MEDIA EFFECTS OF THE BODY SHAPE IDEAL AND BULIMIC SYMPTOMATOMATOLOGY IN MALES

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This study investigates the impact of sociocultural mediators in relation to eating disorders among male undergraduates. Literature on eating disorders has demonstrated that a thin body shape ideal depicted in the media directly contributes to eating pathology among females, but little research has investigated the direct effects of ideal body shape images among men. The focus of the present investigation was to assess the direct effects of exposure to the ideal male body shape on men's affect, self-esteem, body satisfaction, and endorsement of U. S. societal ideals of attractiveness. In addition, the relation of these variables to bulimic symptomatology was examined. Modeling a study conducted on women (Stice & Shaw, 1994), male undergraduates between the ages of 18 to 25 participated in premeasure (N = 169) and post measure (N = 95) conditions. Participants in the post measure were randomly exposed to pictures from magazines containing either male models depicting the ideal body shape, an average body or pictures of clothing without models. Results from repeated mulitvariate analysis indicated that exposure to the ideal body shape condition did not demonstrate significant negative changes in men's affect, self esteem, body satisfaction or endorsement of U. S. societal ideals of attractiveness. Indirect support for the sociocultural theory of eating disorders was provided by multiple regression analyses which demonstrated that increased body mass, self esteem, stress and anxiety predicted bulimic symptomatology in men. Future research should direct itself toward investigating possible sociocultural influences of eating disorders on certain male subenvironments, such as athletes or homosexual males that place a greater emphasis on maintaining lower body mass and an ideal body shape.

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CHAPTER 1

INTRODUCTION TO THE STUDY

For women, the sociocultural approach to eating disorders has focused on the media's portrayal of female beauty as well as the societal messages women receive concerning their bodies and their eating and dieting behaviors. This approach suggests that the media's influence on the adoption of sociocultural expectations may explain the extreme differences between men and women in the incidence of eating disorders. Research has demonstrated that women have been subjected to media influences to be thin and physically fit (Nemeroff, Stein, Diehl, & Smilack, 1994) and exposure to the media's portrayal of the thin-ideal produces increased negative feelings, body satisfaction and eating disorder symptoms (Stice, Schupak-Neuberg, Shaw, & Stein, 1994; Stice and Shaw, 1994). In addition, research has shown that standards of female beauty have become increasingly slimmer since the 1960's (Garner, Garfinkel, Schwartz, & Thompson, 1980; Wiseman, Grey, Mosimann, & Ahrens, 1992) which has paralleled an increase in disordered eating attitudes and behaviors.

The next step with this line of study concerns sociocultural ideals of attractiveness for males and the messages men receive from the media about how they should look (e.g., the ideal body shape) and act (e.g., diet). Despite low eating disorder prevalence rates for men, it appears that men may respond similarly to the increasing sociocultural pressures promoting a standard body-shape ideal (King & Mezey, 1987; Yager, Kurtzman, Landsverk, & Weismeier, 1988), thus increasing their risk of developing bulimic symptomatology and perceptions. In order to further assess issues related to males and

eating disorders, it is important to determine if sociocultural pressures, in the form of media-related messages promoting a body-shape ideal, adversely affect males' mood states and their perceptions of their bodies and how these relate to eating disorders.

Defining Bulimia

Eating disorders are characterized by severe disturbances in eating behavior such that the individual may refuse to maintain a minimally normal body weight (e.g., Anorexia Nervosa) or possibly exhibit repeated episodes of binge eating and purging behaviors (e.g., Bulimia Nervosa) (Diagnostic and Statistical Manual of Mental Disorders, 4th edition, APA, 1994). More specifically, Bulimia Nervosa is viewed as a disturbance in eating behavior characterized by episodes of uncontrollable eating binges that are typically followed by self-induced vomiting, excessive exercise, fasting or laxative abuse to avoid consequent weight gain. In addition, bulimic individuals frequently express dissatisfaction or discomfort with the appearance of their bodies and a fear of becoming fat. Recent prevalence studies suggest that 1 - 3.0% of females in late adolescence and early adulthood meet full criteria for bulimia nervosa (APA, 1994). Although eating disorders occur primarily in females (approximately 90%) (APA, 1994), men do suffer from these psychological disturbances and warrant further study.

Sociocultural Model

Although multiple determinants for eating disorders are recognized (e.g., psychological, biological and familial), the sociocultural model provides the most thorough explanation for the extreme gender differences in prevalence rates that characterize the disorder (Stice, 1994). According to the sociocultural model of bulimia, eating disorders are viewed as a product of the mounting pressures on women in our society to strive for an appearance of an ultra slender body (Striegel-Moore, Silberstein, & Rodin, 1986), and women with bulimia are simply those who fall at the extreme end of

the continuum of eating and weight concerns (Pike & Rodin, 1991). Stice (1994) suggests that sociocultural forces include: (1) a thin-ideal body image for women, (2) the centrality of appearance in the female gender role, and (3) the importance of appearance for women's societal success.

It appears that certain transmitters of sociocultural pressures have been instrumental in promoting the thin body-ideal to women. Family, peers and mass media all play an important role in the transmission of sociocultural pressures to women. As a primary social agent, families have a unique opportunity to transmit sociocultural messages during critical times of socialization in the formative years (ages 7-16). Families of eating disorder youths are thought to be overly conscious of weight and appearance, and thus promote these sociocultural pressures within the family milieu (Pike & Rodin, 1991). Costanzo and Woody (1985) also found that restrained eaters recalled their parents as more focused on dieting and physical attractiveness than controls did.

Peers also play an important role in the promotion of eating disorders by perpetuating the thin ideal (Crandall, 1988; Gordon, 1988). Although frequency is not reported, Pyle, Mitchell, and Eckert (1981) found that dieting episodes often followed suggestions from friends to lose weight and may be associated with the onset of bulimic symptoms. Findings of peer influence is also supported by Mitchell et al., (1986) who found that 45% of bulimics said that they had initiated bingeing and purging following pressure from a friend to lose weight.

It has been well documented that the mass media strongly communicates the importance of attractiveness and the thin-ideal (Garner & Garfinkel, 1980; Gordon, 1988) to female consumers. Several lines of evidence implicate the media in the promotion of eating disorders: (1) an increase in eating pathology over the last several decades, which has coincided with an increase in the number of articles on weight-loss, diets and exercise

appearing in major women's magazines, (2) the fact that eating disorders are more prevalent in western cultures where societal ideals of beauty are perpetrated by the media, and (3) bulimics evidence an increased internalization of the thin-ideal stereotype when compared to non-eating disordered controls.

First, there has been an increase in eating pathology over the last several decades (Szmukler, McCance, McCrone, & Hunter, 1986; Pyle, Halvorson, Neuman, & Mitchell, 1986). Paralleling this rise in disordered eating attitudes and behaviors has been an increase in the number of articles on weight-loss, diets, and exercise appearing in major women's magazines (Garner et al., 1980; Wiseman et al., 1992). Due to the occurrence of these two factors (increase in the number of articles in women's magazines and increased internalization of the thin-ideal stereotype), Schwartz, Thompson and Johnson (1982) noted that this increase cannot be better accounted for by biological or personality models of eating disorders. For example, Snow and Harris (1986) reported that the mean number of advertisements for diet products in women's magazines increased significantly since 1950. Supporting this finding, Andersen and DiDomenico (1992) found that women's magazines contained 10.5 times more advertisements and articles promoting weight loss and shape change than men's magazines.

Research also demonstrates that over the last several decades the weight of the ideal body image for women portrayed in the media has decreased (Silverstein, Perdue, Peterson & Kelly, 1986; Silverstein, Peterson, & Perdue,1986). Such studies have documented changes in the media's presentation of women's ideal body sizes and shapes. Over time, this female ideal has been altered toward an increasingly thin standard. This body-shape ideal has been documented in Miss America contestants, Playboy centerfolds, and female models in magazine advertisements (Garner et al., 1980; Silverstein, Peterson, & Perdue, 1986; Snow & Harris, 1985; Wiseman et al., 1992). In addition, the current

standard of bodily attractiveness portrayed on television has been found to be slimmer for women than for men (Silverstein, Perdue, Peterson & Kelly, 1986), and over the last three decades, the bust to waist ratios for actresses and models in women's magazines have been steadily decreasing (Silverstein et al., 1986). The evidence supports the conclusion that images of women in the media have become thinner and more tubular over the last several decades.

Just as there has been a shrinking of the body shape ideal as portrayed in the media, there has been an increasing number of dieting articles and advertisements promoting weight loss in women's magazines (Garner, Garfinkle, Schwartz, & Thompson, 1980; Wiseman et al., 1992; Snow & Harris, 1986). Theorists contend that the media's focus on dieting not only perpetuates the thin-ideal, but actively promotes eating-disordered behavior (Rodin, Silberstein, & Striegel-Moore, 1985). Overall, these studies demonstrate a relationship between the overall increase in advertisements and articles promoting dieting behavior in women's magazines since the late 1950's and the changes earlier noted in eating disordered behavior.

The second line of evidence implicating the media in the promotion of eating disorders comes from research suggesting that eating disorders may be a culture bound syndrome. A culture-bound syndrome is defined as a constellation of symptoms that is not found to be universal to all populations but is restricted to a particular culture (Nasser, 1988; Swartz, 1985). The term "ethnic disorder" (Gordon, 1988) is viewed as a pattern of psychopathology that is related to the common attitudes, conflicts, and strivings of a people. Swartz (1985) added that, many times, a culture bound syndrome can only be understood in the context of its specific culture.

Overall, the research exploring this issue suggests that eating disorders appear to be a syndrome bound to Western culture. Research has found lower rates of eating

disorders among ethnic minorities (Andersen & Hay, 1985; Jones, Fox, Babigian, & Hutton, 1980; Kendell, Hall, Hailey, & Babigian, 1973; Silber, 1986; Gray, Ford, & Kelly (1987), and in nonWestern countries (Fichter, Elton, Sourdi, Weyerer & Koptagel-Ilial, 1988), and has demonstrated the positive relation between Westernization and eating pathology (Fichter et al., 1988; Nasser, 1986). Even so, Stice (1994) suggested that more research is needed on the relationship between eating pathology and Westernization to further suggest the above circumstances.

The last line of research that implicates the media in relation to disordered eating is that bulimics report an increased internalization of the thin-ideal stereotype. For example, endorsement of the thin-ideal predicted subsequent diagnosis of bulimia (Kendler, MacLean, Neale, Kessler, Heath, & Eaves, 1991), as well as general eating disorder symptomatology (Timko, Striegel-Moore, Silberstein, & Rodin, 1987).

As noted by Petrie, Austin, Crowley, Helmcamp, Johnson, Lester, Rogers, Turner, and Walbrick et al. (1996), endorsement of the thin-ideal may be necessary before a person would purge in an effort to manage weight. The internalization of the thin-ideal has been supported by research which demonstrates that individuals with bulimia frequently endorse such distorted images of body shape (Garner, Olmstead, & Polivy, 1983; Johnson, Lewis, Love, Lewis, & Stuckey, 1984; Stice et al., 1994). One investigation that compared the desired body size of female bulimics and weight-matched controls found that bulimics desired to be significantly thinner (Williamson, Kelley, Davis, Ruggiero, & Blouin, 1985). In addition, Mintz and Betz (1988) found that bulimics reported greater endorsement of sociocultural mores regarding the desirability of thinness than chronic dieters and controls.

In support of the sociocultural model, Stice et al. (1994) found that endorsement of the thin-ideal was related to increased eating disorder symptomatology. In this

correlational study, Stice et al. (1994) examined the relationship between use of media that contained a high proportion of ideal body images and eating pathology in 238 female undergraduates. This study assessed the relation of media exposure to eating disorder symptoms and tested whether gender role endorsement, ideal-body stereotype internalization, and body satisfaction mediated this effect.

Similar to previous findings, Stice et al. (1994) demonstrated that bulimic individuals frequently endorsed the thin-ideal. In addition, structural equation modeling indicated that the adverse effects of exposure to the thin-ideal were partially mediated by internalization of sociocultural pressures. Specifically, media consumption was related to increased gender-role endorsement and a heightened internalization of the thin-ideal stereotype. In turn, internalization of the thin-ideal was associated with both body dissatisfaction and eating pathology. These results not only supported previous research showing that bulimic individuals endorse a thin-ideal, but demonstrated that media exposure of the thin-ideal predicted heightened internalization of such distorted images.

Although these investigations suggest that the media plays a role in the perpetuation of the thin ideal and the promotion of eating pathology, the correlational nature of the studies prevent firm conclusions to be drawn about the direction of these effects. Clarifying this issue, Irving (1990) exposed women to slides of thin, average and oversized models and found that subjects exposed to thin models exhibited lower self-esteem and body satisfaction than those exposed to average or oversized models. Although the body dimensions of the models were not experimentally manipulated, another study found that exposure to attractive versus unattractive models resulted in lower self-ratings of attractiveness (Cash, Cash, & Butters, 1983).

Despite this compelling body of research, no research had investigated how exposure to the thin-ideal might lead to eating disordered behavior. In an effort to assess

such processes, Stice and Shaw (1994) assessed the effects of exposure to the thin-ideal on women's affect, body satisfaction, endorsement of the thin-ideal stereotype and the degree to which these variables was then linked to bulimic symptomatology. In this study, 157 female undergraduates were exposed to pictures from contemporary magazines that either portrayed ultra-thin models, average weight models, or no models. Results demonstrated that women exposed to the thin ideal reported higher levels of negative affect (i. e., unhappiness, shame, guilt, stress and decreased confidence), depression and body dissatisfaction than those exposed to pictures of average weight models or the no-model control group. In addition, negative affect, depression and body dissatisfaction were related to more bulimic symptoms. Specifically, depression, shame, stress and guilt were positively associated with bulimic symptomatology, while confidence and happiness showed negative relations to this criterion. In addition, a final hierarchical multiple regression analysis confirmed the relation between negative affect, body dissatisfaction and internalization of the thin-ideal on bulimic symptomatology when the unique effects of these variables were assessed while controlling for other predictors.

Overall, such research efforts have provided evidence confirming the predominance of sociocultural influences of the thin ideal on eating disorders in women. Although multiple causes to eating disorders have been determined, the sociocultural model provides the most thorough explanation for gender differences in the prevalence rates that characterize eating disorders, as well as for the increasing relationships between eating disorders and internalization of the thin ideal in western cultures.

Proposed Mechanism of Action for the Effects of Media Exposure to the Body Shape Ideal

Although research has supported the premise that sociocultural pressures are related to bulimia, less is known about how these pressures actually lead to the

development of disordered eating (e.g., bulimia). It has been theorized that several variables may mediate the negative effects of media exposure to ideal-body images such as; (1) internalization of the thin-ideal, (2) negative affect and low self-esteem and (3) body dissatisfaction (Striegel-Moore, et al., 1986, Stice & Shaw, 1994).

Internalization

Theoretically, exposure to the thin-ideal images portrayed in the media would lead to an increased internalization of the ideal, thus increasing the risk of developing bulimia. It seems unlikely that individuals who do not internalize such pressures will experience a negative impact in their eating behavior. In fact, some researchers suggest (Striegel-Moore et al., 1986) that women who have internalized the sociocultural mores about attractiveness are at greatest risk for developing bulimia. This association has been supported by research indicating that bulimics show higher levels of endorsement of sociocultural messages regarding thinness and attractiveness than controls (Garner et al., 1983; Williamson et al., 1985; Mintz & Betz, 1988). In addition, eating pathology has been positively correlated with the endorsement of the thin-ideal (Stice et al., 1994; Stice & Shaw, 1994). The results of both Stice et al. (1994) and Stice and Shaw (1994) support the assertion that internalization of sociocultural pressures mediate the adverse effects of the thin ideal.

Although the above cited correlational studies support the association between internalization of the thin ideal and eating disorders, Stice and Shaw (1994) examined the connection between exposure to the media and subsequent internalization utilizing experimental designs. Despite correlational evidence endorsing a relationship between internalization of the thin ideal and eating disorder symptomatology, Stice and Shaw (1994) found no direct effect regarding exposure to the ideal image and women's affirmation of the thin-ideal stereotype from the experimental manipulations conducted in

the study. The authors speculated that the brevity of a single experimental manipulation may not be enough exposure to make a marked change in the levels of internalization given. Due to this, the researchers noted that perhaps correlational studies, rather than experiments, may have to be relied upon to demonstrate the relation between media use and internalization of the thin-ideal stereotype.

Body Dissatisfaction

Another link between exposure to the thin-ideal and eating pathology is through body dissatisfaction. Internalization of sociocultural values concerning attractiveness is thought to heighten body dissatisfaction in women. An explanation for this occurrence can be found in social comparison theory (Festinger, 1954). Social comparisons are demonstrated when people seek to satisfy their need for self-evaluation through the use of social standards. Given a range of comparison persons, individuals will choose to compare themselves to others who are similar on a specific skill or belief (Festinger, 1954; Hakmiller, 1966). For women, particularly those who have internalized societal beauty ideals, physical comparisons are generally made from the images projected by the media: movies, TV and magazines. Through such comparisons, some women may view their bodies as being inadequate in comparison to the socially endorsed ideal. As a result, such women will likely feel dissatisfied with the size and shape of their own bodies.

Research has found that internalization of the thin-ideal stereotype may increase body dissatisfaction (Irving, 1990). Irving found that exposure to slides of thin models resulted in decreased body-esteem. Consistent with this, Stice and Shaw (1994) demonstrated that exposure to the thin-ideal resulted in heightened body dissatisfaction which was related to bulimic symptomatology. Stice has suggested that internalization of the thin-ideal may lead to body dissatisfaction, which in turn promotes distorted eating behavior (Stice, 1994). In an attempt to alleviate their body dissatisfaction, one may begin

to restrict their eating to lose weight which may ultimately result in an increased risk of purging episodes. Such behaviors patterns promote a cycle of restrained eating and bingeing patterns which function to reduce body dissatisfaction. Research has cited both restrained eating and bingeing patterns as being associated with disregulated or binge eating and bulimia (Mitchell, Hatsukami, Pyle, & Eckert, 1986; Polivy & Herman, 1985; Dykens & Gerrard, 1986; Williamson et al., 1985). From previous research, there appears to be a definite relationship between body dissatisfaction and eating pathology (Mintz & Betz, 1988; Striegel-Moore, Silberstein, Frensch, & Rodin, 1989; Stice et al., 1994). Also, longitudinal research has shown that body dissatisfaction predicts eating pathology (Attie & Brooks-Gunn, 1989; Striegel-Moore, Silberstein, Frensch, & Rodin, 1989). Striegel-Moore, Silberstein, Frensch, and Rodin (1989), assessed the prevalence of bulimic symptomatologyamong college students at the beginning and end of their freshman year. Among the variables shown to be associated with negative eating patterns, worsening of bulimic symptomatology were associated with increasing body dissatisfaction such as dysphoric feelings about weight, decreased ratings of their attractiveness and increased weight dissatisfaction.

