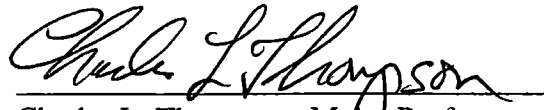
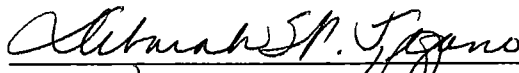
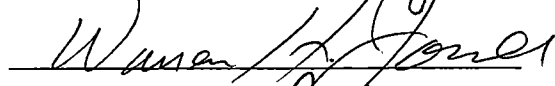
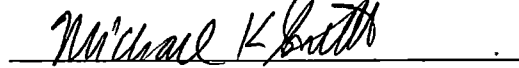


To the Graduate Council:

I am submitting herewith a dissertation written by Marsha Parsons Burdette entitled "The Relationship Between Elementary School Girls' Perceptions of Their Parents' Body Satisfaction and the Girls' Satisfaction with Their Own Bodies." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Education.


Charles L. Thompson, Major Professor

We have read this dissertation
and recommend its acceptance:

Accepted for the Council:


Associate Vice Chancellor and
Dean of the Graduate School

**The Relationship Between Elementary School
Girls' Perceptions of
Their Parents' Body Satisfaction
and the Girls' Satisfaction with Their Own Bodies**

A Dissertation
Presented for the
Doctor of Philosophy Degree
The University of Tennessee, Knoxville

Marsha P. Burdette
August 2001

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ABSTRACT

This research was designed to investigate whether a relationship exists between girls' perceptions of their parents' body satisfaction and the girls' satisfaction with their own bodies. Data from 63 Caucasian third, fourth, and fifth grade girls were collected via questionnaires which were read aloud in small groups. The questionnaire consisted of the following measures: the body dissatisfaction scale of the Eating Disorder Inventory (Garner, 1982; EDI-2, BD), an original instrument designed to understand the girls' perceptions of their mothers' and fathers' body satisfaction (POM/POD), individual questions about the girls' own eating and dieting behaviors, and some demographic information. In addition, height and weight of each girl were measured and body mass index was calculated.

Results indicated that there were problems with the measures when applied to this sample. First, there was little variation in body mass index in the sample; that is, the girls were all within the normal range for their age group. Second, the EDI-2, BD was found to be unreliable for this sample of girls. Third, only 11 of the 69 girls reported that they had ever dieted, so little information was gathered about elementary school dieters. Not surprisingly, multiple regressions provided no significant information.

When girls were separated into two groups based on whether they reported that mothers diet or not, t-tests showed differences on POM, POD and mothers' happiness scores. T-tests performed on girls who reported fathers diet and girls who

reported fathers do not diet revealed differences on POD and mothers' happiness scores.

Findings are discussed in regard to previous literature and suggestions for future research are made. In addition, theoretical and practical implications are discussed.

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CHAPTER I

INTRODUCTION

Problem Statement

A plethora of research exists in the area of adolescents' body image. Researchers have often explored this topic, because adolescence is a time of many physical changes. Adolescent body image has been studied in conjunction with eating, with dieting, and with patterns of disordered eating that have been found to be precursors to eating disorders (e.g. Blyth, Simmons, Zakin, 1985; Davies & Furnham, 1986; Faust, 1987; Levinson, Powell, & Steelman, 1986; Moreno & Thelen, 1995; Steiger, Leung, Puentes-Neuman, Gottheil, 1992; Wright, 1989) . More recently researchers have begun to examine children's beliefs about their body image. Researchers have asked pre-adolescents about their feelings and beliefs about their bodies in relation to eating and dieting behaviors. Some researchers have inquired about children's perceptions of their parents' concerns about their child's weight (Thelen & Cormier, 1995). Other researchers have asked general questions, such as "someone in my family worries about being fat", to tap into children's perceptions about their parents' feelings about their own bodies (Gustafson-Larson & Terry, 1992). However, no research has focused on investigating the impact of children's perceptions of their parents' specific beliefs about the parents' own bodies and how these perceptions might impact the children's beliefs about their own bodies. That is, no research has been done on the relationship between how

daughters' perceive their mothers' and fathers' satisfaction with their own body image and how these perceptions might influence the daughters' own body satisfaction. Therefore, the present study was directed toward answering this previously unaddressed question.

