The Negative Effects of Media Advertisements on Men's Body Satisfaction

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THE NEGATIVE EFFECTS OF MEDIA ADVERTISMENTS ON MEN'S BODY SATISFACTION

A Thesis
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The Faculty of the Department of Psychology
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Master of Arts

By
Lisa Lorenzen

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THE NEGATIVE EFFECTS OF MEDIA ADVERTISMENTS ON MEN'S BODY
SATISFACTION
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This study examined the effect of exposure to muscular ideal bodies on body satisfaction in men to see if the effects are similar to what women experience when they are exposed to thin bodies. Participants were 104 college men attending Western Kentucky University. Age of the participants ranged from 18 to 32 years, with a mean of 20.15 years ($SD = 2.64$).

All participants were assessed on the Body Assessment (BA), which measures degree of satisfaction with 25 various aspects of the body. Participants were assessed on this measure before and after exposure to either muscular or nonmuscular advertisements. Responses to the BA were summed and then divided by 25 to create a mean score per item. This mean score per item was examined using a 2 (view muscle picture vs. view non-muscle picture) x 2 (pre-test vs. post-test) x 2 (above average participant muscularity vs. below average participant muscularity) mixed Analysis of Variance (ANOVA) to determine if there were any interactions or main effects. There were no three-way interactions found. One 2-way interaction was found between time and type of picture, $F(1, 100) = 3.73, p = .056$. No main effects were noted.

The first hypothesis under study was that men’s self-rated body satisfaction would decrease after viewing images of muscular men. This hypothesis was supported. The
second hypothesis under study was that men’s self-rated body satisfaction would remain constant after viewing images of nonmuscular men. This hypothesis was supported. The third hypothesis predicted that men categorized as below average in muscularity would show a greater decrease in body satisfaction after viewing the advertisements of muscular men than men categorized as above average in muscularity. This hypothesis was not supported. There was no difference in degree of body satisfaction found between men categorized as above average in muscularity or below average in muscularity. The results of the present study indicate that men’s body satisfaction is related to muscularity, in much the same way that women’s body satisfaction is related to thinness.
Introduction

The ideal male body in western culture has changed dramatically over the past 20 years. Recent studies suggest that society has begun to applaud a male body ideal that has become more and more muscular so that, today, greater muscle mass or the mesomorphic body shape represents the cultural ideal (Pope, Phillips, & Olivardia, 2000; Wienke, 1998). Studies have found that the “acute exposure to media images of stereotypical attractiveness can cause a deterioration in body satisfaction,” and “it is possible that chronic exposure is in part responsible for the increasing concerns for weight and shape found in western culture” (Ogden & Munday, 1996, p. 180). The changes in male ideal body type are even illustrated in media influences of the increased muscularity of male action toys (Pope, Olivardia, Gruber & Borowiecki, 1999), male models from Playgirl centerfolds (Leit, Pope, & Gray, 2001), magazine advertisements (Andersen & DiDomenico, 1992), and other media (Heinberg & Thompson, 1995; Thompson & Heinberg, 1999).

The concern regarding an increasingly muscular body ideal is the internalization of this media message by men to try to attain an unrealistic muscular standard, just as women are plagued by an unrealistically thin ideal of beauty by media images (cf., Stice, Schupak-Neuberg, Shaw, & Stein, 1994; Thompson & Stice, 2001). Dissatisfaction with their bodies may be the outcome for men who fail to attain this unrealistic body ideal. The comparisons between self and others contribute to the development of one’s body image, and the degree of body satisfaction varies within every person. However, similarities in body dissatisfaction could be a result of sociocultural factors.
One major sociocultural factor that could be responsible for producing body dissatisfaction is the media. People are bombarded daily with society's stereotypical images of attractiveness from magazines, television, films, billboards, and electronic media sources. This constant exposure to ideal body types can make individuals more sensitive and conscious about their own bodies, and it can also evoke comparisons between themselves and unrealistic media images of thinness and musculature (Turner, Hamilton, Jacobs, Angood, Dwyer, & Hovde, 1997). The most obvious method to achieve the sociocultural ideal of beauty for men of athletic, strong bodies is to increase in muscular size and strength (Olivardia, Pope, & Hudson, 2000).

As a result, there has been a rise in use of anabolic-androgenic steroids among adolescents (Wroblewska, 1997) and men (Pope et al., 2000). Men with distorted body images may take steroids to increase self-esteem, self-confidence, and to elevate their mood (Olivardia et al., 2000). Wroblewska (1997) cites research suggesting that the reason for steroid abuse is related to society's fixation on winning and physical appearance. This fixation also suggests that steroids are being used to improve appearance by increasing muscle mass.

Recent research also indicates an increase in the prevalence of muscle dysmorphia, which is a dangerous disorder in which men develop an obsessional preoccupation with musculature (Olivardia et al., 2000). It can severely impair an individual's occupational and social functioning and is associated with low self-esteem, and symptoms of anxiety, mood, and eating disorders (Cohane & Pope, 2001; Pope et al., 1999). Muscle dysmorphia has life-threatening consequences that may be produced
because of unattainable media images advocating increased muscularity as the ideal body shape for men (Heinberg & Thompson, 1995; Thompson & Heinberg, 1999).

Men's Body Ideals vs. Women's Body Ideals

Some research indicates that men tend to have greater body satisfaction overall when compared to women (Conner-Green, 1988; Furnham & Greaves, 1994; Mintz & Betz, 1986; Smith, Handley, & Eldredge, 1998). Past research has concluded that women engage in dangerous food restriction techniques, diet more, tend to show unrealistic beliefs about their real and ideal weight, participate more in weight loss programs, and prefer to be thinner than do men (Ogden & Mundray, 1996). However, current research suggests that in spite of having greater body satisfaction, men also diet to lose weight and are conscious of the societal norms of male attractiveness (Silberstein, Striegel-Moore, Timko & Rodin, 1988).

Specific aspects of ideal shape for men displayed in the media are upper body strength, physical attractiveness, and a healthy physical condition (Silberstein et al., 1988). Furnham and Greaves (1994) also found that physical attractiveness, physical conditioning, and upper body strength are three important body esteem components for men, thus confirming that men are endorsing the societal ideal that values muscularity. Also, based on these three criteria, Davis, Elliott, Dionne, and Mitchell (1991) suggest that “men who are more physically active report greater satisfaction with their bodies” (p. 693). Physical activity accounted for 11.0% of the variance in sample one, men who wanted to gain weight. In sample two, men who wanted to lose weight, physical activity accounted for 10.8%.
A study by Hausenblas and Fallon (2002) found that, for men, the most powerful negative influence of body dissatisfaction and anxiety regarding social physique was exercise behavior. Of their 237 men sampled (mean age of 20.26 years, \( SD = 1.64 \)), the participants who had high body satisfaction and low social physique anxiety were the ones who reported a greater exercise behavior. The sample was 73% White, and they were assessed on measures of exercise behavior, social physique anxiety, height, weight, exercise dependency symptoms, and body satisfaction. The Body-Area Satisfaction Scale (Cash, 1990) accounted for 23% of the variance, \( F(2,202) = 5.58, p = .004 \). The only significant predictor of body satisfaction was the Leisure-Time Exercise Questionnaire (Godin, Jobin, & Bouillon, 1986) \( \beta = .19, p = .005 \). The finding could explain why the ideal male body shape is difficult for men to achieve without regular exercise.

**Gender Differences in Body Attitudes**

Cash and Henry (1995) noted that a comparison of surveys from 1972 to 1985 revealed that body images in both genders had become more negative. Furthermore, both genders demonstrate susceptibility to appearance ideals shown by the mass media, and the negative self-appearance belief affects both genders’ overall body satisfaction (Vartanian, Giant, & Passino, 2001). However, men and women differ dramatically in their notions of an ideal body size; generally men want to be heavier and women want to be thinner (Cash & Brown, 1989; Cash & Henry, 1995; Conner-Greene, 1988; Jacobi & Cash, 1994; McCreary & Sadava, 2001; Mintz & Betz, 1986; Mishkind, Rodin, Silberstein, & Striegel-Moore, 1986; Silberstein et al., 1988; Smith et al., 1998; Vartanian et al. 2001).
Research shows women are less satisfied with their weight and physical appearance, and men are less satisfied with size because they think they are too small (Pinhas, Toner, Ali, Garfinkel, and Stuckless (1999). Mintz and Betz (1986) compared actual and perceived weight categories. Females were significantly more likely than males to perceive themselves as overweight, $t (1, 262) = -8.03, p < .0001$ when mean discrepancy scores were calculated separately for gender. They also reported that women typically would like to lose around 10 pounds to be at their ideal weight, and men believed that gaining an average of three pounds would put them at their ideal weight. Furthermore, slightly underweight men were shown as wanting to gain an average of 17 pounds (Mintz & Betz, 1986). This finding corresponds with Furnham and Greaves (1994), who found that men typically wanted to be three pounds heavier and women typically wanted to be seven pounds lighter. However, for men, this relationship was moderated by weight status; slightly underweight men wanted to increase their weight by an average of 17 pounds, while slightly underweight women wanted to maintain their weight.

