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The Antecedents and Consequences of Body Image Dissatisfaction: A Structural Modeling Analysis and a Controlled Laboratory Task

Dana M. Borowiak

THE ANTECEDENTS AND CONSEQUENCES OF BODY IMAGE DISSATISFACTION: A STRUCTURAL MODELING ANALYSIS AND A CONTROLLED LABORATORY TASK

by

Dana M. Borowiak
Bachelor of Arts, Southeastern Louisiana University, 1997
Master of Arts, University of North Dakota, 1999

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This dissertation meets the standards for appearance, conforms to the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

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ABSTRACT

Recent covariance structural equation modeling investigations have begun to examine factors thought to play a role in body image dissatisfaction and eating disturbance (Thompson et al., 1999). The current investigation extended this line of research using structural equation modeling to examine a tripartite model of body image dissatisfaction. Female participants (N = 200) completed an informed consent, the Survey of Background Information, the Body Comparison Scale, the Restraint Scale, the Three Factor Eating Questionnaire, the Body Esteem Scale-Revised, the Inventory of Peer Influence on Eating Concerns, the Perception of Teasing Scale, the Eating Disorders Inventory, the Parent Involvement Scale, the Sociocultural Attitudes Towards Appearance Scale-Revised, the Perceived Sociocultural Pressure Scale, and the Symptoms Checklist 90-Revised.

In addition, a laboratory-based, controlled experiment was used to investigate the role of social comparison in the development of body image dissatisfaction resulting from exposure to media images of thinness and attractiveness. Based on responses to the Body Comparison Scale, two groups of women were identified from the original sample: those with a high pre-existing tendency to engage in social comparison (n = 30) and those with a low pre-existing tendency to engage in social comparison (n = 30). After completing a Survey of Background Information, half of each group of women watched commercials

that epitomized societal ideals of thinness and attractiveness; whereas, half of each group of women viewed commercials that did not focus on appearance. Upon completion of the commercial video clips, each participant completed the Eating Disorders Inventory and the Body Comparison Scale.

The present study did not support the tripartite models of body image dissatisfaction, as the data did not adequately fit either of the two proposed models. However, the data did support an alternative multidimensional model of body image disturbance and several of the specific hypothesized effects. Analyses examining the effects of the type of video viewed on social comparison yielded significant between-group differences, but failed to yield significant interactions between women's pre-existing tendency to engage in social comparison and the type of video viewed across the two assessments. Further, analyses examining the role of social comparison in body image dissatisfaction yielded significant interactions for video condition by pre-post trial and social comparison by pre-post trial.

CHAPTER I

INTRODUCTION

Excessive weight concerns, body image dissatisfaction, and disordered eating patterns have been implicated as risk factors in the development of eating disorders. These behaviors as well as the consequent disorders, are most prevalent among school girls and young women college students. Recent epidemiological studies report that of 100,000 females, 280 are diagnosed with anorexia nervosa and 1,000 are diagnosed with bulimia nervosa (Hoek, 1995). Although these are relatively small percentages, one must also consider the atypical eating disorders which include cases such as bingers who do not purge and chronic dieters. Mintz and Betz (1988) reported that, among college women, 82% engage in one or more dieting behaviors daily, and 38% experience problems with binge eating.

Body image dissatisfaction, which is becoming increasingly prevalent in westernized society, is not only thought to be a precursor to atypical eating patterns but it is also thought to mediate the connection between other risk factors (e.g., weight-related teasing, internalization, social comparison) and bingeing and restraint behavior (Cattarin & Thompson, 1994; Stice & Agras, 1988; Veron-Guidry, Williamson, & Nettemeyer, 1997).

The purpose of this study was to test two models predicting the development of body image dissatisfaction and consequent effects such as bingeing and restrained eating using structural equation modeling methodology. In addition, a subset of the individuals who participated in this research (e.g., those with high and low social comparison scores) also participated in a laboratory analogue procedure which examined the direct effect of the appearance based social comparison process in the laboratory.

Classification of Eating Disorders

Historically, eating disorders have been classified into two specific syndromes (anorexia nervosa and bulimia nervosa). However, at least one-third of individuals who present for treatment of an "eating disorder" have neither of these two conditions. Therefore, the recent editions of both the International Classification of Diseases -10 (ICD-10) and the Diagnostic and Statistical Manual of Mental Disorders-IV (DSM-IV) provide at least one other category to account for atypical eating that does not fit the criteria for either anorexia nervosa or bulimia nervosa (Fairburn & Walsh, 1995).

Given the diversity of atypical eating behavior, researchers have adopted the concept of an eating disordered continuum with normative eating behavior at one extreme and anorexia and bulimia lying at the other extreme (Rodin, Silberstein, & Streigel-Moore, 1985; Mintz & Betz, 1988). Between the two extremes lie disturbed eating behaviors which range from patterns such as bingeing or purging alone to fasting or chronic dieting.

Anorexia Nervosa

Anorexia nervosa is a chronic eating disorder in which individuals suffer from a "drive for thinness" (Wilson & Pike, 1993). The DSM-IV (1994) includes the following diagnostic criteria for anorexia nervosa: the refusal to maintain a body weight less than 85% of what is expected for normal age and height, fear of gaining weight, body image dissatisfaction, and ammenorrhea. Clinically, patients diagnosed with anorexia engage in excessive dieting behavior. They typically under eat, refuse high energy foods, and engage in strenuous exercise. In addition to food restriction, some patients diagnosed with anorexia engage in purging behaviors (e.g., vomiting, laxatives, diuretics) to induce weight loss (Beaumont, P.J.V., 1995). With severe weight loss, such as that seen in individuals diagnosed with anorexia, varied serious medical complications often arise, which help explain why it is a major source of morbidity among young women. Indeed, Goldbloom and Kennedy (1995) report that, in recent long-term follow-up studies of patients diagnosed with anorexia nervosa, the mortality rate was as high as 18%.

Bulimia Nervosa

Bulimia nervosa has some features in common with anorexia nervosa, although body weight is typically in the normal range in individuals who suffer from bulimia (Beaumont, P.J.V., 1995). The DSM-IV (1994) includes the following diagnostic criteria for bulimia nervosa: recurrent episodes of binge eating followed by recurrent compensatory behavior to prevent weight gain, and self-evaluation unduly influenced by body shape and weight. Clinically, patients diagnosed with bulimia resemble those

diagnosed with anorexia in the early stages in that they attempt to control their weight by dieting and abstaining from high energy foods. However, as a reaction to the restrained eating behavior, individuals with bulimia become preoccupied with food and develop a pattern of eating which alternates between fasting and extreme dieting at one extreme and bingeing behavior at the other extreme. Consequently, because they believe they can not control their eating behavior, individuals diagnosed with bulimia report that they must engage in purging behaviors to prevent themselves from becoming fat (Beaumont, P.J.V., 1995; Compas, Haaga, Keefe, Lettenberg, & Williams, 1998).

Chronic Dieting and Restrained Eating

It is estimated that between 20% and 30% of American women may be chronic dieters, or restrained eaters (Eldredge, Wilson, & Whaley, 1990; Rand & Kuldau, 1990). Chronic dieting lies somewhere in the middle of the eating disorder continuum, and not surprisingly, has been implicated as a factor in triggering eating disorders such as anorexia and bulimia. Both anorexia and bulimia often seem to begin with an otherwise normal attempt to diet to lose weight in vulnerable individuals who are more susceptible to psychological problems (e.g., those with low self-worth, interpersonal distrust, etc.) (Polivy & Herman, 1995). In fact, Polivy and Herman (1995) declare that the link between dieting and eating disorders is so recognizable that eating disorders are often referred to as "dieting disorders." Consistent, but more specifically, Wilson (1995) has stated that dieting is a necessary, although not sufficient, cause in the development of eating disorders.

A chronic dieter's repertoire typically includes restricting the quantity or even completely excluding the ingestion of certain foods. This behavior, which has become known as restrained eating, occurs to either maintain body weight or promote weight loss (Herman & Polivy, 1980). However, in some cases the exercising of dietary restraint is interspersed with high calorie binges, creating a restraint/binge cycle which can become a pattern of abnormal eating and even an eating disorder. Several investigations have focused on factors that are thought to be related to restrained eating such as depression, low self-esteem, body dissatisfaction, and negative affect (Eldredge et al., 1990; Meijboom, Jansen, Kampman, & Schouten, 1999; Paa & Larson, 1988; Polivy & Herman, 1985). Further, restrained eaters tend to be more insecure and therefore are more vulnerable to social and environmental cues than are nonrestrained eaters (Polivy & Herman, 1985). Polivy and Herman (1985) also report that restrained eaters tend to show some cognitive distortions, such as categorizing food as good versus bad and excessively focusing on food and body shape. It is important to note, however, that more longitudinal studies need to be conducted which examine children not yet exposed to restraint behavior. Until then, it is not clear whether these attributes precede restraint behavior or whether they are a consequence of such behavior (Polivy & Herman, 1985).

Body Image Dissatisfaction

Body image dissatisfaction consists of affective, cognitive, and behavioral components. It is a culmination of "how we look, how we think we appear to others, and how we feel about our looks." (Thompson et al., 1999). In recent years, body image

dissatisfaction has received increased attention which is not surprising due to its high prevalence among women.

Psychology Today conducted three large scale interviews in 1972, 1985, and 1997 regarding change in body image over time and found that women's appearance dissatisfaction increased from 23% to 56% from 1972 to 1997. Other studies using randomized and stratified sampling procedures have produced similar results (see Thompson et al., 1999 for review). For instance, The Centers for Disease Control and Prevention in Atlanta assessed 5,878 female high school students and found that approximately 42%-45% were attempting to lose weight (Serdula et al., 1993). In addition, Serdula et al. (1993) also looked at data from 24, 574 women between the ages of 18 and 59 and found percentages that were almost identical to the high school sample.

Body image dissatisfaction represents a serious problem for women. Indeed, Thompson, Heinberg, and Clarke (1996) have declared that the importance of body image as an etiological factor in eating disorders can not be minimized, and several studies report that it is the most consistent predictor of the onset of eating-disordered behavior (Cattarin & Thompson, 1994; Graber, Brooks-Gunn, Paikoff, & Warren, 1994; Stice & Agras, 1998). Furthermore, Stice and Agras (1998) found that improved body image satisfaction predicted the remission of binge eating and purging. Finally, most researchers today tend to recognize body dissatisfaction as the most important measure of body image disturbance and even define disturbance as dissatisfaction (Thompson et al., 1999).

internalization predict body dissatisfaction, which ultimately influences disturbed eating patterns such as bulimic and restrained eating behaviors. Finally, this model suggests that bulimia has a reciprocal relationship with global psychological functioning (e.g., self-esteem; depression).

The second model (See Appendix B) is similar to the first, differing only in the position of the psychological functioning variable. More specifically, this model suggests that the influence of peers, parents, and the media affect global psychological functioning, which, in turn, leads to social comparison and internalization. These factors then lead to body dissatisfaction, which influences disturbed eating behaviors (Thompson et al., 1999).

The main purpose of this paper was to test both of the above models which, to this researcher's knowledge, have yet to be empirically tested. It was anticipated that this information will assist in the development of more integrative models which will help to capture the complexity of body image and would lead to more comprehensive assessment batteries which assess the multiple risk factors thought to maintain body image disturbance. In turn, such information can lead to new multidimensional treatment approaches for eating problems which focus on body image disturbance.

Tripartite Model of Core Influences of Body Image Disturbance

Not only has the American standard of beauty become increasingly associated with thinness, but society has a tendency to equate such beauty with goodness and virtue (Wilfley & Rodin, 1995). This has led many women to become frustrated as they are not

able to maintain the increasingly thin ideal figure. This frustration and body image dissatisfaction can lead to chronic dieting and eating disturbances in many individuals (Thompson et al., 1999). Unfortunately, it is not uncommon for these norms to be reinforced both through interpersonal factors and the media (Molloy & Herzberger, 1998; Thompson et al., 1999). Thompson et al. (1999) propose that body image dissatisfaction is affected by three core influences: peers, parents, and the media. These three core influences are hypothesized to influence body image dissatisfaction through social comparison processes and the internalization of thin ideals.

Parental Influences

Discussions of the etiology of body image almost invariably refer to the role that social pressure plays in the quest for the thin ideal figure. One such source of social pressure is that placed upon children by their parents. Parents can provide children with information regarding weight and appearance either indirectly through modeling or directly through feeding practices. Children who receive the message that ideal weight is necessary to be accepted and loved may be predisposed to the development of unhealthy body image and eating attitudes (Thompson et al., 1999).

Several studies examining the relationship between mothers with eating disorders and their children have found a significant relationship between weight and diet concerns in mothers and their daughters (e.g., Pike & Rodin, 1991); whereas, other studies have found little relationship between the same constructs (e.g., Attie & Brooks-Gunn, 1989; Thelen & Cormier, 1995). These inconsistencies may be due to the correlational and non-

longitudinal nature of many of the studies which make it impossible to determine whether maternal factors existed prior to, or develop as a consequence of, the eating disorder (Sanftner, Crowther, Crawford, & Watts, 1996).

Sanftner and his colleagues (1996) assessed 382 female adolescents (ages 9-15) and their mothers and found that the mothers and daughters resembled one another in terms of their body image and eating behavior only after pubertal development. However, they note that this may be because daughters receive increased societal pressure to develop more gender stereotyped behaviors after puberty. Similarly, Rodin and colleagues (1985) found that parents became more negative in their evaluations of their children's weight as they increased in age.

Benedikt, Wertheim, and Love (1998) conducted a study in which they found that 51% of the mothers admitted to encouraging their daughter to lose weight, but only 14% of the daughters were actually overweight. In a similar vein, Striegel-Moore and Kearney-Cooke (1994) reported that both mothers and fathers find physical attractiveness as an important quality of their children; however, mothers reported feeling more societal and family pressures to improve the child's physical appearance. Thelen and Cormier (1995) examined whether mothers or fathers tended to encourage their children to lose weight. Interestingly, they reported that although mothers and fathers reported giving similar levels of encouragement to their children, the children perceived more encouragement for weight loss from their mothers. In addition, infants of mothers with eating disorders were

found to be smaller in both height and weight for their age than a comparison group of infant with depressed mothers.

Conners (1996) reviewed several studies examining the impact of familial factors on eating disorders and summarized several of the key findings. First, he reported that families of women with eating disorders typically experience high levels of conflict and have low cohesion. They also typically tend to be ones in which the parents exert too much control and influence over the children. Families of women with eating disorders tend to highly value achievement. Finally, communication and expression of feelings is not customarily valued in families of patients with eating disordered behavior. Children in such situations may view their parents as neither supportive nor empathic.

Peers

Like parents, peers can have an influential effect on dieting beliefs and eating attitudes, particularly during adolescence (Thompson et al., 1999). Oliver and Thelen (1996) examined the effects of peers on negative body image and eating disturbance and found that third to fifth-graders tended to be most affected by peers' perceptions regarding body image and eating concerns. They reported that girls were more likely than boys to endorse the belief that body size was related to likability. Girls were also more likely to report sharing their concerns about body size with other girls. Although not found in this study, other research has supported the idea that such peer interactions about shape and weight could lead to eating disturbances later in development (Levine, Smolak, Moodey, Shuman, & Hessen, 1994).

Additional research supports the notion that peer influence can extend into adulthood. For instance, Shwartz, Thompson, and Johnson (1981) found that college women who purge are likely to know other women who purge, but those who do not purge infrequently know other purgers. In addition, Crandall (1988) reported that the degree of binge eating behavior among a person's peers was related to a person's own bingeing behavior.

Mass Media

Numerous authors have proposed, and empirical work has tended to support, the idea that social pressure may be a driving factor behind an individual's need and desire to conform to societal standards related to beauty and body shape and size (Fallon, 1990; Stormer & Thompson, 1996). In Western societies today, thinness is associated with beauty, and obesity is denigrated (Rodin et al., 1985). The mass media (including both print and television) typically provides both subtle and blatant endorsements of the thin ideal body shape. The prevalence of these images suggest that they may play an important role in body image disturbance (Altabe & Thompson, 1996; Thompson et al., 1999). Indeed, Thompson and colleagues (1999) note that, although other modes of socialization such as friends and family may help to promote the importance of attaining thinness, the popularity of media in our society may make it the most influential and efficacious communicator of the ideal figure. Garner (1997) found data supporting the importance of media messages regarding thinness. The survey, conducted in association with

Psychology Today, found that of 3,452 female respondents, 23% indicated that movie and television celebrities influenced their body image at young ages and 22% responded that fashion magazine models had a similar effect.

Television. Numerous studies have been conducted supporting the idea that television promotes the thin ideal body shape. For instance, Downs and Harrison (1985) studied over 400 commercials and found that the importance of appearance was a factor in one out of every 3.8 commercials. In addition, 14% of advertisements during Saturday morning cartoons were related to the importance of enhancing one's appearance and 86% of these were targeted at young female consumers (Ogletree, Williams, Raffeld, Mason, & Fricke, 1990).

