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Body Dissatisfaction Across Gender: An Etiological Exploration of Self-Discrepancy, Self-Objectification, and Their Manifestations Among Men and Women

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Running Head: BODY DISSATISFACTION ACROSS GENDER

Body dissatisfaction across gender:

An etiological exploration of self-discrepancy, self-objectification, and their manifestations among men and women

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Abstract

Body image has been the subject of much study recently, as the prevalence of eating disorders is an issue of increasing concern, especially among women. Comparatively few studies have examined male body image. Researchers have argued that men are more likely to exhibit muscle dysmorphia than eating disorders in response to body dissatisfaction. The present study consists of two studies: Study 1 compared etiological similarities between disordered eating and muscle dysmorphia; Study 2 explored the phenomenon of self-objectification in men. Results specify the parallels and differences in the ways in which men and women develop and experience body image.

Body dissatisfaction across gender:
An etiological exploration of self-discrepancy, self-objectification, and their manifestations among men and women

Over the recent decades, a growing body of literature has examined the development of negative body image and its relationship to eating disorder symptomatology, especially among women (Cohen & Petrie, 2005; Sondhaus, Kurtz, & Strube, 2001). Studies consistently have found an increasing trend in women's body dissatisfaction, which many argue is due to the internalization of sociocultural body ideals (Sondhaus et al., 2001). Only lately has research begun to document and explore a similar phenomenon of body dissatisfaction and its manifestations in men, which researchers have called muscle dysmorphia (Grieve, 2007; Olivardia, 2001; Pope, Gruber, Choi, Olivardia, & Phillips, 1997). Although historically men have been thought to be immune to the influence of sociocultural body ideals, it now seems that they are becoming increasingly concerned about and dissatisfied with their bodies (Grieve, 2007). And, as with eating disorders, the prevalence of muscle dysmorphia seems to peak among the college population (Cohen & Petrie, 2005; Davey & Bishop, 2006). Thus, research is necessary to explore both the commonalities between muscle dysmorphia and eating disorders and the factors that may exacerbate these pathologies in a college environment.

Male body satisfaction and muscle dysmorphia

Just as the ideal female body in Western culture has become increasingly thin and unattainable, the ideal male body has become increasingly mesomorphic and unachievable. According to McCreary and Sasse (2000), 28%-68% of adolescent boys and young men want to gain weight and muscle. Similarly, McCabe and Ricciardelli (2001) found that 50-70% of adolescent boys reported a desire to change their body shape or weight.

Whereas body dissatisfaction tends to manifest itself in the form of eating disorders for women, a similar dissatisfaction takes the form of muscle dysmorphia in men. Muscle dysmorphia is characterized by body dissatisfaction, in which (typically) men believe they are weak and small, even though in reality they are muscular. Those with muscle dysmorphia have an intense desire to achieve the culturally ideal body shape and gain muscle mass, often through excessive weight lifting (Grieve, 2007; Olivardia, 2001; Olivardia, Pope, Borowiecki, & Cohane, 2004). Other symptoms of muscle dysmorphia include abnormal eating patterns, the use of weight gain supplements, and the use of anabolic steroids (Grieve, 2007). Those with muscle dysmorphia frequently arrange their schedules so as not to interfere with weight lifting, continue to weight lift regardless of injuries, and avoid situations in which parts of their body will be exposed (e.g., beaches) (Grieve, 2007). They also tend to exhibit repeated mirror-checking to evaluate their bodies and compare their bodies with others (Olivardia, 2001). Moreover, the prevalence of muscle dysmorphia among young men, both at the clinical and subclinical level, appears to be on the rise (Davey & Bishop, 2006; Olivardia, 2001).

This increasing trend in muscle dysmorphia is arguably due to the growing importance of the male muscular body type. For example, Pope, Olivardia, Gruber, and Borowiecki (1999) found that action figures marketed to boys have become more muscular over time, much like Barbie dolls have come to resemble the ideal female body (Dittmar, Halliwell, & Ive, 2006). In a related study, Leit, Pope, and Gray (2001) documented an increasing trend in muscularity among *Playgirl* centerfolds. In their analysis of college men's ideal body perceptions, Ridgeway and Tylka (2005) concluded that muscularity, leanness, height, and certain body areas (the abdominal region and arms) were consistently emphasized in the men's body ideals.

Muscularity, rather than leanness, appears to be most important to male body image, as demonstrated by Olivardia, Pope, Borowiecki, and Cohane (2004). Their study examined body image in 154 college men using the Somatomorphic Matrix, in which participants could assess body images based on both body fat and muscularity. The results indicated that men reported significant body dissatisfaction, and that muscle belittlement (i.e., believing one is less muscular than one is) was an important component of these men's body dissatisfaction.

In their analysis of college men's ideal body perceptions, Ridgeway and Tylka (2005) concluded that muscularity, leanness, height, and certain body areas (the abdominal region and arms) were consistently emphasized in the men's body ideals. In another study of male body image among 244 undergraduates, it was found that men preferred a body that was significantly more muscular than their actual body, and that men perceived women's ideal of the male body to be more muscular than what women actually chose (Grieve, Newton, Kelley, Miller, & Kerr, 2005). This finding is particularly significant, as it illustrates the discrepancies between men's actual and ideal bodies, as well as body distortions that are related to muscle dysmorphia.

Correlates of male body dissatisfaction

Although some psychologists account for the mesomorphic, athletic male body ideal using evolutionary and gender role hypotheses, the importance of this ideal in recent decades has intensified, perhaps due to its promotion by the media (Pope, Olivardia, Gruber, & Borowiecki, 1999). Just as literature has explored the association between women's body dissatisfaction and the internalization of sociocultural body ideals (e.g., Sondhaus et al., 2001), recent studies have shown a parallel relationship in men. Idealized male images are becoming more prevalent in media that targets both male and female audiences. Images of undressed men in popular women's magazines increased from 3% in the 1950s to 35% in the 1990s (Pope, Olivardia,

Borowiecki, & Cohane, 2001). Moreover, men perceive that the overall objectification of idealized male images has increased (Fawkner & McMurray, 2002).

Research has subsequently indicated a direct relationship between media influences and male body satisfaction. In a study by Baird and Grieve (2006), 173 college men viewed magazine advertisements that either emphasized a product alone or a product featuring a muscular male model. Participants who viewed the advertisements with male models reported significant decreases in body satisfaction (Baird & Grieve, 2006). Similarly, Jonda (2007) found that sociocultural attitudes about appearance and low self-esteem predicted body dissatisfaction in both men and women, and that body dissatisfaction correlated with both eating disorders and muscle dysmorphia symptomatology.

In light of evidence of increasing emphasis on the muscular male body ideal, Tager, Good, and Bauer Morrison (2006) sought to examine the associations between body image, masculine norms, and psychological well-being. Among 101 college men, appearance evaluation accounted for 20 percent of the variance in their self-acceptance, and environmental mastery was also associated with appearance evaluation. Dominance also correlated with body satisfaction and self-acceptance, which Tager et al. suggest indicates a relationship between psychological and physical control. For men, social influence seems to be associated with the physical appearance of power. The muscular ideal represents the defining characteristics of manhood: power, control, strength, and independence (Tager et al., 2006). Following this reasoning, men who fail to meet the culturally ideal male body will experience psychological distress.

Bottamini and Ste-Marie (2006) also examined aspects of male body image in a qualitative study of 11 males (age 18-25). During two semi-structured interviews, participants

were presented with three images of different male body types (endomorphic/overweight, mesomorphic/hyper-muscular, and ectomorphic/thin), after which they discussed their level of body satisfaction and their perceptions of the ideal male body. Eight of the eleven participants reported a desire to change their body shape, and when asked to select the ideal male body from the images presented, all participants chose muscular male figures. This supports previous research that suggests the media presents an exaggerated muscularity in men. Interestingly, two additional concerns emerged from the interviews that have not been widely discussed in male body image literature, that of hair loss and penis size. Several men felt that hair loss was associated with a lack of youthfulness and vitality, while small penis size was associated with an inability to be sexually satisfying to women. These later findings indicate areas ripe for future research in the development of male body image measures. Although most participants reported a desire for increased muscularity and decreased adiposity, many also felt a general acceptance of how they looked. In addition, seven participants said that they disliked excessive muscular development, and that their desire to gain muscle should not be confused with, for instance, a desire to look like Arnold Schwarzenegger. Conversely, comments about images of the opposite body extreme (those of overweight individuals) were focused on negative qualities and behaviors (e.g., "(He) probably drinks a case of beer a week;" p. 116).

In addition to attitudes about muscularity, Bottamini and Ste-Marie (2006) investigated participants' perceived influences, motivations, and behaviors to attain the muscular ideal. The media, potential mates, and peers emerged as three prominent influences on participants' perceptions of the ideal male body. All participants reported that they engaged in behaviors to gain muscle, lose weight, or maintain their current weight. Such methods included exercise and eating strategies, consumption of protein or weight supplements, as well as the use of fat-burning

pills. Five of the eleven participants also reported avoidance and appearance-related behaviors. such as concealing unsatisfactory areas of their body with clothes or wearing baggy clothes in an effort to look thinner.

Bottamini and Ste-Marie (2006) identified health and fitness, social dimensions, and career-related aspects as the underlying motivations of participants' attitudes and behaviors. For instance, many participants associated a healthy physique with disease prevention, a longer life span, and improved strength and endurance. In addition, many participants perceived social benefits of being muscular (e.g., being attractive to women), and some attributed such feelings to an instinctual, primal drive that motivates men to be muscular (e.g., "...the female will look at the strongest male, the one that's most likely to protect her offspring," p. 123). Thus, there seems to be a belief among men that women associate muscularity with protection and merit. Moreover, other participants associated muscularity with social and career-related motivations. Some felt that having a good physique increased the likelihood of being hired, as it represented a willingness of the applicant to apply his dedication towards his physique to the company. This would support previous research that has documented that overweight or slim men, on average, receive lower salaries than men of average build (Melamed, 1994, as cited in Bottamini & Ste-Marie). Other social benefits of having an ideal body included being accepted by others, making a good impression, and being competitive with other men. According to the authors, these motivations may be explained by the gender parity notion; that is, men have become more sensitive and aware of their body image with the decline of the male breadwinner role and expansion of women's roles in Western society. Muscularity is one of the few characteristics that remain specific to men, and therefore those with traditional gender role views will have a stronger desire to be muscular as an expression of their masculinity. In sum, the qualitative

nature of Bottamini and Ste-Marie's study design allowed for unique insights into men's perceptions of the ideal male body and their motivations and behaviors to attain such an ideal.

However, the impact of exposure to idealized, muscular male images may vary according to age and individual attributes, as demonstrated by Humphreys and Paxton (2004). In this study, 106 male adolescents (in grades 9 and 10) were divided into two groups: one group viewed idealized male advertising images (experimental group), while the other (control group) viewed advertisements that did not feature such images. Participants completed self-report measures of body image (Want Toned Body, Want to Change Body Shape, and Like Body Shape) and psychological well-being (depression and anxiety) before and after exposure to the images. In the experimental group, there were no significant changes on wanting a toned body, wanting to change body shape, depression, or anxiety. Moreover, the reported level of Like Body Shape increased significantly after exposure to idealized male images. Humphreys and Paxton suggest this finding could be due to fact that boys, in general, have higher self-esteem and positive affect than girls and therefore are more apt to view idealized portrayals of men in a positive light. It is also possible that boys place a greater emphasis on body function rather than form, and thus are more resilient to negative effects of viewing idealized male bodies (Humphreys & Paxton, 2004). Another alternative, developmental approach might hypothesize that adolescent boys, as compared to young men, believe that they may grow to become muscular and emulate idealized images of men, whereas young adult men realize that they are unlikely to develop such a body and thus judge themselves in a more negative light (Humphreys & Paxton, 2004). This reasoning could account for the negative psychological effects of similar media exposure observed in older male samples (e.g., Baird & Grieve, 2006).

Although exposure to idealized male images did not negatively affect overall body

satisfaction in Humphreys and Paxton's (2004) study, individual attributes, such as the internalization of the muscular ideal and prior body dissatisfaction significantly predicted depression, anxiety, and lower levels of Body Shape Liking. The authors suggest that although the adolescent males in the sample, on average, were not negatively affected by exposure to idealized male images, participants' reactions were nevertheless dependent on individual variables (i.e., internalization of sociocultural beliefs and prior body dissatisfaction). Thus, even though most adolescent boys may maintain relatively positive body image when exposed to idealized images of men in the media, those who tend to internalize sociocultural ideals and are dissatisfied with their bodies seem to be more negatively affected by such media influences. The conflicting results of this study demonstrate the complex and nuanced effects of media exposure on male body image during adolescence. For instance, while it is possible that men generally become sensitive to sociocultural body ideals at an older age than women, some adolescent boys are certainly more predisposed than others to interpret such ideals in a negative manner.

Similar to the relationships between low self-esteem, body image, eating disorders, and other mental health risks among women (e.g., Green & Pritchard, 2003; Noll & Fredrickson, 1998), more recent studies (e.g., Olivardia et al., 2004) have found that body dissatisfaction is also correlated with low self-esteem, eating pathology, depression, and the use of performance-enhancing substances among young adult men.

