The Influence of Men’s Self-Objectification on the Drive for Muscularity: Self-Esteem, Body Satisfaction and Muscle Dysmorphia

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The current study examines the influence of self-objectification on men’s drive for muscularity, body satisfaction and self-esteem, and symptoms of muscle dysmorphia. Participants were 74 men recruited to complete an on-line self-report questionnaire to measure these experiences. The results indicate that men who scored high on measures of self-objectification also indicated a greater drive for muscularity and more symptoms of muscle dysmorphia compared to men who scored low on measures of self-objectification. No differences were found between the two groups on measures body satisfaction and self-esteem. These findings suggest that self-objectification increases men’s risk for experiencing symptoms of muscle dysmorphia. The results of the study support Grieve’s (2007) etiological model for muscle dysmorphia.

Keywords: men, self-esteem, body image, muscle dysmorphia

Much of the research on body image has focused on examining eating disorders such as anorexia nervosa and bulimia nervosa, which occur primarily in women. Recent research has described muscle dysmorphia, a disorder in which individuals believe themselves to be much smaller than they appear (Olivardia, 2001) and which occurs primarily in men. Grieve (2007) argues that muscle dysmorphia should be classified as an eating disorder. If this is the case, factors that influence the development of anorexia nervosa and bulimia nervosa should also influence the development of muscle dysmorphia.

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One contributing factor to the prevalence of eating disorders among women is the negative effect that the media have had on women’s body satisfaction by promoting an image of thinness (Kinoy, 2001). In Western culture, there many images of women with thin and flawless bodies. While unrealistic, these images have come to represent the ideal female body. This portrayal of the ideal female body has negatively affected women’s body image and caused the development of eating disorders. Research has shown that internalization of this ideal representation of the female body predicts a drive for thinness among women being treated for an eating disorder (Calogero, Davis, & Thompson, 2005). Such internalization is so prevalent that women’s body dissatisfaction has been termed a normative discontent (Brownell & Rodin, 1994).

Similarly, many men have developed a drive for muscularity (McCreary & Sasse, 2000) that manifests itself in a number of ways. In general, men report wanting to increase muscularity rather than lose weight (Connor-Green, 1988; Grieve, Wann, Henson, & Ford, 2006) and increase muscle mass by about 28 pounds (Pope, Gruber, et al., 2000). Male college students report themselves as underweight even though they are not, and those who do so wish to gain weight (Miller et al, 1980) usually by increasing muscle mass. Most male college students have a desire for larger arms (Miller, Coffman, & Linke, 1980) and a V-shaped body (large chest, thin stomach) (Parks & Read, 1997). In general, the discrepancy between men’s ideal body type and their actual body type indicates that they generally desire to be more muscular than they are (Grieve, Newton, Kelly, Miller, & Kerr, 2005).

Drive for muscularity and the adoption of the muscular ideal presented in the media have influenced the development of muscle dysmorphia, which is characterized by an unrealistic perception of the body combined with an excessive pursuit of muscularity (Olivardia, 2001). Behavior commonly associated with muscle dysmorphia include extensive weight lifting, dieting, and the use of anabolic steroids. Furthermore, men diagnosed with the disorder often see themselves as small no matter how muscular they really are, which can result in shame about their body, fear of body exposure, and impaired social functioning (Leone, Sedory, & Gray, 2005; Pope et al., 2005).

There is currently disagreement about where to place the disorder diagnostically. Pope and his colleagues (1993) originally classified muscle dysmorphia as a form of body dysmorphic disorder. However, other researchers have argued that it is better categorized as either an obsessive-compulsive spectrum disorder (Maida & Armstrong, 2005) or an eating disorder (Goodale, Watkins, & Cardinal, 2001; Grieve, 2007).

Currently there is less known about muscle dysmorphia than about either anorexia nervosa or bulimia nervosa. However, a growing number of researchers are examining the underlying factors that contribute to the disorder. Studies have shown that the disorder associated with eating disorder pathology, depression, and impaired social support (Goodale et al., 2001). Disparagement of one’s muscularity and low self-esteem, common symptoms of muscle dysmorphia, are correlated with depression and low overall body satisfaction (Olivardia, Pope, Borowiecki, & Cohane, 2004). It appears that the disorder is influenced by many factors, including general body dissatisfaction, negative affect, preoccupation with an ideal body, low self-esteem, a tendency toward perfectionism, distortion of body self-perception, participation in sports, and media.
pressures that are comparable to those that influence the development of eating disorders (Grieve, 2007).