Likewise, Conner-Green (1988) assessed the gender differences in body weight perception of 100 female undergraduates and 78 male undergraduates. She found that 47% of the men in her study wanted to gain weight, and, while none of the underweight men believed themselves to be overweight, 12% of the underweight females believed themselves to be overweight. Another study by Thompson and Thompson (1986) used a sample of 30 male and 30 female undergraduates. They found that although all of the participants tended to overestimate their body size, the women had more body distortion
and lower self-esteem. This evidence clearly shows an internalization of an unrealistic body ideal for women.

Vartanian et al. (2001) found that “susceptibility to appearance-related mass media and negative appearance-related feedback appear to operate in similar ways to affect men’s and women’s overall body satisfaction” (p. 711). Mintz and Betz (1986) also found that self-esteem and depression are related to dissatisfaction with body in both genders. Strauman, Vookles, Berenstein, Chaiken, and Higgins (1991) noted that the negative emotional and motivational states that develop because of the differences between one’s actual and ideal self can lead to self-defeating behaviors and emotional distress.

Silberstein et al. (1988) examined the relationship between self-esteem and body size dissatisfaction in men and women. Their sample consisted of 45 women with a mean age of 18.6 years ($SD = .84$) and 47 men with a mean age of 19.0 years ($SD = .86$). Body weight for the women was $M = 127.90$ pounds ($SD = 15.7$). Body weight for men was $M = 167.06$ pounds ($SD = 25.4$). The participants were assessed on body dissatisfaction using a thin-to-obese continuum of body size drawings (BSD; Fallon & Rozin, 1985), the Body Esteem Scale (BES; Franzoi & Herzog, 1986; Franzoi & Shields, 1984), and weight dissatisfaction measures. The Self-Esteem Scale (SE; Rosenberg, 1965) and Eating Attitudes Test (EAT; Garner, Olmsted, Bohr, & Garfinkel, 1982) were also administered. Their results indicated that self-esteem for men was equally influenced by their being heavier or thinner than their body ideal and was affected by the degree of their body dissatisfaction (Silberstein et al., 1988). Weight dissatisfaction for men was correlated with SE ($r = -.17$). Approximately 78% of men and 77% of women picked an
ideal body figure that did not match their current body figure. Also, 43.3% of men desired to be heavier and 34.8% desired to be thinner, while 75% of women wanted to be thinner and one woman (2.3%) wanted to be heavier. For men, all three subscales of the BES correlated with the BSD, \( r_s = -.42 \ [p < .01], \ -.54 \ [p < .001], \) and \( -.63 \ [p < .001] \).

Meanwhile, 20% of healthy weight men in another study (Miller, Coffman, & Linke, 1980) inaccurately believed themselves to be underweight. This belief that men have about being too thin could indicate that they may believe that they should obtain a muscular, cultural ideal build. In another study, college men were more satisfied with their bodies than the college women, but they believed themselves to be lighter than they actually were and wanted to gain weight (Mintz & Betz, 1986). Men tended to be satisfied with the circumference of their waist, hips, and thighs, but a majority desired larger arms, which could also be an indication for larger arm muscles.

Further evidence suggests that an individual’s perception of his or her size relates to his or her sense of value in society. This suggestion contradicts the notion that, overall, men, especially normal weight and underweight men, do not experience body image problems. Harmatz, Gronendyke, and Thomas (1985) found that underweight men \( (N = 71) \) display a more negative self-image than overweight women. All participants were given the Eating Pattern Questionnaire (EPQ) and the Relationship Questionnaire (RQ). One item on the EPQ, “I am afraid of getting fat,” displayed an interaction between sex and weight, \( F (2, 434) = 7.307, \ p < .001, \) which showed underweight males significantly differed from the other groups (p. 262). Another item “Most people think I have a good build,” showed a significant interaction, \( F (2, 429) = 9.001, \ p < .001, \) as a function of the overweight women and underweight men responding more negatively than the other
participants. In fact, results from the RQ indicate that underweight men “view themselves as less handsome, less good natured, and having less sex-appeal” than the normal weight men and women, the overweight men and women, and the underweight women. (Harmatz et al., 1985, p. 265). The underweight men also wanted to be less shy and physically stronger.

Mintz and Betz (1986) examined a college sample of 129 men and 135 women with an average age of 19 years. Participants were assessed on the Body-Cathexis Scale (BCS; Jourard & Secord, 1955) to measure body satisfaction. The Sex Role Ideology Scale (SRIS; Kalin & Tilby, 1978) and Depression Proneness Inventory (Abramson & Metalski, 1983) were also given, as well as measures of social self-esteem and attitudes toward weight and dieting. Mintz and Betz found that slightly underweight men ($N = 14, M = 3.62, SD = .85$) disliked their bodies more than slightly underweight women ($N = 23, M = 3.23, SD = 1.07$). Other studies support this finding; men report concern over being a preferred size that is different from their perceived body shape (Ogden & Mundray, 1996; Silberstein et al., 1988).

**Social Comparison**

Social comparison is used as a tool to gain insight about social expectations and norms and valued attributes within society; therefore, many comparisons between oneself and targets may be made. Jones (2001) reported prior research examining college women that has shown that greater body image dissatisfaction is experienced by women who make appearance-related social comparisons. Jones speculates that one reason for this dissatisfaction could be that appearance comparisons to celebrities and models in the media are being made.
Jones (2001) used two studies to examine how adolescent boys’ and girls’ body image is affected by social attractiveness comparisons to models and peers. The first study used 42 girls and 38 boys in ninth and tenth grades; 98% of the sample was White. The second study used 92 girls and 82 boys in seventh grade, with a mean age of 12.6 years; 71% of this sample was White. She defined body image as a multidimensional construct, typically based on the degree of satisfaction with current physical body size, shape, and general appearance (Jones, 2001). She argues that an important factor of body image is social comparison, which is defined as “the cognitive judgments that people make about their own attributes compared to others” (Jones, 2001, p. 646).

An important area covered in Jones’s study is the role that social comparison plays in body image satisfaction of boys. Jones found that attractiveness attributes that male and female adolescents use included personal, physical, and social dimensions. Typically, the participants rated “attractiveness for girls in terms of weight and for boys in terms of build” (Jones, 2001, p. 651). Furthermore, the participants who reported greater social comparison between models and peers also reported greater body dissatisfaction.

*Media Influences on Body Satisfaction in Women and Men*

There have been numerous studies examining the media’s impact on body dissatisfaction in women (Cohn & Adler, 1992; Furnham & Greaves, 1994; Garber, 2000; Groesz, Levine, & Murnen, 2002; Lin & Kulik, 2002; Stice & Shaw, 1994; Turner et al., 1997). Many aspects have been examined, and overall the general findings show that the female body has been influenced and shaped by society. In order to obtain the unrealistic ultrathin ideal, many women try to lose weight and consequently develop
disordered eating. Women also tend to believe they are larger than they actually are and as a result suffer from low self-esteem and depression. Generally, women report dissatisfaction with their bodies when compared to other women. Thus far, the research shows that the media have a significant impact on the way women think about and perceive ideal beauty, and the methods they feel they must use to try to attain this ideal.

Monteath and McCabe (1997) found that the way a woman believes society views her body has a direct and great impact on the way she feels about her body. It has been suspected that being exposed to thin figure ideals through the media might account for the "increasingly high levels of body dissatisfaction and eating disorders among the women in Western societies" (Lin & Kulik, 2002, p. 115). Additionally, Turner et al. (1997) found that the media are responsible for not only reflecting societies' perceptions of the female form, but shaping it as well. For instance, the thin female body ideal displayed in fashion magazines influences women's satisfaction with their own body images (Turner et al., 1997).

The message the media portray to women is that being thin is equivalent to being attractive (McCabe & Ricciardelli, 2003). It is speculated that one reason women feel badly about themselves after viewing thin models is that in our society the mass media propagate a unattainable ideal of beauty that concentrates on thinness, with a resultant increase in body dissatisfaction for women (Groesz, Levine, & Murnen, 2002).

Accordingly, an internalization of the media messages for attractiveness takes place, and exposure to those media influences can potentially lead to the development of body dissatisfaction, negative affect, and eating disorder symptoms for women (Heinberg & Thompson, 1995; Thompson & Heinberg, 1999). Distortions in body image for women
have been linked to lowered self-esteem, depression, chronic dieting, bulimia, and anorexia (McCaulay, Mintz, & Glenn, 1988).