Rationale for the Study

Researchers have begun to investigate what role parents play in influencing childrens' attitudes and beliefs about their body. Understanding the role that parents play in affecting their childrens' body image is important because parents are most often the primary caregivers. Researchers have documented that children will imitate the behavior of an adult (Bandura & Walters, 1963); however, there is little research addressing how parents' body satisfaction is evaluated (and possibly imitated) by their young daughters and what impact the daughters' beliefs about their parents' body satisfaction has on the daughters' own body satisfaction.

Research Questions

The purpose of this study was to investigate the relationship of daughters' perceptions of their mothers' and fathers' body satisfaction and dieting behaviors, with the daughters' satisfaction with their own body. These comparisons were accomplished by inquiring about elementary school girls' beliefs through group administered questionnaires.

The major conceptual questions for this research are:

[1] Are elementary school girls' perceptions of their mothers' level of body

satisfaction predictive of the daughters' level of comfort with their own body?

[2] Are elementary school girls' perceptions of their fathers' level of body

satisfaction predictive of the daughters' level of comfort with their own body?

[3] Are there differences between girls who report that their mothers diet and girls

who report that their mothers do not diet?

[4] Are there differences between girls who report that their fathers diet and girls

who report that their fathers do not diet?

Hypotheses

The following null hypotheses were tested:

[1] No relationship exists between elementary school girls' perceptions of their mothers' level of body satisfaction and the daughters' level of comfort with their own body.

[2] No relationship exists between elementary school girls' perceptions of their fathers' level of body satisfaction and the daughters' level of comfort with their own body.

[3] No relationship exists between elementary school girls who report their mothers diet and those who report their mothers do not diet.

[4] No relationship exists between elementary school girls who report their fathers diet and those who report their fathers do not diet.

Overview of the Study

A review of the literature is found in Chapter II. Participants, measures and procedures for data collection are included in Chapter III. Results of the data analysis performed to examine the research questions are reported in Chapter IV. The findings, limitations of this study, and implications for future research are discussed in Chapter V.

CHAPTER II

REVIEW OF THE LITERATURE

Relevant literature will be discussed in this chapter, as it is related to girls' body satisfaction and their perceptions of their parents' beliefs about their own bodies. The three areas of focus are: body dissatisfaction, dieting and eating disorders, and parental influences.

Body Dissatisfaction

Researchers have established that dissatisfaction with one's physical appearance is rampant in our society for both adults and adolescents (e.g. Cash, Winstead, & Janda, 1986; Davies & Furnham, 1986; Heinberg, Wood, & Thompson, 1995; Rodin, Silberstein, & Striegel-Moore, 1985). Females generally experience more body image dissatisfaction than do males (Cok, 1990; Rierdan, Koff, & Stubbs, 1988). In the past, adolescents and adults have primarily been studied in regard to weight concerns, body image, eating behaviors, and dieting (Greenfeld, Quinlan, Harding, Glass, & Bliss, 1987; Huenemann, Shapiro, Hampton, & Mitchel, 1966). Researchers have found a high incidence of body dissatisfaction among adolescents, especially girls (Crowther, Post, & Zaynor, 1985; Desmond, Price, Gray & O'Connell, 1986; Eisele, Hertsgaard, & Light, 1986). There is evidence that weight concerns and negative body image often begin before adolescence and some studies have begun to investigate children's levels of satisfaction with their bodies (Collins, 1991; Thelen, Powell, Lawrence, & Kuhnert, 1992).

Researchers have suggested that in order to better understand the development of attitudes about weight, body shape, eating, and dieting, more attention must be directed toward studying children (Paxton, Wertheim, Gibbons, Szmukler, Hillier, & Petrovich, 1991; Thelen et al., 1992). Although there is evidence that being overweight is unacceptable for both boys and girls (Staffieri, 1967; Stager & Burke, 1982), pressure to be thin is directed primarily toward girls (Thelen et al., 1992).

In Mary Pipher's book *Reviving Ophelia: Saving the Selves of Adolescent Girls*, she provides case studies of young girls. Pipher (1994) explains that themes such as weight concern and body dissatisfaction are most often rooted in cultural expectation rather than individual pathology, and she discusses how girls split into true and false selves in an attempt to fit into the culture. In addition, girls struggle with mixed messages and feel a tremendous pressure to be beautiful in order to be accepted socially.