Similarities between Muscle Dysmorphia and Eating Disorders

Body dissatisfaction, due largely to societal pressures, seems to be at the crux of the etiology of clinical and subclinical muscle dysmorphia. Whereas body dissatisfaction was previously believed to be solely a women's issue, research now suggests that it is a phenomenon affecting both genders. In fact, it is arguable that both eating disorders and muscle dysmorphia

share a common etiological path that is based on body dissatisfaction. Although little research to date has investigated this theory, Jonda (2007) found that sociocultural influences about appearance and low self-esteem predicted body dissatisfaction for both men and women, and that body dissatisfaction was significantly correlated with both eating disorder and muscle dysmorphia symptomatology.

However, further study is needed to explore the underlying mechanisms that result in body dissatisfaction in men and women. It is useful and necessary to examine the etiology of body dissatisfaction from biological, psychological, and socio-cultural perspectives, as such analysis will lend insight into the etiologies and prevention of body dissatisfaction and its psychological consequences in both genders. Self-discrepancy, self-esteem, and self-objectification theories provide useful frameworks from which to approach such study, as previous research has suggested that these phenomena may be key factors in the development of body dissatisfaction in both men and women (e.g., Fredrickson & Roberts, 1997; Higgins, 1987).

The present research consists of two studies that assess the above variables. The intent of both studies was to provide insight into the possible commonalities and differences between the development of male and female dissatisfaction, as both have proven to be issues of increasing concern, especially among the college-aged population. Study 1 explored the influences of self-discrepancy and college environmental pressures on body image, self-esteem, eating pathology, and muscle dymorphia symptomatology among undergraduate men and women. Study 2 focused solely on male body image as it relates to self-objectification. Although previous research consistently has linked self-objectification to women's negative body image (e.g., Fredrickson & Roberts, 1997), relatively few studies have explored the manifestation of self-objectification in men. The goal of study two was to determine if and how self-objectification

occurs in men, and if its consequences are similar to those among women (e.g., negative body image and self-concept).

Study 1: Influences of Self-Discrepancy, Self-Esteem, and College Pressures on Male and Female Body Satisfaction, Disordered Eating, and Muscle Dysmorphia

Self-discrepancy theory (SDT) (Higgins, 1987; Veale, Kinderman, Riley, & Lambrou, 2003) is one possible factor to consider in understanding the roots of body dissatisfaction. SDT identifies three domains of a person's self-concept: the actual self (an individual's representation of what he or she is actually like), the ideal self (an individual's representation of what he or she would ideally like to be), and the ought self (an individual's representation of what he or she believes other people would like him or her to be) (Higgins, 1987). According to SDT, discrepancies between the actual self and the ideal self, or discrepancies between the actual and ought self, lead to negative psychological consequences and self-defeating behaviors (Veale et al., 2003).

Because body image is an important component of one's self-concept, self-discrepancies can lead to body image disturbances and eating disorders (Higgins, 1987; Veale et al., 2003). When external sources (e.g., media, family, and peers) reinforce the socially ideal, yet unattainable, body type, people internalize such expectations as their ideal/ought self guides, which results in greater discrepancies between their actual self and their ideal/ought self guides. Moreover, there is substantial research supporting the assertion that self-discrepancy is related to body dissatisfaction for women (Halliwell & Dittmar, 2006; Veale et al., 2003).

Studies of both men and women have found relationships between body image, self-discrepancy, and eating pathology. Strauman, Vookles, Berenstein, Chaiken, and Higgins (1991) documented significant correlations between body dissatisfaction and disordered eating

symptomatology in two studies of men and women. Jacobi and Cash (1994) also found a relationship between self-discrepancy and negative body image in a sample of 66 male and 69 female undergraduates. Another study by Strauman and Glenberg (1994) reported an association between body image disturbances and self-discrepancy among 490 undergraduate females. In a related study of 158 students, Halliwell and Dittmar (2006) found that self-discrepancies predicted body dissatisfaction using two different measures of self-discrepancy. Similarly, Veale et al. (2003) found that discrepancies between actual and ideal selves, as well as actual/ought self discrepancies, were correlated with symptoms of Body Dysmorphic Disorder (a psychological disorder, closely related to eating disorders, in which individuals are preoccupied with their appearance to a degree that causes distress and impairments in functioning). According to Bessenoff (2006), self-discrepancy plays a mediating role in the relationship between body dissatisfaction and the influence of sociocultural body ideals. In a study of 112 female undergraduates, women with greater self-discrepancies were more likely to be affected by exposure to thin-ideal advertisements (Bessenoff, 2006).

Although researchers consistently have found a relationship between self-discrepancy, negative body image, and eating disorder symptomatology among women (Bessenoff, 2006; Halliwell & Dittmar, 2006; Strauman & Glenberg, 1994; Veale et al., 2003), relatively few have studied the relationship between self-discrepancy and muscle dysmorphia symptomatology among men (Hoyt & Kogan, 2002; Jacobi & Cash, 1994; Moyers, 2005; Veale et al., 2003). However, a recent study by Moyers (2005) found significant correlations between self-discrepancy, body dissatisfaction, and muscle dysmorphia symptomatology in a sample of 124 college-aged men. Participants with greater self-discrepancies reported lower body satisfaction and higher levels of muscle dysmorphia symptomatology. Given the results of Moyers (2005)

and the previous research on self-discrepancy among women, it is arguable that self-discrepancy theory could account for the body dissatisfaction that leads to psychopathology in both men and women.

Body Satisfaction and Self-Esteem

A related concept to self-discrepancy, that of self-esteem, is another common correlate of body dissatisfaction in both men and women (Green & Pritchard, 2003). Research has consistently documented a relationship between body dissatisfaction and low-self esteem among women, and a recent study by Olivardia et al. (2004) found that men's body dissatisfaction also positively correlated with both low self-esteem and eating pathology. Thus, it is also useful to explore how self-esteem may be related to self-discrepancy.

College Pressures and Self-Discrepancy

In addition, it is necessary to examine aspects and pressures related to the college environment that may exacerbate such self-discrepancies and therefore contribute to body dissatisfaction. The college environment is often associated with many of the same sociocultural pressures that emphasize unrealistic body ideals, and this could partially account for why the prevalence and degree of body dissatisfaction seems to peak in the college-aged population (Green & Pritchard, 2003; Kashubeck, Walsh, & Crowl, 1994). Furthermore, Vohs, Heatherton, and Herrin (2001) documented increased body dissatisfaction among students during their transition to college, which suggests that body dissatisfaction may be influenced by the college environment. Although many studies on eating disorder etiology have used college students as participants, relatively few have sought to determine why the prevalence of this disorder remains so common among this age group (Hoyt & Ross, 2003; Kashubeck et al., 1994).

Bowen-Woodward and Levitz (1989) sought to investigate the relationship between the

college environment and bulimia in an informal study at a residential treatment program for eating disorders. The authors surveyed 20 female patients with bulimia, all of whom were either currently enrolled in college or had attended college within the past five years. Participants completed surveys about their college experience and their eating disorders, as well as group interviews. The overwhelming consensus of the study was that these women felt the college environment contributed directly to the development and/or exacerbation of their bulimia. The women identified four issues regarding that college environment that influenced their eating disorders: the tendency to gain weight (e.g., "the freshman 15"); the unstructured environment; multiple competing pressures (e.g., social, academic, and aesthetic); and separation from parents. The authors concluded that the transition to college was a precipitating factor in the majority of the women's bulimia.

The findings of a three-paneled longitudinal study by Hesse-Biber and Marino (1991) support this assertion. The study collected data from 141 women during their senior year in high school, sophomore year of college, and senior year in college. Researchers assessed women's eating pathology using the Eating Attitudes Test (EAT-26; Garner, Olmsted, Bohr, & Garfinkel, 1982) and 11 aspects self-concept (e.g., perceived academic ability, assertiveness, drive to achieve) using the Cooperative Institutional Research Program. From their senior year in high school to their sophomore year in college, participants reported significant decreases in their perceived academic ability, assertiveness, drive to achieve, mathematical ability, popularity, public speaking, and intellectual and social self-confidences. However, the declines in perceived intellectual ability and physical attractiveness were no longer significant by participants' senior year in college. The data suggest that the initial transition to college negatively impacts self-concept, but that the impact on some domains of self-concept lessens throughout college.

An even more important finding of the study by Hesse-Biber and Marino (1991) was the suggestion of an interactional model for the relationship between self-concept and eating pathology during the college years. Hesse-Biber and Marino divided participants into three eating groups: Group 1 (eating patterns become or remain abnormal), Group 2 (eating patterns get better), and Group 3 (eating patterns remain normal). Women in Group 1 reported greater declines in self-concept than those in the other groups, especially in the areas of assertiveness, social confidence, and popularity. Thus, elements of self-concept seem to mediate the relationship between eating pathology and college pressures.

A related study by Costello (1999) sought to examine changes in eating pathology during the college years, as well as the campus pressures associated with disordered eating. The three-paneled longitudinal study of 102 undergraduate women collected data at the end of participants' senior year of high school, their third year in college, and their senior year in college. Participants completed several measures, including the Eating Disorders Inventory-2 (EDI-2; Garner, 1991) and a questionnaire assessing perceptions of campus pressures about academics, appearance, dating, exercising, drinking, and diversity. Eating pathology at all three times correlated significantly with participants' perceived campus pressure about fashion, exercise, and social life. Costello found that eating pathology decreased over the three years of college, but not for participants who joined sororities, as indicated by a significant correlation between sorority membership and eating pathology in the third year in college. The author hypothesized that the transition to college contributed to an initial increase in eating pathology, and that the relationship between sorority membership and eating pathology in the third year of college was due to the increased emphasis by sororities on sociocultural body ideals. These results suggest that (1) eating pathology is related to campus pressures, and that (2) environments that

emphasize such pressures (e.g., sororities) are related to the maintenance of eating pathology throughout college.

Such evidence raises the question: what accounts for the high prevalence of body dissatisfaction, in both women and men, during the college years? Self-discrepancy theory provides a viable framework from which to explore this issue in both genders. Given the significant amount of change, transition, and exploration that is associated with college life, it is predicted that college-aged people develop new, different ideal and/or ought self guides. Study 1 hypothesized that the college years are a time of increased discrepancies between men and women's actual and ideal/ought self guides. These discrepancies interact with specific college pressures and self-esteem to influence body dissatisfaction, which in turn leads to eating disorder and/or muscle dysmorphia symptomatology.

Study 1 examined the relationship between the college environment, self-discrepancy, body satisfaction, eating disorder symptomatology, and muscle dysmorphia symptomatology among men and women. It was hypothesized that those individuals with a greater discrepancy between their actual and ideal selves would have lower body satisfaction and lower self-esteem. Self-esteem was assessed as a possible mediator between self-discrepancy and disordered eating (in women) or muscle dysmorphia (in men). It was also hypothesized that as the discrepancy between actual and ideal selves increased, men would report more muscle dysmorphia symptomatology, while women would report more eating disorder symptomatology. Finally, it was predicted that pressures specific to the college environment would be related to greater self-discrepancy, lower self-esteem, body dissatisfaction, and eating disorder and muscle dysmorphia symptomatology. Figure 1 summarizes the hypothesized model of relationships among these variables.

Method

Participants

A total of 578 students at a mid-south university participated in Study 1. The sample included 396 women (69%) and 178 men (31%), ranging in age from 17 to 49 (four participants did not report their gender). The mean age of the participants was 20.31 (SD = 4.63). Although there were a few outliers in age, 97% of participants were younger than 30. The sample consisted of 490 Caucasian participants (85%), 41 African American participants (7%), 8 Hispanic participants (1%), 10 Asian American participants (2%), 12 multi-racial/bi-racial participants (2%), and 11 participants reported *other* for their ethnicity (2%). Six participants (1%) did not report their ethnicity. The study consisted of a series of anonymous online surveys.

Measures

Demographics. The online survey created by the researchers obtained demographic information from the participants. The questionnaire asked participants to report their gender, ethnicity, and age.

Self-Discrepancy. In order to assess self-discrepancy, participants completed the Self-Concept Questionnaire (SCQ; Waugh, 2001), which measures the discrepancy between one's ideal and actual self. The SCQ consists of 90 items; 45 items ask participants to rate themselves on qualities they would like to have/be (i.e., their ideal self), and 45 ask them to rate how they actually are (i.e., their actual self). Participants respond to statements such as "I am sure of myself at university," and "I am an attractive person." The SCQ items are divided into three categories: academic self-concept, social self-concept, and self-concept presentation of self. Participants rate each item on a five-point Likert-type scale ranging from 0 (*none of the time*) to 4 (*all of the time*). The SCQ scale has been shown to have good validity (Waugh, 2001). In the

present study the Cronbach's alpha of the "ideal" self scale was .97, and the alpha of the "actual" self scale was .96.

