***
BMI ² (curvilinear)		.01		.13***		.17***		.28***
<i>Adj. R</i> ²	.14***	.37***	.14***	.44***	.08***	.49***	.09***	.52***
<i>F</i> for ΔR^2	42***	115***	122***	468***	24***	186***	74***	653***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Model 1 includes age, TV viewing frequency, personality, and attachment style as predictors of satisfaction with physical appearance and weight. Model 2 adds self-esteem and BMI as predictors.

Table 5

Linear Regressions Examining Predictors of Overall Satisfaction with Life

Predictors	Model 1 (with appearance satisfaction as predictor)		Model 2 (with weight satisfaction as predictor)	
	Men	Women	Men	Women
	β	β	β	β
Weight satisfaction	-	-	.08***	.10***
Appearance satisfaction	.20***	.20***	-	-
Age	-.03*	-.05***	-.02	-.05***
BMI (linear)	.08***	.12***	.05*	.10***
BMI ² (curvilinear)	-.03	-.03**	-.04**	-.04**
Self-esteem	.13***	.11***	.16***	.15***
Financial situation satisfaction	.30***	.26***	.32***	.27***
Family satisfaction	.10***	.14***	.12***	.15***
Romantic partner satisfaction	.18***	.21***	.18***	.21***
Friend satisfaction	.14***	.16***	.16***	.17***
Sex life satisfaction	.00	.02	.03	.04**
<i>Adj. R</i> ²	.51***	.50***	.49***	.48***
Model <i>F</i>	292***	734***	270***	691***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Model 1 includes age, TV viewing frequency, personality, and attachment style as predictors of satisfaction with physical appearance and weight. Model 2 adds self-esteem and BMI as predictors.

Table 6

Frequency Distributions Showing the Extent of Appearance and Weight Dissatisfaction and Satisfaction Among Men and Women with Different Body Masses

	Extremely Dissatisfied	Very Dissatisfied	Somewhat Dissatisfied	Neutral	Somewhat Satisfied	Very Satisfied	Extremely Satisfied
	1	2	3	4	5	6	7
	%	%	%	%	%	%	%
Men's Satisfaction							
with Physical Appearance							
All Men	1	5	16	11	39	24	4
Underweight Men	-	-	-	-	-	-	-
Normal Weight Men	1	1	6	8	38	38	8
Overweight Men	1	2	11	9	44	29	4
Obese I Men	1	7	25	14	39	11	3
Obese II Men	5	16	35	14	24	6	0
Obese III Men	12	19	39	11	15	2	2
Women's Satisfaction							
with Physical Appearance							
All Women	3	6	17	8	40	22	4
Underweight Women	2	1	5	9	34	40	9
Normal Weight Women	1	1	7	6	42	37	6
Overweight Women	2	5	19	9	48	15	2
Obese I Women	4	12	30	11	35	7	1
Obese II Women	9	18	35	12	21	4	1
Obese III Women	18	24	25	11	19	3	0
Men's Satisfaction							
with Weight							
All Men	4	11	25	9	27	18	6
Underweight Men	-	-	-	-	-	-	-
Normal Weight Men	1	1	6	7	26	42	17
Overweight Men	1	4	23	11	38	19	4
Obese I Men	3	20	42	10	21	3	1
Obese II Men	16	34	34	7	8	1	0
Obese III Men	29	37	29	1	2	1	1
Women's Satisfaction							
with Weight							
All Women	7	13	25	8	27	16	4
Underweight Women	2	1	6	4	18	41	28
Normal Weight Women	1	3	14	7	37	31	8
Overweight Women	4	14	36	10	29	5	1
Obese I Women	13	27	38	7	13	1	1
Obese II Women	24	35	29	4	8	0	0
Obese III Women	41	30	18	4	5	1	1