Negative Affect and Low Self-Esteem

Negative affect may also mediate the relationship between internalization of sociocultural stereotypes and disordered eating. Women who have internalized a stereotypical body ideal may view their own bodies negatively and thus experience feelings of depression, anxiety or low self-esteem. In turn, certain women may engage in binge/purge episodes to alleviate their negative affect. The relationship between depression and bulimia is a fundamental part of the affect-regulation pathway. Research has indicated that bulimics evidence increased body dissatisfaction, depression, guilt, shame, anxiety and feelings of inadequacy prior to binge eating (Johnson & Larson, 1982;

Lingswiler, Crowther, & Stephens, 1989; Schotte, Cools & McNally, 1990; Stice & Shaw, 1994). Evidence for such mediators of bulimic symptoms (i.e., depression, anxiety, negative affect) was consistent with correlational research reporting positive relations between depression and bulimia (Shisslak, Pazda, & Crago, 1990). Negative affect findings have also been supported in research demonstrating bulimics to be significantly more depressed than controls (Dykens & Gerrard, 1986; Shisslak, et al., 1990; Williamson et al., 1985).

When the effects of media were assessed using experimental manipulations, Stice and Shaw (1994) found that exposure to magazine articles endorsing thin-ideal models resulted in negative affect which was predictive of disordered eating. In this study, multiple regression analyses demonstrated that nearly all of the putative mediators were found to be predictive of eating pathology. Specifically feelings of depression, anxiety, shame, guilt, and stress and lack of self confidence were related to bulimic symptoms.

Another variable promoting values concerning attractiveness has been low self-esteem. Frequently, individuals with low self-esteem may strive to meet sociocultural standards of attractiveness that they perceive will bring about heightened social acceptance and esteem. This pattern is consistent with the Striegel-Moore et al's. (1986) contention that low self-esteem might make women more vulnerable to external social pressures. Although there are no known empirical tests of this proposed interaction, indirect support for this hypothesis is provided by studies indicating that bulimic women have lower self-esteem than controls (Dykens & Gerrard, 1986; Kendler et al., 1991).

These findings support the contention that bulimic symptomatology may function to regulate affect and provide relief from restrained eating. More specifically, it is proposed that standards of sociocultural values concerning attractiveness may lead to body dissatisfaction and produce feelings of low self-esteem and negative affect. It has

been proposed that bingeing reduces feelings of depression because it serves as a distraction (Hawkins & Clement, 1984: Heatherton & Baumeister, 1991), whereas body dissatisfaction can lead to restrained eating, which is often a precursor of bingeing. Binge eating is significant because it is thought to initiate the cycle of bulimia in at-risk individuals (Hawkins & Clement, 1984). Specifically, as women experience feelings about themselves and their bodies, they may binge eat as a means of coping. Although the binges provide temporary relief, the women soon experience heightened feelings of depression, fear, guilt, and shame that result from having binged. For individuals with bulimia, purging appears very purposeful and highly reinforcing because it provides relief from the negative affect and fears of weight gain. Because of these mechanisms, the binge-purge cycle may become deeply ingrained in the person's bulimic symptomatology (Hawkins & Clement, 1984).

Eating Disorders in Men

Despite the higher prevalence rates for women, men do suffer from eating disorders, as well. Lack of substantive data on eating disorders in males, however, has likely led to the under or misdiagnosis of these disorders in this population (Sterling & Segal, 1985). Additionally, due to social desirability effects, men with anorexia and bulimia may be hesitant to discuss bulimic symptomatology because they have typically been described as occurring primarily in adolescent women (Schneider & Agras, 1987).

Biological, psychological and cultural factors may contribute to the sex differences observed among individuals with eating disorders. When considering biological difference between males and females particular factors have been identified. For instance, Striegel-Moore et al. (1986) found that changes in body weight at puberty result in the addition of adipose tissue for girls and muscle mass for boys. Whereas increases in muscle may be more socially desirable for men, the fat gain girls experience

runs counter to societal messages to be thin and lean. Additionally, Striegel-Moore et al. (1986) indicated that males have a higher basal metabolic rate than females, making them more successful dieters and giving them less need to use extreme weight-reducing measures such as purging.

In addition to biological factors, personality variables have also been explored as predictors of bulimic behavior in men. As with studies on women, research utilizing male participants has demonstrated that individuals with bulimic symptomatology rate higher for greater psychological maladjustment than controls. (Gross & Rosen, 1988; Johnson, Lewis, & Hagman, 1984; Hudson, Laffer, & Pope, 1982). Ussary and Prentice-Dunn (1992) found that males with bulimia evidenced higher body dissatisfaction, depression and lower interoceptive awareness than males who did not report bulimic symptoms. Hudson et al. (1982) and Hudson, Pope, Jonas, Laffer, Hudson, and Melby, (1983) found that among a sample of 75 bulimics, 53% had first-degree relatives with major affective disorder. Streigel-Moore et al. (1986) reported that women have a higher incidence of affective disorders than men and suggest that this link may help explain the disproportionate number of women with eating disturbances.

Overall, men have not been exposed to a specific body ideal (Silverstein, Peterson, & Perdue, 1986; Petrie et al., 1996), yet in subenvironments where body ideals exist there appears to be an increase of eating disorders. Males who participate in environments that emphasize weight standards, such as in certain sports, may be at higher risk for the development of eating disorders or disturbed eating behaviors (King & Mezey, 1987; Enns, Drewnowski, & Grinker, 1987).

Another subenvironment that emphasizes a specific ideal body standard is the gay community. Specifically, a thinner, more muscular bodily standard is preferred than has been found in the heterosexual male community. Such pressures to reach unattainable

bodily standards may lead to heightened concern of weight in gay men (Yager, Kurtzman, Landsverk, & Weismeier, 1988). Support for this contention is evident in several studies. Schneider and Agras (1987) compared the psychological characteristic of 15 male and 15 female bulimics in order to better define the clinical syndrome as it presents in the male population. Results indicated that men were more likely to never have married and to be homosexual or bisexual. Herog, Norman, Gordon and Pepose (1984) compared 27 anorexic and bulimic males and 142 anorexic and bulimic females on both demographic and clinical data. Males were more likely to have had an active homosexual relationship.

Although men have not been subjected to the degree of media emphasis for attractiveness as women, it appears that in particular subenvironments, men respond in a similar manner to sociocultural pressures for a body-ideal. It is evident from previous research that both men and women respond negatively to sociocultural pressures to conform to a body-shape ideal which ultimately increases their risk of disturbed eating patterns and development of eating disorders.

Males and Attractiveness

Although substantial information exists regarding the sociocultural model and eating disorders in women, only a few studies have focused on sociocultural ideals of attractiveness in men. It appears that in recent decades men have begun to be subjected to mass media influences endorsing certain body-shape standards and images (Silverstein, Perdue, Peterson, & Kelly 1986; Nemeroff, 1994; Petrie et al., 1996). Silverstein et al. (1986) examined television characters from the 33 most watched shows to determine the relative body stereotypes portrayed on television. Male characters were rated as heavier than their female counterparts even when age of the actor/actress was controlled. In a second study, Silverstein, Peterson, and Perdue (1986) found that men were exposed to fewer ads and articles about diet foods and body size and shape than women.

Nemeroff et al. (1994) examined traditional, fashion, and modern men's and women's magazines from 1980-1991, classifying article and advertisement content as either weight loss, beauty, fitness or health. They found that, across all three types of magazines, those targeted at males had fewer health, beauty, and weight loss articles and advertisements than for women. Time-trend analyses demonstrated a decrease in focus of weight loss in women's magazines over the period studied, however, there was an increase in weight loss focus in men's magazines. Gender differences existed regarding the media's emphasis for body ideals in which males were encouraged to fit fashion ideals associated with weight and health.

Building on the findings of Nemeroff et al. (1994), Petrie et al. (1996) provided a more extensive historical perspective of the sociocultural expectations of attractiveness for males. The researchers analyzed messages from media regarding how men should behave (e.g., diet, exercise) and look by examining article and advertisement content as well as male model's body sizes over a 32 year period (i.e., 1960-1992). Results from linear trend analyses indicated that although messages concerning weight and beauty have declined since the late 1970's, the number of messages concerning physical fitness and health as well as the general trends of fitness and health related activities have increased. Even so, macro measures of male models' body sizes (i.e., chest to waist ratios) have not changed significantly since the 1960's.

These studies suggest that, though not as frequently as women, men are being exposed to sociocultural/media messages that dictate a particular body-shape ideal and specific health, fitness and weight loss behaviors (Petrie et al., 1996; Nemeroff et al.,1994). Additionally, substantial support exists indicating that males in particular subcultures, such as athletics, may be at higher risk of developing pathogenic eating behaviors (King & Mezey, 1987; Enns, Drewnowski, & Grinker, 1987). Such findings

suggest that, regardless of gender, the amount of media individuals are exposed to may effect their likelihood of internalizing societally shared values of attractiveness and thus heightened their risk of developing bulimic symptoms.

Although researchers have completed numerous assessments regarding effects of exposure to the thin-ideal and sociocultural mediators in relation to eating disorders in women, to date no studies have investigated these issues in male populations. Thus, the purpose of this study is two fold. First, it is to examine the effects of exposure to the body-shape ideal on men's affect, body satisfaction, and internalization of societal values concerning attractiveness, and secondly to link such mediators to bulimic symptomatology. It is expected that, similar to findings with women, men will respond most negatively when exposed to societal body-shape ideals. That is, as compared to control participants, men who are exposed to the body shape ideal will evidence greater states of depression, higher anxiety, increased body dissatisfaction, and a heightened internalization of societal values concerning attractiveness. In turn, these variables will be related to more bulimic symptoms. This study is modeled after a study by Stice and Shaw (1994) which explored these issues in a female population.

CHAPTER 2

METHOD

Participants

Participants for this investigation were 169 Caucasian, male undergraduate students drawn from the University of North Texas. The age range for participants in the study was between 18 and 25 years of age. The mean age was 21.05 years (SD = 2.05), the average years of education was 14 (SD = 1.07) and mean body mass was found to be 24.24 k/m2 (SD = 3.75). The average number of hours per week of media consumption (television and magazines combined) was 14.08 (SD = 10.41). For media consumption of television alone, the average number of hours per week was 10.39 (SD = 8.57) and for magazines was 3.69 (SD = 4.33). Regarding sexual orientation, 96.6% of the participants rated themselves as heterosexual, 1.4% bisexual and 2% homosexual.

Measures

Reasons for exercise. The Reasons for Exercise Inventory (REI; Silberstein, Striegel-Moore, Timko, & Rodin, 1988) is a 24 item self-report measure that assesses seven theoretical reasons for exercise: weight control (3 items), improving body tone (3 items), improving overall physical attractiveness (3 items), improving mood (4 items), fitness (4 items), health (4 items), and enjoyment (3 items). Items are presented using a 7-point Likert scale, ranging from 1, not at all important, to 7, extremely important, and total scores for each subscale are obtained by summing across the respective items. The REI has been used in research on relationships between exercise and body image and bulimic symptomatologyin both males and females (Silberstein et al., 1988; Cash, Novy

& Grant, 1994; McDonald & Thompson, 1992). Comparisons among other samples demonstrated that scores on the REI discriminated between heterosexual and homosexual males, with homosexual males exercising more often to improve physical attractiveness, and heterosexual males exercising more often to improve fitness, overall health, and for enjoyment (Silberstein, Mishkind, Striegel-Moore, Timko & Rodin,1989).

Using a large independent sample of men, Petrie, Austin and Harmison (1997) examined the REI 's factor structure via exploratory procedures because it had never been tested with males. This analysis revealed the presence of three factors: exercising for physical fitness and health (8 items), exercising to change one's appearance and increase attractiveness (8 items) and exercising to socialize and manage one's mood (6 items). These factors represented 22 of the 24 items from the original REI and were related in the expected direction to other psychological measures (e.g., obligatory exercise, social physique anxiety). Total scores for each factor were obtained by summing across respective items which loaded highest for each factor as determined by confirmatory factor analysis. Results from Petrie, Austin and Jenkins (1998) found support for the 3 factors (Exercising to Improve Appearance and Attractiveness, Exercising for Physical Fitness and Health, and Exercising to Socialize and Manage Mood) [$x2$ = 408, (df = 205), p = 0.0, NFI = .96, NNFI = .98, CFI = .98]. They also found that the factors were internally consistent: Health and Fitness (CA = .87), Appearance and Attractiveness (CA = .84) and Socializing and Mood Management (CA = .81). For the current sample, Cronbach's alpha was found to be .88 for factor 1(Health and Fitness), .82 for factor 2 (Appearance and Attractiveness) and .81 for factor 3 (Socializing and Mood Management) thus demonstrating sound internal consistency. Additionally, construct validity of the three factors was examined in relation to body satisfaction, physical self-esteem, perceptions of the body as strong and muscular and as in good physical condition,

depression, obligatory exercise, situational body dysporia, age, body mass, and social desirability. It was found that the three factors were generally unrelated to social desirability, age and the three dimensions of physical self-worth. Factor 1, Exercising to Improve Physical Fitness and Health, was found to be related to higher levels of body mass and feeling more obligated to exercise. Factor 2, Appearance and Attractiveness, was inversely related to body satisfaction and positively related to number of hours of exercised, higher levels of body mass (i.e., being physically larger), social physique anxiety, obligatory exercise, and situational body dysphoria. Factor 3, Exercising to Socialize and Manage Mood, was positively related to situational body dysphoria, higher levels of depression, higher levels of body mass, social physique anxiety, and feeling obligated to exercise. The findings of Petrie et al. (1997) and Petrie et al. (1998) demonstrate that the 22 item REI may be useful in research that seeks to understand the relationships between exercise motivations and disordered eating attitudes and behaviors in men. See Appendix A.

Media consumption. The Media Consumption Scale is a self-report measure that assesses individuals' exposure to media-related outlets, specifically television and magazines. The measure consists of seven items related to television exposure (e.g., "How many hours of Game shows, such as Jeopardy and Wheel of Fortune, do you watch in an average week?") and four items related to magazine exposure (e.g., "How many hours do you spend reading News magazines, such as Time, Newsweek, or U.S. News and World Report, in an average week?"). Participants report the number of hours they watch television programs or read magazines in an average week. The scale for each category ranges from 0 hours to 20 hours. Scores for the scale are obtained by summing the total hours of reported media exposure. For the purposes of this study the total score of media consumption was broken down into two subscores, media consumption for

television and for magazines. This scale has been modified from its original form that was used by Stice, Schupak-Neuberg, Shaw, & Stein (1994). The original version used in the Stice et al., (1994) study demonstrated sound reliability (test-retest over a 3-week period, r = .76). Cronbach's alpha for the current sample was found to be .61 for the total media consumption for television and .66 for magazines. See appendix B.

Social desirability. The Marlowe-Crowne Social Desirability Scale-Short Form (SDS; Reynolds, 1982) is a 13-item measure of one's tendency to respond in a socially desirable manner. The items are true-false, describing culturally approved behaviors with a low probability occurrence. These items measure attribution or the tendency to attribute socially approved but improbable statements. True responses are scored 1 point and false responses are scored 0 points with total score for this scale being obtained by summing the number of true responses, thus ranging from 0 to 13. Higher scores demonstrate increased response bias. The short form of the SDS was found to be highly correlated with the original Marlowe-Crowne Social Desirability Scale (r = .96). The original scale has been shown to be a reliable measure of social desirability (split half reliability = .73, Crowne and Marlowe, 1960). In the current sample, Cronbach's Alpha was found to be .68. See appendix C.

Mood scale. The Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) measures individuals' mood states, through 10 positive and 10 negative mood descriptors. Participants are asked to rate, on a 5-point scale from very slightly or not at all (1) to extremely (5), the extent to which they have experienced each mood state during a specific time frame (moment, today, past few days, week, past few weeks, year, general). The specified frame of time used to obtain a baseline measure of mood state through out the pretest was "with in the last month" where as, the specified time rate for the experimental post measure was altered to read "at this very moment".

For the purpose of this study, the instructions were modified to assess current mood. In addition, the following 5 items (i.e., anxious, happy, stressed, confident, depressed,) were included in the PANAS questionnaire. These items were added to parallel the affective states measured by Stice and Shaw (1994).

For the 20 item PANAS, separate negative and positive scores are obtained by summing across each of the respective items. Thus a total score for either factor could range from 10, or slightly or not at all experiencing a positive or negative mood state to 50, or extremely experiencing a positive or negative mood state during the specified time frame. Watson et al. (1988) reported internal consistency reliabilities (coefficient alphas) of .87 to .90 for the positive items (PANAS PA scale) and .84 to .87 for the negative items (PANAS NA scale). One week test-retest reliabilities of .79 for the PANAS PA scale and .81 for the PANAS NA scale were also reported, as well as support for the stability of the PANAS after two months. For the current sample, Cronbach's alpha ranged from .85 to .95 between the pre and post test measures for the PANAS PA scores and from .84 to .77 for the pre and post test PANAS NA scores. There is adequate empirical evidence for the factorial, convergent, and discriminant validity of the PANAS (see Watson, et al., 1988), and both college student and psychiatric norms are available. For this study, overall positive and negative mood scores, as well as the individual mood items from the Stice and Shaw (1994) study (i.e., anxious, happy, stressed, confident, depressed, ashamed, guilty) will be used. See appendix D.

Beliefs about attractiveness. For this study, the 19-item Beliefs About Attractiveness Scale-Revised (BAA-R: Petrie, Rogers, Johnson, & Diehl, 1996), that measures the degree to which women endorse U.S. values concerning attractiveness and thinness, was modified to fit males' contemporary experiences. As such, the female attractiveness standard used in the measure (i.e., "thin", and "attractive") was modified

for men to read “physically fit” or “good looking”. After such modifications were made, the revised BAA-R had a total of 14 items. For such items as, “Men who are physically fit and in-shape have the most fun than those who are not.”, individuals indicate their level of agreement on a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). A total score is obtained by summing across each of the respective items, ranging from 14, or low endorsement of societal values of attractiveness to 98, or high endorsement of societal values of attractiveness. Because the use of this scale is for exploratory purposes, psychometric properties were determined based on the participant’s responses. Cronbach’s alpha for the current sample ranged from .82 to .87 from pre and post test measures. In addition, convergent validity was demonstrated with significant correlations of .16 ($p < .05$) and .27 ($p < .01$) respectively between the BAA-R and two REI premeasure factor scores (Fitness and Health, and Appearance and Attractiveness) as well as on REI post test factor scores for Appearance and Attractiveness ($r = .26$, $p = .01$). Also, the BAA-R was significantly correlated with a PANAS post test depression score ($r = .21$, $p < .05$). Regarding discrimanent validity, the BAA-R was unrelated to the SDS ($r = - 007$, $p > .05$) on the pretest and post test measure ($r = -.12$, $p > .05$) as well as with BMI ($r = -.05$, $p > .05$). See appendix E.