In a study of 457 fourth graders (ages 9 to 11 years old), researchers found that there was more awareness and concern about body weight among the girls than the boys (Gustafson-Larson & Terry, 1992). Wood, Becker, and Thompson (1996) explored body dissatisfaction in 8- to 10-year-old children, and found similar results; girls want to be thinner than their current body size and they experience significantly more body dissatisfaction than boys.

Wood et al. (1996) used the Body Dissatisfaction Scale of the Eating

Disorder Inventory (EDI,BD: Gardner & Olmstead, 1983) as a measure of body dissatisfaction for 8- to 10-year-old children, although the inventory was designed for much older populations. They reported good reliability and internal consistency and thus concluded that the EDI,BD was a "psychometrically strong measure of body dissatisfaction for 8 to 10 year old children". However, it was clear that more research was needed to identify the specific factors that influence the development of body satisfaction.

African American Females and Body Satisfaction

One factor that may influence the development of body dissatisfaction is race. Most of the research studies focusing on body dissatisfaction in children have been conducted using primarily Caucasian youngsters. Some of the studies advise that researchers should be aware of possible racial differences in regard to body satisfaction. There is some evidence that differences exist between Caucasian and African American females in regard to body satisfaction.

Researchers have found that there is a greater incidence of heaviness among African American women (Kiell, 1973; Stunkard, D'Aquill, & Ross, 1972; Durant, Martin, Linder, & Weston , 1980). In fact, according to Kuczmarski, Flegel, Campbell, and Johnson (1994) nearly 49% of all African American women are obese, while only 33% of Caucasian women are obese. Millman (1980) reported case study anecdotal reports that exemplified how African Americans tend to evaluate heavy women more positively than thin women, often describing them as powerful

and emotionally healthy. Researchers have found that in the African American culture value is placed on a heavier body image for women (Flynn & Fitzgibbon, 1996; Millman, 1980).

Evidence exists that suggests that African American girls differ from Caucasian girls in respect to body image satisfaction, body mass index, and maternal support for body size. Low-income, non-obese African American girls often want to be heavier than their current weight, in contrast to “normal” sized Caucasian girls who often want to be thinner (Flynn and Fitzgibbon, 1996). There is reason to believe that low-income African American mothers may equate thin bodies with illness and poverty, while heavy bodies are associated with health and power (Massara, 1980). African American girls may view their heavier mothers as role models, who may not encourage or reinforce their daughters for eating low fat foods and exercising (Flynn & Fitzgibbon, 1996).

In a study of 2379 girls, Brown, Schreiber, McMahon, Crawford, and Ghee (1995) found 9- and 10-year-old African American girls had higher body mass indices *and* higher body satisfaction scores than Caucasian girls. Although body satisfaction fell with increasing body mass in all girls, satisfaction decreased more rapidly with increasing body mass among Caucasian girls compared to African American girls (Brown et al., 1995). Thus, it is important to be mindful of possible racial differences in this area of study.

In addition to racial differences, numerous other factors may influence body

satisfaction. Although it may be difficult to determine a finite set of factors that influence body image, one thing is certain: body image affects self-esteem. Positive body image is related to positive feelings about oneself, and negative body image is related to negative feelings which may lead to unhealthy behaviors.

Dieting and Eating Disorders

Body dissatisfaction often leads to dieting, and dieting may lead to eating disorders (Waterhouse, 1997). Girls who diet during pre-adolescent and adolescent years are depriving their bodies of necessary nutrients at a time when their bodies are maturing and need proper nutrition (Waterhouse, 1997). This nutritional deprivation due to restricted or altered food intake can cause considerable harm to growing children, often leading bone, muscle, and hormone loss which affects their maturation (Dazzi & Dwyer, 1984; Mallick, 1983). Some children suffer from “nutritional dwarfing” caused by restricted eating patterns that can permanently stunt their growth (Pugliese, Lifshitz, Grad, Fort & Marks-Katz, 1983). Also, dieting may lead to weight gain, caused by restricting food intake and then bingeing when the diet is over, which has been found to lead to obesity (Garner & Wooley, 1991; Polivy & Herman, 1985). As is true with adults, children and adolescents who diet may suffer from hyperemotionality, irritability, and concentration problems (Polivy & Thomasen, 1988).