Body Satisfaction. Participants' degree of body satisfaction was measured using the Body Assessment Scale, which is a 25-item questionnaire that assesses attitudes towards various features of one's body, body performance, and appearance (BAS; Lorenzen, Grieve, & Thomas, 2004). Participants rate each item on a five-point scale ranging from 1 (*strongly positive*) to 5 (*strongly negative).* The BAS has been demonstrated to have good internal consistency, with a Cronbach's alpha of .94 (Lorenzen et al., 2004). In the present study, the alpha level was .94.

Body Satisfaction Discrepancy. In order to specifically measure discrepancies between one's ideal and actual body image, the BAS was modified to instruct participants to respond to BAS items based on their ideal body image. Like the BAS, the Ideal Body Assessment (IBAS) was scored using a five-point scale ranging from 1 (*strongly positive*) to 5 (*strongly negative*). The Cronbach's alpha of the IBAS was .97 in the present study. Participants' Body Satisfaction Discrepancy (BSD) was determined by subtracting their BAS scores from their IBAS scores.

Muscle Dysmorphia. The Muscle Dysmorphia Inventory (MDI; Short, 2005), which is typically used for men, was used to assess muscle dysmorphia symptomatology among the participants. The MDI is a 25-item questionnaire that includes statements describing typical and atypical symptoms of muscle dysmorphia (e.g., "I have difficulty maintaining relationships because of thoughts about my body"; "I am muscular enough"). Participants rated each item on a six-point Likert-type scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). The MDI score for each participant is the summation of the 25 items, with higher scores indicating increased muscle dysmorphia symptomatology. Short (2005) reported a Cronbach's alpha of .87

for the MDI. In the present study, the alpha level of the MDI was .89 among female participants, and .87 among male participants.

Disordered Eating. The Eating Attitudes Test-26 (EAT-26; Garner, Olmsted, Bohr, & Garfinkel, 1982), one of the most widely utilized screening tools for eating disorders, was used as a measure of eating disorder symptomatology. The EAT-26 consists of 26 items, and Garner et al. (1982) found the EAT-26 to have good internal consistency (alpha = .90) among anorexia nervosa patients. Responses were recorded using a five-point Likert-type scale ranging from 1 (*always*) to 5 (*never*), with lower scores indicating more problematic habits and behaviors. Although the EAT-26 is not an appropriate diagnostic test for clinical eating disorders, many of those who scored highly on the test have been identified (through personal interviews) as having abnormal eating habits that interfered with their well-being (Garner et al., 1982). For women in the current study, the Cronbach's alpha of the EAT-26 was .93, whereas for men the alpha was .94.

Self-Esteem. The Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1989) was used as a measure of participants' self-esteem. The RSES consists of 10 items that participants responded to on a four-point Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Higher scores indicate greater self-esteem. Generally, the Cronbach's alpha of the RSES has been shown to be .77 to .88, and test-retest correlations are between .82 and .88 (Rosenberg, 1989). In the present study the Cronbach's alpha was 89. Additionally, the construct validity of the scale has been demonstrated through correlations with both the Coopersmith Self-Esteem Inventory and the California Psychological Inventory Self-Acceptance subscale (Cohen & Petrie, 2005).

College Environment. The final measure was the College Environment Questionnaire (CEQ), which was designed by the researchers for the present study to assess various aspects of college pressures and the adjustment to college life (see Appendix A). The CEQ consists of 28 items to which participants respond on a five-point Likert-type scale ranging from 1 (*definitely disagree*) to 5 (*definitely agree*). The scale was designed to assess social, academic, athletic, and appearance related pressures of campus life. The Cronbach's alpha of the CEQ in the current study was .84.

Procedure

The volunteer participants were recruited on campus by offering them extra credit in their classes. The researchers also recruited off-campus participants by sending an email to colleagues, friends, and family members that invited them to complete the questionnaires. Those who chose to participate were given access to the online survey. Participants read and agreed to a consent form prior to taking the survey. Participants completed the questionnaires in the following order: Demographics Survey, SCQ, BAS, IBAS, MDI, EAT-26, RSES, and CEQ. After completing the online questionnaires, participants were debriefed regarding the nature of the present study.

Results

Responses to the MDI, EAT-26, RSES, and CEQ were summed to create scores for participants on each measure. The SCQ was divided into two scores: actual self and ideal self. The actual self-score was subtracted from the ideal self-score to create a self-discrepancy score for each participant. Similarly, participants' body satisfaction discrepancy (BSD) was determined by subtracting their actual BAS scores from their ideal BAS (IBAS) scores.

Table 2 shows bivariate correlations between the outcome variables for each gender. For women, the CEQ showed significant correlations with all variables of interest: self-discrepancy (r (233) = .44, $p < 0.01$); low self-esteem (r (252) = -.41, $p < 0.01$); body satisfaction discrepancy (r (360) = .28, $p < 0.01$); disordered eating (r (201) = -.38, $p < 0.01$); and muscle dysmorphia symptomatology (r (248) = .58, $p < 0.01$). Self-discrepancy correlated with low self-esteem (r (340) = -.51, $p < 0.01$), body satisfaction discrepancy (r (323) = .37, $p < 0.01$), disordered eating (r (260) = -.24, $p < 0.01$), and muscle dysmorphia symptomatology (r (331) = .34, $p < 0.01$). Body satisfaction discrepancy correlated with low self-esteem (r (354) = -.34, $p < 0.01$), disordered eating (r (277) = -.28, $p < 0.01$) and muscle dysmorphia symptomatology (r (344) = .44, $p < 0.01$). Low self-esteem was associated with both disordered eating (r (296) = -.48, $p < 0.01$) and muscle dysmorphia symptomatology (r (365) = -.48, $p < 0.01$), and the latter two variables were significantly correlated with each other (r (284) = -.53, $p < 0.01$).

Similar correlations emerged among the variables for men, with the exception of the relationship between self-discrepancy and disordered eating. For men, there was no significant correlation between these two variables. As in women, the CEQ showed significant correlations with self-discrepancy (r (98) = .27, $p < 0.01$); low self-esteem (r (104) = -.47, $p < 0.01$); body satisfaction discrepancy (r (100) = .20, $p < 0.05$); disordered eating (r (84) = -.24, $p < 0.05$); and muscle dysmorphia symptomatology (r (98) = .57, $p < 0.01$). Likewise, self-discrepancy correlated with low self-esteem (r (147) = -.41, $p < 0.01$), body satisfaction discrepancy (r (144) = .33, $p < 0.01$), and muscle dysmorphia symptomatology (r (141) = .19, $p < 0.05$). Body satisfaction discrepancy correlated with both disordered eating (r (119) = -.21, $p < 0.05$) and

muscle dysmorphia symptomatology (r (153) = .43, $p < 0.01$), and the latter two variables were significantly correlated with each other (r (123) = -.44, $p < 0.01$).

Additionally, linear regressions were performed to determine the predictive pathways among the variables of interest for men and women (as shown in Figures 2 and 3). Regression analyses partially supported the direct and indirect pathways predicted by the model; Figure 2 summarizes the standardized beta coefficients and variances in the model for women. As indicated by the overall R^2 values, the model predicted 45% of the variance in disordered eating symptomatology and 55% of the variance in muscle dysmorphia symptomatology in women. College environment pressures directly predicted self-discrepancy, low self-esteem, and muscle dysmorphia symptomatology. Self-discrepancy mediated indirect predictive pathways between college environmental pressures and body satisfaction, as well as between college pressures and low self-esteem, which in turn predicted disordered eating symptomatology. Low self-esteem mediated an indirect relationship between college pressures and disordered eating. There was also a significant relationship between disordered eating and muscle dysmorphia symptomatology.

Figure 3 summarizes these relationships in men. The model predicted 26% of the variance in disordered eating and 36% of the variance in muscle dysmorphia symptomatology. As in women, college environment pressures directly predicted self-discrepancy, low-self esteem, and muscle dysmorphia symptomatology; also similar to women, low self-esteem mediated a predictive pathway between college pressures and disordered eating symptomatology, and there were significant relationships between muscle dysmorphia and disordered eating symptomatology. However, two additional pathways emerged in the men's model that lacked statistical significance in the women's model. First, college pressures directly

predicted disordered eating symptomatology; second, self-discrepancy mediated a predictive relationship between college pressures and disordered eating symptomatology. It is also important to note that two significant pathways in the women's model lacked significance in the men's model. For men, self-discrepancy did not mediate the relationship between college pressures and body satisfaction, as it did in women. Nor did low self-esteem mediate the relationship between college pressures, self-discrepancy, and disordered eating, as in women.

Discussion

The intent of Study 1 was to examine what factors could account for the high prevalence of body dissatisfaction, disordered eating, and muscle dysmorphia symptomatology among both men and women during the college years. Given the social, academic, and emotional influences of the college environment, it was predicted that college-aged individuals tend to develop new ideal self-guides that differ from those they valued during their childhood, which in turn leads to increased self-discrepancy. This discrepancy may interact with perceived college pressures and low self-esteem to create discrepancies in men and women's ideal and actual body images as well, resulting in body dissatisfaction. College environmental pressures, self-discrepancy, and low self-esteem were hypothesized to be common etiological factors in the development of body dissatisfaction in college-aged men and women. Furthermore, it was predicted that this body dissatisfaction would manifest differently in each gender because of the different ideal body images valued by men and women (thin vs. muscular); thus, women's body dissatisfaction would result in disordered eating symptomatology, whereas men's body dissatisfaction would manifest in muscle dysmorphia symptomatology.

Results partially supported these hypotheses. For both women and men, bivariate correlation analysis revealed that college environmental pressures were related to greater levels

of self-discrepancy, low self-esteem, body discrepancy, disordered eating, and muscle dysmorphia symptomatology. Across genders, there were significant intercorrelations between all of the outcome variables, with one exception. Self-discrepancy was not significantly correlated with disordered eating in men. Thus, men who have disordered eating symptoms may not necessarily experience discontent with their sense of self, as is the case in women. However, it is important to note that self-discrepancy was significantly correlated with muscle dysmorphia symptomatology in men; taken together, these findings indicate that concerns about muscularity appear to be more important to men's sense of self than their eating habits. Women's self-concept (as measured by self-discrepancy), on the other hand, is associated with both eating habits and muscularity. The latter finding suggests that muscularity may be an increasingly important component of the ideal female body image.

Additionally, the pattern of correlations did not reflect the predicted gender differences in the manifestations of body dissatisfaction. Contrary to hypotheses, disordered eating and muscle dysmorphia symptomatology were strongly correlated with each other, as well as with other predictor variables, in both genders. Given the differing body ideals of men and women, it was predicted that the variables assessed (e.g., CEQ, SD, BSD, and SE) would relate to disordered eating but not muscle dysmorphia symptomatology among women, whereas such variables would alternatively be associated with muscle dysmorphia (but not disordered eating) among men. However, this was not always the case. Disordered eating and muscle dysmorphia symptomatology were similarly correlated with college environmental pressures, low self-esteem, and body satisfaction discrepancy in men and women. Thus, it appears that the variables are equally related to disordered eating and muscle dysmorphia symptomatology, regardless of gender. Nevertheless, this lack of gender difference and high degree of intercorrelation between

variables support the hypothesis that eating disorders and muscle dysmorphia share common etiologies and psychological correlates.

Further regression analysis clarified some of the above findings by assessing relationships between the predictor and outcome variables (as shown in Figures 2 and 3). As expected, college pressures predicted self-discrepancy in men and women. Only in women, however, did this self-discrepancy result in low self-esteem and discrepancies between their actual and ideal body image. Hence, self-discrepancy does not appear to have the same implications for body satisfaction and self worth in men.

Consistent with hypotheses, in both genders college pressures directly predicted low self-esteem in men and women. Somewhat contrary to expectations, low self-esteem in turn predicted disordered eating in both genders; that is, it was only expected that this would be the case among women, given the different body ideals of men and women. These findings indicate that the relationship between college pressures and self-esteem play a similar role in the development of eating pathology, regardless of gender.

Similarly, college pressures play a similar predictive role in the development of men and women's muscle dysmorphia symptomatology. Contrary to the prediction that college pressures would only predict muscle dysmorphia among men, college pressures were equally and directly predictive of muscle dysmorphia symptomatology across gender. This finding, however, is consistent with the correlations between college pressures and muscle dysmorphia symptomatology in men and women. Taken together, muscle dysmorphia may be a similar phenomenon in both men and women, and women may be equally influenced as men by college environmental pressures to increase their muscularity and athleticism.

However, only in men did college pressures directly predict disordered eating, which is also contrary to predictions. College pressures influenced disordered eating in women only in the presence of self-discrepancy and low self-esteem. Thus, the fact that college pressures only had an indirect influence on eating pathology among women suggests that the eating habits of men are more dependent on external influences than those of women.

Study 1 demonstrated both expected and unexpected findings in the etiological similarities between male and female body dissatisfaction, disordered eating, and muscle dysmorphia symptomatology. Both for men and for women, college pressures, self-discrepancy, self-esteem, and body satisfaction discrepancy accounted for a significant amount of the variance in predicting disordered eating and muscle dysmorphia symptomatology.