A study by Stice et al. (1994) “revealed a direct effect of media exposure on eating disorder symptoms,” and supported the notion of internalization of the sociocultural thin ideal body type in their population sample of 238 women (p. 836). Stice et al. exposed women to thin models using television and magazine models and found that such exposure had a direct effect on body dissatisfaction. Also, Pinhas et al. (1999) proposed that disordered eating is affected by media images. Their study used 118 college women, 65% of whom were White. The subjects were divided into two groups. The participants completed the Profile of Mood States (POMS; McNair, Lorr, & Droppleman, 1971), the Body Parts Satisfaction Scale (BPSS; Berscheid, Walster, & Bohnstedt, 1973), and the Eating Disorder Inventory (EDI; Garner, Olmsted, & Polivy, 1983). The control group \((N = 67)\) was shown 20 slides containing no human figures, while the experimental group \((N = 51)\) was shown 20 slides of female fashion models. Then all participants took the POMS and BPSS again. Results indicated that women were more angry \((R^2 = 0.73, p < .01)\) and more depressed \((R^2 = 0.745, p < .05)\) after viewing slides of female fashion models. Compared to women without psychological features of eating disorders and previous body dissatisfaction, women with these predispositions illustrated higher levels of depression, greater anger, and higher body dissatisfaction. Therefore, women who are already dissatisfied with their bodies and those who have a predisposition to some of the psychological features of eating disorders are more susceptible to the media’s message of ideal thin beauty (Pinhas et al., 1999).
Research by Harrison and Cantor (1997) indicated that media use, such as television and, especially, magazine viewing, predicted disordered-eating symptomology, body dissatisfaction, and drive for thinness in women. Similarly, Pinhas et al. found alterations in mood state and disordered eating after women viewed images of thin fashion models. They used 118 female participants, and their results suggested that the women felt angry and depressed after viewing thin fashion models. Interestingly, Henderson-King and Henderson-King (1997) found that although heavier women experienced negative self-evaluations after viewing thin media ideals, thinner women gave themselves more positive evaluations of their sexual attractiveness after viewing thin media ideals, again equating thinness with attractiveness.

Stice et al. (1994) also reported that lowered self-esteem, decreased weight satisfaction, depression, guilt, stress, insecurity, shame, and body dissatisfaction can result from women’s being exposed to thin model images. Participants in their study were 238 university women with a mean age of 20 years. They found direct effects of media exposure on gender-role endorsement and eating disorder symptomatology. Also, body dissatisfaction was predicted by gender-role endorsement, which was related to ideal-body stereotype internalization. However, a significant relationship was not discovered for either ideal-body stereotype internalization to eating disorder symptoms or media exposure to ideal-body stereotype internalization. Eating disorder symptoms accounted for 43.5% of the variance, 13.3% for ideal-body stereotype internalization, 4.6% for gender-role endorsement, and 2.8% for body dissatisfaction. The results show that there was an indirect effect of ideal-body stereotype internalization on eating disorder symptoms through body dissatisfaction, $\beta = .10, t(238) = 2.27, p < .05$ (Stice et al. 1994).
Also body dissatisfaction was correlated with eating disorder symptomatology, \((r = .541, p < .001)\). Remarkably, this change in mood to the thin ideal occurred after an exposure time of only three minutes.

Currently, the research concerning men’s body satisfaction is inconsistent. Kalodner (1997) suggests “there is a negative impact of media presentations of thin models on non-eating-disordered college women, while no such impact exists for male college students” (p. 55). Some studies suggest that men are generally satisfied with their bodies (Ogden & Mundray, 1996; Smith et al., 1998). Another study suggests men are less critical of their bodies than women (Drewnowski & Yee, 1987). Regarding weight satisfaction there is a split between those men who want to lose weight and those who want to gain, while most women want to lose weight (Connor-Green, 1988; Davis et al., 1991; Drewnowski & Yee, 1987; Silberstien et al., 1988). If men are significantly overweight, then they want to be thinner, and men of normal weight want to weigh more (Mishkind et al., 1986). The recent cultural attention to the male body is thought to be associated with men experiencing more concern with their physical appearance and experiencing more body dissatisfaction than ever before (Mishkind et al., 1986).

However, some research suggests that men are dissatisfied with their body image (Cash, 1990; Cash & Brown, 1989; Conner-Greene, 1988; Furnham & Greaves 1994; Holle, 1999; Jacobi & Cash, 1994; Ogden & Mundray, 1996; Raudenbush & Zellner, 1997; Silberstein et al., 1988; Smith et. al., 1998). Furnham and Greaves (1994) cited research denying that men are satisfied with their bodies and assert that appearance is quickly becoming a male issue not just a female one. Body satisfaction can impact self-esteem, self-perceptions, and social behavior.
Furnham and Greaves (1994) also cited research indicating there was a clear and predictive relationship between self-esteem and body shape in early adolescent boys in which endomorphism was clearly associated with low self-esteem, and mesomorphism with high self-esteem. The media’s message of increased muscle mass and thinness is reaching youths. McCabe and Ricciardelli (2003) report that between the ages of 6 and 7, children develop the preference for an ideal male body that is muscular and large and an ideal female body that is thin. Children as young as 8 to 9 years old are already dieting and participating in strategies to increase muscle mass (McCabe & Ricciardelli, 2003). Additionally, girls as young as 9 years old show body shape dissatisfaction (Hill, Draper, & Stack, 1994). Spitzer, Henderson and Zivian (1999) noted that the rate of anorexia and bulimia in women and girls is less than or equal the rate of steroid abuse in boys and men. Research conducted by Harrison (2000) indicated that body dissatisfaction in sixth grade boys was predicted by exposure to television shows that employed obese characters. Also, failing to match the sociocultural ideal body type promotes self-criticism and damages feelings of self-worth. Mintz and Betz (1986) found that for both genders higher levels of body satisfaction were connected with high social self-esteem.

A recent study by Lynch and Zellner (1999) used male figure drawings that assessed different degrees of muscle mass as opposed to body fat. Using a college and adult population, they assessed participants’ desired figures, current figures, the figures which other men would view as ideal, and the figures the opposite sex would find most attractive. Results indicated adult men tended to be satisfied with their current bodies, but college men wished to be larger due to their belief that everyone finds a larger body most attractive.
Cohn and Adler (1992) found that men tend to overestimate the preference among women and other men for a large, muscular body. Their study used 118 men, and mean age was 18.7 years. The men were given assessments using body figure ratings and self-reported body weight and body satisfaction. When asked what physique peers thought women found most attractive and peer’s preferred size, men picked a larger physique, $M = 1.3$, paired $t (1, 117) = 2.1, p = .04$. Men also misjudged the body size rated most attractive by women. The men picked a larger body size than women preferred, $M = 1.8$, paired $t (1, 201) = 1.98, p = .05$.

A study conducted by Ogden and Mundray (1996) utilized 20 college men and 20 college women participants, whose ages ranged from 19 to 25. Both the men and women rated their body satisfaction before and after exposure to thin or overweight models that were matched to the participant’s gender. The results indicated that feelings of dissatisfaction were found in both genders that were exposed to the thin models. Mean scores on body satisfaction for men were $M = 24.7$ ($SD = 18.61$) before exposure and $M = 26.8$ ($SD = 19.25$) after exposure. For women, body satisfaction scores were $M = 37.9$ ($SD = 18.67$) before exposure and $M = 45.7$ ($SD = 15.24$) after exposure. Their study also found that both genders reported being less satisfied with their body size and body silhouettes after examining the thin pictures. Additionally, both genders’ body satisfaction improved after being shown pictures of overweight models. The suggestion is that both genders are susceptible to internalizing the media images of societal attractiveness and sexiness and that men and women respond similarly to media images (Ogden & Mundray, 1996).
However, there were some gender differences. An interesting conclusion of Ogden and Munday's (1996) research is that men are more preoccupied with strength, compared to women, who are more concerned with weight. Means from the study's body size estimation measures indicated that male participants generally felt sexier and overall reported a greater body satisfaction than females. Also, men tended to reveal less discrepancy between the ratings of their present body size and their preferred body size than women.