Gonzalez-Lavin and Smolak (1995) found that females who watched in excess of eight hours of television per week reported more body dissatisfaction than females who watched less than that. In a more specific examination of television viewing and body dissatisfaction, Tiggeman and Pickering (1996) found that although overall television exposure did not correlate with negative body image, the types of programs viewed were related to dissatisfaction. For instance, exposure to soap operas and movies was positively correlated and exposure to sports programs was negatively correlated with body image dissatisfaction. Finally, in one of the only controlled laboratory investigations of this issue, Heinberg and Thompson (1995) showed college women short videotaped commercials which either promoted societal ideals of attractiveness or contained neutral

stimuli. Results indicated that participants who watched the experimental clips reported greater depression, anger, weight dissatisfaction, and appearance dissatisfaction than those who viewed the neutral stimuli.

Print Media. Print media, like television, has a strong tendency to promote the thin ideal body size. For example, Wertheim, Paxton, Schutz, and Muir (1997) interviewed 15-year-old girls and found that their initial dieting experiences were triggered by diets in teen magazines. In addition, Levine and Smolak (1996) reported that in the April 1994 issue of *Teen* magazine, all 95 images of girls included were thin and only two had moderately substantial waists or hips. In addition, other researchers have found that while 45% to 62% of articles in teen fashion magazines focus on appearance, less than 30% focus on self-development and identity issues (Evans, Rutberg, Sather, & Turner, 1991; Pierce, 1990).

Several researchers have also examined the effects of print media on body dissatisfaction. Waller, Hamilton, and Shaw (1992) found that exposure to magazine models' photographs caused significantly increased body size overestimation in participants with eating disorders. Non-eating disordered women also report higher levels of depression, stress, shame, insecurity, and body size dissatisfaction following exposure to photographs of models taken from popular women's magazines. Moreover, Then (1992) reported that 68% of women reported feeling worse about their appearance after reading a fashion magazine. Likewise, Garner (1997) found that 43% of women with

body image dissatisfaction reported comparing themselves with the shapes of the models in fashion magazines.

Clearly, both television and print media are pervasive communicators of society's expectations regarding thinness and attractiveness. However, as most of the studies are correlational, caution is warranted in interpreting the results. It may be that the mass media is an etiological factor in body image disturbance, but it could also be the case that women who are dissatisfied are more likely to expose themselves to such stimuli. Whatever the case, it is likely that women would benefit from prevention and treatment strategies aimed at combating messages from the mass media (Thompson et al., 1999).

Mediating the Relationship between Parents, Peers, Media and Body Dissatisfaction

Mere exposure and awareness of societal pressures may not be sufficient to explain body image disturbance. Rather, it seems likely that an interaction between factors thought to influence body dissatisfaction (e.g., media, peers, parents) may make a person more likely to focus on weight and shape concerns, engage in appearance related comparison, and to internalize thin ideal messages which then could lead to body image dissatisfaction.

Internalization Because many women who watch television or who read magazines do not subscribe to the thin ideal or experience body image dissatisfaction, some researchers (e.g., Heinberg & Thompson, 1995) have hypothesized that the internalization of thin ideal messages is a necessary precursor to experiencing negative

body image. Cusumano and Thompson (1997) investigated this hypothesis and found that of print media exposure, awareness of societal ideals, and internalization of societal values, internalization was the most important correlate of body image disturbance. More recently, internalization has been suggested to serve as a mediator between exposure to messages regarding ideals for attractiveness and the development of body image and eating disturbances (Heinberg & Thompson, 1995; Thompson, Heinberg, et al., 1999). Stice, Shupak-Neuberg, Shaw, and Stein (1994) examined the relationship between media exposure, gender role endorsement, body dissatisfaction, and eating disorder symptomatology in undergraduate women. They not only found a direct path between media exposure and eating disorder behaviors, but they also found that internalization mediated the relationship between media exposure, body dissatisfaction, and eating disturbance (i.e., media exposure led to internalization of the thin ideal body shape which led to increased body dissatisfaction and eating disturbance).

Social Comparison Festinger (1954) theorized that humans have an innate tendency to gather information from others in order to derive opinions of themselves. Similar to the idea of internalization, social comparison theory suggests that individual differences in the tendency of women who compare themselves with others may account for the differing levels of body image dissatisfaction in a culture where thinness has come to symbolize competence, success, and sexual attractiveness (Thompson et al., 1999; Wilfley & Rodin, 1995).

It is important to note that comparisons can be either downward (when the target is inferior to an individual on a certain attribute) or upward (when the target is superior to an individual on a certain attribute). As one might imagine, upward comparisons involve more risk as they may remind an individual of his or her inferiority and increase emotional distress. On the contrary, downward comparisons may serve as a mechanism of self-enhancement (Wood, 1989). Upward comparisons then, are thought to lead certain individuals to increased vulnerability in the face of societal appearance pressures (Thompson, 1990).

Correlational studies assessing the relationship between body satisfaction and individual differences in social comparison tendencies consistently find a positive relationship between the two variables (Heinberg & Thompson, 1992a; Thompson, Heinberg, & Tantleff, 1991). In an effort to provide further clarification of the social comparison process, several researchers (e.g., Heinberg & Thompson, 1992a) have attempted to identify the target of appearance related comparisons. Heinberg and Thompson (1992a) had male and female undergraduates rate the importance of six comparison groups (family, friends, classmates, other university students, celebrities, and average U.S. citizens) on a variety of appearance (e.g., attractiveness, figure-physique) and nonappearance (e.g., intelligence, confidence) attributes. Importance ratings were highest for friends, followed by university students, classmates, and celebrities. In addition, these three groups were rated as significantly more important than family and U.S. citizens.

Further, for women, the importance ratings of others as comparison targets was significantly associated with body dissatisfaction and eating disturbance; whereas, there was no significant association for the male students.

Further, Beebe, Hobeck, Shober, Lane, and Rosa (1996) found that women who were preoccupied with their own shape and weight were more likely to place importance in these areas when evaluating others. They also found that those women who emphasized body shape and weight concerns were more likely to attribute "fat" and "thin" feelings to photographs of models. These findings suggest that women with body image disturbance are likely to believe that others also place importance on weight and appearance concerns which could serve to not only perpetuate feelings of inferiority, but also to normalize the emphasis on body and appearance related concerns (Thompson et al., 1999).

In contrast to correlational studies, controlled laboratory designs have yielded inconsistent findings with some studies finding limited support that experimentally induced social comparison affects body image (Cash, Cash, & Butters, 1983; Heinberg & Thompson, 1992b) and other studies finding stronger support for the predictions made by social comparison theory (Irving, 1990).

Heinberg and Thompson (1992b) conducted a study in which undergraduate females were given false feedback about their relative weight, leading half to believe they were thinner than average and half to believe they were heavier than average,. In addition, half of each group were given feedback in relation to similar others (e.g., average person

attending the university), and half were given feedback in relation to generic others (e.g., average person in the U.S.). Body image dissatisfaction did not vary as a function of the social comparison manipulation; however, participants who were compared with similar others reported significantly greater body image dissatisfaction than did those who compared themselves with generic others. Thus, regardless of the information conveyed, participants felt worse from the mere act of engaging in the comparison process with similar others. The researchers hypothesized that individuals were less likely to engage in the social comparison process with generic others because they judged this group as dissimilar and thus irrelevant (Heinberg & Thompson, 1992b). In a similar vein, Faith, Leone, and Allison (1997) had participants imagine someone of the same sex whom they considered much more attractive than themselves (upward comparison), someone who they considered much less attractive than themselves (downward comparison), or someone from a favorite movie or television program (control). Similar to the findings of Heinberg and Thompson (1992b), body satisfaction levels did not vary as a function of the social comparison manipulation.

Cattarin, Thompson, Thomas, and Williams (2000) furthered this line of research by examining the moderating effect of social comparison between media presented images of thinness and attractiveness and body image dissatisfaction. Undergraduate women were shown either a videotape containing commercials representative of the thin, attractive sociocultural ideal or commercials with nonappearance related stimuli. In addition, participants were instructed to either compare themselves to people in the video

(high comparison), to play close attention to the products advertised (low comparison), or to watch as if they were watching television at home (neutral condition). Results indicated that women viewing the appearance related commercials reported higher levels of social comparison than those viewing the control tape, regardless of the instructions given. Thus, manipulating instructional set was not completely effective. Findings also indicated that the women given the comparison instruction and who saw the appearance related videotape reported significantly greater increases in body image dissatisfaction than did the women in the other two groups, providing support for the moderating effect of social comparison (Cattarin et al., 2000).

Integrative Models of Body Image Dissatisfaction

More recently, interest has grown in comparing the relative contributions of competing theories of body image disturbance. Thompson and Heinberg (1993) examined the importance of teasing and social comparisons in predicting variance associated with body dissatisfaction and eating disturbance in undergraduate females. Results indicated that weight related teasing was a significant and consistent predictor of body image dissatisfaction and atypical eating patterns. In addition, the importance ratings of comparison targets predicted unique variance for both body dissatisfaction and disordered eating patterns.

Stormer and Thompson (1996) extended this line of research by examining the importance of maturational status, teasing, social comparison, and internalization of sociocultural pressures for thinness and attractiveness among 162 college women.

Multiple regression analyses indicated that the majority of the variance in body image dissatisfaction and eating disturbance could be accounted for by the frequency of social \ comparison and the level of internalization of sociocultural norms. Teasing accounted for a small portion of the variance, but maturational status did not contribute unique variance.

Thompson, Coovert, and Stormer (1999) used covariance structural modeling to examine the possibility that appearance comparisons mediate the connection among developmental issues (e.g., early maturation timing, teasing), body image, and eating disturbance in 173 undergraduate females. They found support for the role of appearance based comparisons as a link between teasing, body image, and eating disturbance. In addition, body image was found the mediate the effects of teasing on disordered eating patterns. However, maturational timing was not found to be a significant predictor of social comparison.

Researchers have found varying degrees of support for various interpersonal and sociocultural factors thought to play an etiological role in body image disturbance. More recently, researchers have begun to examine multidimensional models of body image disturbance. The tripartite model specifies that the effects of parents, peers, and media messages on body dissatisfaction are mediated by the internalization of thin ideals and social comparative processes. This suggests that in the absence of internalization and social comparison, parents, peers, and media messages would not affect body dissatisfaction. Although studies (e.g., Cusumano & Thompson, 1997; Heinberg & Thompson, 1992a; Heinberg & Thompson, 1992b; Heinberg & Thompson, 1995; Rieves

& Cash, 1996) have supported the importance of internalization and social comparison in the development of body dissatisfaction, few studies have examined whether they serve as necessary mediators between body dissatisfaction and parents, peers, and media messages as the tripartite model suggests.

Rationale for the Current Study

Eating disordered behavior is a chronic problem among young women in western society (Hoek, 1995; Mintz & Betz, 1988). Body image dissatisfaction has been implicated not only as the most consistent predictor of eating disordered behavior (Cattarin & Thompson, 1994; Grabe et al., 1994; Stice & Agras, 1998), but also as a mediator between other risk factors (e.g., social pressure for thinness, media, depression, peer relationships) and eating disturbances (Thompson et al., 1995; Veron-Guidry et al., Williamson et al., 1995). Although several models have been proposed to explain the development and maintenance of body image dissatisfaction, little work has attempted to evaluate competing theories. Recently, Thompson and colleagues (1999) proposed two competing models that include factors thought to affect body image (e.g., peers, parents, media) as well as consequent effects of body image disturbances (e.g., bulimia, restraint). The proposed study empirically tested both of these models in an attempt to determine which best accounts for the antecedents and consequences of body image dissatisfaction. It was hoped that findings would further elucidate possible causal sequences for the development of body dissatisfaction.

As mentioned previously, social comparison theory proposes that there is a significant, positive relationship between an individual's tendency to compare herself with others and body image satisfaction, and correlational studies have consistently found support for the social comparison process. (Heinberg & Thompson, 1992; Heinberg & Tantleff, 1991). Controlled, laboratory investigations have yielded inconsistent results; but, still provide limited to strong support for social comparison theory. This investigation extended previous research in that previous researchers (e.g., Cattarin et al., 2000) manipulated (via changes in instructional set) the level of social comparison between participant and videos viewed. However, social comparison theory purports that their are individual differences in the tendency to engage in the social comparison process, and indeed, some researchers have argued that a tendency to engage in the social comparison process in a necessary precursor to experiencing body image dissatisfaction (e.g., Stormer & Thompson, 1996, Thompson et al., 1999). Therefore, in the current investigation, participants were pre-selected based on their self-reported pre-existing tendency to engage in the social comparison process. It was expected that the women in the two groups with the high pre-existing tendency to engage in the social comparison process would report higher levels of social comparison than those reporting a low pre-existing tendency to engage in the social comparison process, regardless of the video viewed. It was also hypothesized that women who have a high pre-existing tendency to compare and who saw the appearance related video would increase in level of body image disturbance from pre- to post-manipulation to a greater degree than the other three groups. Furthermore, it

was expected that individuals with a low pre-existing tendency to engage in the social comparison process will not change significantly from pre- to post-manipulation, regardless of the videotape viewed.

CHAPTER II

METHOD

Over the course of two semesters, 198 undergraduate women enrolled in psychology courses were solicited (via sign up sheets located in Corwin Larimore Hall) to participate in a study concerning eating behavior among undergraduate women. In addition, based on responses to the Body Comparison Scale, two groups of women (from this initial sample) were identified: individuals with a high pre-existing tendency to engage in social comparison ($n = 30$), and individuals with a low pre-existing tendency to engage in social comparison ($n = 30$). These women were then telephoned and invited to participate in the laboratory portion of this study. Participants received extra credit in their psychology courses for participation in this project.

Materials

Survey of Background Information

The Survey of Background information (See Appendix C) was designed for use in this study and was used to obtain demographic information for each participant. This questionnaire assesses the participant's general health, age, ethnicity, and dieting status. It also assesses for allergies. In addition, participants in the laboratory portion were asked to report their food intake for 24 hours preceding the study.

Body-Esteem Scale-Revised

The Body-Esteem Scale-Revised (See Appendix D, Mendelson et al., 1998 as cited in Thompson et al., 1999) is a 23-item scale designed to measure the degree of agreement with various statements about one's own body satisfaction. The scale contains three subscales: appearance, attribution, and weight.

The Appearance subscale includes items that assess acceptance and satisfaction of the way one looks. Items comprising the Attribution subscale assess the frequency with which one attributes being slender to being able to succeed in such areas as dating and employment. The Weight subscale includes items that assess satisfaction with one's weight.

Developed for use with both adolescents and adults, this scale has good internal consistency with coefficient alphas reported between .81 and .94 (Thompson et al., 1999). Validity information was not available for this scale.

The Eating Disorders Inventory (EDI)

The Eating Disorders Inventory (See Appendix E, Garner, Olmsted, & Polivy, 1983) is a 64-item, self-report instrument which consists of eight subscales including: Drive for Thinness, Bulimia, Body Dissatisfaction, Ineffectiveness, Perfectionism, Interpersonal Distrust, Interoceptive Awareness, and Maturity Fears. Coefficient alphas for these subscales have been reported between .83 and .93. Convergent and discriminant validity information is available for each of these subscales for patients diagnosed with

Anorexia Nervosa. Please refer to the Eating Disorders Inventory manual for further information (Garner, Olmsted, & Polivy, 1983).

The Drive for Thinness subscale includes items that assess fear of weight gain, an excessive concern with dieting, and preoccupation with weight. Items comprising the Ineffectiveness subscale measure general feelings of inadequacy, insecurity, and worthlessness. The Perfectionism subscale consists of items that measure personal expectations of superior achievement. Items comprising the Interpersonal Distrust subscale assess an individual's ability to comfortably express her emotions towards others. The Interoceptive Awareness subscale contains items which measure an individual's ability to accurately recognize and identify her emotions and feelings of hunger or satiety. Items comprising the Maturity Fears subscale assess an individual's desire to remain in the security of childhood, and her fear of the demands of adulthood.

The Bulimia and the Body Dissatisfaction subscales of the Eating Disorder Inventory will be of particular focus in the current study. The Bulimia subscale (see Appendix F) includes seven items that assess an individual's tendency to engage in bingeing and purging behaviors. With females, this scale has been reported to have high internal consistency with a coefficient alpha of .83 (Garner et al., 1983). The Body Dissatisfaction subscale of the Eating Disorders Inventory (see Appendix G), is a nine-item scale which measures dissatisfaction with overall body shape as well as with the size of the hips, stomach, thighs, and buttocks (i.e., those areas that are of particular concern

for individuals with eating disorders). With females, this scale has been reported to have high internal consistency with a coefficient alpha of .91 (Garner et al., 1983).