However, several limitations are necessary to note, as are some directions for future study. First, the present sample was a non-clinical population, and therefore symptoms of disordered eating or muscle dysmorphia are not necessarily indicative of their pathological forms. Second, the present study was not a longitudinal design; it would be useful for future research to assess the variables over time to examine their relative influence during individuals' lives. In addition, using control populations with which to compare the college-aged sample could further support the assertion that disordered eating and muscle dysmorphia symptomatology are most prevalent in this age group, and such comparison groups also could determine if self-discrepancy, low self-esteem, and body dissatisfaction are especially concerning among this population.

Lastly, further investigation is necessary to explore the psychometric properties of the College Environment Questionnaire (CEQ), which was designed specifically for the present study. Given the reliable alpha level of the scale, its significant relationships with the variables

of interest, and the fact that to date there is no similar measure that assesses college pressures in relationship to body image, future research should explore whether this scale is viable and useful in studying the development of disordered eating and muscle dysmorphia among the college-aged population.

Study 2: Self-objectification in men: A theoretical analysis and study of its psychological correlates

As demonstrated by Study 1, body dissatisfaction can have serious psychological consequences, in both men and women. Given the similarities between the etiologies of disordered eating and muscle dysmorphia that emerged in Study 1, it stands to reason that sociocultural factors that contribute to disordered eating among women may play a similar role among men. Although researchers have sought to examine the etiology of women's body dissatisfaction from biological, psychological, and socio-cultural perspectives, psychologists are only beginning to use such a framework to understand the phenomenon and manifestations of body dissatisfaction among men.

An aspect of this biopsychosocial etiological model that has been empirically validated (among women) is that of self-objectification (Fredrickson & Roberts, 1997). The central tenet of objectification theory posits that women are socialized to internalize an observer's perspective on their physical bodies; such a perspective leads to habitual body monitoring, which in turn leads to shame, anxiety, reduced peak motivational states, and diminished internal bodily awareness (Fredrickson & Roberts, 1997). Furthermore, these factors can account for the higher prevalence of unipolar depression, sexual dysfunction, and eating disorders among women (Fredrickson & Roberts, 1997).

Much of the current literature on the relationship between self-objectification, body dissatisfaction, and disordered eating has focused primarily on women (McKinley, 1998; Roberts & Gettman, 2004; Tylka & Hill, 2004). Although historically men have been thought to be immune from sociocultural influences on ideal body image, recent studies have consistently shown an increasing trend in male body dissatisfaction. Thus, there is reason to believe that self-objectification is becoming a common phenomenon among men as well. However, relatively few studies have sought to examine the manifestations and psychological consequences of self-objectification in men.

Because self-objectification has been shown to predict body dissatisfaction in women, more research is necessary to explore if and how self-objectification may account for a similar phenomenon in men. Several questions warrant further empirical investigation. For instance, because the societal body ideal for women differs from that of men, do such ideals uniquely impact self-objectification for each gender? In addition, influences on self-objectification that have been identified in women (e.g., peers, media, family) may have different effects for men, and male self-objectification may be influenced by factors not identified in women. Does the age at which men are most vulnerable to self-objectification differ from that of women, and are their experiences of self-objectification qualitatively different as well? It is also apparent that measures of self-objectification, which were developed primarily for women, need to be expanded and modified to take into account a broader range of contributing factors and consequences in men.

In sum, study is needed to compare the similarities and differences between male and female self-objectification, as well as the possible differential consequences for each gender.

Such analysis will lend insight into the etiologies and prevention of the negative psychological phenomena that result from self-objectification in both women and men.

Objectification Theory

First defined by Fredrickson and Roberts (1997), objectification theory asserts that women's perceptions of their bodies are shaped not only by biology but also by sociocultural contexts. The pervasive sexual objectification of the female body in Western culture socializes girls and women to perceive their bodies as a commodity. Girls and women view themselves as objects to be appreciated by others, and therefore measure their self-worth by evaluating their appearance against societal beauty ideals. Women come to believe that others' evaluations of their appearance will influence how they are treated, and thus they anticipate (consciously or unconsciously) the social repercussions of their appearance; in other words, looks matter (Fredrickson & Roberts, 1997). This results in feelings of self-consciousness, which leads to an internalization of an observer's viewpoint of oneself, called self-objectification. Instead of valuing one's body from a first-person perspective that focuses on competence-based attributes (e.g., "How do I feel?" "What am I capable of?"), self-objectification is described as valuing one's body from a third-person perspective that focuses on appearance-based attributes (e.g., "How do I look?") (Noll & Fredrickson, 1998). This particular self perspective often leads to habitual body monitoring, which Fredrickson and Roberts (1997) suggest is a strategy women use to influence how others will treat them. Thus, self-objectification can take a significant toll on women's emotional, motivational, and attentional states.

According to Fredrickson and Roberts (1997), the effects of self-objectification manifest in four psychological consequences: increased feelings of shame, anxiety, reduced opportunities for "peak motivational states," and diminished awareness of internal bodily states. In general,

feelings of shame occur when individuals fail to meet internalized or cultural ideals, which can result in global attributions of failure (Noll & Fredrickson, 1998). Western culture has created a thin, youthful, and sexually objectified female body ideal, and thus body shame is of particular concern for those women who feel they have not or cannot achieve this cultural ideal. This shame can in turn have negative consequences for women's overall self-concept (Noll & Fredrickson, 1998).

Moreover, living in a culture that objectifies the female body causes women to experience anxiety about both their appearance and safety (Fredrickson & Roberts, 1997). Not knowing when and how one's body will be evaluated can lead to constant concern about one's physical appearance. Additionally, the notion that women who dress provocatively elicit sexual advances or assault (e.g., "blame the victim" mentality) causes women to be vigilant about their appearances.

Fredrickson and Roberts (1997) also propose that self-objectification decreases women's opportunities to experience peak motivational states (i.e., mental, emotional, and physical states in which a person feels uncontrolled by others, creative, and joyful). Such experiences enhance one's quality of life but are limited when women are distracted by focusing on their physical appearance. Feelings of self-consciousness that result from objectification thus inhibit the capacity for one to experience peak motivational states.

Lastly, self-objectification can result in decreased awareness of internal bodily states, in which women feel distant from their own bodies. Fredrickson and Roberts (1997) identify two explanations that could account for this distancing: (1) women may suppress hunger cues as a result of extreme dieting, and/or (2) women spend too much of their perceptual resources on vigilant evaluation of their bodily appearance. That is, internalizing an observer's perspective

leads women to pay more attention to their physical self than their own inner states. Together, these four factors contribute to the observed trends in women's mental health risks, namely unipolar depression, sexual dysfunction, and eating disorders (Fredrickson & Roberts, 1997).

Self-objectification, body dissatisfaction, and disordered eating

Since the explication of objectification theory, subsequent studies have developed measures of the construct and examined its correlates (Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998; McKinley & Hyde, 1996; Noll & Fredrickson, 1998). As predicted by objectification theory, researchers have consistently documented correlations between self-objectification, negative body image, disordered eating, and diminished mental performance, particularly among women. McKinley and Hyde (1996) developed the Objectified Body Consciousness Scale (OBC), a valid and reliable measure of self-objectification, which consists of three subscales: surveillance, body shame, and appearance control beliefs. In a sample of 653 women, surveillance and body shame correlated with negative self-esteem, and all three subscales correlated positively with disordered eating (McKinley & Hyde, 1996).

Noll and Fredrickson (1998) found empirical support for objectification theory in their development of the Self-Objectification Questionnaire (SOQ) in a mediational model linking self-objectification, body-shame, and disordered eating in two samples of undergraduate women ($N = 93$, $N = 111$). Participants completed the SOQ, measures of body shame (Body Shame Questionnaire), and disordered eating (Revised Bulimia Test, Eating Attitudes Test, and Revised Restraint Scale). In both samples regression analysis confirmed that body shame mediated the relationship between self-objectification and disordered eating. In addition to the mediational relationship, results indicated direct correlations between self-objectification, body shame, and disordered eating.

Fredrickson et al. (1998) further tested the validity of the SOQ in two experiments (N = 75, N = 82) that manipulated participants' level of trait self-objectification (by having them try on either a swimsuit or sweater). For women (but not men), the self-objectified state (i.e., trying on a swimsuit) predicted increased body shame, restrained eating, and lower scores on math tests (which participants completed while wearing the swimsuit or sweater). Based on these findings, the authors concluded that for women, self-objectification not only affects body image but also leads to disrupted attention and diminished mental performance. This supports Fredrickson and Robert's (1997) theory that individuals who self-objectify have reduced peak motivational states and lower introceptive awareness because their perceptual resources are disproportionately devoted to evaluating their appearance.

More recently, Tylka and Hill (2004) examined several aspects of self-objectification in relationship to disordered eating in a sample of 460 college women. The study assessed participants' degree of self-objectification by measuring perceived pressure to be thin (a form of sexual objectification), the body surveillance and body shame subscales of the OBC (McKinley & Hyde, 1996), and interoceptive awareness. The resulting structural model supported the fundamental tenets of objectification theory: pressure to be thin (i.e., the result of living within a culture that objectifies women's bodies) predicted body surveillance and body shame, which in turn predicted poor interoceptive awareness. Poor interoceptive awareness and body shame were also found to be predictive of disordered eating in the sample. This finding suggests that women who are ashamed of their bodies attempt to decrease this feeling via suppression of hunger, satiety, and emotional cues in order to lose weight.

In a similar study of 286 undergraduates, Kuring and Tiggemann (2004) found that self-objectification and self-surveillance predicted disordered eating and depressed mood in women.

In addition, body shame, appearance anxiety, and lower flow mediated this relationship. However, the authors note that the lack of correlation between self-objectification and other variables in men could be accounted for by the fact that the measure used to assess self-objectification (SOQ; Fredrickson et al., 1998) was developed for use with women. Thus, the sexual objectification of men may not be adequately assessed by such a measure, which points to the need for development of gender-specific or gender-neutral assessments of self-objectification.

Additional correlates of self-objectification

It is important to note the micro and macro-level influences on self-objectification, as there is much variation in the degree to which individuals internalize observers' perspectives (Fredrickson & Roberts, 1997). Such influences include social class, ethnicity, age, sexuality, physical attributes, and personal history. In addition, certain cultural milieus and individual situations that accentuate women's awareness of observers' perspectives (e.g. public, mixed gender settings) may trigger or exacerbate self-objectification (Fredrickson & Roberts, 1997; Fredrickson et al., 1998). As such, research has begun to explore these influences in self-objectification, particularly among women.

Sociocultural influences. Sociocultural influences are among the most significant factors in the relationship between self-objectification and body dissatisfaction. Morry and Staska (2001) explored the relationships among magazine exposure, sociocultural attitudes (as measured by the Sociocultural Attitudes Towards Appearance Questionnaire, SATAQ; Heinberg, Thompson, & Stormer, 1995), self-objectification, body dissatisfaction, and eating disorder symptomatology among 150 male and female undergraduates. Exposure to fitness (for men) or beauty (for women) magazines correlated with disordered eating symptomatology and the

internalization of societal body ideals (thin for women and muscular for men) in both genders. For women, magazine exposure was positively correlated with the internalization of societal ideals, self-objectification, and disordered eating symptomatology; internalization also served as a mediator in the relationships between magazine exposure, self-objectification, and disordered eating symptomatology. For men, magazine exposure positively correlated with body dissatisfaction, which was mediated by the internalization of societal ideals. And although self-objectification did not directly correlate with magazine exposure in men, it positively correlated with the internalization of societal ideals. In sum, the internalization of societal ideals seems to be an important individual variable in self-objectification among both men and women.

Even subtle exposure to objectifying influences can activate a state of self-objectification, as demonstrated in a study by Roberts and Gettman (2004). For the 90 women in the sample (but not for the 70 men), exposure to objectifying words (e.g. "weight," "figure," "slender") increased their level of self-objectification. Higher levels of self-objectification correlated with greater appearance anxiety, decreased appeal of sex, and body shame and disgust. Thus, the media seems to significantly influence the process of self-objectification and its adverse effects on women.

Myers and Crowther (2007) further explored the relationships between sociocultural pressures, thin-ideal internalization (as measured by the SATAQ-3; Thompson, van den Berg, Roehrig, Guarda, & Heinberg, 2004), self-objectification (as measured by the SOQ), body dissatisfaction, and feminist beliefs. In a sample of 195 undergraduate women, results indicated that feminist beliefs moderated the relationship between media influences and thin-ideal internalization, and that self-objectification mediated the relationship between thin-ideal internalization and body dissatisfaction. According to Myers and Crowther, these findings

suggest that self-objectification is the mechanism through which the internalization of sociocultural ideals leads to body dissatisfaction in women, and feminist attitudes appear to protect against the internalization of negative media influences.

Ethnicity. Furthermore, evidence suggests that self-objectification differs among ethnic groups. Harrison and Fredrickson (2003) examined self-objectification among 426 African American and Caucasian adolescent females after they viewed sports media. For white participants only, watching "lean" female sports (e.g., cross-country, gymnastics) increased their level of self-objectification (as measured by the SOQ), whereas for African American participants, self-objectification increased only after they watched "nonlean" sports (e.g., softball, basketball, field hockey). In other words, white participants compared themselves to "lean" female athletes more than "nonlean" athletes, while the opposite was true for African American participants. These findings indicate that ethnic differences in body ideals (as portrayed by the different physiques of female athletes) appear to play a role in the degree to which women engage in self-objectification, and that such ideals should be taken into account when assessing self-objectification among different ethnic groups.