Exposure to ideal body shapes in the media is one avenue by which men experience social pressure to conform to a certain body shape. In the last twenty years there has been a notable change in the cultural ideal of the male body and this change has corresponded with increased recognition of muscle dysmorphia. For example, *Playgirl* centerfolds have become more muscular over the past twenty-five years (Leit, Gray, & Pope, 2002). While most heterosexual men will not view such pictures and will not directly experience media pressure from this source, the images serve as a measure of the cultural depiction of the ideal male body. Increase in muscularity reflects a change in the socially ideal body and such a change contributes to a decrease in men’s body satisfaction (Lorenzen, Grieve, & Thomas, 2004; Baird & Grieve, 2006). Because of the widespread nature of the pressures to obtain a muscular body, men are beginning to experience a normative discontent about their bodies, just as women have for decades (Brownell & Rodin, 1994). While not every man who is displeased with his body will develop muscle dysmorphia, decreased body satisfaction enhances the risks for developing the disorder (Grieve, 2007).

Fredrickson and Roberts (1997) used objectification theory to help explain the development of eating disorders in women. According to this theory, the media objectifies women by placing great emphasis on the body and physical appearance, and as a result of objectification women view and value themselves only in terms of their appearance and physical attributes. This increases the risk of developing body image disturbances and eating disorders.

Given that exposure to the ideal male bodies presented in the media has a negative effect on male body image (Lorenzen et al., 2004; Baird & Grieve, 2006), there is a possibility that such exposure is causing men to objectify themselves and that this self-objectification influences the development of muscle dysmorphia. Internalization of the media’s representation of the ideal male body has been shown to cause self-objectification among men (Morry & Staska, 2001), but although studies have shown that self-objectification occurs less frequently in men than in women (Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998), a growing body of research suggests that self-objectification is associated with certain aspects male body image. For example, it has been found that, among men and women, self-objectification and exercising for appearance instead of improving health are negatively correlated with body satisfaction and that self-objectification is associated with exercising for reasons of improving appearance (Strelan, & Hargreaves, 2005).

Women who self-objectify show a drive for thinness and exhibit restrained eating behavior (Fredrickson et al., 1998). Although no studies have examined the impact of self-objectification on the male drive for muscularity, research has revealed other related variables that influence the drive, including personality factors such as neuroticism, perfectionism and fitness orientation. This suggests that women’s drive for thinness also predicts men’s drive for muscularity (Davis, Karvinen, & McCreary, 2005). Instead of measuring the influence of self-objectification on the drive for mus-
cularity, Davis et al. (2005) measured the influence of appearance orientation and fitness orientation. Although similar, appearance orientation and self-objectification are two different concepts (Fredrickson et al., 1998), and therefore no conclusions can be drawn about the influence of self-objectification on the drive for muscularity. Considering that the drive for muscularity influences the development of muscle dysmorphia (Grieve, 2007), it is important to understand the possible underlying factors, such as self-objectification, that contribute to this drive.

Low self-esteem is another correlate of body dissatisfaction in both men and women (Green & Pritchard, 2003). There is evidence of a strong relationship between low self-esteem and body dissatisfaction in women. Olivardia et al. (2004) have offered data that suggest this relationship also holds for men. In their study, men’s body dissatisfaction was positively correlated with low self-esteem.

Because research has shown that that identical variables are associated with both drive for thinness and drive for muscularity (Davis et al., 2005) and because it has been found that self-objectification has similar negative effects in men and women (Strelan & Hargreaves, 2005), it is likely that self-objectification is associated with men’s drive for muscularity. Therefore, this study set out to examine the differences between high and low self-objectification in relation to men’s drive for muscularity.

The first hypothesis of the study was that men who scored high on measures of self-objectification would have a higher drive for muscularity than men who scored low on such measures. The study also examined the relationship among self-objectification, self-esteem, body satisfaction, and symptoms of muscle dysmorphia. The second hypothesis of the study was that men high scoring high on measures of self-objectification would have increased levels of symptoms of muscle dysmorphia, lower body satisfaction, and lower self-esteem than men who scored low on such measures.