The Diagnostic and Statistical Manual of Mental Disorders-4th ed. (DSM-IV, APA, 1994) lists the eating disorders, anorexia nervosa and bulimia nervosa, as

disturbances of body image. In some cases, childhood body image disturbance may be manifested in these life-threatening eating disorders. Dozens of studies point to dieting as the most common and most predictable cause of eating disorders (i.e., Patton, 1990; Radcliffe, 1987). In fact, a young woman who diets has been found to be eight times more likely to develop an eating disorder (Patton, 1990). Anorexia nervosa often develops when female adolescents who are dissatisfied with their bodies attempt to control their weight with rigid eating patterns (Garfinkle & Garner, 1982); in fact, anorexia nervosa has been documented in girls as young as seven years old (Irwin, 1981).

Researchers have shown that for some girls weight concerns begin between second and fourth grade, and that girls who had dieted did so before or during second grade (Thelen et al., 1992). In a sample of 457 fourth graders, Gustafson-Larson & Terry (1992) found that 70% reported that they feel guilty when they eat too much. In addition, Thelen et al. (1992) reported that 4th grade girls expressed concern about being overweight and they reported dieting to lose weight. In a study of 494 girls aged 9 to 18, researchers found that fear of fatness, restrained eating, and binge eating are common among girls by age 10 (Mellin, Irwin, & Scully, 1992). Koff and Rierdan (1991) found that by sixth grade a large portion of girls have begun to claim that they avoid fat, count calories, feel guilty after eating and overeating, and exercise to lose weight. There is evidence that the appearance of these "dieting" attitudes and behaviors may be precursors to serious eating disorders

(Koff & Rierdan, 1991).

In the past, eating disorder prevention programs have targeted teenagers. Researchers have begun to realize that prevention needs to begin much earlier than the teen years. Mellin et al. (1992) suggest that preventive educational activities need to target girls before the middle school years, especially, in the elementary years. In order to organize more effective prevention programs researchers must understand more fully the factors that influence body image development in elementary aged children (Smolak and Levine, 1994). Paxton et al. (1991) suggest that prevention programs educate parents about the effects of dieting on youngsters. Many variables may influence the body satisfaction of young children, such as society, the media, other children, and of course, their primary caregivers- their parents.

Parental Influences

Researchers have begun to investigate what role parents play in influencing childrens' attitudes and behaviors about their body. Children learn about their surroundings by watching their parents interact with the environment and the people in it. Researchers have documented that children will imitate the behavior of an adult (Bandura & Walters, 1963). In many instances parents are purposefully trying to instill certain values, behaviors, and beliefs in their children. At other times, parents may be virtually unaware of how they are influencing their children. Research on the inter-generational transmission of attitudes has shown that parental attitudes, particularly mothers attitudes, are significant predictors of their children's

attitudes (Dalton, 1980; Jennings & Neimi, 1982).

Maternal Influences

Researchers have established a link between maternal attitudes and behaviors, and adolescent daughters' eating behaviors. Typically mothers influence their daughters through modeling dieting and weight conscious behaviors, or through direct communication of their ideas (Levine, Smolak & Hayden, 1994; Paxton et al., 1991; Pike & Rodin, 1991). Some mothers gently encourage their daughters to diet because they are concerned about their daughters' weight, while other mothers resort to teasing their overweight daughters in an attempt to elicit weight consciousness (Levine et al, 1994).

Researchers in the area of body image and eating disorders have primarily studied the relationship between a mother's beliefs, actions, and behaviors and her daughter's subsequent body image disturbance. The research tends to focus on the extreme cases of anorexia and bulimia and how these eating disorders may be influenced by maternal modeling and/or communication of beliefs.

Eating restraint is one factor involved in anorexia. Ruther and Richman (1993) reported that in their sample of 50 fourth grade students, the girls' eating restraint scores and their mother's eating restraint scores were directly related; however, no relationship existed between mothers' and sons' eating restraint scores. These results provide evidence of a relationship between mothers and daughters eating habits; however, causality could not be addressed.