While body image issues and self-objectification are stereotypically regarded as concerns primarily for Caucasian women, a study by Hebl, King, and Lin (2004) demonstrated that self-objectification affects women and men of all ethnicities, but to varying degrees. Hebl et al. replicated the conditions of Fredrickson et al. (1998), in which participants completed measures of self-objectification, body shame, self-esteem, and math performance while wearing either a swimsuit (self-objectifying condition) or a sweater (control condition). While Frederickson et al. used an all-female, primarily Caucasian (70%) sample, Hebl et al. tested 400 men and women of varying ethnic backgrounds (23% African American, 33% Caucasian, 22% Hispanic, and 22%

Asian American). Results indicated that across gender and ethnicity, self-objectification was related to body shame, lower self-esteem, and lower math performance. Hispanic participants reported the highest levels of self-objectification, while African American participants reported the lowest. Overall, women reported higher levels of self-objectification than men, with the exception of Asian American men, who reported higher levels than Asian American women. Although Hebl et al. did not address the unexpected gender difference among Asian American participants, they proposed that African American men and women are more resilient to negative body image influences than other ethnic groups, and that Hispanic individuals may face similar challenges, if not more, as Caucasians. Taken together, the findings of this study suggest a more nuanced conceptualization of self-objectification, as there were both differences and constant factors across gender and ethnicity. Although different ethnic groups varied in reported levels of self-objectification, all men and ethnic minorities experienced similar consequences to Caucasian women when subjected to a self-objectifying situation.

Age. Additionally, age is an important factor in objectification theory, which could account for why physical changes in women's bodies often coincide with mental health risks during particular points in their lifetimes (Fredrickson & Roberts, 1997). Objectification theory predicts that as women age, they may have more or fewer mental health risks depending on the degree to which they self-objectify. For example, pubertal changes correspond with decreased self-esteem and body esteem in girls (Fredrickson & Roberts, 1997). This is perhaps explained by the diathesis-stress model: girls more frequently engage in self-objectification than boys, and are thus predisposed to experience mental health problems. The onset of physical and social changes during puberty, therefore, produces more negative mental health outcomes for adolescent females than males (Fredrickson & Roberts, 1997). In contrast, middle-aged women

who do not feel a need to internalize observers' evaluations of their bodies often feel less shame and anxiety about their appearance, experience more peak motivational states, and report increased awareness of internal bodily states (Fredrickson & Roberts, 1997). This can account for the reduced prevalence of particular mental health problems among older women (Fredrickson & Roberts, 1997).

Because self-objectification in women is linked to body dissatisfaction, it is possible that the same phenomenon may occur in men. Because of the similarities in the relationship between body dissatisfaction and sociocultural influences in men and women, it stands to reason that self-objectification has a similar impact on both men and women. However, relatively little research has examined the phenomenon of self-objectification as it pertains specifically to men. Studies that have included men have often yielded inconsistent findings, partly due to methodological problems regarding gender differences in measures of self-objectification. The psychological meaning of body dissatisfaction may be qualitatively different for men than for women, and therefore gender differences in objectification could be due to the different conceptions of the male and female body ideal (lean and muscular vs. thin and young).

Evidence of men's self-objectification

For instance, McKinley (1998) found that men and women differed in measures of objectification in a study that examined the relationship between objectification, body esteem, and actual/ideal weight discrepancies among 327 undergraduates. Although the surveillance subscale of the OBC and body shame correlated negatively with body esteem for both men and women, the control beliefs subscale of the OBC was not related to body esteem for men, nor was actual/ideal weight discrepancy related to the surveillance subscale of the OBC (as it was for women). Thus, it seems that the measures of self-objectification for men may not be adequate.

McKinley notes that the OBC was developed based on women's experiences, and perhaps the use of body weight is not an accurate cultural standard for men as it is for women. Measures of muscularity, rather than body weight, may better capture men's body ideal. Moreover, men may objectify themselves based on their activities or achievements rather than their appearance.

Additionally, Roberts and Gettman (2004) showed that exposure to objectifying words increases self-objectification for women, but no such relationship was found for men in their sample. This could be due to the nature of the objectifying words, which were primarily focused on female body ideals. Thus, the question of how men interpret media that objectifies male bodies remains to be answered.

A two-year panel study by Stevens Aubrey (2006) offers some insight to this issue. A total of 226 undergraduates (149 women, 77 men) completed measures of trait self-objectification (SOQ; Noll & Fredrickson, 1998), body surveillance (subscale of the OBC; McKinley & Hyde, 1996), sociocultural attitudes about appearance (SATAQ; Heinberg, Thompson, & Stormer, 1995), and self-esteem (Rosenberg Self-Esteem Scale; Rosenberg, 1965), as well as their average levels of exposure to objectifying media at Years 1 and 2. One group of participants viewed sexually objectifying media (in the form of magazines and television), while the other group served as a control. As predicted, exposure to objectifying media at Year 1 predicted increased self-objection at Year 2 in both men and women. These results suggest that self-objectification applies to both sexes, and that there are gender similarities in the long-term effects of objectifying forms of media. In addition, Stevens Aubrey examined an alternative direction of causality in the relationships among variables: while media exposure predicted higher levels of self-objectification, results also showed that higher levels of self-objectification at Year 1 predicted an avoidance of sexually objectifying television in men and women. Thus,

the author suggests that individuals with high levels of self-objectification selectively avoid potentially damaging television. In addition, exposure to objectifying magazines at Year 1 predicted increased body surveillance at Year 2 for men only. This finding, according to the author, indicates that objectifying media exposure may have a stronger effect on men's body surveillance because body monitoring is relatively normative for women and therefore is less influenced by the media. And while exposure to objectifying media predicted increased levels of self-objectification in men (Stevens Aubrey, 2006), results also showed that men with high levels of body surveillance reported increases in exposure to objectifying magazines from Year 1 to Year 2. This suggests a complementary, bidirectional relationship between body surveillance and objectification, in that men who are concerned about appearances tend to seek out magazines that portray sexually objectifying images of men.

McKinley (2006) conducted another longitudinal analysis of objectified body consciousness among young men and women during their transition out of college. The study sought to examine the social construction of gendered bodies and compare the developmental contexts of objectification in both men and women. At Wave 1 and Wave 2 (10 years post-college), participants (115 women and 49 men) completed the OBC scale (McKinley & Hyde, 1996), Body Esteem Scale (BES; Franzoi & Shields, 1984), the Self-Acceptance subscale of Ryff's Scales of Psychological Well-being (1989), as well as measures of weight dissatisfaction, restricted eating, dieting, and exercise. Some gender differences persisted from Wave 1 to Wave 2; at both times, women reported significantly higher levels of body surveillance, body shame, and low body esteem than men. This supports previous research that posits women are generally less satisfied with their bodies than men (e.g., Garner, 1997, as cited in McKinley, 2006), and McKinley suggests that this difference could be due to the "normativeness" of women's body

dissatisfaction. However, contrary to McKinley's hypotheses, the strength of the relationship between men's self-acceptance and body esteem increased 10 years after college relative to women. For men, only the physical condition subscale of the BES was associated with self-acceptance at Wave 1, whereas all three subscales (*physical condition*, *upper body strength*, and *physical attraction*) of the BES were associated with men's self-acceptance at Wave 2. Thus, these findings may indicate that men's body esteem has an increasing influence on their self-acceptance over time. McKinley also notes that expressing body dissatisfaction is less socially acceptable for men, and therefore those men who have low body esteem may experience more negative implications for their self-acceptance when compared to women with low body esteem.

McKinley (2006) also found that gender predicted body esteem 10 years post-college, but when weight dissatisfaction was controlled it was no longer a significant predictor. Additionally, the relationship between gender and body esteem decreased when objectified body consciousness (as measured by the OBC) was controlled. These results show that gender alone does not account for differences in body esteem between men and women, and that weight satisfaction and objectification are important factors to consider when studying observed gender differences in body esteem.

Furthermore, the McKinley's (2006) longitudinal study design allowed for the comparison of both age and cohort effects between men and women. Although body surveillance (a subscale of the OBC) predicted low body esteem at Wave 1 in both men and women, body surveillance no longer predicted low body esteem at Wave 2 in men as it did in women at Wave 2. However, body shame (another OBC subscale) predicted low body esteem for both men and women at Wave 1 and Wave 2. Thus, the nature of objectification in men may change over time, as the effect of body surveillance on body esteem decreased, while the effect

of body shame remained constant. Results also demonstrated age-related effects, as both men and women reported increases in body esteem and decreases in body surveillance and shame from Wave 1 to Wave 2. Although this finding was contrary to expectations, McKinley (2006) suggests that perhaps at Wave 2 participants were too young to have experienced many age-related physical changes, and that they instead experienced improved body image as a result of leaving the college environment.

An additional finding in McKinley's (2006) study was a positive relationship between self-acceptance and body esteem at both data waves in men and women. In women, the strength of this relationship decreased over time, while in men the relationship remained constant with a trend towards increasing. Unlike in women, body esteem may become more important to men's self-acceptance as they grow older. Moreover, from Wave 1 to Wave 2 the relationship between weight dissatisfaction and self-acceptance increased in men but decreased in women. Results also showed that men increased their exercising to control weight over time, whereas women showed no such increase.

In sum, McKinley's (2006) study indicates that the some aspects of men and women's body experiences become more similar over time, while other aspects remain or become different. Such findings show the importance of longitudinal analyses in understanding cohort and age-related differences and similarities in women and men's body experiences over time.

Objectification may indeed play a significant role in men's mental health, but it is still unclear exactly how it affects men. A recent study by Johnson, McCreary, and Mills (2007) examined the effects of objectified male and female images on men's psychological well-being. Ninety male undergraduates viewed magazine ads that presented either neutral images or objectified images of muscular men and slender women in swimsuits. The authors hypothesized

that men who viewed objectifying ads would report a greater desire to be muscular and greater psychological distress (defined in terms of depression, anxiety, and hostility) than those in the neutral ad condition. Contrary to these expectations, viewing objectified male or female images did not affect participants' drive for muscularity, reported levels of depression, or self-esteem. However, the men who viewed objectified female (but not male) images experienced greater levels of anxiety and hostility. The authors proposed that such findings are consistent with research on pornography exposure, which suggests that viewing explicit sexual content increases men's antagonistic feelings towards women and reinforces patriarchal attitudes. Based on their findings, Johnson et al. concluded that men may not necessarily have to view pornographic images; even objectified images of scantily clad women arouse feelings of hostility and anxiety. In addition, the lack of adverse effects on men who viewed objectified male media could indicate that men are generally more resilient to objectified male images. This is consistent with previous studies that have demonstrated that girls and women respond more negatively to objectified media images than do boys and men (Hausenblas, Janelle, Gardner, & Hagan, 2002; Murnen et al., 2003; as cited in Johnson et al.).

Nevertheless, it is necessary to examine how individual differences may influence men's degree of self-objectification. Just as Humphreys and Paxton (2004) concluded that individual attributes could account for variations in male body image, Hallsworth, Wade, and Tiggeman (2005) found that body image differences in men can be explained by their varying degrees of self-objectification. Hallsworth et al. examined self-objectification, body dissatisfaction, drive for muscularity, bulimia symptomatology, and depression among three groups of men: bodybuilders ($N = 31$), weightlifters ($N = 17$), and non-athletes ($N = 35$). As expected, bodybuilders reported significantly higher levels of self-objectification, body dissatisfaction, and

drive for muscularity than the other groups. Furthermore, appearance anxiety mediated the relationships between self-objection and the other variables. The findings of this study underscore the importance of individual differences in male body image; specifically, men who are exposed to environments that emphasize appearance (e.g., bodybuilders) are predisposed to experience higher levels of self-objectification than others.

Another individual difference that influences men's levels of self-objectification is that of sexual orientation. Martins, Tiggeman, and Kirkbride (2007) conducted two studies that compared self-objectification between heterosexual and homosexual men. Their first study found that homosexual men ($N = 98$) reported greater trait self-objectification, body shame, body dissatisfaction, and drive for thinness than heterosexual men ($N = 103$). However, there were no significant differences between gay and heterosexual men's drive for muscularity. In the second study, researchers manipulated self-objectification using similar methodology to Fredrickson et al. (1998) and Hebl et al. (2004), in which half of the participants wore Speedo briefs and half wore sweaters while completing questionnaires. Although the objectification condition (wearing Speedo briefs) resulted in poorer body image regardless of participants' sexual orientation, homosexual men ($N = 57$) reported greater body dissatisfaction and body shame than heterosexual men ($N = 68$). Furthermore, in both studies body shame was related to self-objectification for homosexual men only. While these findings demonstrate that self-objectification can affect heterosexual as well as homosexual men, the authors argue that homosexual men are members of a subculture that sexually objectifies the body and places particular emphasis on attractiveness and appearance. It is also significant that homosexual men experienced body shame as a consequence of self-objection, whereas heterosexual men did not. That is, the authors suggest there may be a distinction between sexual objectification and self-

objectification. Heterosexual men appear to engage in self-objectification, which coincided with body dissatisfaction, yet they do not have the same resulting sense of shame as homosexual men. This may be because homosexual men experience more sexual objectification than do heterosexual men. However, Martins et al. predict that the increasing sociocultural objectification of the male body will cause such differences to disappear as the value of appearance becomes more important for all men. On the other hand, heterosexual men may be less likely to report body shame due to a belief that "real" men should not be concerned about their body image or indicate that it is an important part of their self-concept (Martins et al.). In any case, at the present time there seems to be a heightened degree of self-objectification and its negative psychological correlates among the homosexual male population.