Previous studies illustrate that both normal and under weight college women think they are heavier than they actually are (Mintz & Betz, 1986). A study by Mintz and Betz indicated that 64% of the normal-weight college women studied perceived themselves as being slightly overweight, and 61% of under weight college women thought of themselves as belonging in the normal weight category. Similarly, Raudenbush and Zellner (1997) found that women of normal weight usually overestimate their size and, as a result, wish to be thinner, and men of normal weight tend to see themselves as underweight and wish to be heavier. A survey by Miller et al. (1980), using 22 male and 46 female undergraduate students between the ages of 18 and 23, examined body image and weight. They found that half of the men reported themselves as normal weight. Meanwhile, 70% of the women reported themselves as overweight or slightly overweight, while only 39% of the women actually fit into one of these two categories. Women wanted to weigh less, and men who perceived themselves as slightly underweight wanted to gain weight. The findings regarding body image and desired weight show that 59% of men and 91% of women were dissatisfied with their bodies. Dissatisfaction was expressed by participants reporting a difference between their own
body image and their desired weight (Miller et al., 1980). Also, Ogden and Mundray (1996) found that both genders felt satisfied with their bodies and more fit after viewing images of obese models. This finding again reinforces the notion that for men body dissatisfaction is influenced by muscularity.

A study by Lavine, Sweeney, and Wagner (1999) examined body dissatisfaction among men and women when exposed to television advertisements that portrayed women as sex objects. What researchers found was that when men were exposed to the television advertisements, they estimated that their body size was thinner than it actually was and they believed others' ideals for men's bodies were larger than men's own ideals. The effects that television advertisements of women portrayed as sex objects on men's body ideals could be due to the fact that television advertisements also depict muscular, attractive, or athletic men (Lavine et al., 1999).

Furthermore, the impact of the media on male body satisfaction yields some interesting findings. McCaulay et al. (1988) found that lower levels of depression-proneness were associated with higher levels of body satisfaction only for men. Within this sample, the "men were concerned with their appearance, and body satisfaction was related to both their self-esteem and their proneness to depression" (McCaulay et al., 1988, p. 389). Vartanian et al. (2001) also noted that men's body esteem and body image issues have not had the same attention as regards to the role of mass media as women's body esteem and body image have, especially considering in men the aspects of muscularity and physical fitness. Vartanian et al. (2001) also suggests "greater instrumentality among women may make them less susceptible to accepting media portrayals of thinness as appropriate or desirable for themselves, but may make men more
susceptible to media messages regarding muscularity and physical strength” (Vartanian et al., 2001, p. 731). Of the 111 male participants, \( M = 22.6 \) years, \( SD = 6.85 \), in this study, 85% expressed a desire to be more muscular than they presently were. The Desired-Minus-Current Muscularity/Apparent Fitness score for men, \( M = 1.24, SD = .72 \), was higher than for women, \( M = .76, SD = .59 \). Vartanian et al. (2001) also found that the men’s susceptibility to appearance-related mass media predicted body satisfaction and muscularity satisfaction.

Research conducted by Leit, Gray, and Pope (2002) examined the effects of muscular and neutral media images on male attitudes toward body appearance using 82 undergraduate men. Participants’ mean age was 19.8 years (\( SD = 2.8 \)), and 78% were White. The stimulus materials were advertisements from magazines and clothing catalogs which were presented as slides and were judged on muscularity, attractiveness, and degree of sexual provocation. Immediately after viewing either the muscular or neutral media images, the participants were assessed on a computer program that allowed the participants to manipulate the pictures of the male models to make them more or less fat and more or less muscular at the same time (Leit et al., 2002). The fat-free mass index (FFMI), part of the Somatomorphic Matrix (Pope, Gruber et al., 2000), was the index of muscularity used in the study. The men were then asked to measure their body image perception by selecting their ideal body shape, the figure that best represented their current figure, the average body shape of men their age, and the figure most desired by women. The findings revealed that the men shown muscular images had a greater discrepancy between current FFMI and their ideal estimate of the average man’s FFMI, \( t \)
(80) = 1.98, \( p = .05 \), and between current FFMI than did the control group, \( t (80) = 2.54, p < .05 \) (Leit et al., 2002).

Andersen and DiDomenic (1992) suggest that men’s magazines tend to publish fewer articles and advertisements about losing weight. Instead, they found, there are more articles and advertisements about altering body shape, which suggests that men may not be as concerned with fat as they are about improving their overall physique. The current ideal male figure is V-shaped (Furnham & Calnan, 1998). Furnham and Calnan conducted a study using 143 male participants aged 16 to 18. They assessed the participants on measures of self-esteem, reasons for exercising, eating disturbances, and body weight dissatisfaction. They found that 69% of participants reported that their ideal weight was different than their present weight, suggesting significant body dissatisfaction among the participants. Of those not satisfied with their weight, 38% wanted to gain weight, while 31% wanted to lose weight. Furnham and Calnan suggest that the reason for men wanting to gain weight is to achieve the ideal male V-shaped figure, hence becoming more muscular. Furnham and Calnan found no relationship between self-esteem and body dissatisfaction, \( (r = 0.31, p < 0.001) \), which could suggest that body dissatisfaction is becoming a cultural norm for men, thereby exerting less impact on self-esteem. Also, Furnham and Calnan speculate that self-esteem may be connected to disordered eating rather than weight dissatisfaction based on their assessments for reasons to exercise.

**Benefits for Men Who Have a Mesomorphic Body Type**

Some possible reasons suggested for male body dissatisfaction were proposed by Mishkind et al. (1986). They explain that there may be social and cultural advantages
associated with the attainment of a muscular body type, such as the attribution by others of positive personality traits. Studies have shown that participants tend to identify a muscular body as the most masculine type because they associate muscularity with such “stereotypical masculine attributes as strength, tenacity, competence, sexual potency, independent, dominance, self-confidence, and aggressiveness” (Wienke, 1998, p. 258). Also, when asked to rate the attractiveness of varying male body shapes, participants chose the muscular physique as the most attractive (Mishkind et al., 1986). In addition to the attributes mentioned above, prior research has shown that people identify muscular men as being happy, helpful, polite, brave, masculine, friendly, healthy, self-reliant, strong, and smart (Russell, 2002; Wienke, 1998) This cultural preference for the muscular male body type exists at all levels of society (Wienke, 1998). Therefore, having a mesomorphic body type could be indicative of receiving certain cultural rewards.

In contrast, people attribute the stereotypical characteristics of being “sloppy, dirty, dependent on others, lazy, lonely, less good looking, and less intelligent,” to overweight men (Wienke, 1998, p. 359). Being overweight is linked with negative attributes such as less masculine, weakness, laziness, sickly, self-indulgence, and lethargy. Crandall (1994) suggests that racism and anti-fat attitudes are structured in the same way. Additionally, being obese is linked with many negative traits including being unattractive, alienated from sexuality, morally and emotionally impaired, and discontent with the self (Crandall, 1994). In contrast, being thin is connected with attributes such as success, attractiveness, and self-control in women, as well as quiet, afraid, sneaky, weak, less masculine, nervous, and sickly in men (Champion & Furnham, 1999; Wienke, 1998).
Men who thought they were overweight, as compared to those who believed themselves to be of normal weight, tended to show greater levels of avoidance of social situations and psychological distress involving scrutiny of their body (Holle, 1999). Men who are underweight experience low self-esteem, body dissatisfaction, and depression, and men who report being under their ideal weight and height also report lower self-esteem and greater problems with social adjustment (Russell, 2002).

The motivation to achieve an unrealistic ideal of beauty is internalized as being important in partner preference. According to Jacobi and Cash (1994), “several studies of body size/weight suggest that both sexes hold distorted assumptions about what the other sex idealizes in one’s own sex” (p. 391). They also found that most men in their 66 participant male college sample wanted to be taller, heavier, and more muscular because this is what they thought women would prefer. Additionally, the greater the discrepancy between the men’s actual and ideal body shapes, the more negative body image they held (Jacobi & Cash, 1994).

Limitations of Existing Research

There are three major limitations with existing research on this topic. One limitation is that most of the research concerning body dissatisfaction has not focused on men. Instead, it has concentrated on the effects that body dissatisfaction and social comparison have on women, which ultimately lead to the development of disordered eating. Many of the studies conducted have used only female samples to find differences in body image, satisfaction, self-esteem, gender roles, and eating disorders. The present study focused only on men and their body satisfaction to assess if they internalize media images the way women do, which for men could possibly lead to the development of
muscle dysmorphia, instead of disordered eating. Very few studies have looked at the aspect of how men respond to media images.

A second limitation of the existing research is the focus on a thin ideal instead of a muscular ideal for men. Because the sociocultural body ideal for women is thin, women are trying to attain an unrealistically thin body. When prior studies have used male and female participants, their assessments were based on thinness and body satisfaction. Men have been asked to choose their ideal figure, their current figure, the figure they would most like to have, and the figure they believe women would find most attractive when choosing from a thin to obese continuum. It appears as though, men are more concerned with their shape and want to increase in size and muscle mass, as opposed to decreasing size and weight. Therefore, in order to accurately assess body satisfaction in men, muscularity must be considered. The present study used muscular and nonmuscular advertisements instead of obese and thin advertisements to tap into the cultural ideal for men.