In a review of literature examining the risk factors of bulimia, Streigel-Moore, Silberstein, and Rodin (1986) suggest that if mature female members of the family emphasize thinness and attractiveness, model dieting and weight preoccupation, then the younger female members are likely to diet and therefore be at a greater risk for developing eating disorders. Other researchers have reported only a marginally significant correlation between body image problems of mothers (such as disturbed eating style) and similar problems with their daughters (Attie & Brooks-Gunn, 1989). More recently, Thelen and Cormier (1995) reported no significant association between a mothers' concern about her own weight or attempts at weight loss and those of her daughter. It is unclear from these findings whether or not girls imitate the weight concerns of their mothers; however, there is adequate evidence to suggest that mothers who model disordered eating *influence* their daughters to engage in similar behaviors (Boskind-White, & White, 1983; Ordman & Kirshenbaum, 1986; Streigel-Moore et al., 1986). Waterhouse (1997) suggests that there is a societal push for thinness and mothers model unhealthy dieting behaviors and body dissatisfaction for their daughters. Pipher (1995) warns that mothers unwittingly model negative self-evaluation in front of their daughters, thus teaching their daughters to do the same thing. According to Waterhouse (1997) dieting and fear of weight gain are learned behaviors, most often learned from other women. In fact, Waterhouse (1997) suggests that weight loss behaviors have become a routine part of life; mothers diet without thinking about it and pass along their weight

preoccupations to their daughters without realizing it.

Thelen and Cormier (1993) found that fourth grade girls perceived more encouragement to control or lose weight from their mothers than from their fathers. Pike and Rodin (1991) found that mothers of daughters with disordered eating were more critical of their daughters than of themselves, and the mothers put considerable pressure on the girls to be thin. Researchers have reported that mothers of bulimic undergraduates restricted their daughters' food intake, encouraged their daughters to diet and exercise in order to lose weight, and evaluated their daughters as being overweight (Moreno & Thelen, 1993; Pike & Rodin, 1991). However, there is evidence to suggest that mothers of bulimics do not model disordered eating behaviors such as dieting, so much as they directly communicate their beliefs about dieting, exercising and weight to their daughters (Attie & Brooks-Gunn, 1989; Moreno & Thelen, 1993; Kanakis & Thelen, 1995). The only exception to these findings is a study conducted by Pike and Rodin (1991) that provides evidence that mothers whose daughters were eating disordered were more eating disordered themselves and they had begun dieting at an earlier age compared to mothers of girls who were not eating disordered.

Brown et al. (1995) reported mixed results in regard to maternal support in African American families. That is, African American mothers of moderately *heavy* girls were more likely than Caucasian mothers to express disapproval of their daughters' eating habits and body build; however, African American mothers of *very*

heavy daughters were less likely than Caucasian mothers to disapprove of their daughters' body build and eating habits (Brown et al., 1995). Once again, there is evidence to suggest that there are cultural differences between African Americans and Caucasians in regard to body satisfaction and dieting behaviors.

Understanding more about girls opinions of what their mothers value about their own body is an important step in helping researchers to understand the role of mothers' unintentional as well as purposeful influence on their daughters' body image development, and the girls subsequent appraisal of their own body. Because perceptions shape actions, researchers need to learn more about daughters' beliefs at the same time acknowledging that there may be discrepancies in what the mothers are actually doing and saying. Research that focuses on daughters' perceptions of their mothers' beliefs about dieting and body image would be gathering important information about the daughters' observations and their interpretation of their mothers' beliefs about her own body. Researchers have yet to examine how daughters incorporate their perceptions of their mothers' beliefs into their appraisal of their own body, and doing so may shed light onto the influence mothers are having on the body image development of their daughters.

It is evident that many research studies have investigated the relationship between mothers' and daughters' eating and dieting behaviors, and body satisfaction. Researchers have reported that mothers influence their daughters' body image through modeling and through direct communication. Many research studies have

examined the relationship between girls with eating disorders and their perceptions of their parents' view of them (the daughters).