Self-esteem. The 10-item Rosenberg Self-Esteem Scale (Rosenberg, 1965) measures level of self-acceptance. Scoring is based on a 4-point Likert scale ranging from 1, strongly disagree, to 4, strongly agree. The total score is obtained via Guttman scoring. One point is given for high self-esteem responses on (a) two or three of the first three items, (b) items 4 and 5, and (c) items 9 and 10. Items 6, 7, and 8 are scored individually, so total scores range from 0, low self-esteem, to 6, high self-esteem. Silber and Tippet (1965) reported test-retest reliability of .85. Cronbach’s alpha for the current sample was determined to be .89. Scale validity is supported by Robinson and Shaver (1973), who

found significant correlations between this measure and the Coopersmith Self-Esteem Inventory (r = .59), and a one-item self-esteem scale (r = .66). See appendix F.

Body satisfaction. The Body Parts Satisfaction Scale (BPSS; Borhrnstedt, 1977) measures the strength and direction of individuals' satisfaction with their bodies. The BPSS lists body parts, such as “shoulders”, “hips”, “upper thighs”, and “abdomen”, which individuals rate from 1, extremely dissatisfied, to 6, extremely satisfied. A total body satisfaction score is obtained by adding the individual item ratings and then dividing by 14. Thus, body-satisfaction scores range from 1, extremely dissatisfied, to 6, extremely satisfied. Noles, Cash, and Winstead (1985) reported the internal consistency (Cronbach's alpha) to be .89. Internal consistency as determined by Cronbach’s alpha for the current sample ranged from .85 to .83 between pre and post test measures. Convergent validity is evidenced by a correlation of .70 with a single item measuring overall body satisfaction (Bohrnstedt, 1977). This measure has been modified for this study by deleting potentially less relevant items (i.e., “teeth”, “voice”, “chin”, “size” of “sex organs”) and adding one item (i.e., “overall satisfaction with size and shape of body”). See Appendix G.

Fashion and advertising questionnaire. The Fashion and Advertising Questionnaire was developed to support the stated premise of the study (an investigation of fashion). On this 11-item questionnaire, participants give information related to their perceptions of fashion and advertising (e.g., “Your favorite clothing store is _____”). The items will not be scored or used in the analyses of this study. See appendix H.

Bulimic symptoms. The Bulimia Test-Revised (BULIT-R; Thelen, Farmer, Wonderlich, & Smith, 1991) is a 36-item, objective, self-report measure that assesses the symptoms of bulimia nervosa. Although this instrument was originally based on criteria of the Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised

(DSM III-R; APA, 1987), a recent study by Thelen, Mintz and Vander (1996) determined that the test continues to be a valid measure of bulimia nervosa according to DSM IV criteria (APA, 1994). In addition, to assessing the clinical symptoms of bulimia nervosa, it provides information about bulimic symptomatology and weight-loss behaviors. Items are presented using a 5-point Likert scale format with a score of 5 representing the extreme bulimic response and a score of 1 given for responses in the normal direction. Only 28 of the 36 items are used in determining the total score. Total scores are obtained by summing across the 28 items, and range from 28 (few symptoms) to 140 (many symptoms).

The correlation of BULIT-R scores with group membership was high, (r = .73, p < .0001) (Thelen, Mintz & Vander, 1996). The predictive ability of each of the 28 items was supported by point-biserial correlations ranging from .44 to .74 (mean r= .60), p < .0001). Convergent validity was demonstrated with .99 and .85 correlations between the BULIT-R and the BULIT (Smith & Thelen, 1984) and the Binge Scale (Hawkins & Clement, 1980), respectively. Thelen et al. (1996) using therapist diagnosis as the criterion measure found the sensitivity, specificity, positive, and negative values of the BULIT-R to be all above .90 for female undergraduates. High internal consistency was affirmed by a Cronbach's coefficient alpha of .98 (Thelen et al., 1996). Although less research has been done with men, Austin and Petrie (1996) repeated a Cronbach's alpha of .89 for a sample of gay males. For the current sample, Cronbach's alpha were found to be .90 respectively. See Appendix I.

Demographic and weight information. Participants provided the following information: age, race, year in school, current weight and height, and ideal weight. Self-reports of weight, height and ideal weight have been found to be reasonably accurate (Attie & Brooks-Gunn, 1989; Cash, Grant, Shovlin, & Lewis, 1992) and they will be used

to determine Body Mass Index (BMI – Kg/m^2) for each participant, an accepted measure of physical size (Keys, Fidanza, Karvonen, Kimura, & Taylor, 1972). See Appendix J.

Procedure

Pilot study. In an effort to provide optimal external validity, approximately 50 full size pictures of male models representing either body condition (average body or ideal body) were selected from an array of fashion, sports and clothing magazines (e.g., GQ, Mens Health, Muscle and Fitness Magazine, Golf Digest, Men's Big and Tall Clothing). The pictures in both groups consisted of Caucasian male models of varying age (i.e., young adult to seniors) and dress (i.e., tight fitting clothing or bathing suits, casual wear or full suits). The difference between the two conditions was based on the models differing body types. As such, the pictures in the ideal body group depicted male models with toned, muscular and lean bodies. The purpose of this group was to provide an ideal representation of male attractiveness in which ideal body-shape is emphasized.

The pictures in the average body condition depicted male models with less muscle definition and toned shape who were of average (or slightly above or below average) weight. Respectively, the purpose of this group was to represent average male attractiveness in terms of body-shape and appearance. Given that most men's fashion magazines (GQ or Esquire) mainly feature men with in-shape and muscular bodies as depicted in the body ideal condition, the pictures for this condition with men of average weight and dress were ultimately derived from magazines that cater to an audience of readers interested in business, computers or big and tall sized men.

Prior to experimental testing, the pictures were judged by a research team, comprised of one faculty member and eight doctoral students, using the above stated criteria (i.e., toned, muscular and physically fit bodies) for the ideal condition. The research team, by unanimous consensus, selected the pictures that best represented the

average and ideal male body groups. In the ideal body condition, 25 models from the group's original 50 pictures were selected that depicted the ideal body representation on the basis of muscular, toned body shapes. In the average shape condition, 22 of the 50 pictures were judged to accurately depict male models of average shape.

Finally in the no-model control group, pictures of various styles of clothing ranging from casual to formal clothing (e.g., shorts, shirts, pants or a full suit and tie) that were not worn by models were considered for the control group. As with the average and body ideal groups, the pictures were selected from an array of fashion and clothing magazines such as GQ, Esquire or Gap, and Old Navy Clothing store advertisements. Of the 40 original pictures of clothing, fifteen pictures were judged and selected by the research team to best represent the control group. The pictures selected for each group were placed in separate binders to be viewed by participants in the pilot testing.

As a manipulation check, two pilot studies were performed to determine which magazine pictures most accurately represented the average and ideal body shape conditions. Participants eligible for either pilot study were Caucasian males between the ages of 18 to 25. Participants were informed that they were participating in a study of The Psychology and Fashion.

In the first pilot study, participants were randomly assigned to either the attractive body ($n = 18$) or the average body condition ($n = 19$) and instructed to rate the pictures in the binders they reviewed on three dimensions (i.e., body shape, body weight and overall appearance) using a 7 point Likert scale, 1, extremely unattractive to 7, extremely handsome. In addition to this, participants rated how fashionable the clothing worn in each picture and completed a short demographic questionnaire. Pilot test 1 means were calculated for the three dimensions and then collapsed together for each photo to provide one overall measure of attractiveness. For the ideal body condition pictures that were

rated 4.5 or lower were eliminated from the initial group of 22 pictures. For the average body condition, pictures that were rated 4.5 or higher were also eliminated from the initial group of 25 pictures. Of the 5 pictures eliminated from the body ideal group, 4 of the photos (range = 3.96 to 4.48) depicted men who appeared older or showed signs of aging (e.g., thinning hair) despite the fact that their body shape was similar to younger models who were rated higher in attractiveness. With these outliers removed from each condition, the attractive body group (M = 5.17, SD = 1.11) was rated as significantly more attractive [t = 7.89, (df = 35), p <.00] than the average body group (M = 3.08, SD =1.12).

Given that the ideal body pictures were rated only moderately above average in attractiveness it was suspected that male participants may have been underrating the pictures in this condition in response to the wording on the rating scale (rating pictures of male models as handsome or unattractive). Thus, a second pilot study was conducted with changes made in the rating scale to better reflect what was of interest in this study, how closely pictures represented the male body ideal. The rating scale anchors were changed from extremely unattractive to not representative of the ideal male body image and extremely handsome to extremely representative of the ideal male body image. Individuals who participated in the first pilot study were excluded from participation in the second study.

In the second pilot study, Caucasian male participants were randomly assigned to one of the two conditions: ideal body (n = 16) and average body (n= 15). Following completion of the informed consent, the researcher provided participants with a picture of a male model who represented the ideal body shape, this model was given the highest rating in the previous pilot study (M = 5.92), as an example with which to compare the other pictures they would be rating. Participants were instructed to rate the additional pictures in the binder on the basis of how similar or dissimilar they were in comparison to

the representative ideal male body they had been shown. After viewing the comparison example for two minutes, the comparison picture was taken from the participant. Following this, participants were instructed to open the binder and rate the pictures in their condition either the ideal body or average body on the following dimensions: body weight, body shape and overall appearance.

Pictures in the ideal body group that were rated 5.2 or lower on the overall mean for the three body dimensions were eliminated from the sample. Pictures rated 4.2 or higher for the average body shape group on the overall mean for the three body dimensions were also eliminated from the sample. Removing these left 15 pictures in each condition.

With the outliers removed, the model pictures for the ideal body group were rated as follows: (M = 5.8, SD = .79, range = 5.5 to 6.31), body shape (M = 5.8, SD = .76, range = 5.38 to 6.38), and overall appearance (M = 5.8, SD = .8, range = 5.38 to 6.13). For the average body condition, with outliers removed, the photos were rated as follows: (M = 3.03, SD = .91, range = 3.93 to 1.87), body shape (M = 2.7, SD = .77, range = 3.6 to1.80) and overall appearance (M = 2.8, SD = .69, range = 4.2 to 2.0).

T-tests for independent samples verified that the photos for ideal body condition (M = 5.8, SD = .79) were perceived as significantly more representative of the ideal in terms of body weight than the average body condition (M = 3.03, SD = .91), [t = 9.24, (df = 29), p < .001]. On the dimension of body shape, the ideal body photos were found to be significantly more representative of the societal ideal (M = 5.85, SD = .76) than the pictures in the average condition (M = 2.73, SD = .68), [t = 12.04, (df = 29), p < .001]. On the dimension of overall appearance, the body ideal pictures were significantly more representative of the societal ideal (M = 5.75, SD = .8) than the pictures in the average body condition (M = 2.78, SD = .69) [t = 11.07, (df = 29), p < .001]. Additional analysis

were run on collapsed means for the three body dimensions. The pictures in the body ideal condition (M = 5.8, SD = .75) were perceived as significantly more representative of the ideal body shape [t = 11.45, (df = 29), p < .001] than the pictures of models in the average shape condition (M = 2.9, SD = .73).

Study. As with the pilot tests, Caucasian male students between the ages of 18 and 25 were eligible for participation, and were drawn from undergraduate psychology classes. Participants were required to complete pre and post measures that where were scheduled approximately two to three weeks apart. For the premeasure, the researchers gave participants a short questionnaire that was completed by each participant at the end of their psychology class following an exam; the questionnaire packet took approximately 120 minutes to complete. The purpose of the premeasure was to assess general baseline levels of mood, specifically depression (M = 2.22, SD = 1.18, range =1 to 5), and body satisfaction (M = 3.98, SD = .73, range = 2.29 to 6.00) over the last month. Specific instructions were read to the participants before the completed the questionnaire:

> This is a research project investigating the psychology of fashion. In order to receive your extra credit, you will be required to give your full participation on two separate dates (Part1 and Part 2) which will be scheduled approximately two weeks apart.
>
> The time we will be meeting for the second part of this study is in: (Building & Room #) at (Time). If you can not meet at this time please let me know and we will schedule you for another time to complete part two.
>
> For today (Part 1), you will be asked to complete a short questionnaire which will take approximately 20 - 25 minutes to complete. For our second meeting, about two

weeks later, you will be asked to view a series of magazine pictures of fashionable clothing. Following this, you will be asked to fill out a questionnaire which will take just a short time, approximately 30 - 40 minutes to complete.

So that you feel comfortable filling out the questionnaires, it is important that you know that any information you give is confidential. Your name will not be on the questionnaires. Please call me if you have any questions or concerns.

Please read over the consent form and sign it before you answer any further questions in the packet. After signing the consent form, begin answering the questions in the packet. Once you have completed the questionnaire, check over in case there are any questions you forgot to answer and turn it in along with the consent form.

Before you leave, please write any information we need to contact you for part two of the study such as your name, phone number, address and e-mail and what psychology class you are taking. We ask for all this information so that we can contact you for the second part and send you information about the nature of the study after you completed Part 2.

Participation for this study began with the men reading and signing a consent form that provided general information regarding the aim of the experiment. The study was presented as a project concerning “students' attitudes toward fashion and advertising". Participants were administered the following questionnaires: demographics, amount of exposure to media related messages (MCS), reasons for exercise (REI), social desirability (SDS), as well as baseline mood (PANAS), and body satisfaction (BPSS).

For the experimental conditions, participants were assigned to one of the three condition groups base on baseline levels of depression (M = 2.22, SD = 1.18, range =1 to 5), and body satisfaction (M = 3.98, SD = .73, range = 2.29 to 6.00). Participants' scores on both the depression and body satisfaction were tricotomized into lower, middle and upper thirds and arranged on a 3 x 3 matrix. Participants' scores in each of the 9 cells of the matrix were then randomly assigned into different experimental conditions. MANOVA analysis determined that the three groups of participants; ideal body (n = 30), average body (n = 32), and control (n =30), did not differ significantly on any of the premeasures or demographic data, Wilk's Lambda = .75, F (34, 146) = .73, p > .05. See table 1 for means and standard deviations.

Participants were individually contacted via phone call or e-mail to set up a specific time to schedule post testing procedures. Through out this process, several follow up calls were made to participants reminding them of the appointment date and time to ensure positive turnout.

Prior to the second part of the study, the 15 pictures selected to represent each body condition, as well as pictures for the no clothing condition were duplicated by high definition color copying machines and placed in plastic covers in the binders. Two sets of pictures were created for each condition so that two participants could be tested for the same condition at one time. A large undergraduate classroom was selected for the post testing and participants were seated as far from each other as possible to ensure that no participant was able to view the pictures of another participant. Although the study was designed to test up to six participants at once, this rarely occurred. On average, only 50% of the students showed for their scheduled time leaving approximately two to three participants being tested at once.

Approximately two to three weeks after administration of the premeasure questionnaire, returning participants were randomly assigned to one of the experimental or control conditions and assigned to a seat that had the appropriate binder in front of it. The binder contained the 15 photos in front followed by the post measure questionnaire. Participants were provided a consent form and read instructions describing the rationale for the study and the process of the post test. The instructions were:

> This is the second part of a study investigating the psychology of fashion. After you complete this part of the study you will receive the full extra credit points. Once again, any information you give will be kept strictly confidential. If you have any questions or concerns, please feel free to ask me at any time.
>
> If you are interested in knowing the results of the study, please make sure to leave us your phone number, address and e-mail address so that we can contact you later. Please feel free to call me if you have any questions or concerns.
>
> For this part of the study, you will view a binder that is on the desk in front of you. It contains a series of pictures that you will be looking at. You will have exactly four minutes to view the pictures. If you finish looking through all of the pictures before the end of the four minutes, please turn back to the first picture and view them again until the time is up. At the end of four minutes, you will fill out a questionnaire packet. Please do not refer back to the pictures in the binder once you begin the questionnaire. Like the first part of the study, this will only take short time, approximate 25 to 30 minutes to complete. When you are finished, please look over

your responses one more time to make sure everything is filled out. Then bring your completed questionnaire to me and I will give your extra credit.

Remember to take your time and examine each picture carefully. Continue to view the pictures for the entire four minutes. I will let you know when its time to stop looking through the binder.

Please open you binders and begin to look over the pictures. (Begin timing)

(After four minutes are up):
Please close your binders (begin to take them up) and begin to fill out your questionnaire. Once you complete the questionnaire, bring it to me and I will give your extra credit. If you have any questions, feel free to ask me at any time.

Participants were exposed to the 15 pictures from one of the three conditions for four minutes. Immediately after the four minutes of viewing time, the binders were collected and the participants were presented with a questionnaire packet that contained the remaining measures: (1) PANAS, (2) BAA-R, (3) Rosenberg self-esteem Scale, (4) BPSS, (5) Fashion and Advertising Questionnaire, (6) BULIT-R. The scales were presented in this particular order with mood scales placed, counterbalanced, at the beginning of the questionnaire packet to assess immediate changes in affect. As such, the instructions for the mood scales required participants to report their mood “at this moment”. Additionally, so that the content of particular scales did not to reveal the hypothesis of the study, reactive measures such as the BULIT-R were be placed at the end

of the packet. The stimulus questionnaire required approximately 15-20 minutes to complete.

Data Analysis

Descriptive statistics, including Pearson product-moment correlations, means and standard deviations were computed for each pre and post measure variable.

Effects of exposure to the body-shape ideal. Initially, a separate one-way MANOVA was conducted for premeasure test variables to examine the effect of the experimental groups on the variables predicting bulimic symptomatology and to check for possible covariance between age and BMI. In the past, age and BMI have been shown to be related to such predictors of bulimic symptoms such as depression, self-esteem and body satisfaction. Although research has indicated mixed results regarding the relationship between BMI of males and the predictors of bulimic symptomatology, overall, lower indices of body mass have been shown to be inversely related to depression, body dissatisfaction, and anxiety (Pine, Cohen, Brook, & Coplan, 1997; Joiner, Schmidt, & Singh, 1994; Raeikkoenen, Hautanen, & Keltikangas, 1994; Steen, Wadden, Foster, & Andersen, 1996). Additionally, several studies support that, in men, age relates inversely with such predictors as depression, self-esteem, guilt, body satisfaction and (Wallace & Pfohl, 1995; Rauste, 1989). Given the cited relationships between age and BMI and the predictor variables of bulimia, age and BMI were checked for its suitability as a covariate before MANOVA's were conducted. It was determined that due to the restricted age range (18 to 25 year olds), the effects of age were controlled through selection of participants, thus it was not included as a covariate. As for BMI, its relationship to variables such as mood, self-esteem, body satisfaction and U. S. endorsement of societal beliefs of attractiveness as well as the other dependent variables included in the study were limited, thus it was not included as a covariate. As such, age

and BMI were tested as additional dependent variables in the MANOVA's to determine the effects of exposure to the different beauty ideal conditions on levels of mood (i.e., anxious, happy, stressed, confident, depressed, ashamed, guilty), positive and negative affect (PANAS PA and PANAS NA), body satisfaction (BPSS), values concerning attractiveness (BAA-R), reasons for exercising (3 REI factors scores) and media consumption for both television and magazines (MCS). No significant group differences were found, thus, univariate analysis of variance (ANOVA's) and Tukey post-hoc tests were not conducted. Two separate one-way MANOVA's were run for the premeasure variables in order to assess the seven individual mood indicators (i.e., anxious, happy, stressed, confident, depressed, ashamed, guilty) and positive and negative affect (PANAS PA and PANAS NA) independently from one another.