The third limitation to existing research is that, thus far, mostly indirect measures have been used to assess levels of body satisfaction. Previous studies have had men manipulate computer images and select ideal body figures along a continuum. The present study uses a direct measure of assessment by asking men to rate specific areas of their bodies before and after exposure to media images. The purpose of using a direct measure was to show that men actually experience body dissatisfaction the same way women do when they view media images of thin models.
The Current Study

The goal of the present study was to evaluate the effect of exposure to muscular models on body satisfaction in men to evaluate whether they are similar to what women experience when viewing thin models. The first hypothesis under study was that participants’ self-rated body satisfaction would decrease after viewing advertisements of muscular men. The second hypothesis under study that mens’ self-rated body satisfaction will remain constant after viewing advertisements of nonmuscular men. The third hypothesis that men categorized as below average muscularity show a greater decrease in body satisfaction after viewing the advertisements of muscular men than men categorized as above average muscularity.
Method

Participants and Design

Participants were 104 college men attending Western Kentucky University. The men were volunteer participants and were randomly assigned to one of the two experimental conditions. Age of the participants ranged from 18 to 32 years, with a mean of 20.15 years ($SD = 2.64$). The mean level of education was 13.64 years ($SD = 1.21$). There were 65 college freshmen, 12 sophomores, 4 juniors, 7 seniors, and 4 graduate level participants. There were 82 (78.8%) White participants and eight (7.7%) African American participants; two (1.9%) participants indicated their race as “other.” Twelve participants did not report race, age, or level of education.

The design of the study was a 2 (pictures: muscular vs. normal) x 2 (time: pretest vs. posttest) x 2 (muscularity of participant: above average vs. below average) within and between groups design. The three independent variables were the type of picture (between-subjects factor), time (within-subject factor), and participant muscularity (between-subject factor). The dependent variable was men’s reported body satisfaction.

Measures

Demographics. Basic demographic data (i.e., age, race, and current education level) were assessed using a questionnaire (see Appendix A).

Body Satisfaction. A 25-item measure of Body Assessment (BA) created for this study was used to assess three components of body esteem: physical attractiveness, physical conditioning, and upper body strength (see Appendix B). This measure allows
participants to indicate the degree of satisfaction with various aspects of the body (i.e., biceps, weight, muscularity) on a 5-point Likert-type scale ranging from 1 (strongly negative) to 5 (strongly positive). Responses to the BA were summed and then divided by 25 to create a mean score across items.

The construction of the BA was modeled after the Body Satisfaction Scale (BSS) developed by Slade, Dewey, Newton, Brodie, & Kiemle (1990). The BSS is a self-report survey that utilizes a 7-point scale ranging from 1 (very satisfied) to 7 (very unsatisfied). The BSS assesses satisfaction with 16 body parts. On the BSS higher scores indicate increased body dissatisfaction. The internal consistency reliability coefficient of the BSS ranged from $\alpha = .79$ to $\alpha = .89$. Concurrent validity scores on the BSS ranged from $r = .26$ to $r = .52$ and were positively correlated with scores on the Body Shape Questionnaire (BSQ; Cooper, Taylor, Cooper, & Fairburn, 1987).

The item total-correlation on the first administration of the BA ranged from $r = .43$ to $r = .74$. The estimate of the internal consistency reliability coefficient (Cronbach’s alpha) on the first administration of the BA was calculated at $\alpha = .94$. The item total-correlation on the second administration of the BA ranged from $r = .51$ to $r = .80$. The estimate of the internal consistency reliability coefficient on the second administration of the BA was calculated at $\alpha = .95$. An exploratory factor analysis was done on the BA and resulted in a three-factor solution that matched physical attractiveness, physical conditioning, and upper body strength.

**Body Type Assessment.** Individual muscularity body type assessment of each male participant was assessed by the examiner. A well-known male faculty member was used as a prototype. Participants were categorized as either above average muscularity, $N =$
25) or below average muscularity (N = 79) based on visual examination when they turned in their materials.

_Stimulus Material._ This study used 12 advertisements from popular magazines of muscular and nonmuscular men. The advertisements were shirtless pictures of men, faces included (see Appendixes C and D). The images were selected from a set of 40 images chosen by the principle investigator and then rated by a sample of 30 women during a pilot study. The raters evaluated each picture on six dimensions (attractiveness; muscularity; likeability; and how smart, friendly, and healthy they seemed) along a 7-point Likert scale ranging from 1 (not at all attractive, friendly, muscular, etc.) to 7 (extremely attractive, friendly, muscular, etc.) (see Appendix E). Pictures were selected so that they were matched on friendliness and attractiveness. Women rated the men in the muscular advertisements more muscular (M = 6.30, SD = 1.02) than men in the nonmuscular advertisements, M = 1.10, SD = .58; t (1, 31) = 30.32, p < .001, d = 5.2. During the study male participants answered the same six questions as the raters for each advertisement (see Appendix F). See Table 1 for all the means and standard deviations.

_Procedure_

After informed consent was obtained from participants (see Appendixes G and H), they were asked to complete a demographics page. In all conditions, male participants completed the BA. Then they were exposed to either 6 advertisements of muscular men or six advertisements of nonmuscular men. The exposure time to each picture was a self-rated pace, via Power Point slides. For each individual advertisement they were shown, participants completed the picture rating form. Immediately after exposure, participants were re-assessed on the BA. When turning in their completed forms to the primary
investigator, the participants were assessed by the primary investigator on their body shape as either above or below average musculature. At this time, participants were given a debriefing statement (see Appendixes I and J) and thanked for their participation. The completion time for the entire process was approximately 20 minutes.
Results

Responses to the BA were summed and then divided by 25 to create a mean score per item. This mean score per item was examined using a 2 (view muscle picture vs. view nonmuscle picture) x 2 (pretest vs. posttest) x 2 (above average participant muscularity vs. below average participant muscularity) mixed Analysis of Variance (ANOVA) to determine if there were any interactions or main effects. Planned comparisons using paired $t$-tests were completed on the scores from the BA for pre- and posttest for both participants viewing muscular and nonmuscular pictures.

The ratings that women gave to muscular advertisements were compared to the ratings that the same women gave to nonmuscular advertisements. The ratings of men who viewed the muscular advertisements were compared to the ratings of men who viewed nonmuscular advertisements. In general, across both groups, people who viewed muscular advertisements rated them more favorably than the nonmuscular advertisements. See Table 1.
Table 1

Comparison of Muscular and Nonmuscular Advertisements

<table>
<thead>
<tr>
<th>Question</th>
<th>Muscular</th>
<th>Nonmuscular</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
</tr>
<tr>
<td>Men</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attractive</td>
<td>4.54</td>
<td>1.57</td>
</tr>
<tr>
<td>Friendly</td>
<td>4.27</td>
<td>1.39</td>
</tr>
<tr>
<td>Muscular</td>
<td>5.67</td>
<td>1.25</td>
</tr>
<tr>
<td>Likeable</td>
<td>4.23</td>
<td>1.31</td>
</tr>
<tr>
<td>Healthy</td>
<td>5.54</td>
<td>1.29</td>
</tr>
<tr>
<td>Smart</td>
<td>3.47</td>
<td>1.48</td>
</tr>
</tbody>
</table>

| Women     |          |             |          |      |     |    |    |
| Attractive | 3.72  | .836 | 2.17  | .623 | 10.88 | 31 | < .001 |
| Friendly   | 4.14  | .802 | 3.62  | .861 | 4.01 | 31 | < .001 |
| Muscular   | 6.29  | 1.02 | 1.96  | .575 | 30.32 | 31 | < .001 |
| Likeable   | 4.16  | .738 | 3.22  | .833 | 6.46 | 31 | < .001 |
| Healthy    | 5.58  | .990 | 2.92  | .650 | 21.69 | 31 | < .001 |
| Smart      | 3.74  | .707 | 3.02  | .783 | 5.07 | 31 | < .001 |

Body Assessment Scores. As shown in Table 2, results of the ANOVA indicated no three-way interactions. One 2-way interaction was found between time and type of
picture, $F(1, 100) = 3.73, p = .056, \eta^2 = .036$. See Table 2. This interaction is displayed in Figure 1.

Figure 1. Results of body assessment ratings before and after exposure to nonmuscular and muscular advertisements.

The planned post-hoc comparisons indicated no difference in BA scores from pre- to posttest for participants who viewed nonmuscular men ($t = -1.27, p = .21$). However, there was a difference in BA scores from pretest to posttest for participants who viewed muscular men ($t = 1.94, p = .06$). See Table 3 for means and standard deviations.