Method

Participants and Design

The participants were 74 men recruited from several universities via the internet. The researchers also approached men on campus and asked them to volunteer to complete a survey on body image. Other participants were recruited by sending an electronic inquiry (e-mail) to male colleagues and other male students at their universities. The e-mail directed participants to the study’s webpage, where most of the data were collected. Some students were able to receive extra academic credit for participating in the study. All participants were over age 18. The mean self-reported age of the participants was 27.54 years ($SD = 10.56$) and the mean self-reported weight of the participants was 183.03 pounds ($SD = 33.14$). The sample was made up of 23 student athletes and 51 non-athletes. The independent variable was the score on the Self-Objectification Questionnaire. The dependent variables were scores on the Drive for Muscularity Scale, the Rosenberg Self-Esteem Scale, the Body Assessment Scale, and the Muscle dysmorphia Inventory.
The Questionnaires

Participants were asked to report their age, height, weight, race, and involvement in athletics. Because of technical difficulties with the online version of the study, the participants’ height and race were not properly recorded. Therefore, height and race could not be used as variables in the analyses.

Participants’ degree of self-objectification was assessed by the ten-item Self-Objectification Questionnaire (SOQ) (Fredrickson et al., 1998). In the SOQ, a set of ten body attributes are rank ordered by their impact on physical self-concept. A rank of 9 indicates the greatest impact of an attribute on physical self-concept; a rank of 0 indicates least impact. The ten body attributes consist of five competence-based attributes (for example, health and energy level) and five appearance-based attributes (for example, sex appeal and physical attractiveness). The SOQ is scored by subtracting the sum of rank scores for competence-based attributes from the sum of rank scores for appearance-based attributes. Scores range from -25 to 25, with higher scores indicating higher self-objectification. The SOQ has good internal consistency, with Cronbach’s alphas ranging from .87 to .91 (Fredrickson et al., 1998), and good convergent and divergent validity (Noll, 1996).

To assess the drive for muscularity, participants completed the Drive for Muscularity Scale (DMS) (McCreary & Sasse, 2000). The DMS consists of 15 statements about either muscularity-oriented behaviors (for example, “I lift weights to build or muscle”) or muscularity-oriented attitudes (for example, “I wish I were more muscular”). Participants rate each item on a six-point Likert-type scale ranging from 1 (Never) to 6 (Always). The DMS is scored by obtaining the average rating of the 15 items, with higher scores indicating a greater drive for muscularity. The DMS has shown good internal consistency, with a Cronbach’s alpha of .87, and good construct validity (McCreary, Sasse, Saucier, & Dorsch, 2004).

Participants completed the Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1965) to evaluate their sense of self-esteem. The RSES consists of ten statements about how participants feel about themselves (for example, “I wish I could have more respect for myself” and “I take a positive attitude toward myself”). Participants rate each statement on a four-point Likert-type scale ranging from 1 (Strongly Agree) to 4 (Strongly Disagree). The RSES is scored by obtaining the sum of all ten items, with lower scores indicating positive self-esteem. The RSES has good test-retest reliability \( r = .85 \) and good internal consistency, with alpha coefficient ranges from .76 to .87 (Rosenberg, 1989). The RSES also has good convergent validity (Cohen & Petrie, 2005).

To measure the participants’ overall body satisfaction, the Body Assessment Scale (BAS) (Lorenzen et al., 2004) was used. The BAS consists of 25 items pertaining to aspects of the body (for example, “weight,” “upper body strength,” “health,” “face,” and “calves”) which are rated on a five-point Likert-type scale ranging from 1 (Strongly Negative) to 5 (Strongly Positive). The BAS is scored by obtaining the mean rating of the 25 items. Higher scores indicate higher body satisfaction. The BAS has shown good internal consistency, with a Cronbach’s alpha of .95 (Lorenzen et al., 2004).
To assess symptoms of muscle dysmorphia among the participants, the Muscle Dysmorphia Inventory (DMI) (Short, 2005) was used. The DMI is a 25-item measure consisting of statements describing symptoms both typical and atypical of muscle dysmorphia (for example, “I would be inclined to work out against doctor’s orders” and “I am muscular enough”). Participants rate each item on a six-point Likert-type scale ranging from 1 (Strongly Disagree) to 6 (Strongly Agree). The DMI is scored by summing the individual scores, with higher scores indicating more symptoms of muscle dysmorphia. The DMI has good internal consistency, with a Cronbach’s alpha of .87 (Short, 2005).