In a study of 457 fourth graders, researchers asked two questions about the childrens' perceptions of people in the family in general and two similar questions about their peers (Gustafson-Larson & Terry, 1992). The results showed that 72% of the children indicated that "someone in my family worries about being fat" and 82% shared that "someone in my family is on a diet" (Gustafson-Larson & Terry, 1992). The results also indicated that 61% of the children reported that "my school friends worry about being fat," and 46% said that "my school friends are on a diet"(Gustafson-Larson & Terry, 1992).

Only one study to date has inquired about daughters' perceptions of their parents' beliefs and it concerned the parents' beliefs about the *daughters' weight*. Thelen and Cormier (1995) studied 70 families with 4th grade children and found that 86% of mothers, 63% of fathers, and 28% of girls reported that they had dieted. In addition to other measures, they asked four questions about how the girls believe their parents evaluate their (the girls') body size and shape:

- [1] How many times has your Mom/Dad told you that you weigh too much?
- [2] How many times has your Mom/Dad told you to eat less or different foods in order to lose weight or keep from gaining weight?
- [3] How many times has your Mom/Dad told you to exercise in order to lose weight or keep from gaining weight?
- [4] How often does your Mom/Dad keep you from eating foods that you like so that you will lose weight or keep from gaining weight?"

The researchers refer to these questions as a measure of "parental encouragement",

yet the content appears to measure parental behaviors. Girls perceived that mothers encouraged weight control more often than fathers, and daughters' *perceived* encouragement to control weight was significantly and positively correlated with encouragement reported by their mothers (Thelen & Cormier, 1995).

None of the studies have asked girls to describe their *perceptions* of their parents' beliefs about *their own* body. Daughters' *perceptions* of their mothers' beliefs should influence the girls' body image development, and may be more influential than what the mother reports doing and/or saying to the daughter. In addition to modeling and direct communication, the daughters' interpretation of their mothers' actions and opinions influences the girls' own body satisfaction and weight consciousness. Conceivably, it is less important what mothers actually say and do, as compared to how their daughters' derive meaning from their mothers' actions. Daughters may attend to different cues from mom and dad and attach meaning or importance based on their own framework and understanding of their own body.

Paternal Influences

Researchers have often assumed that fathers do not influence daughters' body image and weight control behaviors, because in general, males have been found to be less concerned with their own body weight and therefore less likely to model weight control behaviors (Rozin & Fallon, 1988). In fact, Rozin and Fallon (1988) found that fathers who described themselves as overweight reported less concern and weight control attempts than did mothers or daughters. However, recent studies have

begun to include fathers in their exploration of parental influences of daughter's body image satisfaction (Moreno & Thelen, 1993; Thelen & Cormier, 1995). Moreno and Thelen (1993) reported that there were no significant differences between their sample of "bulimics", "sub-clinical bulimics", and "normals" fathers on any of the measures in their study. It could be possible that fathers are influencing their daughters in ways that are different from mothers influences and therefore have not been assessed by the currently used measures which have typically focused on maternal influences. In a more recent study, Thelen and Cormier (1995) found that daughters' dieting frequency was positively correlated with father's *reported* encouraging of daughter to control weight (as opposed to daughter's *perceived* encouragement from father to control weight) when body mass index was partialled out.

It is important to note that investigation of paternal influences of daughter's eating and weight concerns is a relatively new area of research. Researchers have only begun to notice the need to investigate the role of father's in child and adolescent psychopathology such as eating disorders (Phares, 1992). To date, no researchers have inquired about the daughter's *perceptions* of her father's body satisfaction, his dieting behaviors, and exercise beliefs.

Summary

Researchers have shown that many parents model dieting behaviors, such as food restriction, counting calories, attending to fat grams and other weight

controlling behaviors. In addition, parents may directly communicate with their children, thus encouraging and rewarding them to follow a similar pattern of weight consciousness. Furthermore, parents typically are in control of what foods are brought into the home and thus regulate what foods the children are allowed to eat. In fact, some young children are dieting with the encouragement and assistance of their parents. Well meaning parents may actually be training their children to have unhealthy eating habits and unrealistic expectations of their own bodies. Researchers have already suggested that parents be taught the dangers of dieting and restricting caloric and fat intake in children whose bodies are growing and developing (Paxton et al., 1991). Parents must be made cognizant of the pattern between restricted and disordered eating habits that often lead to weight cycling, and possibly obesity and/or life threatening eating disorders. Directly or inadvertently encouraging children to diet in order to reach societies "thin ideal" is dangerous. Introducing children to weight management techniques and behaviors helps to invite the very circumstances that parents are so lovingly trying to avoid. Researchers have shown time and again the direct link between dieting and weight gain (in adults); dieting *causes* obesity, through restriction of food and subsequent bingeing when the "diet" is over.