The Restraint Scale

The Restraint Scale (see Appendix H, Herman & Polivy, 1980) is a 10-item instrument which was developed to identify individuals who are chronically concerned about their weight and attempt to control it by restraining food intake. This scale contains two subscales: the Weight Fluctuation subscale and the Concern for Dieting subscale. For females the median restraint score is approximately 16, with a standard deviation of approximately seven (Polivy, Herman, & Howard, 1988). In reliability studies, internal consistency has consistently been high with coefficient alphas consistently exceeding .75 (Allison, Kalinsky, & Gorman, 1992; Laessle, Tuschl, Kotthaus, & Pirke, 1989; Ruderman, 1983). Internal consistency of the subscales is slightly lower with coefficient alphas ranging from .66 to .71 on the Weight Fluctuation subscale and from .70 to .80 on the Concern for Dieting Subscale (Allison et al., 1992; Herman & Polivy, 1975). No validity information was available for this scale.

Three Factor Eating Questionnaire (TFEQ-R)

The Three Factor Eating Questionnaire (TFEQ-R; See Appendix I; Stunkard & Messick, 1985) is a 51-item questionnaire with three subscales measuring dietary restraint, disinhibition, and hunger. The mean score among American female college students is reported as approximately 10, with a standard deviation of 5.6 (Allison et al., 1992).

Internal consistency is consistently reported to be high with coefficient alphas greater than .80 (Allison et al., 1992; Stunkard & Messick, 1988). In addition, Allison et al. (1992) found high two week test-retest reliability (r = .90).

Symptom Checklist-90-Revised (SCL-90-R)

The Symptom Checklist-90-R (See Appendix J) is a 90-item self-report instrument which designed to measure current psychological symptoms in adults and adolescents. Each item is self-rated on a five-point scale of distress, and there are nine primary symptom dimensions: somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism. In addition, there are three global indices of distress: the Global Severity Index, the Positive Symptom Distress Index, and the Positive Symptom Total. The Positive Symptom Distress Index reflects the average level of distress reported for the symptoms endorsed, and it can be interpreted as a measure of symptom intensity. The Positive Symptom Total reflects the number of symptoms endorsed, regardless of the level of distress reported. The Global Severity Index combines the number of symptoms reported with the intensity of the perceived distress, and it is often used as a measure of general psychological distress.

The Inventory of Peer Influence on Eating Concerns

As this measure was originally designed to be used with adolescents, a revised version of the Inventory of Peer Influence on Eating Concerns (See Appendix K, Oliver & Thelen, 1996) will be used in this study. This measure consists of 30 items and consists

of five factors. The first factor, Messages, measures the frequency with which individuals receive negative messages from peers about their bodies and eating behaviors. The Interactions/Female and Interactions/Male factors measure the frequency with which individuals interact with their peers about eating and body image issues. The Likability/Female and Likability/Male factors assess the degree to which children believe that being thin will increase their popularity with peers. Developed for use with adolescents, all five factors have adequate internal consistency with coefficient alphas of .92 for the Messages factor, .76 for the Interactions/Male factor, .80 for the Interactions/Female factor, and .88 for the Likability factors (Oliver & Thelen, 1996). Further, Oliver and Thelen (1996) conducted zero-order correlational analyses and found that the Messages and Likability/Female subscales significantly correlated with eating and body image disturbance variables on the Eating Disorders Inventory for Children with the exception of bulimia. The Interactions/Girls subscale significantly correlated with the Bulimia and Drive for Thinness subscales on the EDI-C.

The Perception of Teasing Scale

The Perception of Teasing Scale (See Appendix L; Thompson, Cattarin, Fowler, & Fisher, 1995) is a 12-item assessment tool which measures frequency of past teasing as well as the extent teasing has negatively affected the participant. This scale consists of two factors: six items that comprise the weight-teasing subscale, and five items comprise the competency-teasing subscale (i.e., history of non-weight teasing). This scale also assesses the effect of teasing (i.e., how upset the teasing experience was to the individual).

Normed on female undergraduates, this scale has high internal consistency with a coefficient alpha of .94 (Cattarin et al., 1995). Validity information was not available for this scale.

The Parent Involvement Scale

The Parent Involvement Scale (See Appendix M; Levine, Smolak, & Hayden, 1994) is a four-item measure which assesses perceptions of parental attitudes and behaviors related to weight and shape. More specifically, this scale is used to determine daughter's perceptions of how important slenderness is to her parents. Developed for use with high school students, internal consistency is high with a coefficient alpha of approximately .80 (Levine et al., 1994). Validity information was not available for this scale.

The Sociocultural Attitudes Towards Appearance Scale-Revised

The Sociocultural Attitudes Towards Appearance Scale-Revised (See Appendix N; Female Version, Cusumano & Thompson, 1997) consists of 21 items which assess recognition and acceptance of societal standards of appearance. It consists of two subscales: Awareness and Internalization. Regression analyses indicate that the Internalization subscale significantly predicts body image disturbance and eating disordered behavior (Heinberg, Thompson, & Stormer, 1995). Normed on female college students, this scale has good internal consistency on both the Awareness subscale and the Internalization subscale with coefficient alphas of .83 and .89, respectively (Cusumano & Thompson, 1997).

The Perceived Sociocultural Pressure Scale

The Perceived Sociocultural Pressure Scale (See Appendix O; Stice, Ziemba, Margolis, & Flick, 1996) consists of eight items which measures perceived pressure from the media to have a thin body. Developed for use with high school and college students, this scale has good internal consistency with a coefficient alpha of approximately .87, and high two week test-retest reliability (r = .93) (Stice et al., 1996). Validity information was not available for this scale.

The Body Comparison Scale

The Body Comparison Scale (See Appendix P; Fisher & Thompson, 1998 as cited in Thompson, 1999) is a 36-item questionnaire which measures a participant's tendency to compare both specific body sites as well as general comparison tendencies regarding appearance. Developed for use with high school and college students, internal consistency is high with a coefficient alpha of .95 (Fisher & Thompson, 1998).

Commercial Video Clips

Each of the two video conditions (appearance and nonappearance) contain approximately 20 minutes of video clips from commercials that were videotaped from standard and cable television channels during the daytime and prime-time viewing hours. In the appearance video condition, commercials contain women who epitomize societal ideals of thinness and attractiveness. The ads are typically those for fast-food, weight loss products, make-up, and clothing. In contrast, the non-appearance video contains commercials which do not include societal ideals of thinness and attractiveness. Such

commercials are for household cleaning products, automobiles, insurance, and child related products (e.g., diapers, baby food, etc.). Videos were selected by the primary researcher.

Procedure

Individuals comprising the original sample (n = 200) were asked to come to the laboratory and complete a series of questionnaires for a study concerning eating behavior and weight concerns in undergraduate women. Following completion of the consent form, each participant was asked to complete the following questionnaires: Survey of Background Information, Eating Disorder Inventory, Restraint Scale, Three Factor Eating Questionnaire, Body-Esteem Scale-Revised, Inventory of Peer Influence on Eating Concerns, Symptom Checklist-90-R, Perception of Teasing Scale, Parent Involvement Scale, Sociocultural Attitudes Towards Appearance Scale-Revised, Perceived Sociocultural Pressure Scale, and the Body Comparison Scale. See Figure 1 for a description of the variable each test was designed to measure. Participants participated in the proposed study in medium-sized groups (approximately 15-20 participants in each session). The room in which the participants completed the questionnaires was large enough to ensure some privacy. More specifically, to ensure privacy, participants were seated with at least one desk space in between them. The questionnaires were presented in random order to each participant, and the researcher ensured all participants that their responses would be kept confidential. These women received extra credit for their participation in this part of the study.

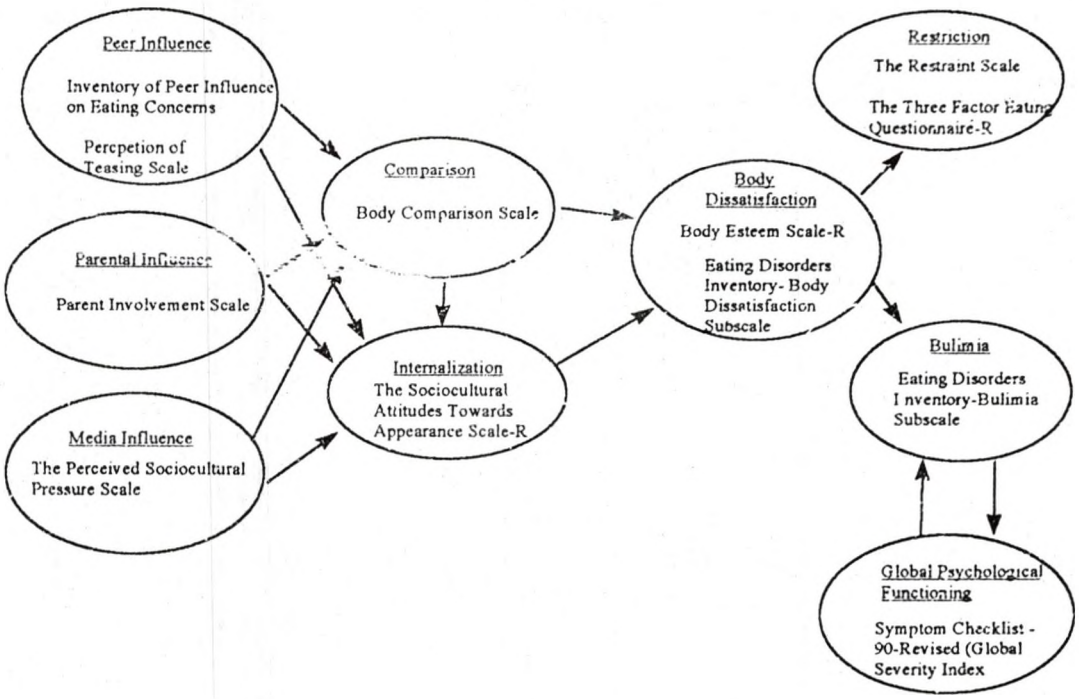


Figure 1. Questionnaires used to measure the variables in this investigation

Based on responses to the Body Comparison Scale, two groups of women (from the initial sample) were tentatively identified: individuals with a high pre-existing tendency to engage in social comparison ($\underline{n}$ = 30), and individuals with a low pre-existing tendency to engage in social comparison ($\underline{n}$ = 30). The high social comparison group was comprised of women who received the highest scores on the Body Comparison Scale. Conversely, participants comprising the low social comparison group were those receiving the lowest scores on the Body Comparison Scale. These women were then contacted to determine if they would like to participate in a study involving the saliency of commercials. If they agreed, the researcher instructed them to refrain from eating for three hours prior to the experiment.

This was done to keep participants' hunger levels similar. Participants were told that they would receive extra credit in their psychology courses for participation in this project.

Prior to arrival, all participants were randomly assigned to one of two video conditions: appearance commercial clip and nonappearance commercial clip . Upon arrival at the laboratory, each participant was greeted by a researcher who seated her in a comfortable chair in a private room. Candy and water was placed on a table next to the participant's chair. The participant was told that she is participating in a study of the saliency of different commercials, and was asked to complete an informed consent and the Survey of Background Information. Upon completion of the questionnaires, M&M's, Skittles, and water was placed on a table next to the participant's chair. Each participant was then instructed to view the videotape "as if you were watching television in your home." The experimenter further explained that food and water was available as "we would like to make this environment as close to your home environment as possible." The experimenter then informed the participant that she would return when the video clip was finished, and she left the room.

Upon completion of the video clips, each participant was escorted into a different room to complete the EDI and Body Comparison Scale. In addition, to ensure that all participants attended to the videotape, a questionnaire containing specific questions about the visual stimuli was administered to each participant. If a participant was unable to answer four of the five items correctly, her data was not included in the analyses.

Upon completion of the study, the participant was debriefed, given extra credit, and thanked for her participation.

CHAPTER III

RESULTS

Demographics of the Sample

A majority of the sample was Caucasian (95%), while the remaining 5% were comprised of Native Americans (2.5%), and Latino Americans (1%) (1.5% did not respond to the question). Participants were, on average 19.76 years of age (SD = 4.36). Participants' psychological functioning as measured by the Global Severity Index of the SCL-90-R was in the average range (T = 53.99). On average, participants scored in the 64th percentile for bulimic symptoms as measured by the Eating Disorders Inventory, suggesting that they reported slightly more bulimic symptoms than is typical of the norm. Further, participants scored, on average, in the 58th percentile for body dissatisfaction, suggesting slightly increased body dissatisfaction than in the normed population. Table 1 shows the means and standard deviations for the sample for age, weight, self-reported current attempt to gain weight, self-reported current attempt to lose weight, global psychological functioning (GSF), percent bulimia, and percent body dissatisfaction..

Table 1

Means and Standard Deviations for Demographic Variables

Variables	M	SD
Age	19.76	4.36
Weight	141.84	26.23
Lose Weight	1.30	.46
Gain Weight	1.98	.14
GSF (T Score)	53.99	11.34
Bulimia	64.29	16.41
Body Dissatisfaction	58.87	26.76

Model Comparisons

Structural equation modeling analyses were used to examine two theoretical models of body image disturbance, and one subsequent adaptation. The adaptation model was based on an examination of the inadequacies of the original two models. In addition, two additional alternative models were investigated upon examination of path coefficients of the better model. The fit of each competing model was estimated with LISREL 8. LISREL permits one to assess how well a theoretical model fits the actual data. In other words, how well do the relationships postulated by the model actually explain observed relationships in the data. Model fit was assessed by examining the chi-square statistic, chi-square/degrees of freedom ratio (X^2/df), the Goodness of Fit Index (GFI), the Adjusted Goodness of Fit Index (AFGI), the Root Mean Square Error of Approximation (RMSEA) and the Normed Fit Index (NFI). Chi-square difference tests were also used to compare each model to a null model (a model predicting no relationship between observed

variables) and to each other. Table 1 provides a summary of all of these indices for each of the five models. The adequacy of the individual model parameters was determined by examining the t values, standardized residuals, and modification indices.

Table 2

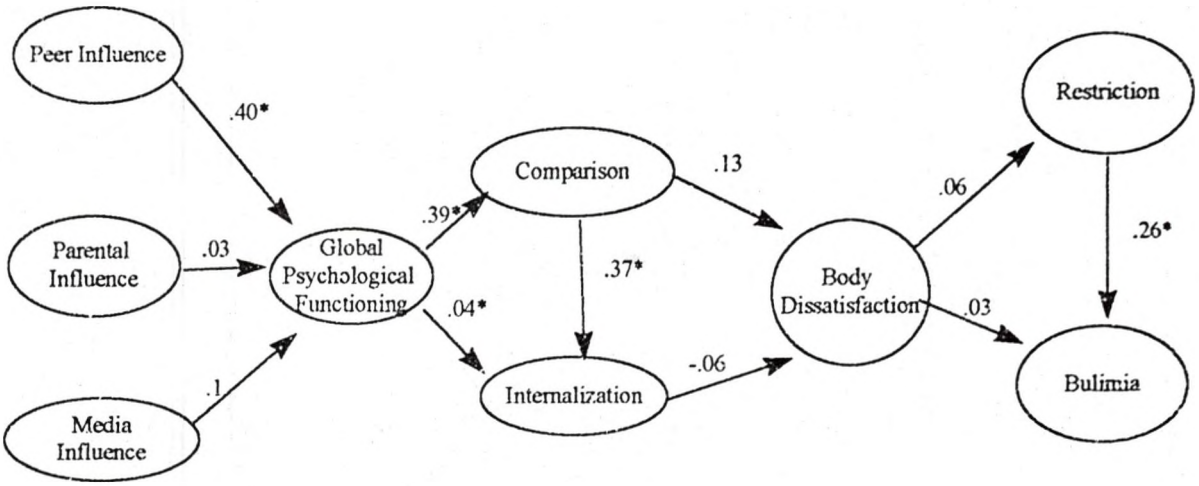
Summary of Model Fit Statistics

Model	df	X^2	X^2/df	GFI	AGFI	RMSEA	NFI
Null	36	315.92					
1	25	171.50	6.86	.85	.73	.17	.46
2	22	92.33	4.20	.92	.84	.13	.71
2a	23	98.65	4.29	.91	.83	.13	.69
3	14	28.11	2.01	.97	.92	.072	.91
3a	15	46.86	3.12	.95	.88	.09	.85

Note: GFI = Goodness-of-Fit Index, AGFI = Adjusted Goodness-of-Fit Index, RMSEA = Root Mean Square Error of Approximation, NFI = Normed Fit Index

Chi square analyses indicated that the Psychological Functioning Mediated Model (PM) significantly improved upon the null model X^2 (11, N = 198) = 144.42, $p<.01$. The chi-square value for the PM model was 171.50. The chi-square/degrees of freedom ratio, which adjusts chi-square given the degrees of freedom in the sample, was 6.86, which was above the desired level of 2. Further, the RMSEA, a measure of fit per degree of freedom of the model was .17. The GFI value, which specifies the practical fit of the model to the data with values of .90 or higher recognized as acceptable fits, and .95 or greater reflecting good fits, was .85. Further, when adjusted for the number of parameters (AFGI), the fit of the model dropped to .73. The NFI, which specifies the fit of the model

presuming independence was .46. Further, standardized residuals indicated that the relationship among 11 pairs of variables were not well explained by the model. For instance, the model did not explain the relationship between restraint and global psychological functioning nor did it effectively explain the relationship between restraint and social comparison. The PM model also did not effectively explain the relationship between bulimia and global psychological functioning or bulimia and social comparison. Further the PM model did not effectively explain the relationship between peers and social comparison, peers and internalization, peers and restraint, or peers and bulimia. The PM model also did not explain the relationships between media influence and social comparison, media influence and restraint, or media influence and bulimia. The modification indices also showed several problems with the proposed PM model. Modification indices greater than five indicate that changes can be made to improve the model. Out of 48 modification indices, 25 were greater than five. In sum, the obtained chi-square tests examining model fit as well as examination of the model parameters, revealed that the PM model did not fit the data particularly well. The PM model, with standardized path coefficients, is depicted in Figure 2.