No other significant two-way interactions were noted. No main effects were noted. See Table 2 and Table 4.
### Table 2

**Tests of Within-Subjects Contrasts**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>( \eta^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time (T)</td>
<td>.079</td>
<td>1</td>
<td>.079</td>
<td>1.372</td>
<td>.244</td>
<td>.014</td>
</tr>
<tr>
<td>(T) x Muscularity (M)</td>
<td>.001</td>
<td>1</td>
<td>.001</td>
<td>.023</td>
<td>.879</td>
<td>.000</td>
</tr>
<tr>
<td>(T) x Picture Type (P)</td>
<td>.217</td>
<td>1</td>
<td>.217</td>
<td>3.725</td>
<td>.056</td>
<td>.036</td>
</tr>
<tr>
<td>(T) x (M) x (P)</td>
<td>.000</td>
<td>1</td>
<td>.000</td>
<td>.009</td>
<td>.923</td>
<td>.000</td>
</tr>
<tr>
<td>Error (T)</td>
<td>5.82</td>
<td>100</td>
<td>5.82</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 3

**Means and Standard Deviations of the Body Assessment at Pretest and Posttest**

<table>
<thead>
<tr>
<th>Type of Advertisement</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td><strong>Muscular</strong></td>
<td>3.48</td>
<td>.674</td>
</tr>
<tr>
<td><strong>Nonmuscular</strong></td>
<td>3.52</td>
<td>.593</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Muscular</strong></td>
<td>3.36</td>
<td>.788</td>
</tr>
<tr>
<td><strong>Nonmuscular</strong></td>
<td>3.56</td>
<td>.621</td>
</tr>
</tbody>
</table>
Table 4

*Tests of Between-Subjects Effects*

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
<th>(\eta^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1759.790</td>
<td>1</td>
<td>1759.790</td>
<td>2049.146</td>
<td>.000</td>
<td>.953</td>
</tr>
<tr>
<td>Muscularity (M)</td>
<td>.323</td>
<td>1</td>
<td>.323</td>
<td>.376</td>
<td>.541</td>
<td>.004</td>
</tr>
<tr>
<td>Picture Type (P)</td>
<td>.965</td>
<td>1</td>
<td>.965</td>
<td>1.123</td>
<td>.292</td>
<td>.011</td>
</tr>
<tr>
<td>(M) x (P)</td>
<td>.303</td>
<td>1</td>
<td>.303</td>
<td>.353</td>
<td>.554</td>
<td>.004</td>
</tr>
<tr>
<td>Error</td>
<td>85.879</td>
<td>100</td>
<td>.859</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Discussion

This study examined the effect of exposure to muscular ideal bodies on body satisfaction in men to see if the effects are similar to what women experience when they are exposed to thin bodies. The first hypothesis under study was that men’s self-rated body satisfaction would decrease after viewing images of muscular men. The second hypothesis under study was that men’s self-rated body satisfaction would remain constant after viewing images of nonmuscular men. It was also predicted that men categorized as below average in muscularity would show a greater decrease in body satisfaction after viewing the advertisements of muscular men than men categorized as above average in muscularity. The results of the present study indicate that men’s body satisfaction is related to muscularity, in much the same way that women’s body satisfaction is related to thinness.

The first hypothesis under study was that men’s self-rated body satisfaction would decrease after viewing images of muscular men. Results supported this hypothesis; men’s self-rated body satisfaction decreased after viewing images of muscular men. This finding supports other research that suggests exposure to media images of stereotypical attractiveness can cause deterioration in body satisfaction (e.g., Ogden & Mundray, 1996). A likely outcome for men trying to attain this unrealistic body ideal is subsequent failure and ultimately dissatisfaction with their bodies. These findings could be a reflection of results obtained from Pope et al. (2000) and Wienke (1998), which suggest a
current male body ideal that has become more muscular, resulting in a mesomorphic body shape as representative of the cultural ideal.

It has been suggested that being exposed to thin figure ideals through the media might account for the "increasingly high levels of body dissatisfaction" in women (Lin & Kulik, 2002, p. 115) and possibly, a similar comparison could be made for men regarding muscular figure ideals. In this study, men's level of body dissatisfaction increased after exposure to muscular figure ideals. Generally, women report dissatisfaction with their bodies when compared to other women. Lin and Kulik (2002) examined women in three conditions: a thin peer group, an oversized peer group, and a control group. Calculations of the body satisfaction measure between the thin peer group and the control group indicated $d = 0.62$, and between the oversized peer group and the control group $d = 0$. Calculations of the confidence measure between the thin peer group and the control group indicated $d = 0.78$, and between the oversized peer group and the control group $d = 0.22$. Calculations of the self-esteem measure between the thin peer group and the control group indicated $d = 0.28$, and between the oversized peer group and the control group $d = 0.20$. Calculations of the male attractiveness measure between the thin peer group and the control group indicated $d = 0.80$, and between the oversized peer group and the control group $d = 0.16$. In the present study, men experienced body dissatisfaction after comparing themselves to muscular men.

Thus far, the research shows that the media have a significant impact on the way women think about and perceive ideal attractiveness, and the methods they feel they must use to try to attain this ideal (Heinberg & Thompson, 1995; McCabe & Ricciardelli, 2003; Stice et al., 1994; Thompson & Heinberg, 1999). Men may also be increasingly
susceptible to interpreting a body ideal of muscularity from the media. A possible implication of this message could be that in order to obtain the unrealistic ultramuscular ideal, men may try to gain weight and, consequently, develop muscle dysmorphia, similar to women who try to lose weight and develop disordered eating to obtain the unrealistic ultrathin ideal. Women also tend to believe they are larger than they actually are and, as a result, suffer from low self-esteem and depression (Mintz & Betz, 1986). It is possible, then, to suggest similar repercussions may result in men who believe themselves to be smaller than they actually are. For example, Raudenbush and Zellner (1997) found that men of the normal weight tended to see themselves as underweight and wished to be heavier.

Results from the present sample of 104 men could indicate that the sociocultural ideal of a muscular body type may be becoming increasingly recognized. In a similar study, Stice et al. showed women thin models using television and magazine images and found that such exposure had a direct effect on body dissatisfaction. The study also found support for the internalization of the sociocultural thin ideal body type in their sample of 238 women. An indirect effect was found on the measure of ideal-body stereotype internalization on eating disorder symptoms through body dissatisfaction, $t(238) = 2.27, p < .05, d = .21$. Also, media exposure and ideal-body stereotype internalization were found to be indirectly related, $t(238) = 1.92, p < .06, d = .18$. The gender-role endorsement measure also showed an indirect relationship to the eating disorder symptoms through ideal-body stereotype internalization measure, $t(238) = 1.96, p < .05, d = .18$, and the body dissatisfaction through ideal-body stereotype internalization measure, $t(238) = 2.11, p < .05, d = .19$. Therefore, it could be suggested that an
internalization of the media messages for attractiveness for women seems to be taking place, and being shown media images can potentially lead to the development of body dissatisfaction, negative affect, and eating disorder symptoms (Heinberg & Thompson, 1995; Thompson & Heinberg, 1999). Also, if men are beginning to internalize an unrealistic body ideal, some implications could be a lowered self-esteem and depression, as well as a distorted body image, chronic dieting, steroid use, and muscle dysmorphia (Leit et al., 2001; McCaulay, Mintz, & Glenn 1988).

The current research findings support the notion that only a brief exposure time and few exposures are necessary to have an impact on men’s body image. In each condition the participants viewed only six slides, and exposure time was typically no longer two minutes for each advertisement. These findings are comparable to Stice et al. (1994), who reported that lowered self-esteem, decreased weight satisfaction, depression, guilt, stress, insecurity, shame, and body dissatisfaction can result from women being exposed to thin model images. Remarkably, this change in mood to the thin ideal occurred after an exposure time of only three minutes (Stice & Shaw, 1994). In addition, prior research by Garber (2000) found that the amount of time which women spend reading fashion magazines is negatively correlated with reported ideal body size.

Jones (2001) implies that college women show greater body image dissatisfaction when they make appearance-related social comparisons. Jones also speculates that one reason for this dissatisfaction could be that appearance comparisons are being made to celebrities and models in the media. Similarly, the college men in the current study appear to have made appearance-related social comparisons as they were exposed to models in the media and, as a result, their body satisfaction scores decreased.
Vartanian et al. (2001) found that the men’s susceptibility to appearance-related mass media predicted body satisfaction and muscularity satisfaction. The participants took an overall body satisfaction survey, chose body figures that represented their current and desired shape, and completed a sociocultural factors questionnaire that measured “susceptibility to appearance related mass media, extent of interpersonal experiences with appearance-related criticism, and exposure to body image concerns expressed by peers” (p.715). Of the 111 male participants in this study, 85% expressed a desire to be more muscular than they presently were. The results of the current study also support this finding because the stimulus advertisements used were matched on the levels of attractiveness and friendliness. Results of the current study imply that men may be susceptible to the media’s messages concerning physical strength and muscularity.