Following the MANOVA analyses, the effects of exposure to body shape ideal on predictors variables of bulimic symptoms were examined across the two time intervals via repeated measure of analysis of variance. The independent variable (between subjects factor) were exposure to body ideal conditions, and the dependent variables (within subject factors) were body satisfaction (BPSS), levels of mood (i.e., PANAS PA, PANAS NA, anxious, happy, stressed, confident, depressed, ashamed, guilty), positive and negative affect (i.e., PANAS PA and PANAS NA), and values concerning attractiveness (BAA-R). Respectively, univariate analysis of variance (ANOVA's) and Tukey post-hoc tests followed repeated measure analysis. As with MANOVA analyses, two, separate repeated measure of analysis of variances were conducted to determine the independent effects of positive and negative affect (i.e., PANAS PA and PANAS NA) and levels of mood (i.e., anxious, happy, stressed, confident, depressed, ashamed, guilty) on exposure to the experimental groups over time.

Relationship between mediators and bulimic symptomatology. Pearson product moment correlation coefficients were calculated among predictor and criterion variables. To avoid multicolinearity, if any correlation among predictor variables was higher than .7, a decision was made as to whether or not to retain those variables. Step-wise regression analyses were performed to determine the variance expected in bulimia symptoms (BULIT-R) which can be accounted for by negative affect (PANAS), positive affect (PANAS), level of mood (i.e., anxious, happy, stressed, confident, depressed, shameful, guilty), self-esteem (Rosenberg Self-Esteem Scale), values concerning attractiveness (BAA-R), body satisfaction (BPSS), and media consumption (Media Consumption Scale) and social desirability bias (SDS). Lack of previous research in this area and the exploratory nature of this study necessitates the use of step-wise procedures. Age, BMI and social desirability scores were included first, in that order, in the regression analysis. The inclusion of the BMI in the regression is based on previous research that has indicated that bulimic males are more likely to have a history of obesity (Robinson & Holden, 1986; Herzog et al., 1984), and that the BMI has been shown to be a predictor of bulimic symptoms (Petrie & Lester, 1995). It is suspected that given the small age range (18 to 25 year olds) depicted in current the sample, age may have limited the variance and predictability of bulimic symptoms. Upon this finding, age was excluded from final regression analyses. In addition, because most of these scales were developed with a general population, Cronbach's alphas were determined for each measure.

CHAPTER 3

RESULTS

In order to present the results in an organized fashion, this chapter has been divided into three broad categories: (1) descriptive and demographic data, (2) the prevalence of eating disorders (3) interactions and main effects among exposure to body shape ideals over time and (4) predictors of bulimic symptomatology. Of the 169 participants that were included in the premeasure study, 95 returned for the post measure and completed the full study. Thus, all subsequent post measure statistical analyses were conducted with these 95 participants. With the exception of the Pearson product moment correlations, alpha was set at .05 for all statistical analyses. Given the multitude of comparisons in the Pearson product moment correlations, alpha was set at .005 to control the family-wise error rate.

To assure that the 95 participants who completed both the premeasure and post measure did not significantly differ from the 74 participants who dropped out after the premeasure, separate one-way multivariate analysis of variances (MANOVAs) were conducted to assess effects of attrition. Pearson product correlations determined a high correlation between the independent mood variables (i.e., anxious, happy, stressed, confident, depression, ashamed, guilty) and the measures of positive and negative affect (PANAS PA and PANAS NA). In light of this, separate MANOVA analyses were conducted to determine the separate contributions of each.

Results from the one-way MANOVA including the individual mood variables (i.e., anxious, happy, stressed, confident, depression, ashamed, guilty) was not significant,

Wilks' Lambda = .86, F (18, 144) = 1.04, p > .05). See Table 2 for means and standard deviations for premeasure variables by attrition group.

Similar results were demonstrated in the one-way MANOVA analysis which included the PANAS PA and PANAS NA instead of the individual mood variables, Wilks' Lambda = 95, F (13, 149) = .56, p > .05). Findings from these analyses suggested that the groups did not differ from one another on the premeasures variables. See Table 2.

Descriptive and Demographic Data

Examination of significant (p < .005) correlations suggested that reporting of bulimic symptoms were positively related to stress (P23a; r = .33), and negatively related to self-esteem (SE; r = -.40). The participants body mass as positively correlated with exercising for appearance and attractiveness (REI2; r = .30) and shame (P13b; r = .35).

Social desirability was positively related to body satisfaction (BPSS1; r = .22) and positive self-esteem (SE; r = .36), but inversely related to negative affect (NA1; r = -.38), guilt (P13a; r =-.32), shame (P6a; r = -.32) and depression (P25a; r = -.22).

Regarding the BPSS, higher levels of positive affect (PA2; r = .30), higher numbers of hours exercised per week (HEXR; r = .30), confidence (P24b; r = .27) and self-esteem (SE; r = .28) were all related to higher levels of body satisfactions. Beliefs about attractiveness as positively related to exercising for appearance and attractiveness (REI2; r = .27).

Males exercising for fitness and health (REI1) was positively related to positive affect (PA1; r = .34) and expectedly, to increased numbers of hours exercised (HEXR; r = .22). In addition, exercising for fitness and health was positively related to exercising for improving appearance and attractiveness (REI2; r = .41) and with socialization and mood management (REI3; r = .46).

In addition to the previously stated correlations, self-esteem was found to be positively related to positive affect (PA1; r = .29), happiness (P22a; r = .38) and confidence (P24a; r = .45). self-esteem also was inversely related to negative affect (NA1; r = -.50), guilt (P6a; r = -.33), shame (P13a; r = -.48) and stress (P23a; r = -.33). Table 3 presents the Pearson product moment correlations among the predictor and criterion variables. Table 4 presents the means and standard deviations for predictor and criterion variables.

Prevalence of Eating Disorders

The participants' BULIT-R scores were used to assess prevalence of bulimic symptomatologybehaviors as well as bulimia nervosa. Based on Thelen et al.'s, (1996) diagnostic criterion (i.e., BULIT-R > 104), no participants (0.0 %) could be considered at-risk for the development of bulimia. Only 4 of the 95 participants reported BULTI-R scores > 80 with the highest score of 99. Although the literature demonstrates that gay men have been determined to have a heightened concern for weight and incidents of eating disorders compared to homosexual men (Yager et al., 1988), in this sample all of the participants scoring 80 or above on the BULIT-R reported being heterosexual.

Analysis of different eating behaviors on the BULIT-R indicated that 8.5 % of the participants have tried at least two to three times or more in the past year to lose weight by fasting or going on strict diets; 28.4 % exercised more than one hour per day to lose weight. Although 13.7 % of participants participated in binge eating ("eating uncontrollably to the point of stuffing yourself") once a week or more in the last 3 months, no participants reported intentionally vomiting after eating. Regarding other pathogenic weight loss techniques, none of the subjects reported using diuretics (i.e., water pills) and only 1.1 % of participants used laxatives once a day or more with the

other 98.1 % reporting no laxative use at all. Table 5 gives the frequency and corresponding percentages for reach of the eating behaviors assess on the BULIT-R.

Multivariate Analyses

Separate one-way multivariate analyses of variance (MANOVA) were conducted on premeasure data to determine the differences among groups on the dependent measures. Repeated measure analyses were also conducted on the data to assess group and interaction effects of the experimental conditions across time. To present the data in an organized fashion, the premeasure MANOVA will be discussed first followed by the repeated measure results.

Premeasure. Premeasure data were analyzed in a one-way multivariate analysis of variance (MANOVA) to determine if the three experimental groups (ideal body, average body, no model) differed on age, BMI, number of hours exercising, mood (i.e., anxious, happy, stressed, confident, depression, ashamed, guilty), positive and negative affect (PANAS PA and PANAS NA), body satisfaction (BPSS), values concerning attractiveness (BAA-R), reasons for exercising (REI1, REI2, REI3) and media consumption of television and magazines. Separate MANOVA analyses were conducted to determine the separate contributions of the individual mood variables (i.e., anxious, happy, stressed, confident, depression, ashamed, guilty) and positive and negative affect (PANAS PA and PANAS NA).

Results from the one-way MANOVA including the individual mood variables (i.e., anxious, happy, stressed, confident, depression, ashamed, guilty) was not significant, Wilks' Lambda = .75, F (34, 146) = .67, $p > .05$). The one-way MANOVA analysis which included the PANAS PA and PANAS NA instead of the individual mood variables yielded similar results, Wilks' Lambda = 80, F (24, 156) = .75, $p > .05$). Findings from these analyses suggested that the three groups did not differ from one another on the

baseline measures. Means and standard deviations for variables analyzed in the MANOVAs are included in table 1.

Repeated measures analyses. To investigate interaction effects of exposure to the body shape ideal over time, repeated measures analyses were employed with the within subjects factors of time (IV) and pre and post dependent measures of body satisfaction, values concerning attractiveness, individual variables of mood (i.e., anxious, happy, stressed, confident, depression, ashamed, guilty), and positive affect and negative affect. The between subjects factor was exposure to body shape condition. To keep the premeasure questionnaire brief, self-esteem was not included in the first part of the study, thus it was excluded from the repeated measures analysis. As with the previous MANOVAs, the repeated measure analyses were conducted separately for the seven mood variables and for the measures of positive and negative affect.

The repeated measures analysis that employed the seven individual mood variables, body satisfaction and adoption of U.S. values concerning male attractiveness as the dependent variables indicated that no significant interaction effects were found with regard to exposure to the body shape condition over time, Wilks' Lambda = .76, F (18, 168) = 1.36, $p > .05$. Regarding main effects, multivariate analysis demonstrated significant main effects for time, Wilks' Lambda = .32, F (9, 84) = 19.51, $p < .001$, but not for body shape condition, Wilks' Lambda = .76, F (18, 168) = 1.4, $p > .05$. Subsequent univariate ANOVA's revealed within group time effects for: guilt, F (1, 92) = 30.79, $p < .001$, shame, F (1, 92) = 6.71, $p = .01$, anxiety, F (1, 92) = 48.42, $p < .001$, happiness, F (1, 92) = 73.36, $p < .001$, stress, F (1, 92) = 81.49, $p < .001$, confidence, F (1, 92) = 23.97, $p < .001$, depression, F (1, 92) = 26.23, $p < .001$ and adoption of U.S. values concerning male attractiveness, F (1, 92) = 7.66, $p < .01$. No differences across time were found for body satisfaction, F (1, 92) = 1.48, $p < .05$. Men's ratings of guilt, shame,

anxiety, depression, stress, happiness, confidence and adoption of U.S. beliefs about attractiveness all decreased from premeasure (baseline) to post measure. Table 6 presents the means and standard deviations for univariate ANOVAs for variables across time.

The repeated measures analysis employing the factors of positive and negative affect, body satisfaction and adoptions of U.S. values concerning male attractiveness as dependent variables demonstrated no significant interaction effects, Wilks' Lambda = .84, $\underline{F}$ (8, 178) = 1.97, $\underline{p}$ = .053. Multivariate analysis demonstrated significant main effects for time, Wilks' Lambda = .21, $\underline{F}$ (4, 89) = 83.74, $\underline{p} < .001$, but not for effects were found for exposure to the body shape condition, Wilks' Lambda = .91, $\underline{F}$ (8, 178) = 1.14, $\underline{p} > .05$. Subsequent univariate ANOVA's revealed time effects for the positive affect, $\underline{F}$ (1, 92) = 137.4, $\underline{p} < .001$, negative affect, $\underline{F}$ (1, 92) = 159.1, $\underline{p} < .001$, and adoption of U.S. values concerning male attractiveness, $\underline{F}$ (1, 92) = 48.42, $\underline{p} < .001$. No significant differences were demonstrated across time for body satisfaction, $\underline{F}$ (1, 92) = 1.48, $\underline{p} > .05$. Decreases in positive and negative affect and adoption of U.S. beliefs about attractiveness were found from premeasure to post measure. Table 7 gives the means and standard deviations of the univariate ANOVAs for variables across time.

Predictors of Bulimic Symptomatology

To determine the relationship of the predictor variables to bulimic symptomatology, regression analyses were conducted separately for both premeasure and post measure variables. Within the premeasure and post measure analyses, separate regression were run for variables that were highly correlated with one another. As such, the positive and negative affect indicators (PANAS PA and PANAS NA) and the PANAS individual mood indicators (i.e., anxious, happy, stressed, confident, depression, ashamed, guilty) were not included together in either of the pre or post variable regression equations.

Given the literature regarding the positive relationship between social desirability and BMI to bulimic symptomatology, these variables were entered first as a group in a hierarchical fashion followed by less researched variables of mood, body satisfaction, self-esteem, reasons for exercise, media consumption, exposure to body shape condition and values concerning attractiveness which were entered in a step-wise fashion. In the final analyses, Age was not included in the regression equations due to the constricted variability in age range (18 to 25 years old).

Premeasure variables. Independent predictor variables for premeasure regressions analyses were: BMI, social desirability, reasons for exercise, values concerning attractiveness, body satisfaction, media consumption for television and for magazines, self-esteem and the individual mood variables. At step one, SDS and BMI were entered as a group, and achieved significance, F change (2, 89) = 7.8, p < .001. This model accounted for 15% of the variance, although SDS was not found to be significant (t = -1.2, p > .05) following the addition of individual predictor variables in the regression equation. The beta for BMI (beta = .31) indicated that higher body mass was predictive of distorted eating patterns in males. The remaining variables were entered in a stepwise fashion. At step 2, the predictor variable self-esteem entered the model, F change (1, 88) = 13.07, p < .001, adding another 11% of the total variance. A negative relationship was demonstrated between self-esteem and bulimic symptomatology (beta = -.29). At step 3, the individual mood indicator stressed was found to be positively related to bulimic symptomatology (beta = .24) accounting for another 5% of the variance, F change (1, 87) = 6.6, p = .01. The overall regression model employing the above mentioned independent variables was significant, F (4, 87) = 9.84, p < .001 accounting for 31% of the variance (Adj R^2 = .28). Table 8 contains B, standard error, beta weights, t values and p values for the premeasure regression analyses.

A second regression analysis was conducted which employed the following premeasures: BMI, social desirability response, reasons for exercise, self-esteem, values concerning attractiveness, body satisfaction, media consumption for television and for magazines and positive and negative affect. As with the previous regression analysis, BMI and SDS were entered into the model first. This model accounted for 15% of the variance, F change (2, 89) = 7.8, p < .001. The beta for BMI (beta = .29) indicated that higher body mass was predictive of distorted eating patterns in males. Although SDS was employed with BMI in the equation and accounts for some of the variance, it was not found to be a significant predictor of bulimic symptomatology (t = -1.48, p > .05). Following the addition of BMI and SDS, self-esteem entered into the model, F change (1, 88) = 13.07, p < .001 adding another 11% of the total variance. A negative relationship was demonstrated between self-esteem and bulimic symptomatology (beta = -.36). Unlike the previous premeasure model where stress entered the equation, neither the PANAS NA or the PANAS PA contributed to this model. The overall regression model employing all independent variables was significant, F (3,88) = 10.27, p < .001 accounting for 26 % of the variance (Adj R^2 = .23). Table 9 contains B, standard error, beta weights, t values and p values for the premeasure regression analyses.

Post measure variables. Independent variables for post measure regression analyses were: BMI, social desirability response, self-esteem, exposure to body shape condition, values concerning attractiveness, body satisfaction and the individual mood indicators (i.e., anxious, happy, stressed, confident, depression, ashamed, guilty). To assess the effects of exposure to the body shape ideal, post measure regression analyses

were performed employing dummy coding for the experimental condition (Neter, Wasserman & Kutner, 1989; Pedhazur, 1982). Rather than requiring ANOVAs and follow-up contrasts**,** planned contrasts were tested using a single multiple regression analysis for each criterion, thus decreasing the chance of a type I error.

Social desirability response (SDS) and BMI were entered first into the model and achieved significance, F change (2, 92) = 7.1, p = .001, accounting for 13% of the variance. As with the premeasure variables, when additional individual predictor variables were added to the regression equation social desirability response was not found to be significant (t = -1.8, p > .05). Beta for BMI (beta = .28) indicated that higher body mass was predictive of bulimic symptomatology in males. The remaining variables were entered in a stepwise fashion. At step 2, self-esteem entered the model adding another 11% of the total variance, F change (1, 91) = 12.95, p = .001. self-esteem demonstrated a negative relationship with bulimic symptomatology (beta = -.29). At step 3, anxiety was found to be positively related to bulimic symptomatology (beta = .23) accounting for another 5% of the variance, F change (1, 90) = 5.9, p < .05. The overall regression model was significant, F (4, 90) = 9.1, p < .001, accounting for 29% of the variance (Adj. R^2 = .26). Table 10 contains B, standard error, beta weights, t values and p values for the premeasure regression analyses.

A second post measure regression analysis was conducted which employed the measures of positive and negative affect. Independent variables for post measure regression analyses were: BMI, social desirability response, self-esteem, values

concerning attractiveness, body satisfaction, exposure to the experimental conditions and positive and negative affect. The model employing social desirability response (SDS) and BMI achieved significance, F change (2, 92) = 7.1, p = .001, accounting for 13% of the variance. When additional individual predictor variables were added to the regression equation social desirability response was not found to be significant (t = -.15, p > .05). Beta for BMI (beta = .27) indicated that higher body mass was predictive of bulimic symptomatology in males. The remaining variables were entered in a stepwise fashion. At step 2, self-esteem entered the model adding another 11% of the total variance, F change (1, 91) = 12.95, p = .001. self-esteem demonstrated a negative relationship with bulimic symptomatology (beta = -.35). Unlike the post measure model where anxiety entered the equation, neither the PANAS PA nor the PANAS NA contributed to the model. The overall regression model employing all independent variables was significant, F (3, 91) = 9.67, p < .001, accounting for 24 % of the variance (Adj R^2 = .22). Table 11contains B, standard error, beta weights, t values and p values for the post measure regression analyses.

CHAPTER 4

DISCUSSION

The sociocultural approach to eating disorders has highlighted media related messages promoting a generally unattainable female standard of beauty as a major contributor to bulimic symptomatology and attitudes in women (Stice & Shaw, 1994). Historically, men have not been subjected to a specific body ideal (Petrie et al., 1996), but studies suggest that in the last two decades they have been exposed to more media messages dictating a body shape ideal in relation to specific fitness and weight loss behaviors (Nemeroff et al., 1994; Petrie et al.,1996). Additionally, it appears that some men in certain subenvironments (athletes and the gay community) may respond similarly to women to the increasing sociocultural pressures promoting a standard ideal body shape as evidenced by higher prevalence of eating disorders among these groups (King & Mezey, 1987; Yager et al., 1988). Given the impact of the sociocultural model with females, the purpose of this study was to assess the effects of exposure to the media portrayal of ideal body shape on men's mood, satisfaction with their body shape and internalization of societal values concerning attractiveness. In addition, the relation of these variables to bulimic symptomatology was examined.