Researchers have already found that eating disorder prevention programs for teens are "too little, too late" and they have begun to realize that younger children need to be targeted for prevention to actually make a difference (Smolak & Levine, 1996). Interestingly, Paxton et al.(1991) reported that dieting behaviors were related

more to parental encouragement to lose weight than to the encouragement of friends. These researchers have suggested that prevention programs include parent education. It is imperative that parents be warned of the risks they are taking when they encourage, allow and/or demand that their children diet.

The present study was designed to gather information for parents and counselors about the possible ways in which children are perceiving parental actions and comments regarding dieting, and to examine whether a relationship exists between parental influence and daughters' body satisfaction. This type of information should be helpful for developing prevention programs for young children, and it would provide helpful information for educating parents about how they may be influencing their daughters' beliefs about and expectations of their own body.

CHAPTER III

METHODS

Participants

The participants were composed of 69 girls. One girl was deemed an outlier due to her excessively high Eating Disorder Inventory-2, Body Dissatisfaction Scale (Garner, 1991; EDI-2, BD) score, and thus was dropped from the analyses. The five African American girls were dropped from the study based on theoretical support provided in Chapter II, the review of literature. This left a sample of 63 Caucasian girls. Their mean age was 8.84 years ($SD = .83$; range = 7 through 10). There was one 7-year-old, twenty-four 8-year-olds, twenty-one 9-year-olds, and sixteen 10-year-olds. One participant did not indicate her age. One hundred percent of the respondents reported that they live with their mothers, while 78% live with their fathers. Third (58.7%), fourth (34.9%) and fifth (6.3%) grade girls were included in the sample. From information provided about their parents' occupations it was possible to discern informally that nearly all girls were from middle to lower middle class homes. (Note that some of the analyses include fewer than 63 participants due to missing data.)

Measures

A questionnaire was administered consisting of the following measures: the body dissatisfaction scale of the Eating Disorder Inventory (Garner, 1991; EDI-2, BD); an original instrument designed to understand the girls' perceptions of their

mothers' and fathers' body satisfaction (POM/POD); individual questions about the girls' own eating and dieting behaviors; and some demographic information (See Appendix A for a copy of the questionnaire).

Body Dissatisfaction

The EDI-2, BD (Garner, 1991) was used to assess the girl's perception of and level of satisfaction with her current body shape. The scale consists of nine questions that inquire as to the individual's beliefs about various parts of her body, such as "I feel satisfied with the shape of my body," and "I think that my stomach is just the right size." Items #3, #4, #7, #8, and #9 were reverse coded, so that a higher score was assigned to responses furthest in the "symptomatic" direction and low scores for responses in the "asymptomatic" direction. The Body Dissatisfaction scale score is computed by simply summing all of the item scores, which yield a total score ranging from 0 to 27. Thus a high score indicates high body dissatisfaction, and a low score indicates low body dissatisfaction.

The EDI-2 is an updated version of the Eating Disorder Inventory (EDI: Garner, Olmstead, & Polivy, 1983). The items on the Body Dissatisfaction scale remained exactly the same. Therefore, studies using the EDI, BD and EDI-2, BD are using exactly the same questions.

The EDI, BD has been used widely in eating disorders and body image research, and has well-established reliability and validity for adults (Garner, 1991). In addition, the EDI, BD has been found to be reliable and valid for adolescents 11 to 18

years old (Shore & Porter, 1990; Steiger et al., 1992; Thompson, Coover, Richards, Johnson, & Cattarin, 1995). More recently, the EDI, BD was shown to be an acceptable and psychometrically credible measure of body dissatisfaction for 8- to 10-year-olds (Wood et al., 1996).

However, the EDI-2, BD scores for the present sample of 63 girls was not comparable to the EDI, BD scores of the sample in Wood et al. (1996). The present sample had a mean EDI-2, BD = 6.44 with SD = 5.18, while Wood et al. reported their sample of 8-10 year old girls (N=95) had a mean EDI-BD = 19.89 with a SD = 9.62.