The second hypothesis predicted that men’s self-rated body satisfaction would remain constant after viewing images of nonmuscular men. This hypothesis was supported. Previous research suggests that men want to be bigger and women want to be smaller (Cash & Brown, 1989; Cash & Henry, 1995; Conner-Greene, 1988; Jacobi & Cash, 1994; McCreary & Sadava, 2001; Mintz & Betz, 1986; Mishkind et al., 1986; Silberstein et al., 1988; Smith et al. 1998; Vartanian et al. 2001); therefore, looking at pictures of nonmuscular men would not produce body dissatisfaction in men.

The results of the present study also support research by Lynch and Zellner (1999). They used male figure drawings that assessed different degrees of muscle mass. Using a college and adult population, they assessed participants’ desired figures, current figures, the figures which other men would view as ideal, and the figures the opposite sex would find most attractive. Results indicated adult men tended to be satisfied with their
current bodies, as were the college men in the present study when exposed to the nonmuscular advertisements. However, college men in the Lynch and Zellner study wished to be larger due to their belief that everyone finds a larger body most attractive, just like the college men in the present study that were exposed to the muscular advertisements.

Also, prior research done with women indicated that their body satisfaction was lower after exposure to a thin model condition only (Groesz et al., 2002). In the present study, body satisfaction for men was lower after exposure to a muscular condition only. Again, this effect was observed after only a few exposures to thin media images. The current study indicates equivalent findings when men were exposed to six muscular media images. The men in the nonmuscular condition did not show a significant change in their level of body satisfaction.

The third hypothesis predicted that men categorized as below average in muscularity would show a greater decrease in body satisfaction after viewing the advertisements of muscular men than men categorized as above average in muscularity. This hypothesis was not supported. There was no difference in degree of body satisfaction found between men categorized as above average in muscularity or below average in muscularity. This finding conflicts with those observed by Henderson-King and Henderson-King (1997). They found that although heavier women experienced negative self-evaluations after viewing thin media ideals, thinner women gave themselves more positive evaluations of their sexual attractiveness after viewing thin media ideals. For men, the opposite should be true; the less muscular men, or those categorized as below average in muscularity, should show a greater decrease in body satisfaction after
exposure to muscular body ideals. Similarly, Harmatz et al. (1985) found that underweight men display a more negative self-image than overweight women. In fact, underweight men “view themselves as less handsome, less good natured, and having less sex-appeal” than the normal weight men and women, the overweight men and women, and the underweight women (Harmatz et al., 1985, p. 265). These findings would again suggest that men below average in muscularity men should be more dissatisfied with their bodies than those categorized as above average in muscularity.

The implications of this study parallel many findings of studies done with only female participants. The findings support the notion that appearance is becoming a male issue and that men show body dissatisfaction after viewing muscular advertisements. These findings imply that in much the same way that perceptions of the female body have been influenced, shaped, and reflected by society, perceptions of the male body are similarly becoming influenced, shaped, and reflected. The way a woman believes society views her body has a direct and great impact on the way she feels about her body (Monteath & McCabe, 1997). A similar belief could be influencing the way men feel about their bodies as well. The findings of the current research suggest that men are conscious of the societal norms of male attractiveness and that these norms have some impact on how they rate satisfaction with their bodies.

The three important body esteem components for men--physical attractiveness, physical conditioning, and upper body strength--were measured in this study by the BA, suggesting again that men are endorsing the societal ideal that values muscularity. The implications of these three criteria are that “men’s body satisfaction is influenced more by the degree to which they are physically active and perceive themselves to be
physically fit, than by the extent to which they conform to some subjective weight ideal” (Davis et al., 1991, p. 693). Jacobi and Cash (1994) found “several studies of body size/weight suggest that both sexes hold distorted assumptions about what the other sex [sic] idealizes in one’s own sex [sic]” (p. 391) which could also lead to decreased body satisfaction.

An important aspect of the present study is the use of a direct measure of body satisfaction to obtain results. Previous research by Leit et al. (2002) examined the effects of muscular and neutral media images on men’s attitudes toward body appearance by using indirect measures of body satisfaction. The men in the Leit et al. (2002) study manipulated computer images and selected body ideal figures for various conditions. The results suggested that men shown the muscular images experienced discrepancy regarding their current level of muscularity and had an increased desire to become more muscular. The present study found comparable results using less exposure time and fewer advertisements, and using a direct measure to assess body satisfaction. The men in the present study were asked to directly indicate their level of satisfaction with 25 specific areas of their bodies before and after exposure to media advertisements.

Limitations. One limitation to the study is the sample used. This study examined body image using a college sample. Therefore, the results of the present study can only be generalized to college men. Yet, to a degree, men who attend college are representative of the general public. However, see Lynch and Zellner (1999) for contradictory results. The age of participants in the present study ranged from 18 to 32, which is the prime age range for the development of muscle dysmorphia. Therefore,
although the sample included only men who attend college, it is representative sample for looking at issues of body dissatisfaction.

A further drawback to the present study is the use of a self-report measure. Self-report measures rely heavily on honest responses from the participants. Also, there is room for error if the participants misinterpret or become confused on the questions being asked by the assessment instrument. Schwarz (1999) suggests that for researchers, “the questions we ask determine the answers we receive” (p. 103). Also, question sequencing, wording, format, and context can affect the answers received from self-report measures. See Schwarz (1999) for a complete review of the limitations of using self-reports.

Future Research. Since little research has concentrated solely on men and their body satisfaction level in regards to muscularity, more integrative research would be valuable. Further comparison studies, with the emphasis on muscularity instead of thinness, may show similarities to the results and knowledge gained from studies done with women. Research is needed specifically examining whether body dissatisfaction is the strongest influencing factor for men when measuring dimensions of muscle dysmorphia. Other research needed should examine whether on not men who are already dissatisfied with their bodies and those who have a predisposition to some of the psychological features of muscle dysmorphia are more susceptible to the media’s message of ideal muscularity in the same way women appear to be as regards to the media’s message of ideal thin beauty and the development of eating disorders (Pinhas et al., 1999).

Also, research concentrating on specific populations of men would be beneficial. Increased research in the area of body dissatisfaction could lead to better indicators of
men who may be more susceptible to developing muscle dysmorphia. Future studies should also examine male populations that utilize anabolic-androgenic steroids and investigate their personality characteristics and the drug’s influence on body image.

Furthermore, future research should focus on the differences of body dissatisfaction between different age groups of men, especially adolescents. Research in this area could help determine body perception changes during the male life span and, as a result, help clinicians become more aware of critical periods in which men may become more susceptible to developing related disorders.

*Conclusion.* The results of the present study indicate that men’s body satisfaction is related to muscularity. This study found that after a brief exposure to muscular body type advertisements, men gave themselves lower body satisfaction ratings than before viewing the muscular advertisements. The implications for men after years of exposure to muscular body ideals could be comparable to the effects of lowered self-esteem, decreased weight satisfaction, depression, guilt, stress, insecurity, shame, and body dissatisfaction, all of which result from women’s being exposed to thin model images. Also, an internalization of the media messages for a male ideal of attractiveness could be taking place, and the exposure to those media influences could potentially lead to the development of body dissatisfaction, negative affect, and muscle dysmorphia.
References

Unpublished dissertation, University of Wisconsin, Madison.


Unpublished Manuscript, Old Dominion University, Norfolk, VA.


Appendix A

Demographic Survey
1. What is your age? ______________

2. Gender (circle one): Male Female

3. Please indicate your race (circle one): Caucasian African American Asian American Hispanic Pacific Islander Other

4. Please indicate your current education level (circle one):

   Freshman Sophomore Junior Senior Graduate Student
Appendix B

Body Assessment
The following are some areas in which people tend to be concerned about their bodies. Please rate how you feel about the areas of your body (negatively versus positively).

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<th>Area</th>
<th>Rating</th>
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<th>2</th>
<th>3</th>
<th>4</th>
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<tbody>
<tr>
<td>1. Weight</td>
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<td>3</td>
<td>4</td>
<td>5</td>
<td>strongly positive</td>
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<td>2. Face (appearance)</td>
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<td>3</td>
<td>4</td>
<td>5</td>
<td>strongly positive</td>
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<td>3. Body Shape</td>
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<td>4</td>
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<td>strongly positive</td>
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<td>4. Thighs</td>
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<td>strongly positive</td>
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<td>5. Upper Body Strength</td>
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<td>strongly positive</td>
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<td>6. Waist</td>
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<td>strongly positive</td>
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<td>7. Reflexes</td>
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<td>8. Health</td>
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<td>11. Agility</td>
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<td>12. Biceps</td>
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<td>13. Lower Body Strength</td>
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<td>14. Chest</td>
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<td>16. Energy Level</td>
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<td>17. Body Build</td>
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<td>18. Physical Coordination</td>
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<td>19. Buttocks</td>
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<td>20. Calves</td>
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<td>21. Stomach</td>
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<td>22. Physical Condition</td>
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<td>23. Triceps</td>
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<td>25. Legs</td>
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Appendix C

Nonmuscular Advertisement Photographs
Appendix D

Muscular Advertisement Photographs
Muscular Advertisement 1

Muscular Advertisement 2

Muscular Advertisement 3
Muscular Advertisement 4

Muscular Advertisement 5

Muscular Advertisement 6
Appendix E

Picture Rating Form (Women)
1. How attractive do you think other women would find this man?