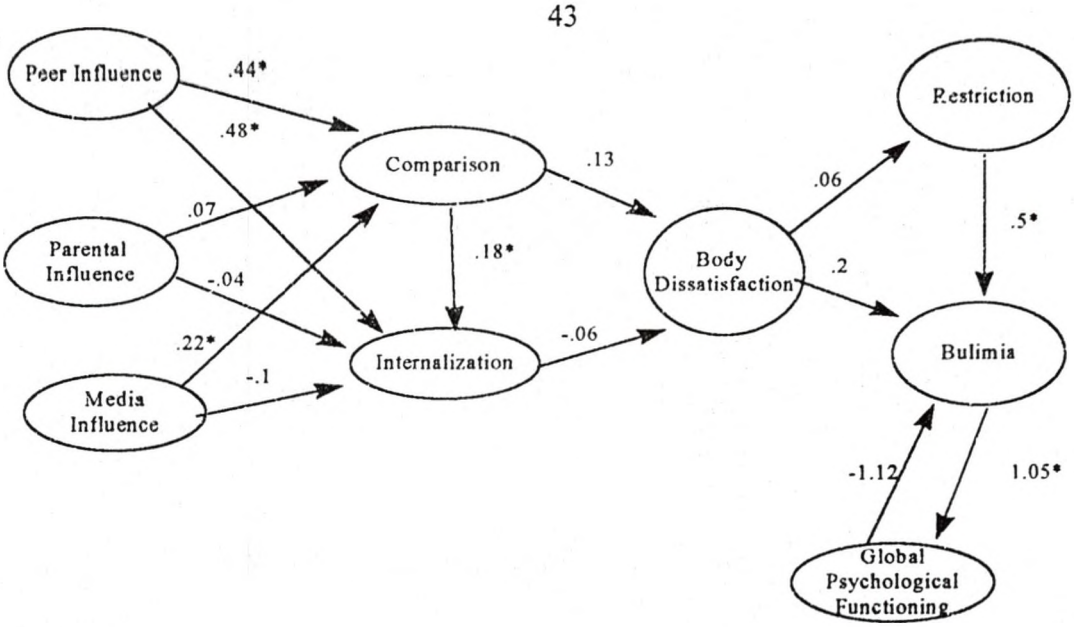


Note: Significant path coefficients are denoted with an asterisk

Figure 2. Hypothesized competing structural PM model with standardized LISREL path coefficients.

Chi square analyses indicated that the Non Psychological Functioning Mediated Model (NPM) significantly improved upon the null model X^2 (14, N = 198) = 223.59, p <.01. The chi-square value for the NPM model was 92.33. The chi-square/degrees of freedom ratio was 4.20, which was above the desired level of 2, but it did suggest a better fit than the PM model. Further, the RMSEA was .13. The GFI value, which specifies the practical fit of the model to the data was .92, which also improves upon the PM model. However, when adjusted for the number of parameters (AFGI), this value fell to .84. The NFI, which also favored this model was .71. In addition, chi square analyses indicated that the NPM model was a significant improvement upon the PM model X^2 (3, N = 198) = 79.17, p < .01. Further, standardized residuals indicated that the relationship among 10

pairs of variables was not well explained by the model. For instance, the NPM model did not explain the relationship between social comparison and restraint, social comparison and bulimia, or social comparison and global psychological functioning. Further, the NPM model did not sufficiently explain the relationship between internalization and global psychological functioning. The NPM model also could not explain the relationship between peer influence and restraint, peer influence and bulimia, or peer influence and global psychological functioning. Finally, the NPM model could not effectively explain the relationship between parental influence and restraint, parental influence and bulimia, or parental influence and global psychological functioning. The modification indices also showed several problems with the NPM model. Modification indices greater than five indicate that changes can be made to improve the model. Out of 45 modification indices, 15 were greater than five suggesting an improvement upon the PM model. In sum, the obtained chi-square tests examining model fit as well as examination of the model parameters, revealed that the NPM model significantly improved upon the PM model but still did not fit the data particularly well. The NPM model, with standardized path coefficients, is depicted in Figure 3.

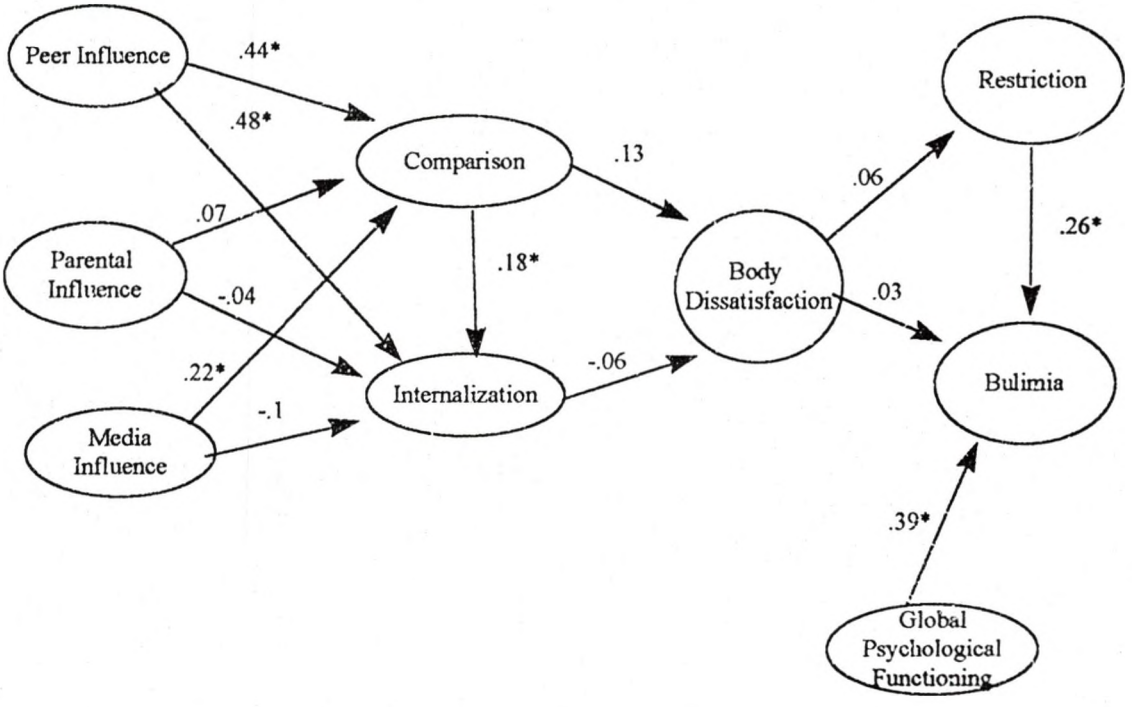


Note: Significant path coefficients are denoted with an asterisk

Figure 3. Hypothesized competing structural NPM model with standardized LISREL path coefficients.

Examination of the path coefficients describing the relationship between global psychological functioning and bulimia in the NPM model suggested that the model could be improved by removing the path indicating that bulimia is a predictor of global psychological functioning. More specifically, examination of the path coefficient weights in the context of their standard errors suggested some instability, and therefore, we could not have confidence in the specific values that were derived. After this path was removed (Model 2a), the reduction in chi -square was statistically significant X^2 (1, N = 198) = 6.27, $p < .02$ suggesting a better fit with the data for the adjusted NPM model than the NPM model. The chi-square/degrees of freedom ratio increased to 4.29, which is a slight increase from the NPM model. The GFI value also dropped slightly to .91 and when adjusted for the

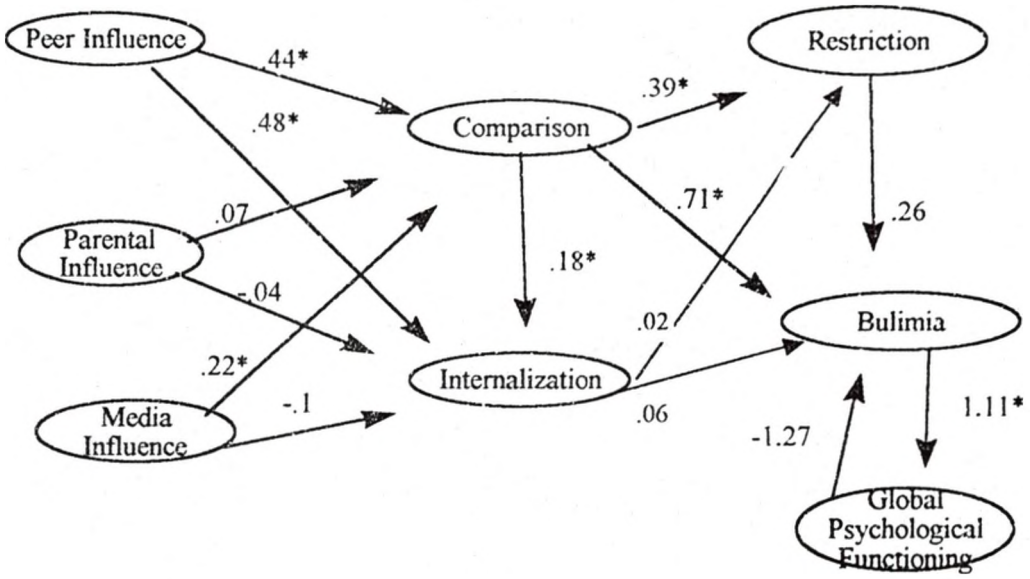
number of parameters (AFGI), the fit of the model dropped to .83. The NFI value, or the fit of the model presuming independence, fell to .69, which falls below the value for describing an adequate model. Further, the RMSEA was .13, which is similar to the NPM model. Further, standardized residuals indicated that the relationship among 13 pairs of variables were not well explained by the model. Further, out of 46 modification indices, 17 were greater than five, indicating that improvements could be made to the model. In sum, the obtained chi-square tests revealed that the adjusted NPM model significantly improved upon the NPM model, but the model still did not fit the data particularly well. The adjusted NPM model, with standardized path coefficients, is depicted in Figure 4.



Note: Significant path coefficients are denoted with an asterisk

Figure 4. Competing structural alternate NPM model with standardized LISREL path coefficients.

Because neither of the hypothesized models were well supported by the data, examination of the path coefficients suggested that the NPM model (the better model) could be significantly improved by removing the body dissatisfaction variable from the equation (Model 3). After this variable was removed, the reduction in chi-square was statistically significant X^2 (8, N = 198) = 64.22, p <.01, suggesting a better fit with the data for the modified NPM model. Other fit indices also support the modified model. The chi-square/degrees of freedom ratio dropped to 2.01, which is just above the desired level of 2. Further, the RMSEA was .072 which dropped below the critical value of .08 for describing an adequate model. Similarly, the GFI value of .97 indicated that this model was a good fit and when adjusted for the number of parameters (AFGI), the model continues to be adequate. The NFI value of .91 also favored the modified NPM model. Further, standardized residuals indicated that the relationship among only 1 pair of variables was not well explained by the model. The model did not effectively explain the relationship between peer influence and global psychological functioning. Examination of the modification indices also supported the modified NPM model. Out of 27 modification indices, only five were greater than five. This model, with standardized path coefficients, is depicted in Figure 5.

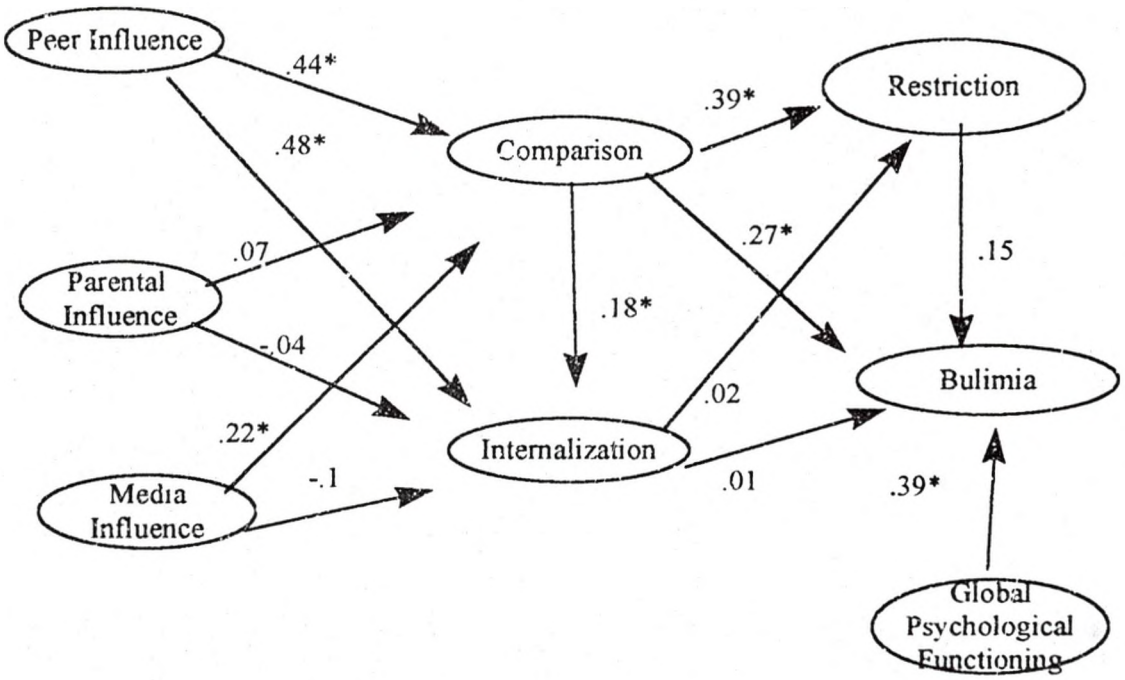


Note: Significant path coefficients are denoted with an asterisk

Figure 5. Competing structural modified NPM model with standardized LISREL path estimates.

As mentioned previously, examination of the path coefficients describing the relationship between global psychological functioning and bulimia in the modified model suggested that the model could be improved by removing the path indicating that bulimia is a predictor of global psychological functioning (Model 3a). More specifically, examination of the path coefficient weights in the context of their standard errors suggested some instability, and therefore, we could not have confidence in the specific values that were derived. After this path was removed, the reduction in chi-square was statistically significant X^2 (1, N = 198) = 18.75, p <.01, suggesting a better fit with the data for the alternative modified NPM model. The chi-square/degrees of freedom ratio increased to 3.12, which fell above the desired level of 2. Further, the RMSEA was .09, which falls above the critical value of .08 for describing an adequate model. The GFI

value of .95 indicated that this model is a good fit, but when adjusted for the number of parameters (AFGI), the fit of the model fell to .88. The NFI value also fell to .85. Further, standardized residuals indicated that the relationship among two pair of variables were not well explained by the model. Further, out of 28 modification indices, seven were greater than five. In sum, chi-square analyses suggest that the adjusted modified model was a better model than the original modified model. Although other fit indices provided more support for the original modified model, it was necessary to remove a path due to measurement instability. This model, with standardized path coefficients, is depicted in Figure 6.



Note: Significant path coefficients are denoted with an asterisk

Figure 6. Competing structural alternative modified NPM model with standardized LISREL path estimates.