The present study

Taken together, the existing research on male body satisfaction, self-objectification, and overall well-being have yielded inconclusive, yet intriguing, results. Although it seems likely that body image issues are becoming more important to men, more research is necessary to understand the influences on male body dissatisfaction and the processes by which such dissatisfaction may result in other negative psychological effects. For women, objectification theory is a useful framework to understand the development of body image issues. However, the differences between men and women in studies of self-objectification demonstrate a need for the development of objectification measures that are specific to men. Such measures must take into account the differences between male and female body ideals, as well as how the meaning of physical appearance may differ between men and women. Just as some women perceive the cultural female body ideal to symbolize their self-concept and femininity, the cultural male body ideal is "...a status goal, like sexual conquests, a representation of manliness that ignores the

variety of body types, the potential richness of male experience and the nuances of a complex, well-developed identity" (Tager et al., 2006, p. 235). The present study will attempt to assess self-objectification in men and investigate the relationships between male self-objectification, body satisfaction, the internalization of sociocultural appearance ideals, affect, and psychological well-being.

Hypotheses

Given the existing research, this study hypothesized that self-objectification, using both an established measure and a measure modified for men, would correlate with the internalization of sociocultural ideals, as parallel relationships have been observed in women. These variables (i.e., self-objectification and internalization of sociocultural ideals) were predicted to correlate with body dissatisfaction, as men who self-objectify would feel pressure to attain unrealistic body ideals. Similar to the phenomenon observed among women, this was hypothesized to be associated with negative affect and decreased psychological well-being among men. Specifically, the present study examined two aspects of psychological well-being (self-acceptance and environmental mastery) in relationship to self-objectification, as previous studies have demonstrated that male body image is related to both self-acceptance (McKinley, 2006; Tager, Good, & Bauer Morrison, 2006) and environmental mastery (Tager et al., 2006).

Method

Participants.

Seventy-four male students at a midwestern liberal arts college, who ranged in age from 18 to 24, participated in the present study. The mean age of the participants was 19.39 (*SD* = 1.33), although 10 participants failed to report their age. The sample included 53 Caucasian participants (72%), 1 African American participant (1%), 4 Asian American participants (5%), 1

Hispanic participant (1%), 3 bi-racial participants (4%), while 1 participant (1%) reported "other" and 11 participants (15%) did not report ethnicity. The study consisted of a series of anonymous online surveys. Participants either received course credit for their participation or were entered into a lottery in the psychology department to win prizes (e.g., local gift certificates).

Measures

Self-Objectification. Participants completed the Self-Objectification Questionnaire (SOQ; Noll & Fredrickson, 1998), which asks participants to rank 10 body attributes in order of importance to their physical self-concept (1 indicates the least impact on physical self-concept, whereas 10 indicates the greatest impact on physical self-concept). The items are divided between those that assess physical appearance (e.g., "What rank do you assign to weight?") and those that assess physical competence (e.g., "What rank do you assign to health?"). The scale is scored by summing the competence and appearance rankings separately, and then subtracting the competence sum from the appearance sum. The resulting score may range from –25 to +25, with higher scores indicating a greater emphasis on appearance and a higher degree of self-objectification. Previous research has demonstrated that the scale has good internal consistency, as well as good convergent and divergent validity (Noll & Fredrickson, 1998). However, in the present study the Cronbach's alpha was only .46.

In addition to the SOQ, participants completed another measure of self-objectification, the Objectified Body Consciousness Scale (OBC; McKinley & Hyde, 1996). However, the researchers modified five of the 24 items to address body image issues that would pertain specifically to men (see Appendix B). The original OBC, which was developed for use with women, consists of three subscales: Surveillance (OBC-SS), Body Shame (OBC-BS), and

Control Beliefs (OBC-CS). All three scales have been shown to have good internal reliability and validity. McKinley and Hyde (1996) reported Chronbach's alphas of .89 (OBC-SS), .75 (OBC-BS), and .72 (OBC-CS). In the present study, the modified subscales had alphas of .85 (OBC-SS), .71 (OBC-BS), and .84 (OBC-CS).

Body satisfaction. As in Study 1, participants' body satisfaction was measured using the Body Assessment Scale, a 25-item questionnaire that assesses attitudes towards various features of one's body, body performance, and appearance (BAS; Lorenzen, Grieve, & Thomas, 2004). The BAS evaluates aspects of the body image that may be of particular concern for men (e.g., upper body strength, biceps, body build). Participants rate how positively or negatively they feel about each of the areas on a 5-point Likert scale ranging from 1 (*strongly positive*) to 5 (*strongly negative).* Participants' BAS scores are determined by summing the items, with lower scores indicating greater body satisfaction. The BAS has good internal consistency, $\alpha = .94$ (Lorenzen et al., 2004), and in the present study the alpha level was .91.

Attitudes about appearance. In order to assess the recognition and internalization of sociocultural appearance ideals, participants completed the 30-item Sociocultural Attitudes Towards Appearance-3 (SATAQ-3; Thompson et al., 2004). Items are scored on a 5-point Likert scale ranging from 1 (*definitely disagree*) to 5 (*definitely agree*). The scale consists of four subscales (Information, Pressures, Internalization-Athlete, Internalization-General), each of which is summed to create a total score (with higher scores indicating greater internalization). Thompson et al. (2004) reported satisfactory internal consistency for all four subscales (with α values ranging from .89 to .94), as well as high validity with measures of eating pathology. Because the current study was assessing males only, the researchers modified one item (number 15) on the SATAQ-3 to eliminate possible gender bias in the terminology; the word "model" was

therefore changed to "people." The Cronbach's alpha of the SATAQ-3 in the current study was .75.

Affect. Participants' mood states were assessed using the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988). The 20-item PANAS asks participants to rate the extent to which they have experienced 10 positive emotions (e.g., *excited, inspired*) and 10 negative emotions (e.g., "scared," "guilty") during the past week. Participants respond on a 5-point scale, with values corresponding to the following labels: *very slightly or not at all, a little, moderately, quite a bit,* or *extremely*. Scores are summed for both the Negative Affect scale (NA) and Positive Affect scale (PA), each of which has good test-retest reliability, validity, and internal consistency (NA α = .88, PA α = .85; Watson et al., 1988). Higher NA scores indicate more negative moods, whereas higher PA scores indicate more positive moods. In the present study the Cronbach's alpha of the PA scale was .83, while the alpha of the NA scale was .88.

Psychological well-being. Participants completed two of the six Ryff Scales of Psychological Well-being: Self Acceptance (SA) and Environmental Mastery (EM) (Ryff, 1989). Each subscale consists of nine items, for which respondents rate how strongly they agree or disagree with a statement on a six-point Likert scale. The scales are highly intercorrelated and have good construct validity. The Cronbach's alpha of the SA scale was .87, and the alpha of the EM scale was .81. Items are summed to create a total score for each scale. SA includes items such as, "When I look at the story of my life, I am pleased with how things have turned out." Higher scores on SA indicate a positive attitude toward the self, whereas lower scores indicate dissatisfaction with personal qualities and a desire to change oneself. EM items (e.g., "I often feel overwhelmed by my responsibilities") assess respondents' competency in managing a

complex array of external activities and their ability to create contexts that meet their needs. Lower EM scores indicate difficulty in managing everyday affairs, an inability to change or improve one's surrounding contexts, and a feeling of a lack of control over the external world.

Results

Table 2 shows the intercorrelation matrix of the measures: SATAQ-3 subscales, OBC subscales, SOQ, BAS, EM, SA, PA, and NA. The subscales of the SATAQ-3 showed high intercorrelations. However, the intercorrelations between the subscales of the OBC were more variable. Whereas the body shame (OBC-BS) and surveillance (OBC-SS) subscales correlated with each other (r (72) = .398, $p < 0.01$), neither of the latter subscales showed significant correlations with the control subscale (OBC-CS). An additional measure of self-objectification, the SOQ, correlated with both the OBC-BS (r (72) = -.27, $p < 0.05$) and the OBC-SS (r (72) = -.62, $p < 0.01$) but not the OBC-CS. The findings are discussed below.

Correlates of self-objectification

Generally, SATAQ-3 (total) scores correlated significantly with the following measures of objectification: OBC-BS (r (72) = -.33, $p < 0.05$), OBC-SS (r (72) = -.39, $p < 0.05$), and SOQ (r (74) = .34, $p < 0.05$). However, the internalization-athlete subscale (SATAQ-IA) was not associated with these measures, but rather the OBC-CS (r (70) = -.39, $p < 0.01$). Also, OBC-CS was the only measure of self-objectification that correlated with positive and negative affect (r (70) = -.27, $p < 0.05$; r (70) = -.29, $p < 0.05$), respectively). However, the validity of the OBC-CS a measure of objectification among men is questionable due its lack of correlation with other subscales. The OBC-BS was the only objectification measure that correlated with lower body satisfaction (BAS; r (72) = .31, $p < 0.01$) and self-acceptance (SA; r (72) = .24, $p < 0.05$). Lastly, environmental mastery (EM) was not related to measures of self-objectification.

Additional correlations

As hypothesized, body satisfaction (BAS) correlated with measures of well-being (SA and EM) and negative affect (NA). Also as expected, there were strong intercorrelations between measures of well being (SA and EM) and affect (PA and NA). Mood (positive/negative affect) was generally associated with SATAQ-3 subscales, but in the opposite direction that was predicted; that is, higher SATAQ-3 scores correlated with more positive affect.

Discussion

Study 2 aimed to investigate the possible phenomenon of male self-objectification and its psychological correlates. Results yielded mixed findings. First, it should be noted that although all OBC subscales (body shame, body surveillance, and control) showed good reliability, only the body shame and surveillance subscales correlated with each other. Given the fact that the control subscale also failed to correlate with the Self-Objectification Questionnaire (SOQ), this subscale may tap a construct dissimilar to self-objectification in men. Thus, for the purpose of discussion, reference to self-objectification will be based on the body shame and surveillance subscales of the OBC (OBC-BS and OBC-SS, respectively) and the SOQ.

As expected, self-objectification measures were significantly correlated with sociocultural attitudes toward appearance (SATAQ-3). This relationship supports the theory that sociocultural influences encourage individuals to objectify themselves based on their appearances. However, it is noteworthy that one aspect of the SATAQ-3, that of the internalization-athlete subscale (SATAQ-IA), was not related to self-objectification measures. This unexpected finding may be due to characteristics of the sample. That is, the sample was drawn from a small liberal arts college, where athletic participation is not a primary aspect of

participants' educational experience, and thus fitness may not be a salient component of their internalized ideals.

Also in contradiction to predictions, SATAQ-3 scores were related to greater positive affect (PA). Combined with the lack of correlations between SATAQ-3 subscales and body satisfaction, such data indicate that adherence to appearance-related ideals may enhance self-image in men.

Furthermore, only one aspect of self-objectification (body shame) correlated with lower body satisfaction and self-acceptance. Contrary to expectations, self-objectification was not related to affect or environmental mastery. These findings indicate that self-objectification may not have the same relationship to male's psychological well-being and body image as it does in women. Nevertheless, body satisfaction was associated with measures of well-being and affect. Taken together, these results suggest that body satisfaction is indeed important to men's psyche, yet self-objectification may only be a minor component of body (dis)satisfaction.

However, there are important limitations to Study 2. The sample size was relatively small, and it was drawn from only one college; these factors limit the generalizability of the findings. Future study would benefit from using larger samples from a variety of college campuses. Additionally, this study did not employ a longitudinal design; therefore it is difficult to infer causal relationships or determine how the variables of interest may fluctuate over time.

Although it is imperative to take into account such limitations, Study 2 yielded provocative findings regarding how men perceive their body and react to external messages about appearance. It remains debatable as to whether self-objectification is qualitatively similar across gender. Results suggest that, for men, self-objectification lacks the negative mood associations that have been observed in women, and that an awareness of appearance-related

ideals actually may enhance men's body satisfaction. However, the present findings also indicate that when men become dissatisfied with their bodies, their psychological well-being may suffer in similar ways as women. Self-objectification appears to have different implications for men's psyches than for those of women, yet body satisfaction may have similar importance for both genders. Future study is needed to explicate such variations and congruencies.