<table>
<thead>
<tr>
<th></th>
<th>not at all attractive</th>
<th>somewhat attractive</th>
<th>slightly attractive</th>
<th>attractive</th>
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2. How friendly do you think other women would find this man?

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3. How muscular do you think other women would find this man?

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4. How likeable do you think other women would find this man?

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5. How healthy do you think other women would find this man?

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<tr>
<th></th>
<th>not at all healthy</th>
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6. How smart do you think other women would find this man?

<table>
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<th></th>
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Appendix F

Picture Rating Form (Men)
1. How attractive do you think women would find this man?

| 1: not at all attractive | 2: somewhat attractive | 3: slightly attractive | 4: attractive | 5: mostly attractive | 6: very attractive | 7: extremely attractive |

2. How friendly do you think women would find this man?


3. How muscular do you think women would find this man?

| 1: not at all muscular | 2: somewhat muscular | 3: slightly muscular | 4: muscular | 5: mostly muscular | 6: very muscular | 7: extremely muscular |

4. How likeable do you think women would find this man?

| 1: not at all likeable | 2: somewhat likeable | 3: slightly likeable | 4: likeable | 5: mostly likeable | 6: very likeable | 7: extremely likeable |

5. How healthy do you think women would find this man?

| 1: not at all healthy | 2: somewhat healthy | 3: slightly healthy | 4: healthy | 5: mostly healthy | 6: very healthy | 7: extremely healthy |

6. How smart do you think women would find this man?

| 1: not at all smart | 2: somewhat smart | 3: slightly smart | 4: smart | 5: mostly smart | 6: very smart | 7: extremely smart |
Appendix G

Informed Consent Document
Male body perception

You are being asked to participate in the following research study that is examining male body perception. Please read the following material carefully. It describes the purpose of the study, the procedure to be used, risks and benefits of your participation, and what will happen to the information that is collected from you. This project is being conducted through Western Kentucky University to fulfill the requirement for a master’s thesis. The University requires that you give your signed agreement to participate in this project.

The investigator will explain to you in detail the purpose of the project, the procedures to be used, and the potential benefits and possible risks of participation. You may ask her any questions you have to help you understand the project. A basic explanation of the project is written below. Please read this explanation and discuss with the researcher any questions you may have.

If you then decide to participate in the project, please sign on the bottom of this form in the presence of the person who explained the project to you. You should be given a copy of this form to keep.

1. Nature and Purpose of the Project: The purpose of the current study is to find out how the male body is thought of. Past research has shown what one thinks of his own body can influence how we think about others, therefore, in the current study you will be asked to rate your own body, then to be sure, you will rate it again.

2. Explanation of Procedures: You will be asked to complete a questionnaire with information such as age, race, and level of education. You will then be asked to complete a questionnaire which assesses your body satisfaction. Then, you will be asked to view 6 pictures of men from magazines, and answer 6 questions about each man pictured. After viewing the pictures and answering the questions, you will again complete a questionnaire which assesses your body satisfaction. The entire assessment should take approximately 30 minutes to complete.

3. Discomfort and Risks: The risks to participation appear to be small. There is a minimal risk that the information on one of the questionnaires may bring about psychological distress. Some participants may feel anxious or embarrassed about their body. If at any point you become uncomfortable about participating in this study please inform the experimenter. You may quit participating in the study at any time, for any reason, without any penalty to you.

4. Benefits: You may be able to receive extra credit for your psychology courses, if your instructor offers such credit (be sure to check with your instructor). Benefits also include a sense of having helped contribute to science and research and the beginnings of an understanding of male body perception.

5. Confidentiality: The data collected from you will be kept confidential. This means all identities will be carefully protected. Your name will not be associated with the data collected on your particular test results. The identity of individual participants will never be revealed in any published or oral presentation of the results of this study. If you would like a copy of the completed study, we will be happy to send one to you if you supply your name and address. Once we have sent out the copies, we will destroy these names and addresses from our files.

6. Refusal/Withdrawal: Refusing to be in this study will have no effect on any future services you may receive from the University. Anyone who agrees to participate in this study is free to quit at any time with no penalty.

7. Questions: If you have any questions about the study, please ask them at this point. If you think of questions later on, you may direct them to me, Lisa Lorenzen, at (270) 745-2698, Rick Grieve, Ph.D., at (270) 745-4417, or at the Department of Psychology, Western Kentucky University, 1 Big Red Way, Bowling Green, KY 42101, Monday-Friday from 9:00 am until 4:30 pm. If you have any questions about your rights as a participant in this study please contact Dr. Phillip E. Myers, Human Protections Administrator TELEPHONE: (270) 745-4652
You understand also that it is not possible to identify all potential risks in an experimental procedure, and you believe that reasonable safeguards have been taken to minimize both the known and potential but unknown risks.

THE DATED APPROVAL ON THIS CONSENT FORM INDICATES THAT THIS PROJECT HAS BEEN REVIEWED AND APPROVED BY THE WESTERN KENTUCKY UNIVERSITY HUMAN SUBJECTS REVIEW BOARD

________________________  ______________________
Signature                       Date
Appendix H

Debriefing
Thank you for participating in this research study. Past research has shown that men and women have body dissatisfaction, but it in different ways. There have been many studies that have looked at the relationship of media influences (such as TV or magazines) on women’s body satisfaction. Studies show that women in western society want to be thinner and strive to be unrealistically thin. As a result, women develop a bad body image and poor self-esteem. They also suffer emotional distress and sometimes develop eating disorders.

Past research has shown that body images in both men and women have become more negative over time. Men are thought to have more body dissatisfaction now than ever before. Body dissatisfaction felt by men could be because men want to be more muscular. However, most of the research on body dissatisfaction has focused on women. The goal of this study is to look at the effect that muscular models have on body satisfaction in males.

There is slight deception in the study because telling the true purpose of the study could change the data. I thought that men’s overall body satisfaction would change after viewing pictures from magazine advertisements of muscular men. It is also thought that men’s overall body satisfaction would stay the same after viewing pictures from magazine advertisements of non-muscular men. If you have any questions about the research or if you would like a final copy of the research project, please contact Lisa Lorenzen, at (270) 745-2698 or Dr. Rick Grieve at (270) 745-4417 or at the Department of Psychology, Western Kentucky University, 1 Big Red Way, Bowling Green, KY 42101. The final copies will not be available until after August 1, 2003.
Appendix I

Human Subjects Review Board Approval
Lisa Lorenzen  
917 Roselawn Way  
Bowling Green, KY 42104

Dear Lisa:

Your research project, “Male Body Perception,” was reviewed by the HSRB and it has been determined that risks to subjects are: (1) minimized and reasonable; and that (2) research procedures are consistent with a sound research design and do not expose the subjects to unnecessary risk. Reviewers determined that: (1) benefits to subjects are considered along with the importance of the topic and that outcomes are reasonable; (2) selection of subjects is equitable; and (3) the purposes of the research and the research setting is amenable to subjects’ welfare and producing desired outcomes; that indications of coercion or prejudice are absent, and that participation is clearly voluntary.

1. In addition, the IRB found that: (1) signed informed consent will be obtained for all subjects. (2) Provision is made for collecting, using and storing data in a manner that protects the safety and privacy of the subjects and the confidentiality of the data. (3) Appropriate safeguards are included to protect the rights and welfare of the subjects.

2. Your research therefore meets the criteria of Full Board Review and is approved.

3. Please note that the institution is not responsible for any actions regarding this protocol before approval. If you expand the project at a later date to use other instruments please re-apply. Copies of your request for human subjects review, your application, and this approval, are maintained in the Office of Sponsored Programs at the above address. Please report any changes to this approved protocol to this office. A Continuing Review protocol will be sent to you in the future to determine the status of the project.

Sincerely,

Phillip E. Myers, Ph.D.  
Director, OSP and  
Human Protections Administrator

c: Human Subjects File 03-106R  
Dr. Frederick G. Grieve, Faculty Advisor

HSApprovalLorenzenHS03-106R