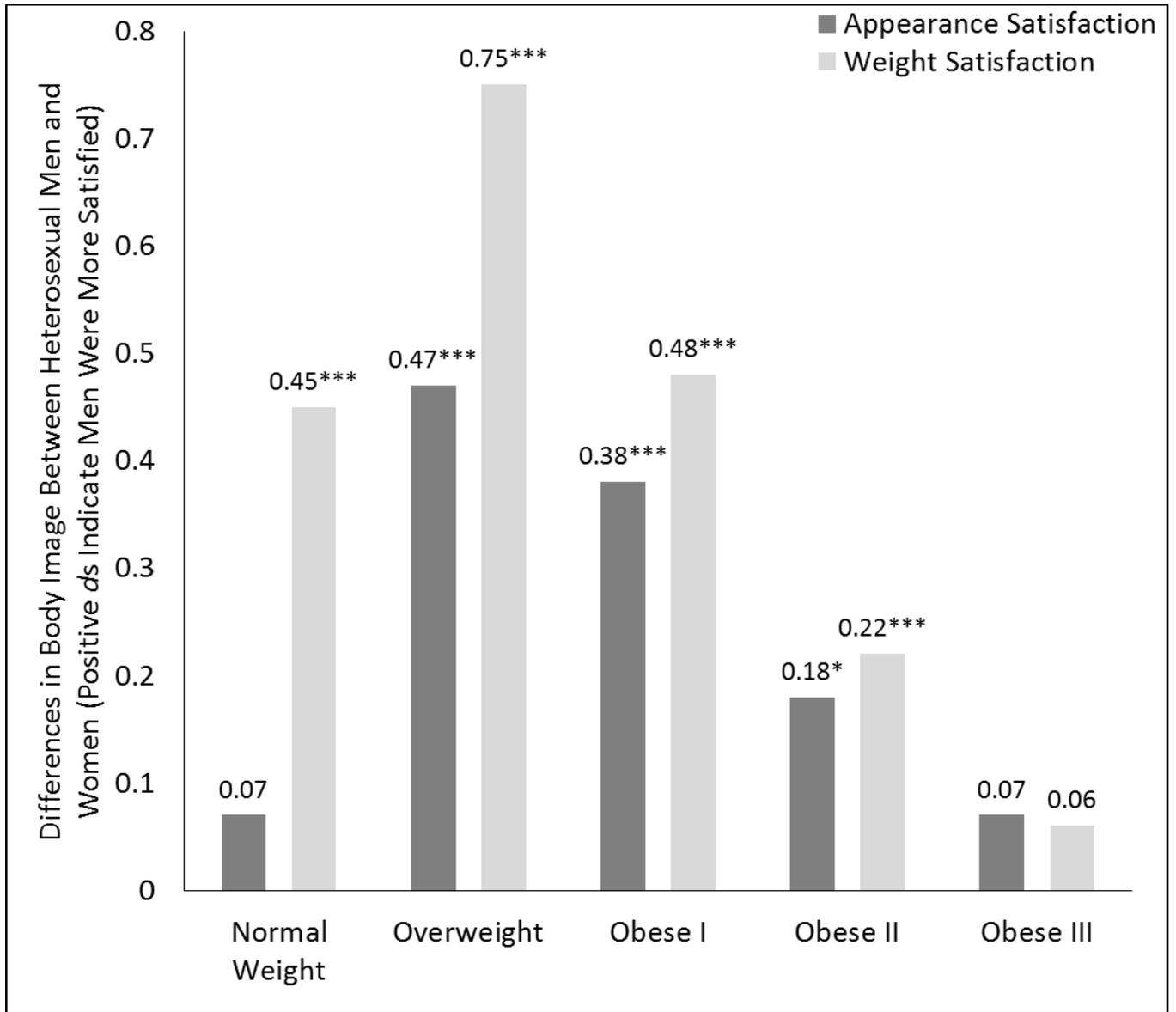


Figure 1. Differences in appearance and weight satisfaction between heterosexual men and women. Effect sizes represent Cohen's *d*. Positive values indicate that men reported more satisfaction than women. * $p < .05$, ** $p < .01$, *** $p < .001$.