Effects of Media on Social Comparison Processes

Several analyses were conducted to answer the following questions: a.) will women with a high pre-existing tendency to engage in the social comparison process differ from those with a low pre-existing disposition to engage in social comparison, regardless of the video condition viewed; b.) will women who have a high pre-existing tendency to compare and who see the appearance- related video increase in level of body image disturbance from pre- to post- manipulation to a greater degree than those with a low tendency to compare, and c.) will women with a high pre-existing disposition to engage in social comparison and who see the appearance- related video increase in level of body image disturbance from pre- to post-manipulation to a greater degree than those who have a high pre-existing tendency to engage in the comparison process and watch the nonappearance-related video. As mentioned previously, participants were divided into groups of high and low social comparison prior to participation in this portion of the study. Repeated measures multivariate analyses of variance (MANOVA's) were first used to determine if any statistically significant differences existed between the groups on body dissatisfaction or social comparison between times one and two. Paired Sample T-Tests were then conducted to examine significant multivariate findings.

Demographics of the Subsample

A subsample of the women who served in the questionnaire portion of this study were selected for participation in the laboratory component based on their self-reported level of social comparison. These women ($N = 60$) did not show significant demographic

differences consistent with their social comparison group membership, with the exception of their self-reported endeavor to lose weight. Women with a low predisposition to engage in the social comparison process were less likely to report attempting to lose weight than those with a high tendency to engage in social comparison. Participants were, on average, 19 years of age (SD = 1.59). Most of the women were Caucasian (96.7), while 1.7% were Native American and 1.7% were Latino American. Table 3 shows the means and standard deviations for each of the groups for age, weight, self-reported current attempt to gain weight, and self-reported current attempt to lose weight.

Table 3

Means and Standard Deviations for Demographic Variables by Groups

	Low Social Comparison		High Social Comparison	
Variables	M	SD	M	SD
Age	19.07	1.34	18.83	1.82
Weight	135.38	15.28	138.38	16.34
Lose Weight	1.50	.51	1.03	.18
Gain Weight	1.93	.25	2.00	.00

Social Comparison Analyses

A repeated measures multivariate analysis of variance (MANOVA) was conducted to compare social comparison scores in each of the four social comparison-video conditions. A significant interaction between video condition and pre-post trial was found [F (1,56) = 10.97, $p < .002$]. Paired sample T-tests used as follow-up analyses revealed

that participants who viewed the appearance video [t (29) = 3.352, p < .002] significantly increased in their level of self-reported social comparison from time one to time two (M = 96.13, SD = 33.66; M = 103.4, SD = 34.62, respectively). However, those in the nonappearance video condition did not change in level of social comparison. Further, as expected, no significant differences were found for the social comparison condition, indicating that the social comparison groups did not significantly differ in their self-reported level of social comparison from time one to time two.

Body Dissatisfaction Analyses

A repeated measures multivariate analysis of variance (MANOVA) was conducted to compare level of body dissatisfaction in each of the four social comparison-video conditions. Significant interactions were found for video condition by pre-post trial [F (1,56) = 9.581, p <. 003] and social comparison by pre-post trial [F (1,56) = 8.051, p <. 006]. Paired sample T-tests used as follow-up analyses indicated that participants in the appearance video condition significantly increased in body dissatisfaction [t (29) = 2.823, p < .009] after viewing the appearance video (M =, 11.10 SD = 7.77; M =13.67, SD = 9.36, respectively).. Participants in the nonappearance video condition did not significantly differ in level of body dissatisfaction after viewing the video. Further, paired sample T-tests indicated that participants in the high social comparison group significantly increased in body dissatisfaction [t (29) = 2.279, p < .03] and those in the low social comparison group significantly decreased in body dissatisfaction [t (29) = 1.402, p < .007]

between times one and two (See Figure 7). Means and standard deviations for body dissatisfaction by both videotape and social comparison group are presented in Table 4.

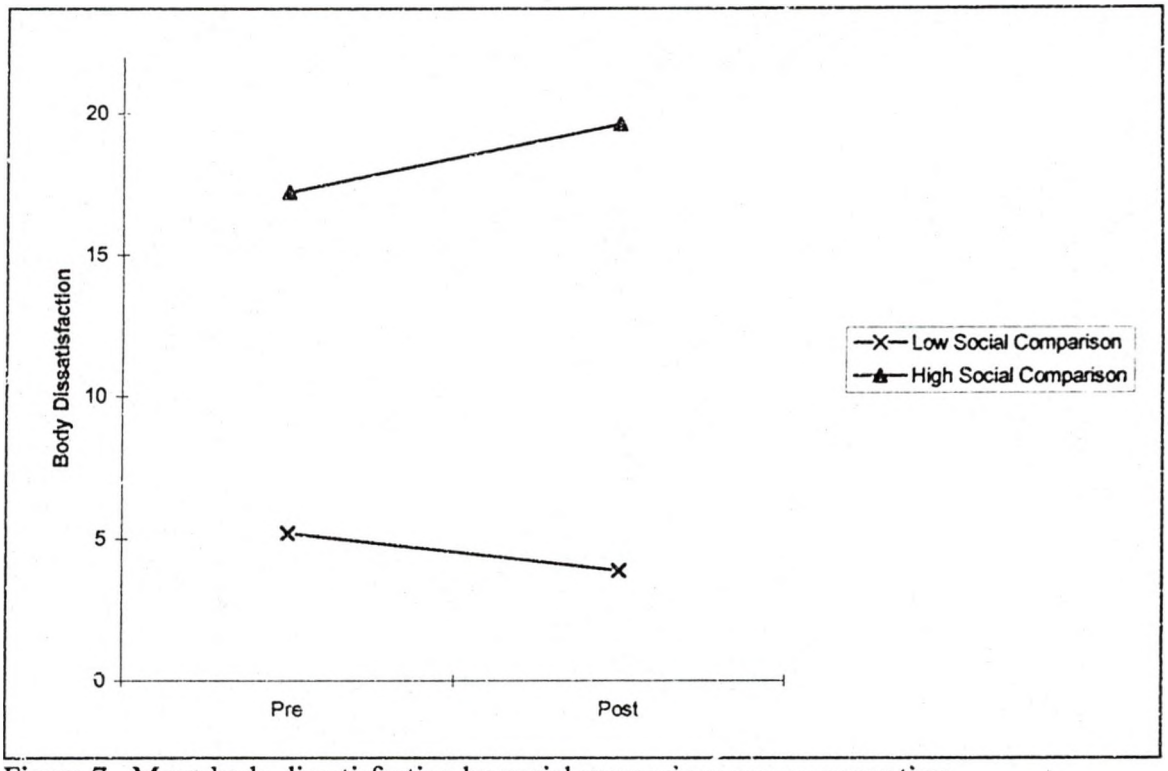


Figure 7. Mean body dissatisfaction by social comparison group across time

Table 4

Means and Standard Deviations for Body Dissatisfaction by both Video Type and Social Comparison Group

Video	Pre-Video		Post-Video	
Group	M	SD	M	SD
High SC-APP Video	16.67	5.51	21.80	3.76
High SC-NONAPP Video	17.73	6.89	17.40	5.35
Low SC-APP Video	5.53	5.33	5.53	5.04
Low SC-NONAPP Video	4.80	2.27	2.27	2.87

Note: SC = Social Comparison, APP= Appearance, NONAPP = Nonappearance

CHAPTER IV

DISCUSSION

Overview

Recently studies using covariance structural equation modeling have begun to describe the role of specific factors in the development of body image dissatisfaction and eating disturbances (Thompson et al., 1999). The objective of the present study was to extend this line of research by thoroughly examining several factors believed to play a role in body image dissatisfaction and eating disturbance. To meet this objective, the present study examined two aspects of body image dissatisfaction and eating disturbances. First, structural equation modeling was used to examine a tripartite model of body image dissatisfaction. Next, a laboratory-based, controlled experiment was used to investigate the role of social comparison in the development of body image dissatisfaction resulting from exposure to media images of thinness and attractiveness.

Tripartite Model of Body Image Dissatisfaction

The present study did not support the tripartite models of body image dissatisfaction, as the data did not adequately fit either of the two proposed models. However, the data did support an alternative multidimensional model of body image disturbance and several of the specific hypothesized effects. Comparison of the two original tripartite models revealed that the model postulating a reciprocal causal

relationship between global psychological functioning and bulimia fit the data better than the model positioning global psychological functioning as a mediator for the effects of peer, parental, and media influences. Despite this significant difference in fit between these two models, indices still showed that even the better model did not adequately explain the observed relationships in the data. A detailed examination of the better model, however, is still useful for further understanding the influences these factors have on bulimia.

Examination of the better model revealed that peer influence and media influence significantly affected level of social comparison, and peer influence appeared to lead to internalization of the thin-ideal body type. However, contrary to what was expected, the current study did not replicate Stice and colleagues' (1994) finding that internalization mediated the relationship between media influence and body dissatisfaction. The failure to replicate may have been due to differences in the measures used in the two studies. Stice and colleagues (1994) measured the number of fashion and health magazines people looked at in a month as well as the number of comedy, drama, and game shows they viewed to assess media exposure, rather than influence. The current study, however, used the Perceived Sociocultural Pressure Scale, which assesses perceived pressure from the media to have a thin body. Further, internalization was measured with the Ideal-Body Stereotype Scale in the Stice et al. (1994) study; whereas this study used the internalization subscale of the Sociocultural Attitudes Towards Appearance Scale-Revised. Future research should compare these different measures of media

exposure/pressure and internalization to further clarify the relationship between media influence, internalization and body dissatisfaction.

Parental influence did not significantly predict either level of social comparison or internalization in the present study. It is possible that this study's failure to support this hypothesis is the result of having young women participants rather than adolescent females. Other studies finding an effect of parental influence have included adolescent females who are more likely to be living at home and thus more exposed to parental influence. College women, on the other hand, are likely to spend a larger amount of time with friends, and thus they may give more credence to friends' perceptions than family members. This finding is similar to Heinberg and Thompson's (1992a) finding that friends were rated as the most important comparison targets, and they were rated as significantly more important comparison targets than family members.

Level of social comparison significantly influenced internalization of the thin ideal, but the data, surprisingly, did not support a relationship between either social comparison and body dissatisfaction or internalization and body dissatisfaction. Also surprisingly, body dissatisfaction did not affect restrictive eating or bulimia. Failure to find support for body image dissatisfaction as a mediator in the development of eating disturbance may be due to the measures of body image dissatisfaction used in this study (i.e., body dissatisfaction subscale of EDI, Body Esteem Scale-Revised). These measures examine dissatisfaction with an individual's shape or weight. However, some researchers (e.g.,

Gleaves et al., 1995) have argued that body image dissatisfaction may have several components including actual body size, fear of fatness, body size distortion, and preference for thinness. This study, however, examined only dissatisfaction with one's size and shape. Still, this study's findings are contrary to other research in the field using single measures of body image disturbance and supporting the role of body image dissatisfaction as a mediator in the development of eating disturbances. The failure to find body image dissatisfaction as a mediator in the development of eating disturbances may also be due to the high construct similarities between the Eating Disorder Inventory - Body Dissatisfaction Subscale and the Body Comparison Scale. Thus, the social comparison scale may encompass the variables measured by the body dissatisfaction construct, making it an unnecessary variable in the model.

Finally, bulimic symptoms appeared to follow restrictive eating and lead to decreased psychological functioning, but decreased psychological functioning did not significantly predict bulimia. However, as mentioned previously, examination of the weights in context of their standard errors suggest instability in the measures, thus we can not have confidence in the specific values that were derived. Therefore, this model was modified to remove the reciprocal relationship between global psychological functioning and bulimia. After the path in which bulimia predicted global psychological functioning was removed, the path in which global psychological functioning predicted bulimia was significant. This suggests that decreased global psychological functioning is a significant predictor of bulimia.

Because of the inadequacies in the original two tripartite models, the researchers decided to examine the possibility of modifying the better model after the path between global psychological functioning and bulimia was removed. Although there was no theoretical justification for making such a modification, examination of the modification indices indicated that the model could be significantly improved by removing body dissatisfaction from the better model. The reduction in chi square was statistically significant and all modification indices were improved in this alternative model. Both peer influence and media influence were significant predictors of social comparison, and peer influence was a significant predictor of internalization. The data also supported a relationship between comparison and internalization. Further, social comparison was a significant predictor of both restrictive eating and bulimia, but internalization of the thin ideal was not a significant predictor of either of the disordered eating patterns. These findings suggest that a high tendency to engage in the social comparison process contributes to disordered eating patterns.

The Role of Social Comparison in Body Image Dissatisfaction

Several hypotheses regarding women high and low in social comparison were tested. These hypotheses included: a.) women reporting a high pre-existing tendency to engage in the social comparison process would report higher levels of social comparison than those initially reporting a low pre-existing tendency to engage in the comparison process, regardless of the video viewed, b.) women with a high pre-existing tendency to compare and who see the appearance video would show an increase in level of body image

disturbance from pre- to post- manipulation to a greater degree than those in the other three groups, and c.) women with a low pre-existing tendency to engage in the social comparison process would not change significantly from pre- to post- manipulation, regardless of the videotape viewed.

In the laboratory component of this study, the role of social comparison in body image dissatisfaction was examined by contrasting exposure to media images of thinness and attractiveness with exposure to more neutral images. Similar to the findings of Cattarin et al. (2000) women who viewed the appearance-related commercials reported higher levels of social comparison than those viewing the nonappearance video, regardless of their self-reported pre-existing tendency to engage in the comparison process. However, the fact that there was no significant interactions between women's pre-existing tendency to engage in social comparison, the type of video they saw, and their social comparison scores at the pre- and post-video assessment provides support for the stability of the pre-existing differences in women's tendencies to engage in the social comparison process. Together, the results suggest that viewing commercials emphasizing the thin ideal stereotype may increase a woman's likelihood to engage in the comparison process to a greater degree than if she were watching a video not emphasizing such ideals, but her pre-existing tendency to compare seems to establish the upper and lower limits of such changes.

Social comparison did not interact in the hypothesized way with the tape viewed to affect appearance dissatisfaction. Specifically, those viewing the appearance tape, regardless of the comparison condition they were in, experienced a significant increase in appearance dissatisfaction from Time 1 to Time 2; whereas, those viewing the nonappearance tape did not significantly differ in body dissatisfaction between Time 1 and Time 2. It is important to note that media presented images had an impact on appearance satisfaction although the women were subject to a relatively brief (20 minute) one time exposure to such images These findings provide experimental support that the ideal body images portrayed in commercials have deleterious effects on women's opinions of, and satisfaction with, their bodies. There was also an interaction between social comparison and the pre-post assessment indicating that participants in the high social comparison group significantly increased in body dissatisfaction between Time 1 and Time 2, while those in the low social comparison group significantly decreased in body dissatisfaction between Time 1 and Time 2, regardless of the video viewed. This finding is difficult to reconcile and integrate with the previous one; however, examination of the means sheds some light on the dilemma. Although the 3-way interaction was not statistically significant, the means show that the high and low comparison groups did tend to respond differently to the two videos. Specifically, women with a high pre- existing tendency to engage in the social comparison process increased in body dissatisfaction after viewing the appearance video; but their body dissatisfaction levels decreased slightly after viewing the

nonappearance video. Conversely, women with a low pre-existing disposition to socially compare did not change in body dissatisfaction levels after viewing the appearance video, and they decreased in body dissatisfaction after viewing the nonappearance video. Again, though not statistically significant, this does suggest that women with a high pre-existing tendency to engage in the social comparison process are at greater risk for developing body image dissatisfaction when exposed to media images of the thin ideal stereotype.

Limitations and Conclusions

The current study is limited by the methodology utilized. Although it is impossible to empirically demonstrate or prove causality in a structural modeling analysis, a theoretical relationship among variables can be supported or unsupported by the data. However, even when a model appears to fit the data well, one must not rule out the possibility that another model may fit the data equally well (Klem, 2000). Further, it is impossible to isolate a dependent variable from all possible influences, thus this study's results are limited by the specific measures chosen to represent the various variables in the model.

Further, the current study's results are obviously limited by the nature of the participant sample: young women college students. Although research suggests that female college students constitute a high risk group for body dissatisfaction and eating pathology (Mintz & Betz, 1988), generalization would have been improved if a randomly selected community sample was employed. Future research using longitudinal designs is warranted to evaluate multidimensional models of body image dissatisfaction and its

consequences. This type of study would offer additional insight into multidimensional models of body image dissatisfaction and would likely lead to the refinement of theoretical models of body image disturbance. Further, this investigation relied exclusively on self-report data. Increased confidence could have been placed in the findings if behavioral observations or data from multiple sources had been used. Finally, this study certainly did not model all of the influential factors that lead to body image dissatisfaction and eating disturbance. For instance, a recent study by Vogeltanz-Holm and colleagues (2000) found that illicit drug use, particularly marijuana and drinking to intoxication was significantly correlated with binge eating behavior. Thus, future research should continue to evaluate the role of potential influences on body image dissatisfaction and eating disturbances.