Prevalence of Bulimic Symptomatology

Based on Thelen et al.'s, (1996) diagnostic criteria (i.e., BULIT-R > 104), none of the men in the current sample could be considered at-risk for the development of bulimia. Only 4 of the 95 participants reported BULIT-R scores above 80 with the highest score being 99. For research purposes, lower cutoff scores at 85 or higher can be used to identify individuals at risk for developing bulimia thus reducing the number of false

negatives (Thelen, et al., 1991). When a less conservative cutoff score (BULIT-R > 85) was applied, 3.2 % of participants reported to be at a higher risk of eating developing an eating disorder. Past research has estimated the prevalence of bulimia to be 0.2 % in adolescent boys and young men (Carlat & Camargo, 1991), a rate that is about 1/10 that of girls and women (Diagnostic and Statistical Manual of Mental Disorders, 4th edition, APA, 1994). Given that the prevalence of eating disorders in this sample was not clarified by diagnostic interviewing, it is impossible to determine exactly how many of the participants actually met the DSM-IV criteria for an eating disorder. Even so, the number who would be diagnosed would be very small.

Analysis of specific eating behaviors assessed on the BULIT-R found that 13.7% of participants engaged in binge eating behaviors once a week or more. Also, 8.5 % of the participants have tried to loose weight by fasting or restricting their caloric intake at least two to three time or more in the past year and 28.4 % have exercised more than one hour per day to loose weight. No participants reported intentionally vomiting after eating or using diuretics (i.e., water pills), however, 1.1 % reported using laxatives to control their weight once a day or more (98.1 % reporting no laxative use at all).

These findings indicate that some males do binge eat, but their compensatory behaviors tend to be exercise or reducing their caloric intake through fasting or dieting. This is different from eating disordered women who traditionally have a higher prevalence rate of purging behaviors from vomiting, laxatives or the use of diuretics, thus, putting them at a higher risk of eating disorders than males (Striegel-Moore et al., 1986; Mintz & Betz, 1988). One explanation for this finding is that females wanting to loose weight tend to diet by restricting their calories and men may rely on exercise to achieve their weight goals (Mathews, 1991). Also, men have a higher basal metabolic rate than females, making them more successful dieters and less at risk for extreme weight-

reducing measures such as vomiting (Striegel-Moore et al.,1986). Overall, less is known about the compensatory behaviors of bulimic males due to several factors such as males' reluctance to self disclose bulimic symptomatology (Mathews, 1991) and the brevity of research on this population.

Mediators of Bulimic Symptomatology

Negative affect. Findings from the main effects model did not confirm the hypothesis that exposure to the ideal body shape as portrayed in the media results in heightened negative affective states, a precursor to bulimic symptomatology. It should be noted that exposure to such ideal body shape images were brief, and more substantial or repeated exposure may be necessary to directly influence men's affect in a negative direction. As such, it appears that mere exposure to body ideal images has no impact male's affect or immediate mood states. This finding is consistent with the research of Kalodner (1997) who did not find differences in male's level of anxiety or self-consciousness when exposed to thin or average sized models.

A possible explanation for the lack of findings for increases in negative affect following exposure to the ideal body images may be explained through socialization. In general, men are socialized to be less expressive of their feelings and tough or macho (Block, 1973). Such behaviors may be reflected in a decreased range of reported emotions as compared to women. As such, it may be more acceptable for men to report that they are not happy rather than admitting to feelings of depression or anxiety. In light of this, the large discrepancy in eating disorder prevalency rates between men and women more likely support the contention that males are not experiencing as broad a range of negative affect via exposure to such societal images.

Internalization of the ideal body shape image. With regard to internalization of a body ideal stereotype, no significant results were demonstrated following exposure to the

ideal body shape images. This finding is consistent with Stice and Shaw's (1994) study that brief exposure to a body ideal may not lead to significant internalization of an ideal body stereotype. It may be that internalization of such stereotypes take far more than brief laboratory exposure to foster beliefs and values endorsing an ideal body shape for men.

Another explanation for insignificant findings may be that males have internalized a healthy body shape that protects their self-esteem and body image from occasional messages of a societal ideal. Additionally, males' internalization of attractiveness may be more broadly defined to include such factors as status and education. A study by Davis (1991) demonstrated that, relative to the opposite sex, women valued traits such as employment, financial, intellectual status and commitment as desirable in a mate, whereas men emphasized more stereotypically desirable feminine traits, such as appearance. Thus, not only may men have a healthier internalization of body shape and size, but it may be only one of multiple factors that figure into their identities.

It should be noted that use of the instrument assessing internalization of beliefs about attractiveness was originally developed with and for women, and the modifications made for males was intended for exploratory purposes. Although the modified instrument demonstrated adequate convergent validity with instruments assessing reasons for exercise and depression as well as good internal consistency, it may be premature to assume that the instrument is assessing men's internalization of societal norms of attractiveness without further testing.

Body dissatisfaction. Although it was also hypothesized that exposure to the ideal body images would result in increased body dissatisfaction, no significant results emerged. This finding is consistent with research by Kalodner (1997) that demonstrated, contrary to females, men exposed to images of thin male models did not report heightened self consciousness or body consciousness. The present findings are

inconsistent with results from similar studies with non-eating disordered females (Irving, 1990; Stice & Shaw, 1994), thus indicating that non-eating disordered men are most likely responding to such stimuli differently from women.

Historically, women's identities have been less broadly defined than men. Specifically, society has placed a greater emphasis on the centrality of appearance for female gender roles (Brownmiller, 1984) and their identity regarding societal success (Striegel-Moore et al., 1986). Men, however, have been exposed to more broadly defined measures of success, such as status and education, with less emphasis placed on appearance. This also may contribute to the differences between males and females regarding how satisfied they are with their bodies.

Mediators of bulimic symptomatology across time. With regard to the three hypotheses concerning change in affect, body dissatisfaction and internalization of an ideal body image across time, no significant interaction or group effects were found. Significant time effects, however, demonstrated that a decrease in negative and positive affect, guilt, anxiety, shame, stress, confidence, happiness, depression, confidence and endorsement of U.S. societal values of attractiveness occurred from the baseline condition to the post-stimulus questionnaire.

The reason for the changes across time may be due to the design of the study. Specifically, baseline measures were gathered immediately following an exam, thus, participants' heightened affective states may actually reflect how they were feeling about the test, not their general emotional state over the past month. For example, at baseline, participants rated their stress and anxiety to be "moderate" and reported that they were "a little" depressed. This is consistent with research demonstrating that exam stress can be associated with large increases in reported tension and slightly increased depression in individuals (Gilbert, Stunkard, Jensen, Detwiler & Martinko, 1996). Due to this, the

decrease in negative affective states following exposure to the experimental conditions is likely assessing the students' affective states under more normal, less academically stressful conditions, and is not a reflection of the experimental condition effects.

Relationship of Mediators to Bulimic Symptomatology

Regarding the second goal for the study, several mediators were found to be predictive of bulimic symptomatology as determined by stepwise regression analysis. It was revealed that increased body mass was the strongest predictor of bulimic eating disordered behavior. Self-esteem, and several mood variables, specifically, increased anxiety and stress were also predictive of bulimic symptomatology.

It has been documented in the literature that, like women, men also experience sociocultural pressures from certain sources regarding their appearances and behaviors (Petrie, et al., 1996). Consistent with a sociocultural theory of eating disorders, body mass, would be expected to predict bulimic symptomatology given its direct effect on appearance. Such findings suggest that the greater the body mass, or the larger the individual is, the more likely the person, regardless of gender, will report bulimic behaviors and attitudes. Additionally, increased body mass appears to be significantly related to bulimic symptoms for both men (Austin & Petrie, 1997) and women (Lester & Petrie, 1995).

Anxiety and stress were also identified as predictors of bulimic symptomatology. Although anxiety has shown to be related to bulimic symptoms among women (Schotte, Cools, & McNally, 1990; Steinberg, Tobin, & Johnson, 1990), only limited evidence indicates that anxiety is a significant mood variable among eating disordered males. This was demonstrated by Gross and Rosen (1988) who found that adolescent males with eating disorders reported higher levels of social anxiety than normal males. With regard to stress, Striegel-Moore et al. (1989) investigated the relationship between bulimic

symptomatologyand perceived levels of stress. Results indicated that high perceived stress was associated with worsening of bulimic symptomatology among women, but results were inconclusive among males. Factors associated with symptom worsening could only be calculated for females given the low incidence of bulimic symptomatology in men. As such, it appears that a central link of the affect-regulation pathway found in women is the relationship between negative affect, specifically depression, anxiety and feelings of inadequacy, and bulimia (Stice & Shaw, 1994). From the current findings, stress, anxiety and low self-esteem appear to be relevant mood states linked to bulimic symptomatology in males.

Although body mass, self-esteem, anxiety and stress were predictive of bulimic symptoms in males, the number of predictors of BULIT-R scores were relatively small in comparison to females. One explanation for this may be that females, in general, may experience a broader range of affective states that are predictive bulimia (Stice & Shaw, Kalodner, 1997). Despite this, in the current investigation, several variables such as body dissatisfaction and depression, were not predictive of bulimia which is inconsistent with previous studies of bulimic predictors in male samples (Ussary & Prentice-Dunn, 1992). Also, internalization or endorsement of the body shape ideal was also not demonstrated to be a predictor of bulimic behaviors which is counterintuitive to our understanding of bulimia with females. An explanation for the lack of findings in this study may be related to methodological issues. Possibly, the small magnitude of eating disordered behaviors in this sample may have hindered demonstration of significant results in the regression analyses. As such, the mediators that were predictive of bulimic symptoms in males may have been limited given the restricted range of variance with several of the mediators of bulimia such as the individual mood indicators (i.e., anxious, stressed, depressed, ashamed, guilty), overall negative affect and BULIT-R scores.

Limitations in the Research

Several limitations are worthy of mention. First, although no significant differences were found between individuals who participated in both parts of the study from those that dropped out after the premeasure, some effects of attrition may contribute to the results of this investigation. It is possible that remaining participants who completed the post measure may possess characteristics that elicit a different response to the experimental conditions that could not be statistically controlled. Second, given that extra credit was offered for the students' participation, some individuals may have chosen to participate in the study merely for the extra credit and thus not responded conscientiously to each question. Third, although the social desirability factors were not a significant issue in this study, the participants may have been less inclined to answer honestly or in less socially desirable ways due to the manner in which the experimental conditions were presented. Specifically, several participants were tested together at one time. Efforts were made to reduce this problem by spacing the participants far from each other in separate areas of a large classroom and by only testing an average of 3 to 4 participants at one time. Regardless, testing the participants individually may have elicited different results such as increased reports of negative affect, stronger endorsement of U.S. societal beliefs of attractiveness, body dissatisfaction or increased symptoms of bulimia. Fourth, use of the modified instrument assessing internalized beliefs about attractiveness (BAA-R) was originally designed for female samples, thus its application to a male sample was intended for exploratory purposes. As such, greater confidence can be placed in this instrument as a tool for assessing internalization of societal norms of attractiveness among males after conducting further testing. Fifth, this investigation relied exclusively on self-report data. Greater confidence could be placed in the results if additional data, such as behavioral observations or multiple reporter data, had been

collected. Sixth, generalization of sociocultural effects to eating disorders in males is limited due to the homogenous sample (Caucasian, male college undergraduates between the ages 18 and 25) participating in the study. Broader generalizations could be made if participants had been sampled from the community.

Implications for Prevention

Despite these limitations, the findings of this study have several implications for counselors and clinicians working with college level males. Risk factors for bulimic symptomatology and attitudes include increased body mass, low self-esteem, anxiety and stress. Such risk factors with clients should be explored by counselors who would normally rule out the presence of eating disorders in men given its low incidence. In addition, counselors need to be aware that males may not demonstrate classic purging symptoms (i.e., vomiting, laxative or diuretics), yet they may still be at risk for an eating disorder if binge cycles are consistently followed episodes of extreme dieting or over exercising. Given that anxiety and stress may precipitate bulimic behaviors, facilitating appropriate methods for coping with stress and anxiety may be helpful for reducing bingeing and purging cycles in males. In order to decrease the incident of disorder eating patterns among males, interventions at the colleges and school campuses should focus on adaptive coping with stress and anxiety, building self-esteem, viewing one's body in a positive manner and advocating healthy eating and exercising behaviors.

Directions for Future Research

Several directions for future research are suggested by the current findings. Despite the lack of direct evidence of sociocultural influences on eating disorders in males, further investigation in this area is warranted. The body of eating disorder literature for males is limited and more research effort needs to be made. One-way to expand on this is to investigate sociocultural influences on males in high-risk groups for

eating disorders (i.e., athletes and homosexual males). Research in this area may provide a broader understanding of the mediators and pathways to bulimic symptomatology.

Future research should also be directed toward investigating additional mediums of sociocultural influence. Although media related health and fitness messages depicting a male body ideal has been increasing in the last two decades (Petrie, et al., 1996), less is known about additional sociocultural pressures that may be impacting males' body perception and internalization of a male body image. As such, research should investigate other mediums of sociocultural influence such as television, peers, family and community influences on bulimic symptomatology in males. Additionally, longitudinal studies in any of these areas will provide further understanding of the development of bulimic symptomatology and more compelling evidence on the predictors of eating disorders.

Conclusions

Contrary to hypotheses that exposure to an ideal body image as depicted in the media directly leads to disturbances in affect, increased body satisfaction and internalization of such images, results from this study provided only indirect support for the sociocultural explanation for eating disorders in men. As such it was found that body mass, self-esteem, anxiety, and stress were predictive of bulimic symptomatology in males. Although an increase in health and fitness messages in the media depicting an ideal body image for men has been determined, its impact may not be robust enough to alter males mood, body satisfaction or internalizations of a body shape ideal. Future research should direct itself toward investigating possible sociocultural influences of eating disorders on certain male subenvironments for males (i.e., athletes, homosexual males, eating disordered males, fashion industry) that place more of an emphasis on maintaining lower body mass and an ideal body shape.

APPENDIX A

REASONS FOR EXERCISE INVENTORY (REI)

Reasons for Exercise Inventory (REI)

People exercise for a variety of reasons. When people are asked why they exercise, their answers are sometimes based on the reasons they believe they should have for exercising. What we want to know are the reasons people actually have for exercising. Please respond to the items below as honestly as possible. To what extent is each of the following an important reason that you have for exercising? Use the scale below, ranging from 1 to 7, in giving your answers (if you never exercise, please skip this section).

	Not at all important			Moderately important			Extremely important
1. To be slim	1	2	3	4	5	6	7
2. To improve my muscle tone	1	2	3	4	5	6	7
3. To cope with sadness, depression	1	2	3	4	5	6	7
4. To improve my cardiovascular fitness	1	2	3	4	5	6	7
5. To improve my appearance	1	2	3	4	5	6	7
6. To meet new people	1	2	3	4	5	6	7
7. To redistribute my weight	1	2	3	4	5	6	7
8. To lose weight	1	2	3	4	5	6	7
9. To improve my strength	1	2	3	4	5	6	7
10. To cope with stress, anxiety	1	2	3	4	5	6	7
11. To improve my overall health	1	2	3	4	5	6	7
12. To be attractive to potential partners	1	2	3	4	5	6	7
13. To socialize with friends	1	2	3	4	5	6	7
14. To improve my overall body shape	1	2	3	4	5	6	7
15. To maintain my current weight	1	2	3	4	5	6	7
16. To improve my endurance, stamina	1	2	3	4	5	6	7

(Continues)

Reasons for Exercise Inventory (continued)

	Not at all important					Moderately important	Extremely important
17. To increase my energy level	1	2	3	4	5	6	7
18. To increase my resistance to illness and disease	1	2	3	4	5	6	7
19. To alter a specific area of my body	1	2	3	4	5	6	7
20. To improve my flexibility, coordination	1	2	3	4	5	6	7
21. To improve my mood	1	2	3	4	5	6	7
22. To maintain my physical well-being	1	2	3	4	5	6	7
23. To have fun	1	2	3	4	5	6	7

APPENDIX B

MEDIA CONSUMPTION SCALE (MCS)

MEDIA CONSUMPTION SCALE (MCS)

Directions: Below are several questions about your daily activities. For all of the questions below think about them as they apply to your behavior over the past month. Please answer them as honestly as possible. Place an X on the scale in the location that best reflects your behavior.

TELEVISION

1. How many hours of Comedy shows, such as Friends, Martin, and Mad About You, do you watch in an average week?

```
+- - - -+- - - -+- - - -+- - - -+- - - -+- - - -+- - - -+- - - -+
-       -       -       -       -       -       -       -
0hrs          5hrs          10hrs         15hrs         20hrs
```

2. How many hours of Game shows, such as Jeopardy and Wheel of Fortune, do you watch in an average week?

```
+- - - -+- - - -+- - - -+- - - -+- - - -+- - - -+- - - -+- - - -+
-       -       -       -       -       -       -       -
0hrs          5hrs          10hrs         15hrs         20hrs
```

3. How many hours of Drama shows, such as ER, New York Undercover, Law & Order, or X-Files, do you watch in an average week?

```
+- - - -+- - - -+- - - -+- - - -+- - - -+- - - -+- - - -+- - - -+
-       -       -       -       -       -       -       -
0hrs          5hrs          10hrs         15hrs         20hrs
```

4. How many hours of Daytime Soap Opera shows, such as The Young and the Restless or Days of our Lives, do you watch in an average week?

```
+- - - -+- - - -+- - - -+- - - -+- - - -+- - - -+- - - -+- - - -+
-       -       -       -       -       -       -       -
0hrs          5hrs          10hrs         15hrs         20hrs
```

(Continues)

MEDIA CONSUMPTION SCALE (continued)

5. How many hours of Evening Soap Opera shows, such as Melrose Place or Baywatch, do you watch in an average week?

+----+----+----+----+----+----+----+----+
- - - - - - - -
0hrs 5hrs 10hrs 15hrs 20hrs

6. How many hours of Talk shows, such as Jerry Springer, Montel Williams, or Oprah Winfrey do you watch in an average week?

+----+----+----+----+----+----+----+----+
- - - - - - - -
0hrs 5hrs 10hrs 15hrs 20hrs

7. How many hours of Music Videos, such as MTV, CMT and VH-1, do you watch in an average week?

+----+----+----+----+----+----+----+----+
- - - - - - - -
0hrs 5hrs 10hrs 15hrs 20hrs

MAGAZINES

1. How many hours do you spend reading Entertainment or Arts magazines, such as Rolling Stone or Entertainment Weekly or People, in an average *week*?

+----+----+----+----+----+----+----+----+
- - - - - - - -
0hrs 5hrs 10hrs 15hrs 20hrs

2. How many hours do you spend reading News magazines, such as Time, Newsweek, or U.S. News and World Report, in an average *week*?

+----+----+----+----+----+----+----+----+
- - - - - - - -
0hrs 5hrs 10hrs 15hrs 20hrs

(Continues)

MEDIA CONSUMPTION SCALE (continued)

3. How many hours do you spend reading Health or Fitness magazines, such as *Men's Health* or *Muscle and Fitness*, do in an average *week*?