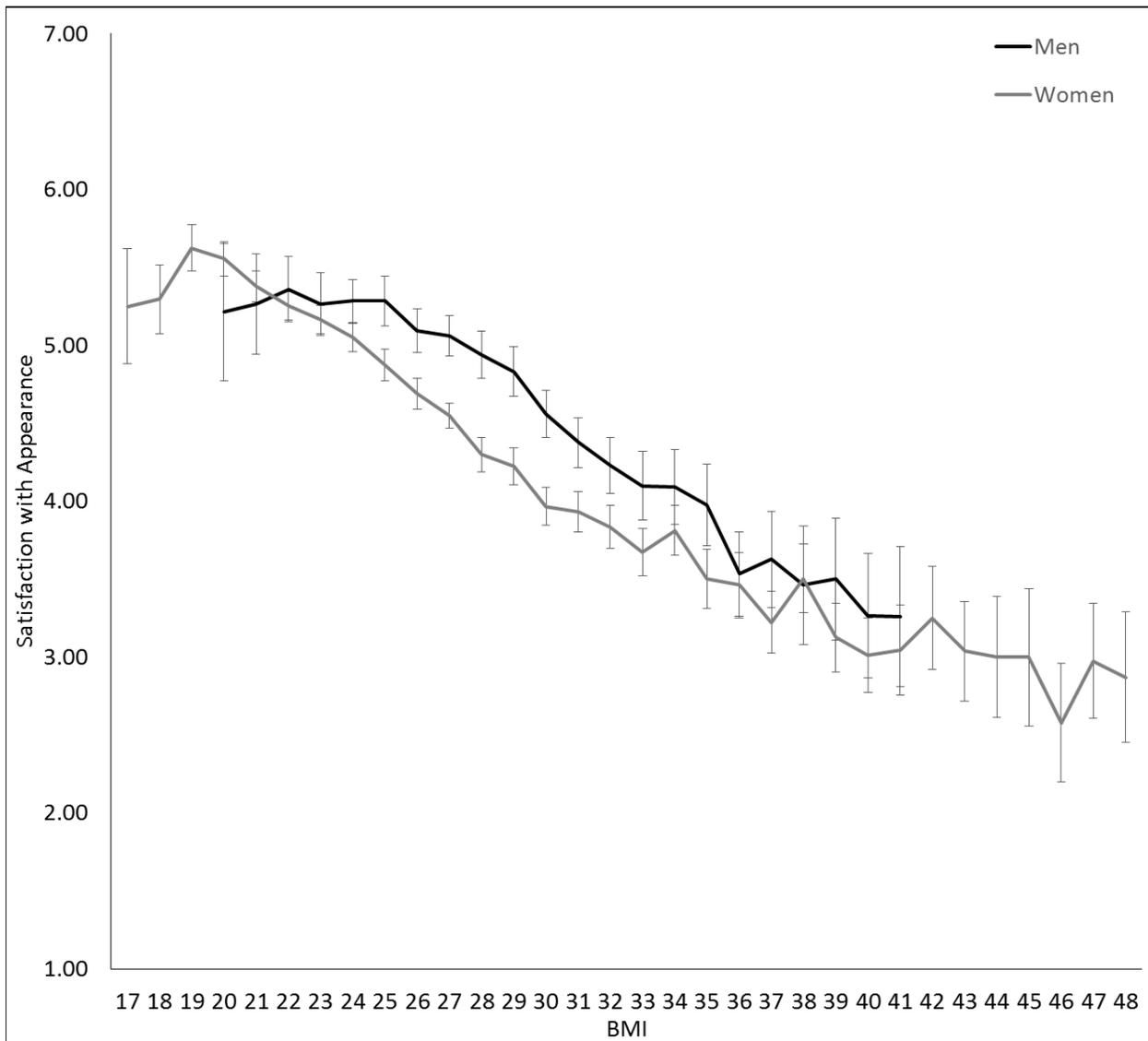


Figure 2. Satisfaction with appearance among men and women with different body mass indexes. Error bars represent 95% confidence intervals. Only cells with at least 20 participants are plotted.