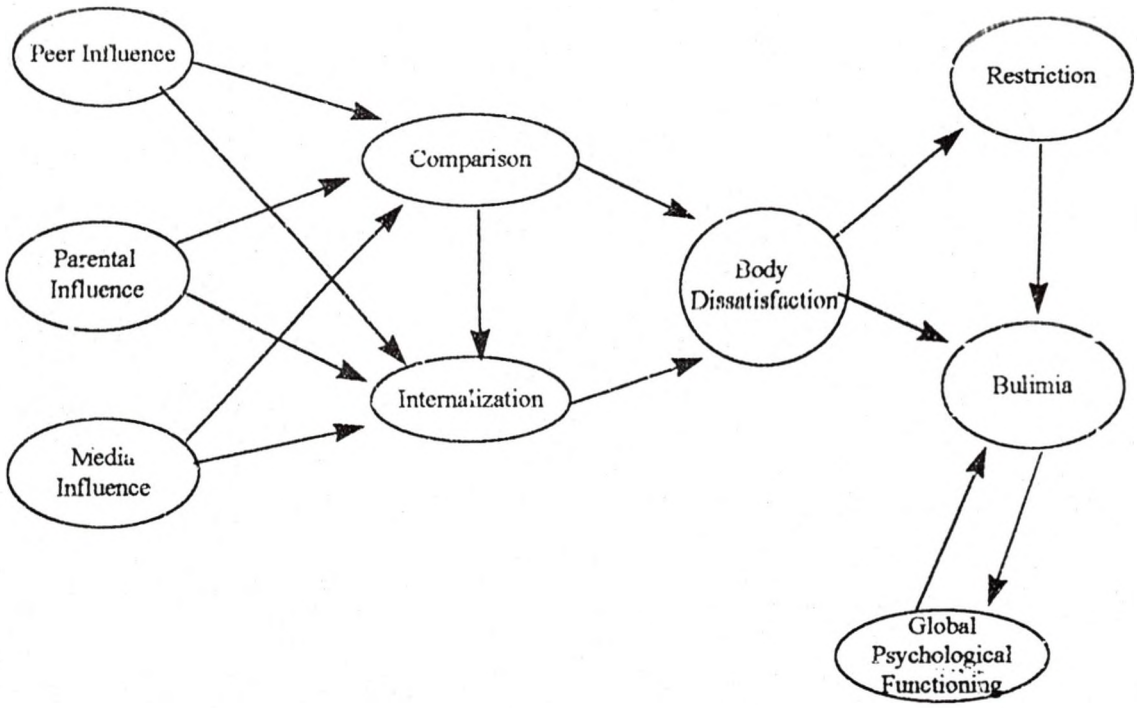
In conclusion, although the tripartite models in the literature were not validated, the data provided some support for an alternative, multidimensional model of body image disturbance. This suggests the importance of multidimensional assessment and treatment of problems related to eating and body concerns. Results also suggest the importance of preventative programs focused on social comparison processes in the context of media messages pertaining to thinness and attractiveness. Because our results found that appearance-related commercials (involving thin and attractive women) increases women's tendencies to compare themselves to others, psychoeducational interventions could advise girls and women to avoid using such unrealistic images as a measure of comparison. In

addition, since those with a high pre-existing tendency to compare may find it difficult to refrain from engaging in social comparison, they should be encouraged to compare themselves with a wide variety of individuals of varying levels of attractiveness. Preventative efforts should focus on reducing the impact that the depiction of highly thin and attractive women have on those most vulnerable to their effects. It is recommended that preventative programs begin as early as elementary schools with programs that include parental and peer counseling and that target social comparison and media influence

APPENDICES

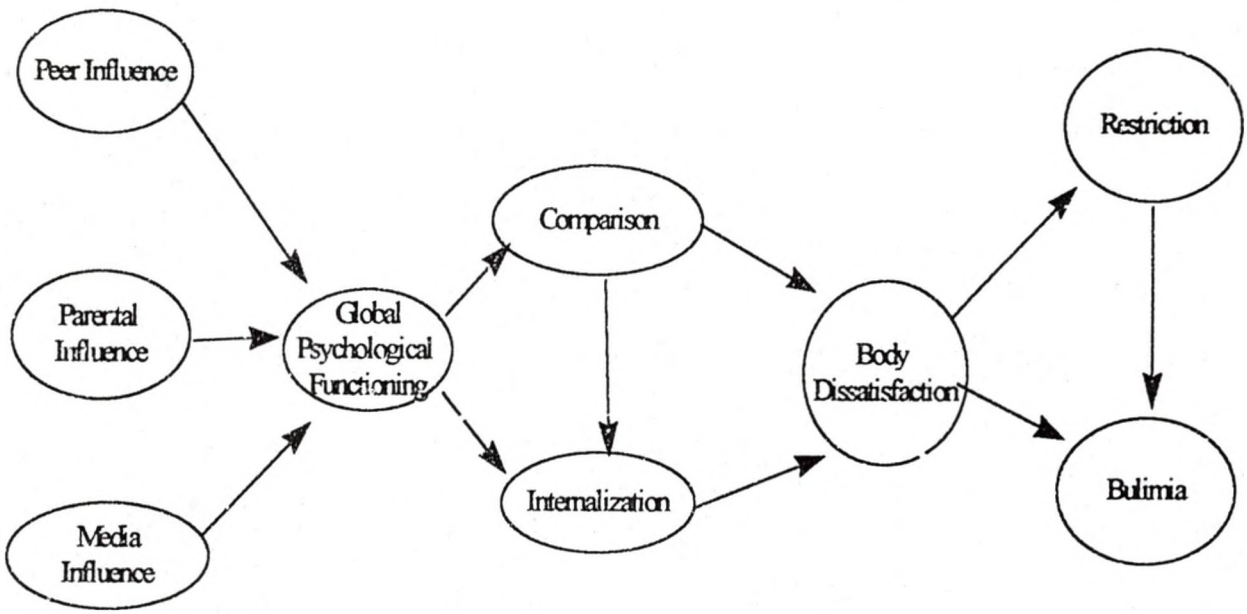
APPENDIX A

Non Psychological Functioning Mediated Tripartite Model of Body Image Dissatisfaction



APPENDIX B

Psychological Functioning Mediated Tripartite Model of Body Image Dissatisfaction



APPENDIX C

Survey of Background Information

Please answer the following questions. Your responses will be kept confidential. Honest and thought-out responses are vital to our research. Thank you for your cooperation.

1. What race do you consider yourself?_____

2. What is your age? _____

3. What is your weight? _____

4. Are you currently attempting to lose weight? _____

5. Are you currently attempting to gain weight? _ _____

6. Do you currently have any medical concerns? If yes, please indicate which ones.

_____

_____

7. Do you have any food allergies? If yes, please indicate which foods you are allergic to?

_____

_____

8. Would it be okay if we called you back at a later date for another study being conducted in our research laboratory at this time?
(circle one)

YES OR NO

APPENDIX D

Body-Esteem Scale

INSTRUCTIONS: Indicate how often you agree with the following statements: Ranging from (1) *never* to (5) *always*, circle the appropriate number beside each statement.

NEVER	SELDOM	SOMETIMES	OFTEN	ALWAYS
1	2	3	4	5

1. I like what I look like in pictures.....	1	2	3	4	5
2. Other people consider me good looking.....	1	2	3	4	5
3. I'm proud of my body.....	1	2	3	4	5
4. I am preoccupied with trying to change my body weight.....	1	2	3	4	5
5. I think my appearance would help me get a job.....	1	2	3	4	5
6. I like what I see when I look in the mirror.....	1	2	3	4	5
7. There are lots of things I'd change about my looks if I could.....	1	2	3	4	5
8. I am satisfied with my weight.....	1	2	3	4	5
9. I wish I looked better.....	1	2	3	4	5
10. I really like what I weigh.....	1	2	3	4	5
11. I wish I looked like someone else.....	1	2	3	4	5
12. People my own age like my looks.....	1	2	3	4	5
13. My looks upset me.....	1	2	3	4	5
14. I'm as nice looking as most people.....	1	2	3	4	5
15. I'm pretty happy about the way I look.....	1	2	3	4	5

NEVER	SELDOM	SOMETIMES	OFTEN	ALWAYS
1	2	3	4	5

16. I feel I weigh the right amount for my height.....1 2 3 4 5
17. I feel ashamed of how I look.....1 2 3 4 5
18. Weighing myself depresses me.....1 2 3 4 5
19. My weight makes me unhappy.....1 2 3 4 5
20. My looks help me to get dates.....1 2 3 4 5
21. I worry about the way I look.....1 2 3 4 5
22. I think I have a good body.....1 2 3 4 5
23. I'm looking as nice as I'd like to.....1 2 3 4 5

Appendix E

EDI

Number ____

Date_____

Age_____ Sex_____ Marital Status _____

Present weight_____ Height_____

Highest past weight (excluding pregnancy) _____(1bs)

How long ago? _____(months)

How long did you weigh this weight? _____(months)

What do you consider your ideal weight? _____(lbs)

Age at which weight problems began (if any) _____

Present occupation _____

Father's occupation_____Mother's occupation_____

This is a scale which measures a variety of attitudes, feelings, and behaviors. Some of the items relate to food and eating. Others ask about your feelings about yourself. THERE ARE NO RIGHT OR WRONG ANSWERS SO TRY VERY HARD TO BE COMPLETELY HONEST IN YOUR ANSWERS. RESULTS ARE COMPLETELY CONFIDENTIAL. Read each question and circle the number that best applies to you. Please answer each question very carefully. Thank you.

Always	Usually	Often	Sometimes	Rarely	Never
1	2	3	4	5	6

1. I eat sweets and carbohydrates without feeling nervous..... .1	2	3	4	5	6
2. I think that my stomach is too big.....1	2	3	4	5	6
3. I wish that I could return to the security of childhood..... 1	2	3	4	5	6
4. I eat when I am upset.....1	2	3	4	5	6
5. I stuff myself with food.....1	2	3	4	5	6
6. I wish that I could be younger.....1	2	3	4	5	6
7. I think about dieting.....1	2	3	4	5	6
8. I get frightened when my feelings are too strong.....1	2	3	4	5	6
9. I think that my thighs are too large.....1	2	3	4	5	6
10. I feel ineffective as a person.....1	2	3	4	5	6
11. I feel extremely guilty after overeating.....1	2	3	4	5	6
12. I think that my stomach is just the right size.....1	2	3	4	5	6
13. Only outstanding performance is good enough in my family.....1	2	3	4	5	6

Always 1	Usually 2	Often 3	Sometimes 4	Rarely 5	Never 6

14. The happiest time in life is when you are a child.....1 2 3 4 5 6

15. I am open about my feelings.....1 2 3 4 5 6

16. I am terrified of gaining weight.....1 2 3 4 5 6

17. I trust others.....1 2 3 4 5 6

18. I feel alone in the world.....1 2 3 4 5 6

19. I feel satisfied with the shape of my body.....1 2 3 4 5 6

20. I feel generally in control of things in my life.....1 2 3 4 5 6

21. I get confused about what emotion I am feeling.....1 2 3 4 5 6

22. I would rather be an adult than a child.....1 2 3 4 5 6

23. I can communicate with others easily.....1 2 3 4 5 6

24. I wish I were someone else.....1 2 3 4 5 6

25. I exaggerate or magnify the importance of weight.....1 2 3 4 5 6

26. I can clearly identify what emotion I am feeling.....1 2 3 4 5 6

27. I feel inadequate.....1 2 3 4 5 6

28. I have gone on eating binges where I have felt that I could not stop.....1 2 3 4 5 6

29. As a child, I tried very hard to avoid disappointing my parents and teachers.....1 2 3 4 5 6

Always 1	Usually 2	Often 3	Sometimes 4	Rarely 5	Never 6

30. I have close relationships..... 1 2 3 4 5 6

31. I like the shape of my buttocks..... 1 2 3 4 5 6

32. I am preoccupied with the desire to be thinner..... 1 2 3 4 5 6

33. I don't know what's going on inside me..... 1 2 3 4 5 6

34. I have trouble expressing my emotions to others..... 1 2 3 4 5 6

35. The demands of adulthood are too great..... 1 2 3 4 5 6

36. I hate being less than best at things..... 1 2 3 4 5 6

37. I feel secure about myself..... 1 2 3 4 5 6

38. I think about binging (over-eating)..... 1 2 3 4 5 6

39. I feel happy that I am not a child anymore.. 1 2 3 4 5 6

40. I get confused as to whether or not I am hungry..... 1 2 3 4 5 6

41. I have a low opinion of myself..... 1 2 3 4 5 6

42. I feel that I can achieve my standards..... 1 2 3 4 5 6

43. My parents have expected excellence of me.. 1 2 3 4 5 6

44. I worry that my feelings will get out of control..... 1 2 3 4 5 6

45. I think my hips are too big..... 1 2 3 4 5 6

46. I eat moderately in front of others and stuff myself when they're gone..... 1 2 3 4 5 6

47. I feel bloated after eating a normal meal..... 1 2 3 4 5 6

Always 1	Usually 2	Often 3	Sometimes 4	Rarely 5	Never 6

48. I feel that people are happiest when they are children.....1 2 3 4 5 6

49. If I gain a pound, I worry that I will keep gaining.....1 2 3 4 5 6

50. I feel that I am a worthwhile person.....1 2 3 4 5 6

51. When I am upset, I don't know if I am sad, frightened, or angry.....1 2 3 4 5 6

52. I feel that I must do things perfectly, or not do them at all.....1 2 3 4 5 6

53. I have the thought of trying to vomit in order to lose weight.....1 2 3 4 5 6

54. I need to keep people at a certain distance (feel uncomfortable if someone tries to get too close).....1 2 3 4 5 6

55. I think my thighs are just the right size.....1 2 3 4 5 6

56. I feel empty inside (emotionally).....1 2 3 4 5 6

57. I can talk about personal thoughts or feelings..1 2 3 4 5 6

58. The best years of your life are when you become an adult.....1 2 3 4 5 6

59. I think my buttocks are too large.....1 2 3 4 5 6

60. I have feelings that I can't quite identify.....1 2 3 4 5 6

61. I eat or drink in secrecy.....1 2 3 4 5 6

62. I think that my hips are just the right size.....1 2 3 4 5 6

Always 1	Usually 2	Often 3	Sometimes 4	Rarely 5	Never 6

63. I have extremely high goals.....1 2 3 4 5 6

64. When I am upset, I worry that I will start eating...1 2 3 4 5 6

Appendix F

Participant Number____

EDI Body Dissatisfaction Subscale

DIRECTIONS: This is a scale which measures a variety of attitudes, feelings, and behaviors. Some of the items ask you about your feelings about yourself. THERE ARE NO RIGHT OR WRONG ANSWERS SO TRY VERY HARD TO BE COMPLETELY HONEST IN YOUR ANSWERS. RESULTS ARE COMPLETELY CONFIDENTIAL. Read each question carefully and circle the number which best applies to you. Please answer each question very carefully. Thank you.

Use the following scale for the questions:

Always	Usually	Often	Sometimes	Rarely	Never
1	2	3	4	5	6

1. I think that my stomach is too big.....	1	2	3	4	5	6
2. I think that my thighs are too large.....	1	2	3	4	5	6
3. I think that my stomach is just the right size.....	1	2	3	4	5	6
4. I feel satisfied with the shape of my body.....	1	2	3	4	5	6
5. I like the shape of my buttocks.....	1	2	3	4	5	6
6. I think my hips are too big.....	1	2	3	4	5	6
7. I think my thighs are just the right size.....	1	2	3	4	5	6
8. I think my buttocks are too large.....	1	2	3	4	5	6
9. I think that my hips are just the right size.....	1	2	3	4	5	6

Appendix G

Participant Number____

EDI Bulimia Subscale

DIRECTIONS: This is a scale which measures a variety of attitudes, feelings, and behaviors. Some of the items ask you about your feelings about yourself. THERE ARE NO RIGHT OR WRONG ANSWERS SO TRY VERY HARD TO BE COMPLETELY HONEST IN YOUR ANSWERS. RESULTS ARE COMPLETELY CONFIDENTIAL. Read each question carefully and circle the number which best applies to you. Please answer each question very carefully. Thank you.