+- - - -+- - - -+- - - -+- - - -+- - - -+- - - -+- - - -+- - - -+
- - - - - - - - -
0hrs 5hrs 10hrs 15hrs 20hrs

4. How many hours do you spend reading Men's Fashion magazines, such as *GQ* or *Details Magazine* in an average *week*?

+- - - -+- - - -+- - - -+- - - -+- - - -+- - - -+- - - -+- - - -+
- - - - - - - - -
0hrs 5hrs 10hrs 15hrs 20hrs

APPENDIX C

SOCIAL DESIRABILITY SCALE (SDS)

Social Desirability Scale (SDS)

Please circle the number under the column which best applies to each of the numbered statements. Circle 1 or ‘true’ or circle 2 for ‘false’.

		True	False
1.	It is sometimes hard for me to go on with my work if I am not encouraged.	1	2
2.	I sometimes feel resentful when I don't get my own way.	1	2
3.	On a few occasions, I have given up doing something because I thought too little of my ability.	1	2
4.	There have been times when I felt like rebelling against people in authority even though I knew they were right.	1	2
5.	No matter who I'm talking to, I'm always a good listener.	1	2
6.	There have been occasions when I took advantage of somebody.	1	2
7.	I'm always willing to admit it when I make a mistake.	1	2
8.	I sometimes try to get even rather than forgive and forget.	1	2
9.	I am always courteous, even to people who are disagreeable.	1	2
10.	I have never been irked when people expressed ideas very different from my own.	1	2
11.	There have been times when I was quite jealous of the good fortune of others.	1	2
12.	I am sometimes irritated by people who ask favors of me.	1	2
13.	I have never deliberately said something that hurt someone's feelings.	1	2

APPENDIX D

POSITIVE AND NEGATIVE AFFECT SCALE (PANAS)

Positive and Negative Affect Scale (PANAS)

DIRECTIONS: This scale consists of a number of words that describe different feelings and emotions. Read each item and then circle the choices that best describe how you are feeling right now. That is, indicate to what extent you currently feel this way. Use the following scale for your answers. Remember, there are no right or wrong answers so please give us you honest opinion.

	1	2	3	4	5
	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
1. Interested.....	1	2	3	4	5
2. Distressed.....	1	2	3	4	5
3. Excited	1	2	3	4	5
4. Upset	1	2	3	4	5
5. Strong.....	1	2	3	4	5
6. Guilty	1	2	3	4	5
7. Scared.....	1	2	3	4	5
8. Hostile	1	2	3	4	5
9. Enthusiastic	1	2	3	4	5
10. Proud.....	1	2	3	4	5
11. Irritable.....	1	2	3	4	5
12. Alert	1	2	3	4	5
13. Ashamed	1	2	3	4	5
14. Inspired.....	1	2	3	4	5
15. Nervous	1	2	3	4	5

(Continues)

Positive and Negative Affect Scale (continued)

	1 Very slightly or not at all	2 A little	3 Moderately	4 Quite a bit	5 Extremely
16. Determined.....	1	2	3	4	5
17. Attentive.....	1	2	3	4	5
18. Jittery.....	1	2	3	4	5
19. Active	1	2	3	4	5
20. Afraid.....	1	2	3	4	5
21. Anxious	1	2	3	4	5
22. Happy.....	1	2	3	4	5
23. Stressed	1	2	3	4	5
24. Confident.....	1	2	3	4	5
25. Depressed	1	2	3	4	5

APPENDIX E

BELIEFS ABOUT ATTRACTIVENESS

SCALE - REVISED (BAA-R)

APPENDIX E

Beliefs About Attractiveness Scale-Revised (BAA-R)

DIRECTIONS: Listed below are statements about men's attractiveness in our society. For each item, please circle the response that best describes what you believe to be true using the following scale:

1	2	3	4	5	6	7
Strongly Disagree			Neither Agree Nor Disagree			Strongly Agree

It is very important that you respond to **all** the items and that you answer them **honestly**.

1.	People would prefer to date physically fit rather than overweight men	1	2	3	4	5	6	7
2.	A man with a handsome face would still be considered good looking without a muscular body.	1	2	3	4	5	6	7
3.	The thinner a man is the less attractive he is.....	1	2	3	4	5	6	7
4.	The more overweight a man is the less attractive he is	1	2	3	4	5	6	7
5.	Being physically fit and in-shape is directly related to how good a man looks	1	2	3	4	5	6	7
6.	Physically fit and in-shape are confident and secure	1	2	3	4	5	6	7
7.	The physically fit / in-shape body represents the current body ideal for men	1	2	3	4	5	6	7
8.	Beautiful women are more likely to be attracted to physically fit and in-shape men.....	1	2	3	4	5	6	7
9.	Good looking men are more interesting and outgoing than those who are not	1	2	3	4	5	6	7

(Continues)

Beliefs About Attractiveness Scale-Revised (continued)

10. It is important for men to be physically fit and in-shape.....	1	2	3	4	5	6	7
11. The more muscular and in-shape a man is, the better looking he is	1	2	3	4	5	6	7
12. Being good looking increases the likelihood of a man's professional success	1	2	3	4	5	6	7
13. Good looking men lead more fulfilling lives than unattractive men	1	2	3	4	5	6	7
14. Men who are physically fit and in-shape have more fun than those who are not	1	2	3	4	5	6	7

APPENDIX F

ROSENBERG SELF-ESTEEM SCALE

Rosenberg Self-Esteem Scale

DIRECTIONS: Below is a series of questions on how you feel about yourself. For each item, please circle the response which best describes what you believe to be true at this moment:

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

Remember, it is very important that you respond to all the items and that you answer them honestly as they apply to you. All of the information you provide will be kept strictly confidential.

1. I feel that I am a person of worth, at least on an equal basis with others.
   1 2 3 4

2. I feel that I have a number of good qualities.
   1 2 3 4

3. All in all, I am inclined to feel that I am a failure.
   1 2 3 4

4. I am able to do things as well as other people.
   1 2 3 4

5. I feel I do not have much to be proud of.
   1 2 3 4

6. I take a positive attitude toward myself.
   1 2 3 4

7. On the whole, I am satisfied with myself.
   1 2 3 4

8. I wish I could have more respect for myself.
   1 2 3 4

9. I certainly feel useless at times.
   1 2 3 4

10. At times I think I am no good at all.
    1 2 3 4

APPENDIX G

BODY PARTS SATISFACTION SCALE (BPSS)

Body Parts Satisfaction Scale (BPSS)

DIRECTIONS: Below is a list of body parts. Please rate how satisfied you are, at this moment, with each body part according to the following scale. Remember, it is very important that you respond to all the items and that you answer them honestly as they apply to you. All of the information you provide will be kept strictly confidential.

	Extremely Dissatisfied	1	2	3	4	5	6	Extremely Satisfied

1.	Height	1	2	3	4	5	6
2.	Weight	1	2	3	4	5	6
3.	Hair	1	2	3	4	5	6
4.	Complexion	1	2	3	4	5	6
5.	Overall face.....	1	2	3	4	5	6
6.	Shoulders	1	2	3	4	5	6
7.	Arms	1	2	3	4	5	6
8.	Stomach	1	2	3	4	5	6
9.	Chest	1	2	3	4	5	6
10.	Back	1	2	3	4	5	6
11.	Buttocks	1	2	3	4	5	6
12.	Legs.....	1	2	3	4	5	6
13.	Lower legs (calves).....	1	2	3	4	5	6
14.	General muscle tone	1	2	3	4	5	6
15.	Overall satisfaction with size and shape of your body.	1	2	3	4	5	6

APPENDIX H

PSYCHOLOGY OF FASHION

AND ADVERTISING QUESTIONNAIRE

Psychology of Fashion and Advertising Questionnaire

1. Favorite type of magazine (please circle your answer.)

   1) Fashion (e.g., GQ) 2) Sports (e.g., Sports Illustrated)

   3) Health and Fitness (e.g., Muscle and Fitness) 4) Domestic (e.g., Southern Living)

   5) Entertainment (e.g., Entertainment or People) 6) News (e.g., Time)

   7) Music (e.g., Rolling Stone Magazine) 8) Other _____

2. Average number of magazines you read per month . (please circle your answer.)

   1) Less than one 2) One to three 3)more than three

3. Favorite clothing store _____

4. Amount of money spent on clothing per month (please circle your answer.)

   1) Less than $50 2) $50 - $100 3) more than $100

5. I generally pay attention to advertisements of new products in my favorite magazines. (please circle)

   1) True 2) False

6. Generally, I pay more attention to advertisements when they are…. (circle any which apply to you.)

   1) Funny 2) Sad 3) Thought provoking 4) Emotionally touching

7. Generally, I notice advertisements if young, attractive men and / or women endorse the products. (circle one)

   1) True 2) False

8. In general, I notice what my friends are wearing and what type of fashionable clothing they have on.

   1) True 2) False

APPENDIX I

BULIMIA TEST - REVISED (BULIT-R)

Bulimia Test-Revised (BULIT-R)

DIRECTIONS: Answer each question by circling the response which best describes what you believe to be true about yourself. Please respond to all the items and answer them as honestly as possible. Remember, all of the information you provide will be kept strictly confidential.

1. I am satisfied with my eating patterns.

    1 agree
    2 neutral
    3 disagree a little
    4 disagree
    5 disagree strongly

2. Would you presently call yourself a "binge eater"?

    1 yes, absolutely
    2 yes
    3 yes, probably
    4 yes, possibly
    5 no, probably not

3. Do you feel you have control over the amount of food you consume?

    1 most or all of the time
    2 a lot of the time
    3 occasionally
    4 rarely
    5 never

4. I am satisfied with the shape and size of my body.

    1 frequently or always
    2 sometimes
    3 occasionally
    4 rarely
    5 seldom or never

5. When I feel that my eating behavior is out of control, I try to take rather extreme measures to get back on course (strict dieting, fasting, laxatives, diuretics, self-induced vomiting or vigorous exercise).

1 always
2 almost always
3 frequently
4 sometimes
5 never or my eating behavior is never out of control

6. I use laxatives or suppositories to help control my weight.

1 once a day or more
2 3-6 times a week
3 once or twice a week
4 2-3 times a month
5 once a month or less (or never)

7. I am obsessed about the size and shape of my body.

1 always
2 almost always
3 frequently
4 sometimes
5 seldom or never

8. There are times when I rapidly eat a very large amount of food.

1 more than twice a week
2 twice a week
3 once a week
4 2-3 times a month
5 once a month or less (or never)

9. How long have you been binge eating (eating uncontrollably to the point of stuffing yourself)?

1 not applicable; I don't binge eat
2 less than 3 months
3 3 months - 1 year
4 1 - 3 years
5 3 or more years

10. Most people I know would be amazed if they knew how much food I can consume at one sitting.

1 without a doubt
2 very probably
3 probably
4 possibly
5 no

11. I exercise in order to burn calories.

1 more than 2 hours per day
2 about 2 hours per day
3 more than 1 but less than 2 hours per day
4 one hour or less per day
5 I exercise but not to burn calories or I don't exercise

12. Compared with people your age, how preoccupied are you about your weight and shape?

1 a great deal more than average
2 much more than average
3 more than average
4 a little more than average
5 average or less than average

13. I am afraid to eat anything for fear that I won't be able to stop.

1 always
2 almost always
3 frequently
4 sometimes
5 seldom or never

14. I feel tormented by the idea that I am fat or might gain weight.

1 always
2 almost always
3 frequently
4 sometimes
5 seldom or never

15. How often do you intentionally vomit after eating?

1 2 or more times a week
2 once a week
3 2-3 times a month
4 once a month
5 less than once a month or never

16. I eat a lot of food when I'm not even hungry.

1 very frequently
2 frequently
3 occasionally
4 sometimes
5 seldom or never

17. My eating patterns are different from the eating patterns of most people.

1 always
2 almost always
3 frequently
4 sometimes
5 seldom or never

18. After I binge eat I turn to one of several strict methods to try to keep from gaining weight (vigorous exercise, strict dieting, fasting, self-induced vomiting, laxatives or diuretics).

1 never or I don't binge eat
2 rarely
3 occasionally
4 a lot of the time
5 most or all of the time

19. I have tried to lose weight by fasting or going on strict diets.

1 not in the past year
2 once in the past year
3 2-3 times in the past year
4 4-5 times in the past year
5 more than 5 times in the past year

20. I exercise vigorously and for long periods of time in order to burn calories.

1 average or less than average
2 a little more than average
3 more than average
4 much more than average
5 a great deal more than average

21. When engaged in an eating binge, I tend to eat foods that are high in carbohydrates (sweets and starches).

1 always
2 almost always
3 frequently
4 sometimes
5 seldom or I don't binge

22. Compared to most people, my ability to control my eating behavior seems to be:

1 greater than others' ability
2 about the same
3 less
4 much less
5 I have absolutely no control

23. I would presently label myself a "compulsive eater" (one who engages in episodes of uncontrolled eating).

1 absolutely
2 yes
3 yes, probably
4 yes, possibly
5 no, probably not

24. I hate the way my body looks after I eat too much.

1 seldom or never
2 sometimes
3 occasionally
4 a lot of the time
5 most or all of the time

25. When I am trying to keep from gaining weight, I feel that I have to resort to vigorous exercise, strict dieting, fasting, self-induced vomiting, laxatives, or diuretics.

1 never
2 rarely
3 occasionally
4 a lot of the time
5 most or all of the time

26. Do you believe that it is easier for you to vomit than it is for most people?

1 yes, it's no problem at all for me
2 yes, it's easier
3 yes, it's a little easier
4 about the same
5 no, it's less easy

27. I use diuretics (water pills) to help control my weight.

1 never
2 seldom
3 sometimes
4 frequently
5 very frequently

28. I feel that food controls my life.

1 always
2 almost always
3 frequently
4 sometimes
5 seldom or never

29. I try to control my weight by eating little or no food for a day or longer.

1 never
2 seldom
3 sometimes
4 frequently
5 very frequently

30. When consuming a large quantity of food, at what rate of speed do you usually eat?

1 more rapidly than most people have ever eaten in their lives
2 a lot more rapidly than most people
3 a little more rapidly than most people
4 about the same rate as most people
5 more slowly than most people (or not applicable)

31. I use laxatives or suppositories to help control my weight.

1 never
2 seldom
3 sometimes
4 frequently
5 very frequently

32. Right after I binge eat I feel:

1 so fat and bloated I can't stand it
2 extremely fat
3 fat
4 a little fat
5 OK about how my body looks or I never binge eat

33. Compared to other people of my sex, my ability to always feel in control of how much I eat is:

1 about the same or greater
2 a little less
3 less
4 much less
5 a great deal less

34. In the last 3 months, on the average how often did you binge eat (eat uncontrollably to the point of stuffing yourself)?

1 once a month or less (or never)
2 2-3 times a month
3 once a week
4 twice a week
5 more than twice a week

35. Most people I know would be surprised at how fat I look after I eat a lot of food.

    1 yes, definitely
    2 yes
    3 yes, probably
    4 yes, possibly
    5 no, probably not or I never eat a lot of food

36. I use diuretics (water pills) to help control my weight.
    1 3 times a week or more
    2 once or twice a week
    3 2-3 times a month
    4 once a month
    5 never

APPENDIX J

DEMOGRAPHIC QUESTIONNAIRE

Demographic Questionnaire

1. What is your age? _____ (years)

2. What is your racial/ethnic background? (Please circle number)

1 = Caucasian	2 = African American	3 = Hispanic
4 = Asian American	5 = Native American	6 = Other _____

3. What is your highest level of education? (Please circle number)

1 2 3 4 5 6	7 8	9 10 11 12	17 18 19 20+
grade school	middle school	high school	graduate school

4. What is your current weight? _____ pounds

5. What is your current height? _____feet and _____inches

6. What is your ideal weight? _____pounds

7. What is your sexual orientation?

1	2	3	4	5	6	7	8	9	10
Heterosexual				Bisexual				Homosexual	

8. In an average week, how much time do you spend exercising, such as jogging, weight lifting, aerobics, walking for exercise, etc. This exercise should include what you do above and beyond the requirements of everyday living (e.g., walking between classes). Please round to the nearest 15 minutes.

_____hours _____minutes

9. What type of physical activities do you engage in regularly. (Circle all that apply)

1) Working out at a gym (e.g., using weights)	2) Playing team sports (e.g., football, basketball)	3)Engaging in aerobic activity (e.g., jogging, aerobics, swimming)

4) Other (specify)

_____

APPENDIX K

TABLES: INCLUDES DESCRIPTIVE DATA AND ALL STATISTICAL ANALYSES

Table 1

Means, Standard Deviations of Predictor Variables by Group (N = 92)

Premeasure Variable	Group1 (n - 30)	Group2 (n - 32)	Group3 (n = 30)
Age	21.03 (1.75)	21.0 (1.90)	21.4 (2.42)
BMI	24.91 (4.19)	24.07(3.34)	24.62 (3.83)
HEXR	4.43(5.10)	4.95(3.74)	4.85 (3.91)
BAI	62.57(11.55)	64.69 (11.63)	64.70 (10.76)
shame	1.70 (0.95)	1.84 (1.05)	1.40 (0.62)
guilt	1.77 (1.10)	1.94 (1.13)	1.83 (0.79)
anxiety	2.93 (1.20)	3.28 (1.14)	2.97 (1.16)
happy	4.03 (0.72)	3.94 (0.95)	4.13 (0.63)
stress	3.30 (1.26)	3.44 (1.32)	3.27 (1.14)
confidence	3.70 (0.92)	3.53 (0.88)	3.80 (0.71)
depression	2.07 (1.14)	2.13 (1.13)	1.90 (1.09)
BPS1	3.98 (0.62)	4.04 (0.62)	3.97 (0.80)
REI1	43.27 (8.09)	41.66 (8.79)	41.70 (9.33)
REI2	37.10 (6.83)	33.31 (9.21)	35.90 (6.50)
REI3	22.27 (9.77)	25.59 (8.56)	21.67 (6.82)
MMG	3.01 (2.79)	3.93 (4.13)	3.64 (3.87)
MTV	11.47 (9.27)	9.99 (9.01)	10.26 (7.43)
PA1	35.53 (7.34)	36.63 (6.51)	37.27 (5.98)
NA1	23.93 (8.49)	23.72 (7.13)	22.63 (5.87)

(table continues)

Table 1 (continued)

Group1 = ideal body group

Group2 = average body group

Group3 = no model group

Age = 18 - 25 years; BMI = body mass index (kg/m^2); HEXR = amount of exercise per week (hrs/week); BA1 = Beliefs About Attractiveness Scale - Revised (pre measure) (societal values of attractiveness: 14 [low endorsement of values of attractiveness] to 98 [high endorsement of values of attractiveness]); shame = Positive and Negative Affect Scale - Ashamed (pre measure):1 [*slightly or not at all*] to 5 [*extremely*]); guilt = Positive and Negative Affect Scale - Guilty (pre measure): 1 [*slightly or not at all*] to 5 [*extremely*]); anxiety = Positive and Negative Affect Scale - Anxiety (pre measure): 1 [*slightly or not at all*] to 5 [*extremely*]); happy = Positive and Negative Affect Scale - Happy (pre measure): 1 [*slightly or not at all*] to 5 [*extremely*]); stress = Positive and Negative Affect Scale - Stressed (pre measure): 1 [*slightly or not at all*] to 5 [*extremely*]); confidence = Positive and Negative Affect Scale - Confident (pre measure): 1 [*slightly or not at all*] to 5 [*extremely*]); depression = Positive and Negative Affect Scale - Depressed (pre measure): 1 [*slightly or not at all*] to 5 [*extremely*]); BPS1 = Body Parts Satisfaction Scale (pre measure) (level of body satisfaction: 1 [*extremely dissatisfied*] to 6 [*extremely satisfied*]); REI1 = Reasons for Exercise Factor 1 (exercising for fitness, mood, health, or enjoyment: 8 [*not at all important*] to 56 [*extremely important*]); REI2 = Reasons for Exercise Factor 2 (exercising for weight-control, to improve attractiveness, or tone: 7 [*not at all important*] to 49 [*extremely important*]);

(table continues)

Table 1 (continued)

REI3 = Reasons for Exercise Factor 3 (exercising to socialize and mood management: 6 [*not at all important*] to 42 [*extremely important*]); SE = Rosenberg Self-Esteem Scale (self-esteem: 0 [low] to 6 [high]); MTV = Media Consumption Scale (television: 0 to 20 hrs/week); MMG = Media Consumption Scale (magazines: 0 to 20 hrs/week); PA1 = Positive and Negative Affect Scale – Positive Affect (premeasure: 10 [*slightly or not at all*] to 50 [*extremely*]); NA1 = Positive and Negative Affect Scale – Negative Affect (premeasure: 10 [*slightly or not at all*] to 50 [*extremely*]).