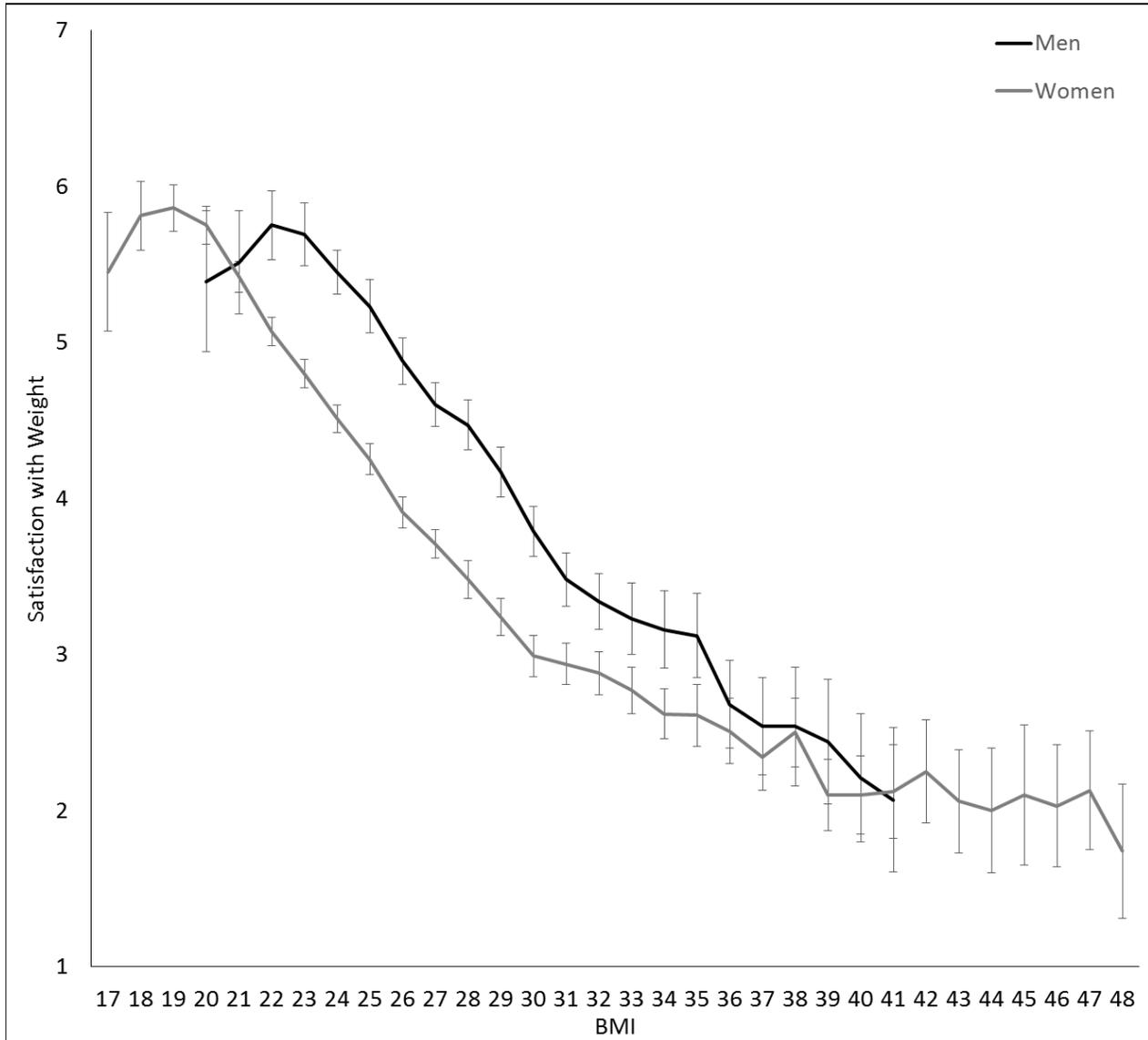


Figure 3. Satisfaction with weight among men and women with different body mass indexes. Error bars represent 95% confidence intervals. Only cells with at least 20 participants are plotted.