General Discussion

The present study sought to examine the possible parallels and differences between male and female body satisfaction. The two investigations, Study 1 and Study 2, yielded informative and intriguing findings. Study 1 assessed the influences of self-discrepancy and college environmental pressures on body image, self-esteem, eating pathology, and muscle dymorphia symptomatology among undergraduate men and women. In attempt to examine another possible common factor in male and female body image, Study 2 explored the phenomenon of self-objectification and its psychological correlates among college-aged men.

Gender-specific trends emerged in each study. Given the fact that self-discrepancy correlated with muscle dysmorphia but not disordered eating symptomatology in men (as it did in women), the findings of Study 1 suggest that muscularity is more important to men's sense of self than their eating habits. However, women's self-concept is associated with both eating habits and muscularity, which suggests that muscularity may be an increasingly important component of the ideal female body image.

Study 2 demonstrated the distinct ways in which men experience self-objectification. In contrast to existing literature on women's self-objectification, only one dimension of men's self-objectification (body shame) was related to decreased body satisfaction and self-acceptance. Therefore the body surveillance and control dimensions of self-objectification may not have the

same negative implications for men as for women. Nevertheless, men who experience body shame are more likely to experience the same negative effects of objectification (i.e., low body satisfaction and self-acceptance) as women.

Study 2 yielded other unique findings regarding male body image, in that sociocultural attitudes towards appearance were not related to body satisfaction; rather, such attitudes were related to increased positive affect. In combination with the lack of correlation between body surveillance and body satisfaction or self acceptance, the results of Study 2 suggest that body surveillance and being conscious of sociocultural body ideals actually may enhance men's body image. In sum, only when men experience the affective components of self-objectification (i.e., body shame) do they also experience negative psychological consequences. When men adopt an observer's perspective on their body without a negative self-evaluation, they experience greater positive affect. Thus, men appear to be more likely and/or able than women to see the positive aspects of their physical bodies when they self-objectify, which is perhaps a product of the Western sociocultural environment. Future research could explore the reasons why some men are resilient to objectifying images, which could inform methods to combat the shame that other women and men feel when engaging in self-objectification. Additionally, future modifications to the OBC (perhaps the elimination of the control subscale) are necessary to adequately assess male self-objectification.

Although distinctions emerged between male and female self-objectification in Study 1, Study 2 demonstrated significant similarities between male and female body satisfaction and the etiologies of eating disorders and muscle dysmorphia. Although it was hypothesized that disordered eating and muscle dysmorphia symptomatology would manifest differently in each gender, there was a lack of gender difference and high degree of intercorrelation between the

outcome variables, which suggests eating disorders and muscle dysmorphia share common etiologies and psychological correlates across gender.

Multiple regression analysis also revealed that college environmental pressures (as measured by the CEQ) are predictive of both disordered eating and muscle dysmorphia symptomatology among men and women. The findings of this analysis support the suggestion that the college years are a time of increased vulnerability, which leads to self-discrepancy, which in turn can result in body dissatisfaction and low self-esteem. Together, these variables account for a significant amount of the variance in the manifestation of disordered eating and muscle dysmorphia, regardless of gender.

Perhaps one of the most important conclusions of Study 1 its indication that muscle dysmorphia may be a phenomenon equally relevant to women as to men, which challenges the thin female and muscular male body ideals. Moreover, women may be equally influenced as men by college environmental pressures to increase their muscularity and athleticism.

Given such findings, future research should explore the strong correlation between muscle dysmorphia symptomatology and disordered eating, especially among women. As noted, the factors thought to contribute to disordered eating in women (e.g. self-discrepancy and body dissatisfaction) were also predictive of muscle dysmorphia symptomatology, or at least a drive to become more muscular. These results indicate that women are coming to value a body ideal that is not only thin but also toned, lean, and muscular. Women's self-discrepancies, low self-esteem, and body dissatisfaction manifest not only in disordered eating but also symptoms of muscle dysmorphia. In addition to valuing a body ideal that is both thin and muscular, women may be utilizing different strategies (e.g., weight lifting and exercise) to change their body shape than they traditionally have used in the past (e.g., dieting and anorexic and bulimic behavior).

This trend could be accounted for by increased societal acceptance of athletic women, as exhibited by the rise in collegiate and professional women's sports and general fitness promotion at all ages (Gruber, 2007). Just as dieting has become a normative phenomenon in Western culture, now working out regularly, especially for aesthetic reasons, has become an acceptable, if not encouraged, practice for women. Over the past three decades participation in athletics by girls and women has increased enormously, and the muscularity developed through women's athletics has given rise to the adoption of a muscular female body ideal (Gruber, 2007). Title IX of the Education Amendments in 1972 gave rise to the women's athletic opportunities in schools, and the number of women's sports leagues has grown rapidly ever since. For example, an SGMA International survey reported that women's participation in high school athletics increased by 800% from 1971 to 2001, and participation in women's intercollegiate athletics increased by 403% (Gruber, 2007). The establishment and growing popularity of professional women's sports leagues (e.g., WNBA) have also contributed greatly to the promotion of a more muscular female body ideal (Gruber, 2007).

But formal athletic participation represents only a fraction of the ways in which women are endorsing muscularity. For instance, women's gym memberships nearly doubled between 1990 and 2003, and the demand for gyms that tailor to women's fitness is increasing (Gruber, 2007). The media has endorsed an increasingly lean, toned, and muscular female body ideal, which is evidenced by the rising circulation numbers of women's publications that support women's efforts to attain this ideal (e.g., *Self*, *Women's Fitness*, *Shape*, and *Women's Health*) (Gruber, 2007). In addition, female celebrities who have both thin figures and well-defined muscles are now considered to be the models of femininity and attractiveness (Gruber, 2007).

In sum, the increased emphasis on weight loss, athletic participation, and fitness in

Western culture has produced a new "double bind" for women. That is, the ideal female body type is not only thin but also muscular. And while there may be numerous health benefits to ascribing to a more physically fit body ideal, women's body satisfaction has decreased steadily over the years. According to the *Psychology Today* Body Image Study that was conducted in 1972, 1985, and 1997, women's dissatisfaction with their muscle tone increased from 30% to 45% to 57%, respectively (Gruber, 2007). This dissatisfaction, when coupled with the overwhelming pressure on women to attain the culturally ideal body image, could have serious consequences. The results of the present study suggest that women are more apt to resort not only to disordered eating but also symptoms of muscle dysmorphia to reduce their body dissatisfaction. Moreover, women in the college-aged population are perhaps most likely to be exposed to and influenced by the new, thin-and-fit female body ideal.

In conclusion, the present study has illuminated significant distinctions and parallels between the ways in which men and women experience and react to their body image. Despite the nuances in the results of Study 1 and Study 2, both studies demonstrated that body satisfaction is indeed an important component of men and women's psychological well-being, and that common assumptions about male and female body image may be increasingly inaccurate. Men are not invulnerable to experiencing body shame, and women now feel that they must not only be thin but also muscular. These evolutions in sociocultural norms about body ideals must be taken into account when developing prevention and treatment programs for eating disorders and/or muscle dysmorphia. Although body image has long been the subject of much literature in psychology, the present study has demonstrated that there is an ongoing need to examine the multiple influences on men and women's body image, and the ways in which such influences may enhance or inhibit psychological well-being.

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Table 1. Intercorrelations between measures (study 1)

		CEQ	SD	SE	BSD	EAT-26	MDI
Women	CEQ	----	.44**	-.41**	.28**	-.38**	.58**
	SD		----	-.51**	.37**	-.24**	.34**
	SE			----	-.34**	.48**	-.48**
	BSD				----	-.20**	.44**
	EAT-26					----	-.53**
	MDI						----
Men	CEQ	----	.27**	-.47**	.20*	-.24*	.57**
	SD		----	-.41**	.33**	.11	.19*
	SE			----	-.35**	.29**	-.40**
	BSD				----	-.21*	.43**
	EAT-26					----	-.44**
	MDI						----

Note. CEQ = College Environment Questionnaire; SD = self-discrepancy; SE = self-esteem; BSD = body satisfaction discrepancy; EAT-26 = Eating Attitudes Test-26; MDI = Muscle Dysmorphia Inventory.

* $p < 0.05$, 2-tailed. ** $p < 0.01$, 2-tailed.

Table 2. Intercorrelations between measures (study 2; N= 74)

	SATAQ-T	SATAQ-I	SATAQ-P	SATAQ-IA	SATAQ-IG	OBC-CS	OBC-BS	OBC-SS	SOQ	BAS	EM	SA	PA	NA
SATAQ-T	-----	.81**	.76**	.59**	.89**	-.17	-.33**	-.39**	.34**	.04	.00	.11	.40**	-.14
SATAQ-I		-----	.51**	.28*	.62**	-.08	-.19	-.27*	.25*	.114	.05	.25*	.38**	-.091
SATAQ-P			-----	.21	.57**	-.04	-.49**	-.39**	.27*	-.12	-.11	-.05	.32**	.013
SATAQ-IA				-----	.50**	-.39**	-.08	-.16	-.02	.07	.22	.13	.29*	-.34**
SATAQ-IG					-----	-.10	-.25*	-.33**	.40**	.07	-.10	.01	.25*	-.06
OBC-CS						-----	.05	.09	-.04	-.01	-.23	-.10	-.27*	.29*
OBC-BS							-----	.40**	-.28*	.31**	.08	.24*	-.10	-.11
OBC-SS								-----	-62**	.18	.18	.10	-.14	.03
SOQ									-----	-.19	-.21	-.17	.11	.12
BAS										-----	.32**	.50**	.20	-.25*
EM											-----	.64**	.34**	-.48**
SA												-----	.49**	-.32**
PA													-----	-.25*
NA														-----

Note. SATAQ-T = Sociocultural attitudes towards appearance total; SATAQ-I = information subscale; SATAQ-P = pressures subscale; SATAQ-IA = internalization-athlete subscale; SATAQ-IG = internalization-general subscale; OBC-CS = Objectifed Body Consciousness control subscale; OBC-BS = body shame subscale; OBC-SS = surveillance subscale; SOQ = Self-Objectification Questionnaire; BAS = Body Assessment Scale; EM = Environmental Mastery; SA = Self-Acceptance; PA = Positive Affect; PN = Negative Affect.

Note. Low scores on OBC subscales are indicative of greater self-objectification.

* $p < 0.05$, 2-tailed. ** $p < 0.01$, 2-tailed.