Table 2

Means and Standard Deviations for Premeasure Variables by Attrition Group (N = 163)

Premeasure Variable	Group1 (n = 92)	Group2 (n = 71)
Age	21.14 (2.03)	20.92 (2.07)
HEXR	4.75 (4.24)	4.36 (4.67)
SDS	5.90 (2.96)	5.25 (2.45)
BMI	24.52 (3.77)	23.69 (3.59)
MMG	3.53 (3.63)	3.92 (5.03)
MTV	10.56 (8.45)	10.29 (8.65)
BPS1	4.00 (0.68)	3.88 (0.77)
BA1	64.00 (11.25)	63.27 (9.44)
REI1	42.20 (8.69)	41.87 (10.04)
REI2	35.39 (7.74)	34.83 (8.88)
REI3	23.23 (8.56)	23.52 (7.93)
guilt	1.85 (1.02)	2.10 (1.22)
shame	1.65 (0.91)	1.93 (1.05)
anxiety	3.07 (1.17)	2.97 (1.13)
happy	4.03 (0.78)	3.73 (0.86)

(table continues)

Table 2 (continued)

Means and Standard Deviations for Premeasure Variables by Attrition Group (N = 163).

Premeasure Variable	Group1 (n = 92)	Group2 (n = 71)
stress	3.34 (1.23)	3.39 (1.29)
confidence	3.67 (0.84)	3.65 (0.81)
depression	2.03 (1.11)	2.38 (1.23)
PA1	36.48 (6.60)	35.00 (6.41)
NA1	23.43 (7.18)	24.06 (7.27)

(Group1 = participants completing full study

Group2 = participants completing premeasure only

Age = 18 - 25 years; HEXR = amount of exercise per week (hrs/week); SDS = Social Desirability Scale: (level of social desirability responses: 1 [low social desirability bias] to 13 [high social desirability bias]); BMI = body mass index (kg/m^2); MMG = Media Consumption Scale (magazines: 0 to 20 hrs/week); MTV = Media Consumption Scale (television: 0 to 20 hrs/week); BPS1 = Body Parts Satisfaction Scale (pre measure) (level of body satisfaction: 1 [*extremely dissatisfied*] to 6 [*extremely satisfied*]); BA1 = Beliefs About Attractiveness Scale - Revised (pre measure) (societal values of attractiveness: 14 [low endorsement of values of attractiveness] to 98 [high endorsement of values of attractiveness]);

(table continues)

Table 2 (continued)

REI1 = Reasons for Exercise Factor 1 (exercising for fitness, mood, health, or enjoyment: 8 [*not at all important*] to 56 [*extremely important*]); REI2 = Reasons for Exercise Factor 2 (exercising for weight-control, to improve attractiveness, or tone: 7 [*not at all important*] to 49 [*extremely important*]); REI3 = Reasons for Exercise Factor 3 (exercising to socialize and mood management: 6 [*not at all important*] to 42 [*extremely important*]); guilt = Positive and Negative Affect Scale - Guilty (pre measure): 1 [*slightly or not at all*] to 5 [*extremely*]); shame = Positive and Negative Affect Scale - Ashamed (pre measure):1 [*slightly or not at all*] to 5 [*extremely*]); anxiety = Positive and Negative Affect Scale - Anxiety (pre measure): 1 [*slightly or not at all*] to 5 [*extremely*]); happy = Positive and Negative Affect Scale - Happy (pre measure): 1 [*slightly or not at all*] to 5 [*extremely*]); stress = Positive and Negative Affect Scale - Stressed (pre measure): 1 [*slightly or not at all*] to 5 [*extremely*]); confidence = Positive and Negative Affect Scale - Confident (pre measure): 1 [*slightly or not at all*] to 5 [*extremely*]); depression = Positive and Negative Affect Scale - Depressed (pre measure): 1 [*slightly or not at all*] to 5 [*extremely*]); PA1 = Positive and Negative Affect Scale – Positive Affect (premeasure: 10 [*slightly or not at all*] to 50 [*extremely*]); NA1 = Positive and Negative Affect Scale – Negative Affect (premeasure: 10 [*slightly or not at all*] to 50 [*extremely*]).

Table 3

Pearson Product-Moment Correlations Among the Predictor and Criterion Variables

Variables	1 AGE	2 EDU	3 BMI	4 SXO	5 HEXR	6 GRP	7 SDS	8 BULT	9 MTV	10 MMG	11 BPS1	12 BPS2	13 BA1
1. AGE	--												
2. EDU	.63**	--											
3. BMI	-.03	-.11	--										
4. SXO	-.04	.03	-.05	--									
5. HEXR	-.01	.04	.14	-.05	--								
6. GRP	.09	.01	-.04	.09	.04	--							
7. SDS	.07	.07	-.03	-.13	.13	-.10	--						
8. BULT	-.05	.09	.25	.13	-.04	-.02	-.24	--					
9. MTV	.00	-.01	.15	-.02	.11	-.04	-.01	-.01	--				
10. MMG	.04	.14	.13	-.01	.03	.11	-.07	.12	.22*	--			
11. BPS1	-.05	.02	-.03	-.16	.30**	.01	.22*	-.15	-.08	.03	--		

(table continues)

Table 3 (continued)

Variables	1 AGE	2 EDU	3 BMI	4 SXO	5 HEXR	6 GRP	7 SDS	8 BULT	9 MTV	10 MMG	11 BPS1	12 BPS2	13 BA1
12. BPS2	-.11	.10	-.04	-.11	.25	.14	.14	-.17	.07	.10	.74**	--	
13. BA1	-.02	.05	.08	-.10	.10	.06	-.01	.18	.04	.01	.06	.07	--
14. BA2	-.09	-.01	-.05	-.08	-.06	-.05	-.12	.18	-.10	.-.04	.12	.03	.73
15. PA1	.09	.09	.10	.13	.13	.11	.17	-.06	-.10	.13	.25**	.11	.13
16. NA1	-.12	.00	.06	.19	-.10	-.07	-.37**	.26	-.08	.03	-.21	-.26	.07
17. PA2	-.08	.04	-.13	.16	.03	.26	-.00	.08	-.06	.01	.30*	.27	.06
18. NA2	-.06	-.01	.11	.17	-.03	-.17	-.20	.18	-.01	-.03	-.08	-.11	.04
19. P6a	-.04	-.08	.04	.11	-.06	.01	-.32**	.19	-.10	.02	-.17	-.20	.05
20. P6b	.02	-.05	.17	.05	-.02	-.16	-.21	.12	.02	.11	-.04	-.08	.02
21. P13a	-.06	-.07	.20	.14	-.03	-.13	-.25**	.15	-.11	-.05	-.19	-.28	-.01
22. P13b	-.05	-.11	-35**	.05	.08	-.14	-.02	-.23	.01	-.10	-.06	-.16	.19
23. P21a	-.08	.00	.08	.07	-.13	.07	.05	-.08	-.12	.08	.15	-.21	.10
24. P21b	-.09	.07	-.05	.14	-.12	-.13	.02	.28	-.13	-.10	.08	.02	-.04

(table continues)

Table 3 (continued)

Variables	1 AGE	2 EDU	3 BMI	4 SXO	5 HEXR	6 GRP	7 SDS	8 BULT	9 MTV	10 MMG	11 BPS1	12 BPS2	13 BA1
25. P22a	.11	.09	-.04	-.03	-.04	.07	.05	-.08	-.12	.08	.18	.18	-.09
26. P22b	.12	.03	-.14	.10	-.06	.36**	.09	-.12	-.10	-.03	.19	.28	-.06
27. P23a	-.09	.12	-.04	.11	-.14	-.02	-.21	.33**	-.07	.01	-.21	-.18	.12
28. P23b	.02	.02	-.17	.08	-.10	-.03	-.12	.13	-.03	.05	-.03	.01	-.03
29. P24a	.09	.10	.00	-.14	.09	.06	.19	-.16	.01	.13	.28**	.18	.04
30. P24b	.14	.03	-.22	.11	.01	.16	.12	-.16	-.15	-.06	.27	.25	.12
31. P25a	-.18	-.06	.02	.18	-.11	-.06	-.22*	.20	-.04	-.09	-.18	-.15	.03
32. P25b	-.13	.06	-.04	.17	.01	-.09	-.11	.21	-.13	.14	-.08	-.06	.13
33. REI1	.11	.17	.02	-.09	.22*	-.07	.14	-.12	-.04	.04	.17	.17	.16
34. REI2	-.04	-.01	.31**	-.09	-.00	-.06	-.20	.24	.08	.09	-.17	-.07	.27**
35. REI3	.07	.11	.03	-.16	.13	-.03	.02	-.11	.01	.07	.13	.13	.12
36. SE	.12	-.01	.012	-.17	.12	.08	.36**	-.40	.16	.00	.26	.28*	-.02

(table continues)

Table 3 (continued)

Variables	14 BA2	15 PAI	16 NAI	17 PA2	18 NA2	19 P6a	20 P6b	21 P13a	22 P13b	23 P21a	24 P21b	25 P22a	26 P22b
1. AGE	-.09	.09	-.12	-.08	-.06	-.04	.02	-.06	-.05	-.08	-.09	.11	.12
2. EDU	-.01	.09	.00	.04	-.01	-.08	-.05	-.07	-.11	.00	.07	.09	.03
3. BMI	-.05	.10	.06	-.13	.11	.04	.17	.20	.35**	.08	-.05	-.04	-.14
4. SXO	-.08	-.13	.19	.16	.17	.11	.05	.14	.05	.07	.14	-.03	.10
5. HEXR	-.06	.13	.19	.03	-.03	-.06	-.02	-.03	.08	-.13	-.12	-.04	-.06
6. GRP	-.05	.11	-.10	.26	-.17	.01	-.16	-.13	-.14	.00	-.13	.07	.36**
7. SDS	-.12	.17	-.07	.00	-.12	-.32**	-.21	-.25**	-.02	-.15	.02	.05	.09
8. BULT	.18	-.06	-.38**	.08	.18	.19	.12	.15	.23	.12	.28	-.08	-.12
9. MTV	-.10	-.10	.26	-.06	-.01	-.10	.02	-.11	.01	.02	-.13	-.12	-.10
10. MMG	-.04	.13	-.08	.01	-.03	.02	.11	-.05	-.10	.03	-.10	-.08	-.03
11. BPS1	.12	.25**	-.21	.30*	-.08	-.17	-.04	-.19	-.06	-.15	.08	.18	.19
12. BPS2	.03	.11	-.26	.27	-.11	-.20	-.08	-.28	-.16	-.21	.02	.18	.19
13. BAI	.73**	.13	.07	.06	.04	.05	.02	-.01	.19	.10	-.04	-.01	-.06

(table continues)

Table 3 (continued)

Variables	14 BA2	15 PAI	16 NAI	17 PA2	18 NA2	19 P6a	20 P6b	21 P13a	22 P13b	23 P21a	24 P21b	25 P22a	26 P22b
14. BA2	--												
15. PA1	.02	--											
16. NA1	.12	-.09	--										
17. PA2	.06	.43	.04	--									
18. NA2	.13	-.08	.38**	.11	--								
19. P6a	.15	-.06	.62**	-.04	.23	--							
20. P6b	.16	-.05	.32*	.08	.54**	.45**	--						
21. P13a	.00	-.13	.63**	-.09	.38**	.56**	.36**	--					
22. P13b	.16	-.02	.15	.00	.60**	.28*	.43**	.33**	--				
23. P21a	.13	.09	.46**	.12	.18	.24*	.16	.24*	.09	--			
24. P21b	.09	.00	.32**	.36**	.51**	.04	.32*	.14	.12	.24	--		
25. P22a	.11	.58**	-.18	.18	-.01	-.10	.06	-.18	.03	.03	-.01	--	
26. P22b	-.11	.41**	-.19	.69**	-.07	-.16	-.06	-.31**	-.11	.03	.14	.22	--

(table continues)

Table 3 (continued)

Variables	14 BA2	15 PAI	16 NAI	17 PA2	18 NA2	19 P6a	20 P6b	21 P13a	22 P13b	23 P21a	24 P21b	25 P22a	26 P22b
27. P23a	.12	-.15	.63**	.07	.22	.25	.19	.25**	-.04	.22*	.22	-.23*	-.02
28. P23b	.07	-.11	.33**	.18	.41**	.10	.22	.13	.01	.30*	.42**	-.16	.10
29. P24a	-.08	.58**	-.24*	.25	-.28	-.24*	-.15	-.32**	-.10	-.03	-.14	.42**	.36**
30. P24b	.03	.37**	-.26	.52	-.21	-.22	-.03	-.28	-.13	-.16	.03	.23	.68**
31. P25a	-.04	-.29**	.61**	-.02	.24	.33**	.18	.37**	.08	.23*	.07	-.47**	-.25
32. P25b	.21	-.23	.48**	.09	.54**	.25	.38**	.41**	.30*	.25	.37**	-.30*	-.29*
33. REI1	.18	.34**	-.02	.12	-.06	-.05	-.05	-.07	-.01	-.09	.06	.07	.14
34. REI2	.26	.11	.21	.06	-.05	.16	-.07	-.01	.07	.09	.15	.04	-.17
35. REI3	.06	.12	.14	-.04	.11	.09	.11	.07	.14	.00	-.05	-.01	-.14
36. SE	-.13	.28*	-.50**	.04	-.27	-.33**	-.20	-.48**	-.08	-.25	-.25	.38**	.26

(table continues)

Table 3 (continued)

Variables	27 P23a	28 P23b	29 P24a	30 P24b	31 P25a	32 P25b	33 REI1	34 REI2	35 REI3	36 SE
1. AGE	-.09	0.2	.09	.14	-.19	-.13	.11	-.04	.07	.12
2. EDU	.12	.02	.10	.03	-.06	.06	.17	-.01	.11	-.01
3. BMI	-.04	-.17	.00	-.22	.02	-.04	.02	.30**	.03	.01
4. SXO	.11	.08	-.14	-.11	.18	.17	-.12	-.09	-.16	-.17
5. HEXR	-.14	-.10	.09	.01	-.11	.01	.22*	.00	.13	.12
6. GRP	-.02	-.03	.06	.16	-.06	-.08	-.07	-.06	-.03	.08
7. SDS	-.21	-.12	.19	.12	-.22*	-.11	.14	-.20	.02	.36**
8. BULT	.33**	.13	-.16	-.16	.20	.21	-.12	.24	-.11	-.40
9. MTV	-.07	-.03	.01	-.15	-.04	-.13	-.04	.08	.01	.16
10. MMG	.01	.05	.13	-.06	-.09	.14	.04	.09	.07	.00
11. BPS1	-.21	-.03	.28**	.27	-.18	-.08	-.17	-.17	.13	.26
12. BPS2	-.18	.01	.18	.25	-.15	-.06	.17	-.07	.13	.28**
13. BA1	.12	-.03	.04	.12	.03	.13	.16	.27**	.12	-.02

(table continues)

Table 3 (continued)

Variables	27 P23a	28 P23b	29 P24a	30 P24b	31 P25a	32 P25b	33 REI1	34 REI2	35 REI3	36 SE
14. BA2	.12	.07	-.08	.03	-.04	.21	.18	.26	.06	-.13
15. PA1	-.15	-.11	.58**	.37**	-.29**	-.23	.34**	.11	.12	.23*
16. NA1	.63**	.33**	-.24*	-.26	.61**	.48**	-.02	.21	.14	-.50**
17. PA2	.07	.18	.25*	.52**	-.02	.09	.12	.06	-.04	.04
18. NA2	.22	.41**	-.28	-.21	.24	.54**	-.06	.08	.11	-.27
19. P6a	.25**	.10	-.24*	-.22	.33**	.25	-.05	.16	.09	-.33**
20. P6b	.19	.22	-.15	-.03	.18	.38**	-.05	.24	.11	-.20
21 P13a	.25**	.13	-.32**	-.28	.37**	.41**	-.07	.10	.07	-.48**
22 P13b	-.04	.02	-.10	-.13	.08	.30*	-.01	.07	.14	-.08
23 P21a	.22*	.30*	-.03	-.16	.23**	.25	-.09	.09	.00	-.25
24 P21b	.22	.42**	-.14	.03	.07	.37**	.06	.15	-.05	-.25
25. P22a	-.23*	-.16	.42**	.23	-.47**	-.30*	.07	-.04	-.01	.38**
26 P22b	-.02	.10	.36**	.68**	-.25	-.29*	.14	-.17	-.14	.26

(table continues)

Table 3 (continued)

Variables	27 P23a	28 P23b	29 P24a	30 P24b	31 P25a	32 P25b	33 REI1	34 REI2	35 REI3	36 SE
27. P23a	--									
28. P23b	.45**	--								
29. P24a	-.11	-.02	--							
30. P24b	-.03	.09	.38**	--						
31. P25a	.54**	.29*	-.28**	-.39**	--					
32. P25b	.35**	.47**	-.35**	-.27	.56**	--				
33. REI1	.10	.05	.19	.25	-.04	.05	--			
34. REI2	.20	.02	-.07	-.11	.19	21	.41**	--		
35. REI3	.20	.11	.02	.05	.12	.04	.46**	.24*	--	
36. SE	-.33**	-.19	.45**	.23	-.45**	-.48**	.08	-.21	.03	--