Use the following scale for the questions:

Always	Usually	Often	Sometimes	Rarely	Never
1	2	3	4	5	6

1. I eat when I am upset.....	1	2	3	4	5	6
2. I stuff myself with food.....	1	2	3	4	5	6
3. I have gone on eating binges where I felt I could not stop.....	1	2	3	4	5	6
4. I think about binging (overeating).....	1	2	3	4	5	6
5. I eat moderately in front of others and stuff myself when they're gone.....	1	2	3	4	5	6
6. I have the thought of trying to vomit in order to lose weight.....	1	2	3	4	5	6
7. I eat or drink in secrecy.....	1	2	3	4	5	6

APPENDIX H

Revised Restraint Scale

DIRECTIONS: Please read each question carefully and circle the answer that applies most to you

1. How often are you dieting?

   Never Rarely Sometimes Often Always

2. What is the maximum amount of weight (in pounds) that you have ever lost within one month?

   0-4 5-9 10-14 15-19 20+

3. What is your maximum weight gain within a week?

   0-1 1.1-2 2.1-3 3.1-5 5.1+

4. In a typical week, how much does your weight fluctuate?

   0-1 1.1-2 2.1-3 3.1-5 5.1+

5. Would a weight fluctuation of 5lb affect the way you live your life?

   Not at all Slightly Moderately Very much

6. Do you eat sensibly in front of others and splurge alone?

   Never Rarely Often Always

7. Do you give too much time and thought to food?

   Never Rarely Often Always

8. Do you have feelings of guilt after overeating?

Never Rarely Often Always

9. How conscious are you of what you are eating?

Not at all Slightly Moderately Extremely

10. How many pounds over your desired weight were you at your maximum weight?

0-1 1-5 6-10 11-20 21+

Appendix I

Three-Factor Eating Questionnaire

DIRECTIONS: For each item, please indicate (by circling the correct response) whether the statement is generally true for you or false for you.

1. When I smell a sizzling steak or see a juicy piece of meat, I find it very difficult to keep from eating, even if I have just finished a meal. True or False

2. I usually eat too much at social occasions, like parties and picnics. True or False

3. I am usually so hungry that I eat more than three times a day. True or False

4. When I have eaten my quota of calories, I am usually good about not eating any more. True or False

5. Dieting is so hard for me because I just get too hungry. True or False

6. I deliberately take small helpings as a means of controlling my weight. True or False

7. Sometimes things just taste so good that I keep on eating even when I am no longer hungry. True or False

8. Since I am often hungry, I sometimes wish that while I am eating, an expert would tell me that I have had enough or that I can have something more to eat. True or False

9. When I feel anxious I find myself eating. True or False

10. Life is too short to worry about dieting. True or False

11. Since my weight goes up and down, I have gone on reducing diets more than once. True or False

12. I often feel so hungry that I just have to eat something. True or False

13. When I am with someone who is overeating, I usually overeat too. True or False

14. I have a pretty good idea of the number of calories in common food. True or False

15. Sometimes when I start eating, I just can't seem to stop. True or False

16. It is not difficult for me to leave something on my plate. True or False

17. At certain times of the day, I get hungry because I have gotten used to eating then. True or False

18. While on a diet, if I eat food that is not allowed, I consciously eat less for a period of time to make up for it. True or False

19. Being with someone who is eating often makes me hungry enough to eat also. True or False

20. When I feel blue, I often overeat. True or False

21. I enjoy eating too much to spoil it by counting calories or watching my weight. True or False

22. When I see a real delicacy, I often get so hungry that I have to eat right away. True or False

23. I often stop eating when I am not really full as a conscious means of limiting the amount that I eat. True or False

24. I get so hungry that my stomach often seems like a bottomless pit. True or False

25. My weight has hardly changed at all in the last ten years. True or False

26. I am always hungry so it is hard for me to stop eating before I finish the food on my plate. True or False

27. When I feel lonely, I console myself by eating. True or False

28. I consciously hold back at meals in order not to gain weight. True or False

29. I sometimes get very hungry late in the evening or at night. True or False

30. I eat anything I want, any time I want. True or False

31. Without even thinking about it, I take a long time to eat. True or False

32. I count calories as a conscious means of controlling my weight. True or False

33. I do not eat some foods because they make me fat. True or False

34. I am always hungry enough to eat at any time. True or False

ay a great deal of attention to changes in my figure. True or False

ile on a diet, if I eat a food that is not allowed, I often then splurge and eat other
n calorie foods. True or False

Part II

TIONS: Please answer the following questions by circling the number above the
e that is appropriate to you.

w often are you dieting in a conscious effort to control your weight?

1 rarely	2 sometimes	3 usually	4 always

uld a weight fluctuation of 5 lbs affect the way you live your life?

1 not at all	2 slightly	3 moderately	4 very much

w often do you feel hungry?

1 only at mealtimes	2 sometimes between meals	3 often between meals	4 almost always

your feelings of guilt about overeating help you to control your food intake?

1 never	2 rarely	3 often	4 always

w difficult would it be for you to stop eating halfway through dinner and not eat
the next four hours?

1 easy	2 slightly difficult	3 moderately difficult	4 very difficult

42. How conscious are you of what you are eating?

1	2	3	4
not at all	slightly	moderately	extremely

43. How frequently do you avoid "stocking up" on tempting foods?

1	2	3	4
almost never	seldom	usually	almost always

44. How likely are you to shop for low calorie foods?

1	2	3	4
unlikely	slightly unlikely	moderately likely	very likely

45. Do you eat sensibly in front of others and splurge alone?

1	2	3	4
never	rarely	often	always

46. How likely are you to consciously eat slowly in order to cut down on how much you eat?

1	2	3	4
unlikely	slightly likely	moderately likely	very likely

47. How frequently do you skip dessert because you are no longer hungry?

1	2	3	4
almost never	seldom	at least once a week	almost every day

48. How likely are you to consciously eat less than you want?

1	2	3	4
unlikely	slightly likely	moderately likely	very likely

49. Do you go on eating binges though you are not hungry?

1	2	3	4
never	rarely	sometimes	at least once a week

50. On a scale of 0 to 5, where 0 means no restraint in eating (eating whatever you want, whenever you want it) and 5 means total restraint (constantly limiting food intake and never "giving in."), what would you give yourself?

0
Eat whatever you want, whenever you want it.

1
Usually eat whatever you want, whenever you want it.

2
Often eat whatever you want, whenever you want it.

3
Often limit food intake, but often "give in."

4
Usually limit food intake, rarely "give in."

5
Constantly limiting food intake, never "giving in."

51. To what extent does this statement describe your eating behavior? "I start dieting in the morning, but because of any number of things that happen during the day, by evening I have given up and eat what I want, promising myself to start dieting again tomorrow."

1	2	3	4
not like me	little like me	pretty good description of me	describes me perfectly

APPENDIX J

Symptom Checklist-90-R

DIRECTIONS: Below is a list of problems people sometimes have. Please read each one carefully, and circle the number that best describes how much that problem has distressed or bothered you DURING THE PAST 7 DAYS INCLUDING TODAY. Please circle only one number for each problem, and do not skip any items.

HOW MUCH WERE YOU DISTRESSED BY:

1. Headaches

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

2. Nervousness or shakiness inside

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

3. Repeated unpleasant thoughts that won't leave your mind.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

4. Faintness or dizziness

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

5. Loss of sexual interest or pleasure

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

6. Feeling critical of others.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

7. The idea that someone else can control your thoughts.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

8. Feeling others are to blame for most of your troubles.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

9. Trouble remembering things.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

10. Worried about sloppiness or carelessness.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

11. Feeling easily annoyed or irritated.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

12. Pains in heart or chest.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

13. Feeling afraid in open spaces or on the streets.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

14. Feeling low in energy or slowed down.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

15. Thoughts of ending your life.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

16. Hearing voices that other people do not hear.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

17. Trembling

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

18. Feeling that most people cannot be trusted.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

19. Poor appetite.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

20. Crying easily.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

21. Feeling shy or uneasy with the opposite sex.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

22. Feelings of being trapped or caught.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

23. Suddenly scared for no reason.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

24. Temper outbursts that you could not control.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

25. Feeling afraid to go out of your house alone.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

26. Blaming yourself for things.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

27. Pains in lower back.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

28. Feeling blocked in getting things done.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

29. Feeling lonely.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

30. Feeling blue.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

31. Worrying too much about things.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

32. Feeling no interest in things.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

33. Feeling fearful

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

34. Your feelings being easily hurt.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

35. Other people being aware of your private thoughts.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

36. Feeling others do not understand you or are unsympathetic.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

37. Feeling that people are unfriendly or dislike you.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

38. Having to do things very slowly to ensure correctness.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

39. Heart pounding or racing.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

40. Nausea or upset stomach.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

41. Feeling inferior to others.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

42. Soreness of your muscles.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

43. Feeling that you are watched or talked about by others.\

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

44. Trouble falling asleep.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

45. Having to check and double check what you do.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

46. Difficulty making decisions.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

47. Feeling afraid to travel on buses, subways, or trains.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

48. Trouble getting your breath.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

49. Hot or cold spells.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

50. Having to avoid certain things, places, or activities because they frighten you.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

51. Your mind going blank.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

52. Numbness or tingling in parts of your body.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

53. A lump in your throat.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

54. Feeling hopeless about the future.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

55. Trouble concentrating.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

56. Feeling weak in parts of your body.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

57. Feeling tense or keyed up.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

58. Heavy feelings in your arms or legs.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

59. Thoughts of death or dying.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

60. Overeating.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

61. Feeling uneasy when people are watching or talking about you.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

62. Having thoughts that are not your own.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

63. Having urges to beat, injure, or harm someone.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

64. Awaking in the early morning.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

65. Having to repeat the same actions such as touching, counting, or washing.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

66. Sleep that is restless or disturbed.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

67. Having urges to break or smash things.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

68. Having ideas or beliefs that others do not share.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

69. Feeling very self-conscious with others.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

70. Feeling uneasy in crowds such as shopping or at a movie.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

71. Feeling everything is an effort.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

72. Spells of terror or panic.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

73. Feeling uncomfortable about eating or drinking in public.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

74. Getting into frequent arguments.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

75. Feeling nervous when you are left alone.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

76. Others not giving you proper credit for your achievements.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

77. Feeling lonely even when you are with people.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

78. Feeling so restless you couldn't sit still.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

79. Feelings of worthlessness.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

80. The feeling that something bad is going to happen to you.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

81. Shouting or throwing things.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

82. Feeling afraid you will faint in public.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

83. Feeling that people will take advantage of you if you let them.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

84. Having thoughts about sex that bother you a lot.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

85. The idea that you should be punished for your sins.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

86. Thoughts and images of a frightening nature.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

87. The idea that something serious is wrong with your body.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

88. Never feeling close to another person.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

89. Feelings of guilt.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

90. The idea that something is wrong with your mind.

0	1	2	3	4
Not at all	A Little Bit	Moderately	Quite A Bit	Extremely

APPENDIX K

Inventory of Peer Influence on Eating Concerns

DIRECTIONS: Indicate whether each statement is True for you or False for you.

1. Girls and I compare how our bodies look in our clothes.....True or False
2. Guys say that they don't like me because of my body.....True or False
3. I think that guys would look better thinner.....True or False
4. Other women say that I am fat.....True or False
5. Guys and I compare the size and shape of our bodies.....True or False
6. Guys say that I am fat.....True or False
7. If I were thinner, I think that women would want to sit next to me more often.....True or False
8. Guys tease me or make fun of me about the size and shape of my body.....True or False
9. Guys and I compare how our bodies look in the mirror.....True or False
10. Other women laugh at me or make fun of me because of my body.....True or False
11. Guys and I compare how our bodies look in our clothes.....True or False
12. I think that women would think I look better thinner.....True or False
13. I think that women would want to do more things with me if I were thinner.....True or False
14. Women and I talk about what we would like our bodies to look like.....True or False
15. Women say that I should go on a diet.....True or False
16. Guys say that I eat food that will make me fat.....True or False
17. I talk with women about what types of food make people fat.....True or False

18. Women tease me or make fun of me about the size or shape of my body.True or False

19. I think that guys would talk to me more if I were thinner.....True or False

20. Women and I compare how our bodies look in the mirror..... True or False

21. I think that having a good body is a good way for me to be liked by guys.....True or False

22. Women say that I would look better if I were thinner.....True or False

23. Guys laugh at me or make fun of me because of my body.....True or False

24. I think that guys would like me more if I were thinner.....True or False

25. If I were thinner, I think that guys would want to sit next to me more often.....True or False

26. I think that women think I'm fat.....True or False

27. Guys say that I would look better if I were thinner.....True or False

28. Women and I compare the size and shape of our bodies.....True or False

29. I think that women would talk to me more if I were thinner.....True or False

30. If I had a thinner body, I think that women would pay more attention to me.....True or False

APPENDIX L

Perception of Teasing Scale

DIRECTIONS: We are interested in whether you have been teased and how this affected you.

First, for each question rate how often you were teased using this scale provided, (1) never to (5) always.

NEVER		SOMETIMES		VERY OFTEN
1	2	3	4	5

Second, unless you respond never to the question, rate how upset you were by the teasing, (1) not upset to (5) very upset.

NOT UPSET		SOMEWHAT UPSET		VERY UPSET
1	2	3	4	5

1. People made fun of you because you were heavy....1 2 3 4 5
   How upset were you?..... ....1 2 3 4 5

2. People made jokes about you being heavy.....1 2 3 4 5
   How upset were you?.....1 2 3 4 5

3. People laughed at you for trying out for sports.....1 2 3 4 5
   How upset were you?.....1 2 3 4 5

4. People called you names like "fatso."....,1 2 3 4 5
   How upset were you?.....1 2 3 4 5

5. People pointed at you because you were overweight.....1 2 3 4 5
   How upset were you?.....1 2 3 4 5

6. People snickered about your heaviness when
   you walked into a room alone.....1 2 3 4 5
   How upset were you?.....1 2 3 4 5

7. People made fun of you by repeating something
   you said because they thought it was dumb.....1 2 3 4 5
   How upset were you?.....1 2 3 4 5

8. People made fun of you because you were afraid
   to do something.....1 2 3 4 5
   How upset were you?.....1 2 3 4 5

9. People said you acted dumb.....1 2 3 4 5
   How upset were you?.....1 2 3 4 5

10. People laughed at you because you didn't
    understand something.....1 2 3 4 5
    How upset were you?.....1 2 3 4 5

11. People teased you because you didn't get a joke...1 2 3 4 5
    How upset were you?.....1 2 3 4 5

Appendix M

Parent Involvement Scale

DIRECTIONS: For each question, circle the number that you feel is true for you.

Read this carefully: Some of the following questions may not apply to you. For example your father (See 2) may live in another town and, therefore, you hardly ever see him. If the question does not apply to you, then place a check in the space for Not applicable.

If you do (did) not live with your parents, let the word parents in the questions stand for the adult(s) who took care of you.

1. How concerned is your mother about whether you weigh too much or are too fat or might become too fat? ___Not Applicable

1	2	3
Not at all important	Important	Very important

2. How concerned is your father about whether you weigh too much or are too fat or might become to fat? ____Not Applicable

1	2	3
Not at all important	Important	Very important

3. How important is it to your mother that you be thin? ____Not Applicable

1	2	3
Not at all important	Important	Very important

4. How important is it to your father that you be thin? ____Not Applicable

1	2	3
Not at all important	Important	Very important

APPENDIX N

Sociocultural Attitudes Towards Appearance Questionnaire-Revised: Female Version

DIRECTIONS: Please read each of the following items, and circle the number that best reflects your agreement with the statement.

Completely Disagree		Neither agree or disagree		Completely Agree
1	2	3	4	5

1. I would like my body to look like the women who appear in TV shows and movies.....1 2 3 4 5

2. I believe that clothes look better on women that are in good physical shape.....1 2 3 4 5

3. Music videos that show women who are in good physical shape make me wish that I were in better physical shape....1 2 3 4 5

4. I do not wish to look like the female models who appear in magazines.....1 2 3 4 5

5. I tend to compare my body to TV and movie stars...1 2 3 4 5

6. In our society, fat people are regarded as attractive.1 2 3 4 5

7. Photographs of physically fit women make me wish that I had better muscle tone.....1 2 3 4 5

8. Attractiveness is very important if you want to get ahead in our culture.....1 2 3 4 5

9. It is important for people to look attractive if they want to succeed in today's culture.....1 2 3 4 5

10. Most people believe that a toned and physically fit body improves how you look.....1 2 3 4 5

11. People think that the more attractive you are, the better you look in clothes.....1 2 3 4 5

Completely Disagree		Neither agree or disagree		Completely Agree
1	2	3	4	5

12. In today's society, it's not important to always look attractive.....1 2 3 4 5

13. I wish I looked like the women pictured in magazines who model underwear.....1 2 3 4 5

14. I often read magazines and compare my appearance to the female models.....1 2 3 4 5

15. People with well-proportioned bodies look better in clothes.....1 2 3 4 5

16. A physically fit woman is admired for her looks more than someone who is not fit and toned.....1 2 3 4 5

17. How I look does not affect my mood in social situations.....1 2 3 4 5

18. People find individuals who are in shape more attractive than individuals who are not in shape..... 1 2 3 4 5

19. In our culture, someone with a well-built body has a better chance of obtaining success.....1 2 3 4 5

20. I often find myself comparing my physique to that of athletes pictured in magazines.....1 2 3 4 5

21. I do not compare my appearance to people I consider very attractive.....1 2 3 4 5

Appendix O

Perceived Sociocultural Pressure Scale

DIRECTIONS: Using the following scale, please circle the response that best captures your own experience.