Procedure

Institutional Review Board approval was obtained for the study. During recruitment, participants were informed that the purpose of the research was to examine men’s body image to avoid possible confounds. Both a pen-and-pencil and an online version of the components of the study were available to participants to increase the chances of obtaining an appropriate sample size. Seven participants completed the paper-and-pencil form and 67 completed the study online.

Participants read and agreed to informed consent, and then completed the demographics questionnaire, the SOQ, the DMS, the RSES, the BAS, and the MDI in a single session lasting approximately 20 minutes. After completing the questionnaires, the participants were debriefed.

Results

Scores on the SOQ were split to create a high self-objectifying group (n = 30) and low self-objectifying group (n = 34). The high self-objectifying group consisted of scores above 0 and the low self-objectifying group consisted of scores below 0. Scores of 0 on the SOQ were excluded from subsequent analyses, resulting in a new sample size of 64 participants. Pearson correlations were computed among all variables. Results are presented in Table 1.

To ensure there were differences between the scores on the SOQ among the high and low self-objectification groups, an independent samples t-test was performed. The analysis revealed a significant difference between the high and low self-objectification groups t (62) = -6.23, p < .001, h² = .38, such that participants in the high self-objectification group (M = 11.23, SD = 17.16) indicated higher scores on the SOQ than participants in the low self-objectification group (M = -11.53, SD = 11.85).

Self-Objectification and Drive for Muscularity

An independent samples t-test was performed to examine the differences between the high and low self-objectification groups on scores for the DMS. Results indicated that men high in self-objectification (M = 41.34, SD = 11.57) had a greater drive for
Another independent samples $t$-test revealed a significant difference on the DMI scores between the high and low self-objectification group, $t(53) = -4.00, p < .001, h^2 = .23$. Men high in self-objectification ($M = 74.58, SD = 10.96$) indicated higher levels of muscle dysmorphia symptoms than men low in self-objectification ($M = 61.66, SD = 12.77$).

**Self-Objectification and Body Satisfaction**

Further, an independent samples $t$-test revealed no significant difference between the high self-objectification group and the low self-objectification on scores for the BAS, $t(53) = -4.00, p = .11, h^2 = .04$.

**Self-Objectification and Self-Esteem**

Finally, an independent samples $t$-test revealed no significant difference between the high self-objectification group and the low self-objectification on scores for the RSES, $t(61) = -1.22, p = .23, h^2 = .02$. 

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**Table 1**

*Correlations Among Self-Objectification, Drive for Muscularity, Symptoms of Muscle dysmorphia, Body Satisfaction, and Self-Esteem*

<table>
<thead>
<tr>
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<th>BAS</th>
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<td>DMS</td>
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<td>MUSCLE DYSMORPHIAI</td>
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<td>.49</td>
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<td>BAS</td>
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<td>RSES</td>
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*Note*. SOQ = Self-Objectification Questionnaire, DMS = Drive for Muscularity Scale, MUSCLE DYSMORPHIAI = Muscle dysmorphia Inventory, BAS = Body Assessment Scale (measures body satisfaction), and RSES = Rosenberg Self-Esteem Scale; correlations are below the diagonal and significance levels are above the diagonal.
Discussion

The purpose of the study was to investigate the influence of self-objectification on male body image. More specifically, the study examined the impact of self-objectification on men’s drive for muscularity, level of muscle dysmorphia symptoms, body satisfaction, and self-esteem. As predicted, men high in self-objectification reported a greater drive for muscularity and increased levels of muscle dysmorphia symptoms than men low in self-objectification. Considering that among women self-objectification directly predicts a drive for thinness (Calogero et al., 2005), these findings are consistent with previous research showing that factors associated with women’s drive for thinness are also associated with men’s drive for muscularity (Davis et al., 2005).

The results also support the prediction that men high in self-objectification would show higher levels of muscle dysmorphia symptoms than men low in self-objectification. This is comparable to previous research on men’s body image that has shown a positive correlation between self-objectification and symptoms of muscle dysmorphia, including muscle disparagement and low body esteem (Olivardia et al., 2004; Strelan & Hargreaves, 2005). Because the drive for muscularity and other symptoms of muscle dysmorphia are characterized by unhealthy behaviors such as anabolic steroid use, excessive dieting, impaired social functioning, and depression (Goodale et al., 2001; Leone et al., 2005), these findings indicate that self-objectification increases the risk to men’s physical and psychological health.