AGE = age (18 - 25 years); EDU = years of undergraduate education level; BMI = body mass index (kg/m^2); SXO = sexual orientation: 1[heterosexual] to 10 [homosexual], HEXR = amount of exercise per week [hrs/week], Group = experimental condition: 1[ideal body], 2[average body], 3[no model], SDS = social desirability scale: (level of social desirability responses: 1 [low social desirability bias] to 13 [high social desirability bias]),

(table continues)

Table 3 (continued)

BULT = Bulimia Test-Revised (level of bulimic symptomatology: 28 [few symptoms] to 140 [many symptoms]); MTV = Media Consumption Scale (television: 0 to 20 hrs/ week); MMG = Media Consumption Scale (magazines: 0 to 20 hrs/week); BPS1 = Body Parts Satisfaction Scale (pre measure) (level of body satisfaction: 1 [*extremely dissatisfied*] to 6 [*extremely satisfied*]); BPS2 = Body Parts Satisfaction Scale (post measure) (level of body satisfaction: 1 [*extremely dissatisfied*] to 6 [*extremely satisfied*]); BA1 = Beliefs About Attractiveness Scale - Revised (pre measure) adoption of U. S. values of attractiveness: 14 [low endorsement of values of attractiveness] to 98 [high endorsement of values of attactiveness]); BA2 = Beliefs About Attractiveness Scale - Revised (post measure) (adoption of U. S. values of attractiveness: 14 [low endorsement of values of attractiveness] to 98 [high endorsement of values of attactiveness]); PA1 = Positive and Negative Affect Scale - Positive Affect (positive affect, pre measure: 10 [low or not at all] to 50 [extremely]); PA2 = Positive and Negative Affect Scale - Positive Affect (positive affect, post measure: 10 [low or not at all] to 50 [extremely]); NA1 = Positive and Negative Affect Scale - Negative Affect (negative affect, pre measure: 10 [low or not at all] to 50 [extremely]); NA2 = Positive and Negative Affect Scale - Negative Affect (negative affect, post measure: 10 [low or not at all] to 50 [extremely]); P6a = Positive and Negative Affect Scale - Guilty (pre measure guilt: 1 [*slightly or not at all*] to 5 [*extremely*]); P6b = Positive and Negative Affect Scale - Guilty (level of post measure guilt) :1 [*slightly or not at all*] to 5 [*extremely*]); P13a = Positive and Negative Affect Scale - Ashamed (level of pre measure shame: 1 [*slightly or not at all*] to 5 [*extremely*]); P13b = Positive and Negative Affect Scale - Ashamed (level of post measure shame: 1 [*slightly or not at all*] to 5 [*extremely*]);

(table continues)

Table 3 (continued)

P21a = Positive and Negative Affect Scale - Anxiety (level of pre measure anxiety: 1 [*slightly or not at all*] to 5 [*extremely*]); P21b = Positive and Negative Affect Scale - Anxiety (level of post measure anxiety: 1 [*slightly or not at all*] to 5 [*extremely*]) P22a = Positive and Negative Affect Scale - Happy (level of pre measure happiness: 1 [*slightly or not at all*] to 5 [*extremely*]) P22b = Positive and Negative Affect Scale - Happy (level of post measure happiness: 1 [*slightly or not at all*] to 5 [*extremely*]); P23a = Positive and Negative Affect Scale - Stressed (level of pre measure stress: 1 [*slightly or not at all*] to 5 [*extremely*]); P23b = Positive and Negative Affect Scale - Stressed (level of post measure stress: 1 [*slightly or not at all*] to 5 [*extremely*]); P24a = Positive and Negative Affect Scale - Confident (level of pre measure confidence: 1 [*slightly or not at all*] to 5 [*extremely*]); P24b = Positive and Negative Affect Scale - Confidence (level of post measure confidence: 1 [*slightly or not at all*] to 5 [*extremely*]); P25a = Positive and Negative Affect Scale - Depressed (level of pre measure depression: 1 [*slightly or not at all*] to 5 [*extremely*]); P25b = Positive and Negative Affect Scale - Depressed (level of post measure depression: 1 [*slightly or not at all*] to 5 [*extremely*]); REI 1 = Reasons for Exercise Factor 1 (exercising for fitness, mood, health, or enjoyment: 8 [*not at all important*] to 56 [*extremely important*]); REI 2 = Reasons for Exercise Factor 2 (exercising for weight control, to improve attractiveness, or tone: 7 [*not at all important*] to 49 [*extremely important*]); REI 3 = Reasons for Exercise Factor 3 (exercising to socialize and mood management: 6 [*not at all important*] to 42 [*extremely important*]); SE = Rosenberg Self-Esteem Scale (self-esteem: 0 [low] to 6 [high]).

* $\underline{p} \leq .005$, ** $\underline{p} \leq .001$.

Table 4

Means, Standard Deviations, and Ranges for Predictor and Criterion Variables

Variables	N	M	SD	Range
Age	169	21.1	2.05	18 - 25
EDU	168	14.2	1.07	11 - 16
BMI	169	24.24	3.75	17.2 - 37.4
SXO	145	1.5	1.63	1 - 10
HEXR	169	4.43	4.42	0 - 28
SDS	169	5.48	2.83	0 - 12
BULT	95	44.79	13.04	30 - 99
MTV	169	10.39	8.57	0 - 45
MMG	169	3.69	4.33	0 - 38
BPS1	95	4.06	0.62	5.4 - 4.1
BPS2	169	3.93	0.73	2.3 - 6
BA1	169	63.25	10.63	38 - 91
BA2	95	61.05	12.38	30 - 90
PA1	169	35.76	6.54	18 - 50
PA2	95	26.72	8.46	10 - 47
NA1	169	23.75	7.16	10 - 47
NA2	95	14.57	4.38	10 - 30

(table continues)

Table 4 (continued)

Variables	N	M	SD	Range
guilt1	169	1.95	1.1	1 - 5
guilt2	95	1.32	0.67	1 - 4
shame1	169	1.8	1	1 - 5
shame2	95	1.39	0.82	1 - 5
anxiety1	168	3.02	1.14	1 - 5
anxiety2	95	2.05	1.1	1 - 5
happy1	169	3.89	0.83	1 - 5
happy2	95	3.03	1.07	1 - 5
stress1	169	3.37	1.24	1 - 5
stress2	95	2.15	1.26	1 - 5
confidence1	169	3.66	0.84	2 - 5
confidence2	95	3.17	1.04	1 - 5
depression1	169	2.22	1.18	1 - 5
depression2	95	1.55	0.91	1 - 5
REI1	163	42.06	9.27	0 - 56
REI2	163	35.15	8.23	0 - 49
REI3	163	23.36	8.26	0 - 42
SE	95	4.82	1.42	0 - 6

(table continues)

Table 4 (continued)

AGE = age (18 - 25 years); EDU = undergraduate education level (years); BMI = body mass index (kg/m^2); SXO = sexual orientation: 1[heterosexual] to 10 [homosexual]; HEXR = amount of exercise per week [hrs/week]; SDS = social desirability scale: (level of social desirability responses: 1 [low social desirability bias] to 13 [high social desirability bias]), BULT = Bulimia Test-Revised (level of bulimic symptomatology: 28 [few symptoms] to 140 [many symptoms]); MTV = Media Consumption Scale (television: 0 to 20 hrs/week); MMG = Media Consumption Scale (magazines: 0 to 20 hrs/week); BPS1 = Body Parts Satisfaction Scale (pre measure) (level of body satisfaction: 1 [*extremely dissatisfied*] to 6 [*extremely satisfied*]); BPS2 = Body Parts Satisfaction Scale (post measure) (level of body satisfaction: 1 [*extremely dissatisfied*] to 6 [*extremely satisfied*]); BA1 = Beliefs About Attractiveness Scale - Revised (pre measure) adoption of U. S. values of attractiveness: 14 [low endorsement of values of attractiveness] to 98 [high endorsement of values of attactiveness]); BA2 = Beliefs About Attractiveness Scale - Revised (post measure) (adoption of U. S. values of attractiveness: 14 [low endorsement of values of attractiveness] to 98 [high endorsement of values of attactiveness]); PA1 = Positive and Negative Affect Scale - Positive Affect (positive affect, pre measure: 10 [low or not at all] to 50 [extremely]); PA2 = Positive and Negative Affect Scale - Positive Affect (positive affect, post measure: 10 [low or not at all] to 50 [extremely]); NA1 = Positive and Negative Affect Scale - Negative Affect (negative affect, pre measure: 10 [low or not at all] to 50 [extremely]); NA2 = Positive and Negative Affect Scale - Negative Affect (negative affect, post measure: 10 [low or not at all] to 50 [extremely]); guilt1 = Positive and Negative Affect Scale - Guilty (pre measure guilt: 1 [*slightly or not at all*] to 5 [*extremely*]);

(table continues)

Table 4 (continued)

guilt2 = Positive and Negative Affect Scale - Guilty (level of post measure guilt) :1 [*slightly or not at all*] to 5 [*extremely*]); shame1 = Positive and Negative Affect Scale - Ashamed (level of pre measure shame: 1 [*slightly or not at all*] to 5 [*extremely*]); shame2 = Positive and Negative Affect Scale - Ashamed (level of post measure shame: 1 [*slightly or not at all*] to 5 [*extremely*]); anxiety1 = Positive and Negative Affect Scale - Anxiety (level of pre measure anxiety: 1 [*slightly or not at all*] to 5 [*extremely*]); anxiety2 = Positive and Negative Affect Scale - Anxiety (level of post measure anxiety: 1 [*slightly or not at all*] to 5 [*extremely*]); happy1 = Positive and Negative Affect Scale - Happy (level of pre measure happiness: 1 [*slightly or not at all*] to 5 [*extremely*]); happy2 = Positive and Negative Affect Scale - Happy (level of post measure happiness: 1 [*slightly or not at all*] to 5 [*extremely*]); stress1 = Positive and Negative Affect Scale - Stressed (level of pre measure stress: 1 [*slightly or not at all*] to 5 [*extremely*]); stress2 = Positive and Negative Affect Scale - Stressed (level of post measure stress: 1 [*slightly or not at all*] to 5 [*extremely*]); confidence1 = Positive and Negative Affect Scale - Confident (level of pre measure confidence: 1 [*slightly or not at all*] to 5 [*extremely*]); confidnece2 = Positive and Negative Affect Scale - Confidence (level of post measure confidence: 1 [*slightly or not at all*] to 5 [*extremely*]); depression1 = Positive and Negative Affect Scale - Depressed (level of pre measure depression: 1 [*slightly or not at all*] to 5 [*extremely*]); depression2 = Positive and Negative Affect Scale - Depressed (level of post measure depression: 1 [*slightly or not at all*] to 5 [*extremely*]); REI 1 = Reasons for Exercise Factor 1 (exercising for fitness, mood, health, or enjoyment: 8 [*not at all important*] to 56 [*extremely important*]);

(table continues)

Table 4 (continued)

REI 2 = Reasons for Exercise Factor 2 (exercising for weight-control, to improve attractiveness, or tone: 7 [*not at all important*] to 49 [*extremely important*]); REI 3 = Reasons for Exercise Factor 3 (exercising to socialize and mood management: 6 [*not at all important*] to 42 [*extremely important*]); SE = Rosenberg Self-Esteem Scale (self-esteem: 0 [low] to 6 [high]).

Table 5

Frequency and Corresponding Percentages of Each of the Eating Behaviors Assessed on the BULIT-R

		Percentage
1.	I use laxatives or suppositories to help control my weight.	
	a. once a month or less	98.9
	b. 2-3 times a month	-
	c. once or twice a week	-
	d. 3-6 times a week	-
	e. once a day or more	01.1
2.	I exercise in order to burn calories.	
	a. I exercise, but not to burn calories, or I don't exercise	42.1
	b. one hour or less per day	29.5
	c. more than 1 but less than 2 hours per day	16.8
	d. about 2 hours per day	08.4
	e. more than 2 hours per day	03.2
3.	How often do you intentionally vomit after eating?	
	a. less than once a month or never	100.0
	b. once a month	-
	c. 2-3 times a month	-
	d. once a week	-
	e. 2 or more times a week	-
4.	I have tried to lose weight by fasting or going on strict diets.	
	a. not in the past year	77.7
	b. once in the past year	13.8
	c. 2-3 times in the past year	07.4
	d. 4-5 times in the past year	-
	e. more than 5 times in the past year	01.1
5.	In the last 3 months, on the average how often did you binge eat?	
	a. once a month or less (or never)	78.9
	b.2-3 times a month	07.4
	c. once a week	09.5
	d. twice a week	02.1
	e. more than twice a week	02.1

(table continues)

Table 5 (continued)

6. I use diuretics to control my weight.	
a. never	100.0
b. once a month	-
c. 2-3 times a month	-
d. once or twice a week	-
e. 3 times a week or more	-

Note: - indicates 0.0% of the disordered eating behavior was reported.

Table 6

Means and Standard Deviations and F Values for Univariate ANOVAs for Dependent Variables Across Time (N = 95)

Univariate Variable	Time 1 (premeasure)	Time 2 (post measure)	F value
BPS	3.99 (0.69)	4.06 (0.62)	1.48
BA	63.55 (11.45)	61.05 (12.38)	7.66
guilt	1.84 (1.00)	1.32 (0.67)	30.79**
shame	1.65 (0.90)	1.39 (0.82)	6.71*
anxiety	3.05 (1.15)	2.05 (1.10)	48.42**
happy	4.03 (0.78)	.03 (1.07)	73.36**
stress	3.35 (1.22)	2.15 (1.26)	81.49**
confidence	3.69 (0.84)	3.17 (1.04)	23.97**
depression	2.05 (1.11)	1.55 (0.91)	26.23**

Time 1 = premeasure baseline, Time 2 = post measure
BPS = Body Parts Satisfaction Scale (level of body satisfaction: 1 [*extremely dissatisfied*] to 6 [*extremely satisfied*]); BA = Beliefs About Attractiveness Scale - Revised (societal values of attractiveness: 14 [low endorsement of societal values] to 98 [high endorsement of societal values]); Beliefs About Attractiveness Scale - Revised (adoption of U. S. values of attractiveness: 1 [*strongly disagree*] to 7 [*strongly agree*]) ; guilt = Positive and Negative Affect Scale - Guilty: 1 [*slightly or not at all*] to 5 [*extremely*]; shame = Positive and Negative Affect Scale - Ashamed:1 [*slightly or not at all*] to 5 [*extremely*] ; anxiety = Positive and Negative Affect Scale - Anxiety: 1 [*slightly or not at all*] to 5 [*extremely*] ; happy = Positive and Negative Affect Scale - Happy: 1 [*slightly or not at all*] to 5 [*extremely*] ; stress = Positive and Negative Affect Scale - Stressed: 1 [*slightly or not at all*] to 5 [*extremely*] ; confidence = Positive and Negative Affect Scale - Confident: 1 [*slightly or not at all*] to 5 [*extremely*]; depression = Positive and Negative Affect Scale - Depressed: 1 [*slightly or not at all*] to 5 [*extremely*].
* $p < .05$., ** $p < .001$.

Table 7

Means and Standard Deviations and F Values for Univariate ANOVAs for Dependent Variables Across Time (N = 95)

Univariate Variable	Time 1 (premeasure)	Time 2 (post measure)	F value
BPS	3.99 (0.69)	4.06 (0.62)	1.48
BA	63.55 (11.45)	61.05 (12.38)	7.66*
PA	36.49 (6.55)	26.72 (8.46)	137.40**
NA	23.33 (7.10)	14.57 (4.38)	159.06**

Time 1 = premeasure baseline

Time 2 = post measure

BPS = Body Parts Satisfaction Scale (level of body satisfaction: 1 [*extremely dissatisfied*] to 6 [*extremely satisfied*]); BA = Beliefs About Attractiveness Scale - Revised (societal values of attractiveness: 14 [low endorsement of societal values] to 98 [high endorsement of societal values]); PA = Positive and Negative Affect Scale - Positive Affect: 10 [*slightly or not at all*] to 50 [*extremely*]); NA = Positive and Negative Affect Scale - Negative Affect:10 [*slightly or not at all*] to 50 [*extremely*].

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

Table 8

Premeasure Step-Wise Regression Analyses for Variables Predicting Bulimic Symptoms (N= 92)

Variable	B	SE B	b	tb
BMI	1.08	0.32	0.31	3.43**
SDS	-0.53	0.43	-0.12	-1.21
SE	-2.66	0.91	-0.29	-2.92**
Stressed	2.61	1.02	0.24	2.57*

Note: R^2 Change [Model 1 (BMI, SDS hierarchically entered)] = .15 (p = .001); R^2 Change (Model 2) = .11 (p < .001); R^2 (Model 3) = .05 (p < .05). BMI = body mass index (kg/m^2); SDS = social desirability scale: (level of social desirability responses); SE = Rosenberg Self-Esteem Scale (self-esteem); stressed = Positive and Negative Affect Scale - Stressed (level of pre measure stress).

* $p \leq .05$

** $p \leq .005$

Table 9

Premeasure Step-Wise Regression Analyses for Variables Predicting Bulimic Symptoms (N= 92)

Variable	B	SE B	b	t
BMI	1.01	0.32	0.29	3.12
SDS	-0.66	0.44	-0.15	-1.48
SE	-3.28	0.91	-0.36	-3.62

Note: R^2 Change [Model 1 (BMI, SDS hierarchically entered)] = .15 (p = .001); R^2 Change (Model 2) = .11 (p < .001). BMI = body mass index (kg/m^2); SDS = social desirability scale: (level of social desirability responses); SE = Rosenberg Self-Esteem Scale (self-esteem).

* $p \leq .005$

Table 10

Post Measure Step-Wise Regression Analyses for Variables Predicting Bulimic Symptoms (n= 95)

Variable	B	SE B	b	t
BMI	0.97	0.31	0.28	3.14**
SDS	-0.75	0.42	-0.17	-1.79
SE	-2.63	0.91	-0.29	-2.89**
anxiety	2.65	1.09	0.23	2.43*

Note: R^2 Change [Model 1 (BMI, SDS hierarchically entered)] = .13 (p = .001); R^2 Change (Model 2) = .11 (p = .001); R^2 (Model 3) = .05 (p < .05). BMI = body mass index (kg/m^2); SDS = social desirability scale: (level of social desirability responses); SE = Rosenberg Self-Esteem Scale (self-esteem); anxiety = Positive and Negative Affect Scale - Anxiety (postmeasure).

* $p < .05$

** $p \leq .005$

Table 11

Post Measure Step-Wise Regression Analyses for Variables Predicting Bulimic Symptoms (n= 95)

Variable	B	SE B	b	t
BMI	0.92	0.32	0.27	2.91*
SDS	-0.63	0.43	-0.14	-1.46
SE	-3.23	0.9	-0.35	-3.6**

Note: R^2 Change [Model 1 (BMI, SDS hierarchically entered)] = .13 (p = .001); R^2 Change (Model 2) = .11 (p = .001). BMI = body mass index (kg/m^2); SDS = social desirability scale: (level of social desirability responses); SE = Rosenberg Self-Esteem Scale (self-esteem).

* $p \leq .005$

** $p \leq .001$

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