Figure 1. Hypothesized relationships between variables in Study 1

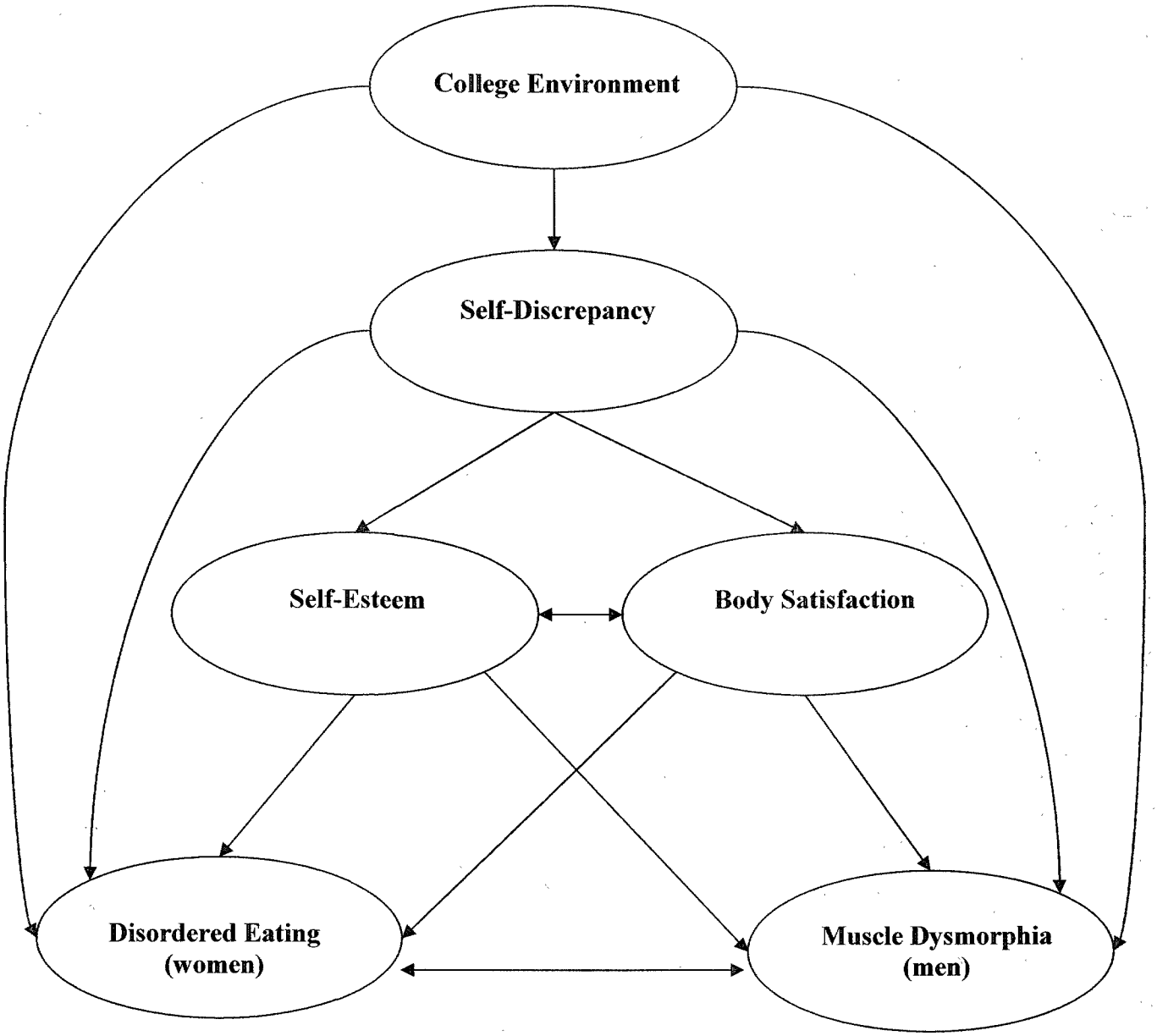
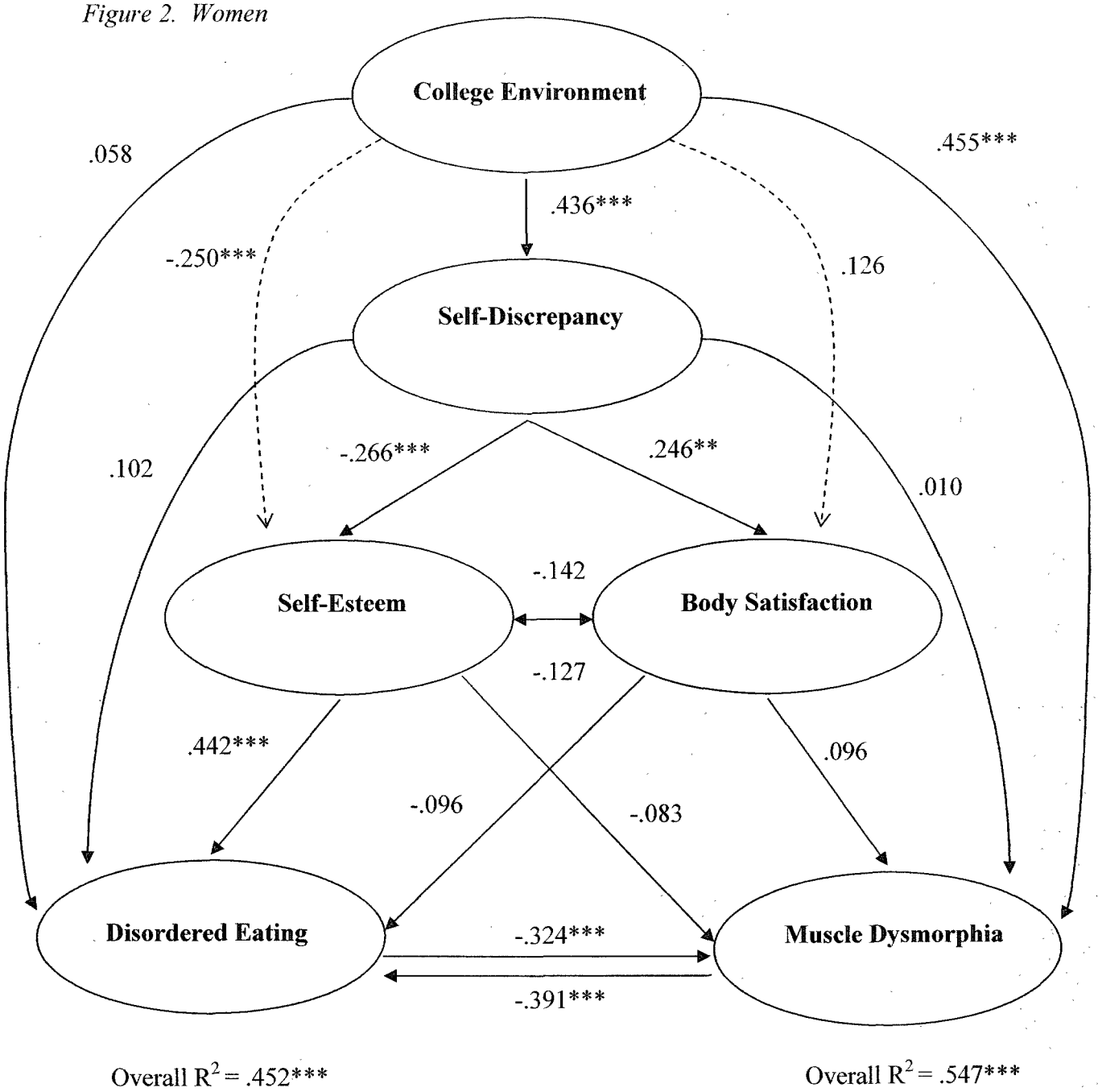


Figure 2. Women

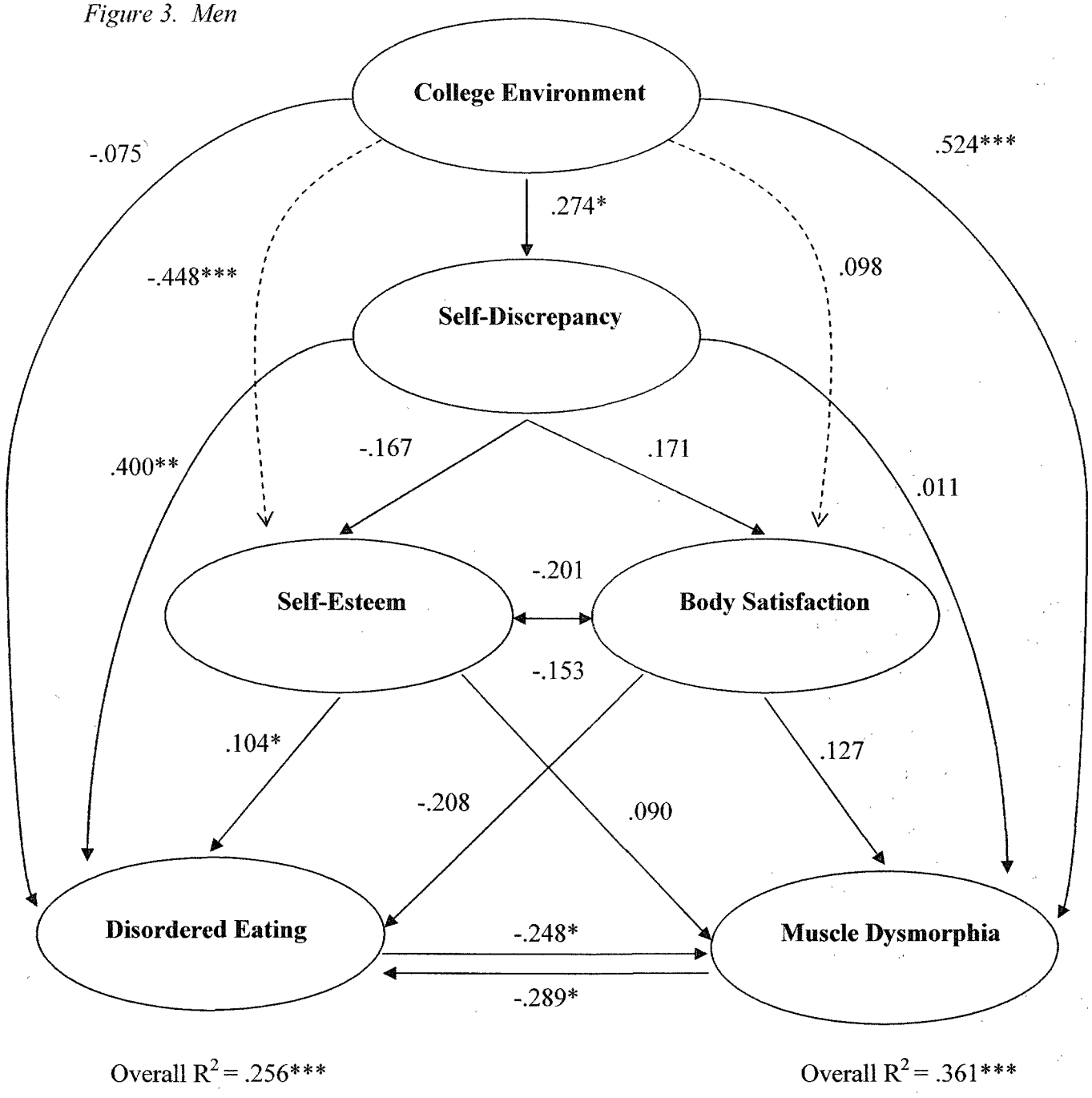


* = p <.05,** = p <.01, *** = p <.001

→ = hypothesized pathways

⇢ = exploratory analyses

Figure 3. Men



* = p <.05,** = p <.01, *** = p <.001

→ = hypothesized pathways
⇢ = exploratory analyses

Appendix B: College Environment Questionnaire (CEQ)

Please read each of the following items carefully and indicate the number that best reflects your agreement with the statement. If you are not in the college-age population, please answer based on your experiences when you were that age (approximately 18-25 years old).

Definitely Disagree	*Mostly Disagree*	*Neither Agree Nor Disagree*	*Mostly Agree*	*Definitely Agree*
1	**2**	**3**	**4**	**5**

1. The college environment is an important source of information about fashion and "being attractive." _____
2. I've felt pressure from people at college to lose or gain weight. _____
3. I do not care if my body looks like the body of other people at college. _____
4. I compare my body to the bodies of people who are at college. _____
5. I've felt pressure from people at college to change my eating habits. _____
6. My eating habits have changed significantly since coming to college. _____
7. I compare my body to that of people at college who are in "good shape." _____
8. I've felt pressure from people at college to exercise. _____
9. I feel comfortable using the athletic facilities on campus. _____
10. I wish I looked as athletic as other people at college. _____
11. I've felt pressure from people at college to change my appearance. _____
12. I try to look like sports athletes at college. _____
13. I eat a well-balanced diet at college. _____
14. I feel comfortable and satisfied with using dining services on campus. _____
15. There is an emphasis on appearance in my college environment. _____
16. There is an emphasis on being intellectual at my college. _____
17. There is an emphasis on achieving high grades at my college. _____

Definitely Disagree	*Mostly Disagree*	*Neither Agree Nor Disagree*	*Mostly Agree*	*Definitely Agree*
1	**2**	**3**	**4**	**5**

18. I wish I could do better academically. _____

19. I feel pressure from people at college to drink, smoke, or use other substances. _____

20. My personality has changed since coming to college. _____

21. I feel well-liked by my peers at college. _____

22. Being in a romantic relationship is an important part of college life. _____

23. I get along well with my roommate(s). _____

24. I am happy with my social life at college. _____

25. I have made friends easily since coming to college. _____

26. I feel that my teachers take an interest in me. _____

27. I feel comfortable in the college environment. _____

28. I feel I have made a good transition to college life. _____

Appendix B: Revised Objectified Body Consciousness Scale (OBC; McKinley & Hyde, 1996)
(Italicized items indicate revised items)

For each of the following items, choose the response that best describes you.

0 Not applicable
1 Strongly agree
2 Agree
3 Somewhat agree
4 Somewhat disagree
5 Disagree
6 Strongly disagree

Surveillance Scale

1. I rarely think about how I look.
2. I think it is more important that my clothes are comfortable than whether they look good on me.
3. I think more about how my feels than how my body looks.
4. I rarely compare how I look with how other people look.
5. During the day, I think about how I look many times.
6. *I often worry about whether the clothes I wear make me look attractive.*
   (Original item: I often worry about whether the clothes I wear make me look good.)
7. I rarely worry about how I look to other people.
8. I am more concerned with what my body can do than how it looks.

Body Shame Scale

9. When I can't control how my body looks, I feel like something must be wrong with me.
10. I feel ashamed of myself when I haven't made the best effort to look my best.
11. I feel like I must be a bad person when I don't look as good as I could.
12. *I would be ashamed for people to see me without my shirt off.*
    (Original item: I would feel ashamed to for people to know what I really weigh.)
13. I never worry that something is wrong with me when I am not exercising as much as I should.
14. When I'm not exercising enough, I question whether I am a good enough person.
15. Even when I can't control my appearance, I think I'm an okay person.
16. When I'm not the size I think I should be, I feel ashamed.

Control Scale

17. I think a person is pretty much stuck with the looks they are born with.
18. A large part of being shape is having that kind of body in the first place.
19. I think a person can look pretty much how they want to if they are willing to work at it.
20. I really don't think I have much control over how my body looks.
21. *I think a person's physique is mostly determined by the genes they are born with.*
    (Original item: I think a person's weight is mostly determined by the genes they are born with.)

22. *It doesn't matter how hard I try to change my physique, it's probably always going to be about the same.*
    (Original item: It doesn't matter how hard I try to change my weight, it's probably always going to be about the same.)
23. *My body can look the way I want to when I try hard enough.*
    (Original item: I can weigh what I'm supposed to when I try hard enough.)
24. The shape you are in depends mostly on genes.