The results failed to support the prediction that men high in self-objectification would have higher levels of body dissatisfaction than men low in self-objectification. This finding is both consistent with and contrary to previous research on men’s body image. For example, it has been shown that self-objectification is correlated with positive body image (Strelan & Hargreaves, 2005). However, other research has indicated that self-objectification does not directly predict men’s concern about body shape (Morry & Staska, 2001). The results also failed to support the prediction that men high in self-objectification would have lower self-esteem than men low in self-objectification. This is inconsistent with other findings showing that men’s self-objectification is negatively correlated with self-esteem (Strelan & Hargreaves, 2005).

Because it is thought that self-objectification is partly a consequence of the media’s portrayal of and emphasis on body appearance (Fredrickson et al., 1998) and because it has been shown that exposure to media images of the ideal male body decreases men’s body satisfaction (Baird & Grieve, 2005; Lorenzen et al., 2004), it was reasonable to expect that self-objectification would affect body satisfaction. On the contrary, results of this study showed no differences between men high in self-objectification and low in self-objectification on measures of body satisfaction, suggesting that men’s self-objectification, in contrast to women’s self-objectification, does not necessarily influence body satisfaction. It is important to note, however, that self-objectification does not characterize how people feel about their bodies or themselves, but rather the manner in which they make judgments about their bodies and what people value about their appearance. Therefore, although self-objectification may cause various psycho-
logical and behavioral consequences, individuals high in self-objectification do not necessarily feel dissatisfied with themselves or their bodies.

According to Fredrickson and Roberts (1997), self-objectification occurs due to the socialization of the cultural norm to value and emphasize the importance of body appearance. Because findings from both this and other studies (Fredrickson et al., 1998; Morry & Staska, 2001; Strelan & Hargreaves, 2005) indicate that men do self-objectify, there is the implication that men are being socialized by Western culture to emphasize masculinity in men (Leit et al., 2002). It appears that men are influenced by this, since they are beginning to report increased importance of their body shape (Ridgeway & Tylka, 2005).

The findings from both this study and previous research (Strelan & Hargreaves, 2005) indicate that self-objectification occurs in men and is a fruitful area for future research. The overall score for men’s self-objectification from the present study is similar to men’s scores from previous research (Fredrickson et al., 1998; Morry & Staska, 2001; Strelan & Hargreaves, 2005). However, in comparison to women’s scores on self-objectification measures (Calogero et al., 2005; Fredrickson et al., 1998; Strelan & Hargreaves, 2005), men have an overall lower level of self-objectification than women. It is possible that this trend is due to the fact that, historically, Western culture has given women fewer areas in which to succeed than men, but one such area has been maintaining a certain body shape (Crandall, 1994). With the increased importance that the mass media place on the appearance of the male body (Leit et al., 2002), combined with increased avenues for women to demonstrate success such as in business endeavors (Pope et al., 2000), there is the possibility that, over time, the prevalence of self-objectification in men may match that of women’s self-objectification, thus putting many men at risk for developing a body image disorder or muscle dysmorphia.

There are some limitations to the present study. First, the small sample size limits generalizability of the findings. It is possible that the sample drawn for the study differs from the general college population. Second, the number of collegiate athletes were overrepresented in the sample, as compared to the general college population. These differences could also limit the generalizability of the findings. Finally, the measures were all self-report measures, which could also affect the findings of the study (Schwarz, 1999).

**Summary**

Results from the current study indicate that men who scored high on self-objectification measures show a greater drive for muscularity and increased levels of muscle dysmorphia symptoms compared to men low in self-objectification. Taken together, the results suggest that self-objectification is detrimental to men’s physical and psychological well-being. Because self-objectification can be attributed to the media’s portrayal and emphasis on body appearance (Fredrickson & Roberts, 1997), the findings also suggest that the media may influence development of muscle dysmorphia in men (e.g., Grieve, 2007). Finally, as the mass media continue to emphasize muscular male
body appearance, men will continue to self-objectify. This self-objectification may cause men to strive to achieve the media’s unrealistic ideal body, thus putting them at risk to adopt behaviors and attitudes associated with the pursuit of muscularity that are potentially harmful to their health.

References