NEVER	RARELY	SOMETIMES	OFTEN	ALWAYS
1	2	3	4	5

1. I've felt pressure from my friends to lose weight.....1 2 3 4 5
2. I've noticed a strong message from my friends to have a thin body.....1 2 3 4 5
3. I've felt pressure from my family to lose weight.....1 2 3 4 5
4. I've noticed a strong message from my family to have a thin body.....1 2 3 4 5
5. I've felt pressure from people I've dated to lose weight.....1 2 3 4 5
6. I've noticed a strong message from people I have dated to have a thin body.....1 2 3 4 5
7. I've felt pressure from the media (e.g., TV, magazines) to lose weight.....1 2 3 4 5
8. I've noticed a strong message from the media to have a thin body.....1 2 3 4 5

APPENDIX P

Body Comparison Scale

DIRECTIONS: For the items below, use the following scale to rate how often you compare these aspects of your body to those of other individuals of the same sex.

NOTE: Please be sure that you read and respond to all of the questions according to how you would compare yourself to same-sex peers.

NEVER	RARELY	SOMETIMES	OFTEN	ALWAYS
1	2	3	4	5

1. Ears.....1 2 3 4 5
2. Nose.....1 2 3 4 5
3. Lips 1 2 3 4 5
4. Hair.....1 2 3 4 5
5. Teeth.....1 2 3 4 5
6. Chin.....1 2 3 4 5
7. Shape of face.....1 2 3 4 5
8. Cheeks.....1 2 3 4 5
9. Forehead.....1 2 3 4 5
10. Upper arm.....1 2 3 4 5
11. Forearm.....1 2 3 4 5
12. Shoulders.....1 2 3 4 5
13. Chest.....1 2 3 4 5
14. Back.....1 2 3 4 5

NEVER	RARELY	SOMETIMES	OFTEN	ALWAYS
1	2	3	4	5

15. Waist.....1 2 3 4 5

16. Stomach.....1 2 3 4 5

17. Buttocks.....1 2 3 4 5

18. Thigh.....1 2 3 4 5

19. Hips.....1 2 3 4 5

20. Calves.....1 2 3 4 5

21. Muscle tone of upper body.....1 2 3 4 5

22. Overall shape of upper body.....1 2 3 4 5

23. Muscle tone of lower body.....1 2 3 4 5

24. Overall shape of lower body.....1 2 3 4 5

25. Overall body.....1 2 3 4 5

Use the following scale to answer items 26-36.

NEVER	RARELY	SOMETIMES	OFTEN	ALWAYS
1	2	3	4	5

26. I find myself thinking about how my nose is different than others'.....1 2 3 4 5

27. When I am with other people, I find myself comparing my complexion with others.....1 2 3 4 5

28. Being around people with firm, muscular arms makes me self-conscious.....1 2 3 4 5

29. When I compare myself with others, I compare their degree of muscle-tone with my muscle-tone.1 2 3 4 5

NEVER	RARELY	SOMETIMES	OFTEN	ALWAYS
1	2	3	4	5

30. When with others, I compare my thighs to those of my peers.....1 2 3 4 5

31. When I am with others, I compare my weight with theirs.....1 2 3 4 5

32. When I compare my weight with others, I feel that I am overweight.....1 2 3 4 5

33. I compare my physical appearance to the physical appearance of others.....1 2 3 4 5

34. When I see people who are overweight, I compare my body size to theirs.....1 2 3 4 5

35. I compare the attractiveness of my facial features with the facial features of others.....1 2 3 4 5

36. I compare how thin or overweight someone is more than I compare how muscular and in shape they are.....1 2 3 4 5

REFERENCES CITED

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Altabe, M. N. & Thompson, J.K. (1996). Body image: A cognitive self-schema? Cognitive Therapy and Research, 20, 171-193.

American Psychiatric Association (1994). Diagnostic and statistical manual of mental disorders (4th ed.), (pp. 549-550). American Psychiatric Association.

Attie, I. & Brooks-Gunn, J.B. (1989). Development of eating problems in adolescent girls: A longitudinal study. Developmental Psychology, 25, 70-79.

Beaumont, P.J.V. (1995). The clinical presentation of anorexia and bulimia nervosa. In K.D. Brownell & C.G. Fairburn (Eds.), Eating Disorders and Obesity: A Comprehensive Handbook (pp. 151-158). New York: The Guilford Press.

Beebe, D.W., Hombeck, G.N., Schober, A., Lane, M., & Rosa, K. (1996). Is body focus restricted to self-evaluation? Body focus in the evaluation of self and others. International Journal of Eating Disorders, 20, 415-422.

Benedikt, R., Wertheim, E., & Love, A. (1998). Eating attitudes and weight-loss attempts in female adolescents and their mothers. Journal of Youth and Adolescence, 27,43-57.

Cash, T.F., Cash, D.W., & Butters, J.W. (1983). "Mirror, mirror, on the wall...?": Contrast effects and self-evaluations of physical attractiveness. Personality and Social Psychology Bulletin, 9, 351-358.

Cattarin, J. & Thompson, J.K. (1994). A three-year longitudinal study o fbody image and eating disturbance in adolescent females. Eating Disorders: The Journal of Prevention and Treatment, 2, 114-125.

Cattarin, J., Thompson, J.K., Thomas, C., & Williams, R. (2000). Body image, mood, and televised images of attractiveness: The role of social comparison. Journal of Social and Clinical Psychology, 19, 220-239.

Compas, B.E., Haaga, D.A., Keefe, F.J., Leitenberg, H., & Williams, D.A. (1998). Journal of Consulting and Clinical Psychology, 66, 89-112.

Conners, M.E. (1996). Developmental vulnerabilities for eating disorders. In L. Smolak, M. Levine, & R. Streigel-Moore (Eds.), The Developmental Psychopathology of Eating Disorders (pp. 285-310). Hillsdale, NJ: Erlbaum.

Crandall, C.S. (1988). The social contagion of binge eating. Journal of Personality and Social Psychology, 55, 588-598.

Cusumano, D.L. & Thompson, J.K. (1997). Body image and body shape ideals in magazines: Exposure, awareness, and internalization. Sex Roles, 37, 701-721.

Downs, A.C. & Harrison, S.K. (1985). Embarrassing age spots or just plain ugly? Physical attractiveness stereotyping as an instrument of sexism on American television commercials. Sex Roles, 13, 9-19.

Eldredge, K., Wilson, G.T., & Whaley, A. (1990). Failure, self-evaluation and feeling fat in women. International Journal of Eating Disorders, 9, 37-50.

Evans, E.D., Rutberg, J., Sather, C., & Turner, C. (1991). Content analyses of contemporary teen magazines for adolescent females. Youth & Society, 23, 99-120.

Fairburn, C.G. & Walsh, T.B. (1995). Atypical eating disorders. In K.D. Brownell & C.G. Fairburn (Eds.), Eating Disorders and Obesity: A Comprehensive Handbook (pp. 135-140). New York: The Guilford Press.

Faith, M.S., Leone, M., & Allison, D.B. (1997), The effects of self-generated comparison targets, BMI, and social comparison tendencies on body image appraisal. Eating disorders: Journal of Treatment and Prevention, 5, 34-46.

Fallon, A.E. (1990). Culture in the mirror: Sociocultural determinants of body image. In T.F. Cash & T. Pruzinsky (Eds.), Body images: Development, Deviance, and Change (pp. 80-109). New York: The Guilford Press.

Festinger, L. (1954). A theory of social comparison processes. Human Relations, 7, 117-140.

Garner, D.M. (1997, January/February). The body image survey. Psychology Today, 32-84.

Garner, D.M. & Olmstead, M.P., & Polivy, J. (1983). Development and validation of a multi-dimensional eating disorder inventory for anorexia nervosa and bulimia. International Journal of Eating Disorders, 2, 15-34.

Gleaves, D.H., Williamson, D.A., Eberenz, K.P., Sebastian, S.B., & Barker, S.E. (1995). Clarifying body-image disturbance: Analysis of a multidimensional model using structural modeling. Journal of Personality Assessment, 64, 478-493.

Goldbloom, D.S. & Kennedy, S. H. (1995). Medical complications of anorexia nervosa. In K.D. Brownell & C.G. Fairburn (Eds.), Eating Disorders and Obesity: A Comprehensive Handbook (pp. 266-270). New York: The Guilford Press.

Gonzalez-Lavin, A. & Smolak, L. (1995). Relationships between television and eating problems in middle school girls. Journal of Social Behavior and Personality, 12, 1019-1036.

Graber, J.A., Brooks-Gunn, J., Paikoff, R.L., & Warren, M.P. (1994). Prediction of eating problems: An 8-year study of adolescent girls. Development Psychology, 30, 823-834.

Heinberg, L.J. (1996). Theories of body image: Perceptual, developmental, and sociocultural factors. In J.K. Thompson (Ed.), Body Image, Eating Disorders, and Obesity: An integrative Guide to Assessment and Treatment. (pp. 27-48). Washington, DC: American Psychological Association.

Heinberg, L. J. & Thompson, J.K. (1992a). Social comparison: Gender, target importance ratings, and relation to body image disturbance. Journal of Social Behavior and Personality, 7, 335-344.

Heinberg, L.J. & Thompson, J.K. (1992b). The effects of figure size feedback (positive vs. negative) and target comparison group (particularistic vs. universalistic) on body image disturbance. International Journal of Eating Disorders, 12, 441-448.

Heinberg, L.J. & Thompson, J.K. (1995). Body image and televised images of thinness and attractiveness: A controlled laboratory investigation. Journal of Social and Clinical Psychology, 7, 335-344.

Herman, C.P. & Polivy, J. (1980). Restrained eating. In A.J. Stunkard (Ed.), Obesity (pp. 208-225). Philadelphia: W.B. Saunders Company.

Hoek, H.W. (1995). The distribution of eating disorders. In K.D. Brownell & C.G. Fairburn (Eds.), Eating Disorders and Obesity: A Comprehensive Handbook (pp. 207-211). New York: The Guilford Press.

Irving, L.M. (1990). Mirror images: Effects of the standard of beauty on the self and body-esteem of women exhibiting varying levels of bulimic symptoms. Journal of Social and Clinical Psychology, 9, 230-242.

Klem, L. (2000). Structural Equation Modeling. In L.G. Grimm & P.R. Yarnold (Eds.), Reading and Understanding More Multivariate Statistics (pp. 227-260). Washington D.C.: American Psychological Association.

Levine, M.P., Smolak, L., & Hayden, H. (1994). The relation of sociocultural factors to eating attitudes and behaviors among middle school girls. Journal of Early Adolescence, 14, 471-490.

Levine, M.P. & Smolak. L. (1996). Media as a context for the development of disordered eating. In L. Smolak & M.P. Levine (Eds.), The Developmental Psychopathology of Eating Disorders: Implications for Research, Prevention, and Treatment (pp. 235-257). Mahwah, NJ: Erlbaum.

Levine, M.P., Smolak, L., Moodey, A.F., Shuman, M.D., & Hessen, L.D> (1994). Normative developmental challenges and dieting and eating disturbances in middle school girls. International Journal of Eating Disorders, 15, 11-20.

Meijboom, A., Jansen, A., Kampman, M., Schouten, E. (1999). An experimental test of the relationship between self-esteem and concern about body shape and weight in restrained eaters. International Journal of Eating Disorders, 25, 327-334.

Mintz, L.B. & Betz, N.E. (1988). Prevalence and correlates of eating disordered behaviors among undergraduate women. Journal of Counseling Psychology, 35, 463-471.

Molloy, B.L. & Herzberger, S.D. (1998). Body image and self-esteem: A comparison of African-American and Caucasian women. Sex Roles, 38, 631-643.

Ogletree, S.M., Williams, S.W., Raffeld, P., Mason, B., & Fricke, K. (1990). Female attractiveness and eating disorders: Do children's television commercials play a role? Sex Roles, 22, 791-797.

Oliver, K.K. & Thelen, M.H. (1996). Children's perceptions of peer influence on eating concerns. Behavior Therapy, 27, 25-39.

Paa, H.K. & Larson, L.M. (1998). Predicting level of restrained eating behavior in adult women. International Journal of Eating Disorders, 24, 91-94.

Pierce, K. (1990). A feminist theoretical perspective on the socialization of teenage girls through Seventeen magazine. Sex Roles, 23, 491-500.

Pike, K. & Rodin, J. (1991). Mothers, daughters, and disordered eating. Journal of Abnormal Psychology, 100, 198-204.

Polivy, J. & Herman, C.P. (1985). Dieting and binging: A causal analysis. American Psychologist, 40, 193-201.

Polivy, J. & Herman, C.P. (1995). Dieting and its relation to eating disorders. In K.D. Brownell & C.G. Fairburn (Eds.), Eating Disorders and Obesity: A Comprehensive Handbook (pp. 83-86). New York: The Guilford Press.

Rand, C.S.W. & Kuldau, J.M. (1991). Restrained eating (weight concerns) in the general population and among students. International Journal of Eating Disorders, 10, 699-708.

Rieves, L. & Cash, T.F. (1996). Social developmental factors and women's body image attitudes. Journal of Social Behavior and Personality, 11, 63-78.

Rodin, J., Silberstein, L.R., & Striegel-Moore, R.H. (1985). Women and weight: A normative discontent. In T.B. Sonderegger (Ed.), Psychology and Gender: Nebraska Symposium on Motivation (pp.267-307). Lincoln: University of Nebraska Press.

Sanftner, J.L., Crowther, J.H., Crawford, P.A., & Watts, D.D. (1996). Maternal influences (or lack thereof) on daughters' eating attitudes and behaviors. Eating Disorders: The Journal of Treatment and Prevention, 4, 147-159.

Schwartz, D., Thompson, M.G., & Johnson, C.L. (1981). Anorexia nervosa and bulimia: The socio-cultural context. International Journal of Eating Disorders, 1, 20-36.

Serdula, M.K., Collins, M.E., Williamson, D.F., Anda, R.F., Pamuk, E., & Byers, T.E. (1993). Weight control practices of U.S. adolescents and adults. Annals of Internal Medicine, 119, 667-671.

Stice, E. & Agras, W.S. (1998). Predicting the onset and remission of bulimic behaviors during adolescence. A longitudinal grouping analysis. Behavior Therapy, 29, 225-276.

Stice, E., Schupak-Neuberg, E., Shaw, H.E., & Stein, R.I. (1994). Relation of media exposure to eating disorder symptomatology: An examination of mediating mechanisms. Journal of Abnormal Psychology, 103, 836-840.

Stice, E., Ziemba, C., Margolis, J., & Flick, P. (1996). The dual pathway model differentiates bulimics, subclinical bulimics, and controls: Testing the continuity hypothesis. Behavior Therapy, 27, 531-549.

Stormer, S.M. & Thompson, J.K. (1996). Explanations of body image disturbance: A test of maturational status, negative verbal commentary, social comparison, and sociocultural hypotheses. International Journal of Eating Disorders, 19, 193-202.

Striegel-Moore, R.H. & Kearney-Cooke, A. (1994). Exploring parents' attitudes and behaviors about their children's physical appearance. International Journal of Eating Disorders, 15, 377-385.

Stunkard, A.J. & Messick, S. (1985). The three factor eating questionnaire to measure dietary restraint, disinhibition, and hunger. Journal of Psychosomatic Research, 29, 71-83.

Thelen, M.H. & Cormier, J.F. (1995). Desire to be thinner and weight control among children and their parents. Behavior Therapy, 26, 85-99.

Then, D. (1992). Women's magazines: Messages they convey about looks, men, and careers. Paper presented at the 100th Annual Convention of the American Psychological Association, Washington, D.C.

Thompson, J.K. (1990). Body Image Disturbance: Assessment and treatment. Elmsford, NY: Pergamon Press.

Thompson, J.K., Cattarin, J., Fowler, B., & Fisher, E. (1995). The perception of teasing scale (POTS): A revision and extension of the physical appearance related teasing scale (PARTS). Journal of Personality Assessment, 65, 146-157.

Thompson, J.K., Coovert, D.L., Richards, K.J., Johnson, S., & Cattarin, J. (1995). Development of body image, eating disturbance, and general psychological functioning in female adolescents: Covariance structure modeling and longitudinal investigations. International Journal of Eating Disorders, 18, 221-236.

Thompson, J.K., Coovert, D.L., & Stormer, S (1999). Body image, social comparison, and eating disturbance: A covariance structure modeling investigation. International Journal of Eating Disorders, 26, 43-51.

Thompson, J.K. & Heinberg, L.J. (1993). A preliminary test of two hypotheses of body image disturbance. International Journal of Eating Disorders, 14, 59-64.

Thompson, J.K., Heinberg, L.J., Altabe, M., & Tantleff-Dunn, S. (1999). Exacting beauty: Theory, Assessment, and Treatment of Body Image Disturbance. Washington D.C.: American Psychological Association.