In the present study, eleven "filler" items were included with the nine EDI-2, BD items. The "filler" items consisted of permutations of the EDI-2, BD questions and other questions about body parts not mentioned in the scale. The results of the intercorrelations of the "filler" items with the corresponding EDI-2, BD items yielded noteworthy results (see Appendix B.1). The negative correlations between opposite statements about the same body part simply tell us that the girls were able to understand the questions and complete them correctly (i.e. head, feet). However, the positive correlations between the same body part (i.e., buttocks and thighs) indicate that the girls did not complete these questions appropriately. For example, "I think my buttocks are too small" should not be highly positively correlated with "I think my buttocks are too large". Unfortunately, the items about buttocks and thighs comprise a good portion of the EDI-2, BD. The correlations indicate that the EDI-2,

BD scale is *not* an appropriate measure to use with this sample of 7- to 10-year-old girls because there is evidence that they are not completing the questions appropriately.

Wood et al. (1996) report EDI, BD overall coefficient alpha of .84 for 95 girls ranging in age from 8 to 10 years old. In the present study the coefficient alpha for the EDI-2, BD was found to be .75, indicating acceptable internal reliability (Nunnally, 1978). However, the results of the intercorrelations tell a different story. Because the EDI-2, BD was not found to be a reliable measure for this sample, its validity is also questionable.

Girls' Perceptions of Moms' and Dads' Body Dissatisfaction

An instrument was developed to assess the girls' perceptions of mothers' body dissatisfaction (POM) and the girls' perceptions of fathers' body dissatisfaction (POD). The original POM and POD consisted of 20 items that were answered separately for mother and father, yielding 40 items in all (see last two pages of questionnaire in Appendix A). Of the 20 questions, 10 were phrased "How often do you see your Mom/Dad do these things?" and the other 10 began "How often do you hear your Mom/Dad say something that sounds like this?" Responses were circled to indicate the following answers: "1=never/very little, 2=sometimes, 3=most of the time, 4= all of the time." Scores for the POM/POD were calculated by summing the item scores, taking care to reverse code items #6, #7, and #9. The POM and POD are scales that measure a negative behavior; that is, the girls' perceptions of her parents'

degree of body dissatisfaction. A high score on the POM and/or the POD indicates that the parent was more critical of his/her body, whereas a low score on the POM and/or POD indicates that the parent was less critical of his/her own body.

Descriptive and Psychometric Properties of the POM and POD

Although the POM and POD are composed of the same questions, they are answered separately for each parent; therefore, they are treated as separate scales throughout this chapter. The POM is a measure of a girl's perceptions of her mother's body dissatisfaction, and the POD is a measure of a girl's perceptions of her father's body dissatisfaction.

Perceptions of Moms' Body Dissatisfaction (POM)

Exploratory principal components analysis with varimax rotation were performed on the POM and a 17-item 2 factor solution appeared initially (see Appendix B.2). The first factor was comprised of 11 items that seemed to be describing "eating and exercising behaviors," and the second factor was made up of 6 items that seemed to be about "looking or how one looks." Internal reliability on the 17-item scale was acceptable with the coefficient alpha of .87, which exceeds the recommended level of .70 (Nunnally, 1978). Because factor 2 was less cohesive, internal reliability was measured for each factor separately in order to provide additional information about the scale. Coefficient alpha for factor 1 (11 items) was .88 and the mean inter-item correlation was .40, indicating a rather reliable scale (Carmines & Zeller, 1979). Coefficient alpha for factor 2 (6 items) was .77 with a

mean inter-item correlation of .38. Although POM (factor 1) and POM (Factor 1 and 2) both had acceptable alpha levels of .88 and .87, respectively, the separate analysis of POM (factor 2) indicates that these items do not have an acceptable level of internal reliability. POM (Factor 1) is more reliable and has better mean inter-item correlation than POM (factors 1 and 2); therefore, the POM (factor 1) 11-item scale will be used in all subsequent analyses and will be referred to simply as POM.

Perceptions of Dads' Body Dissatisfaction (POD)

Exploratory principal components analysis were performed on the POD and a 17-item 2 factor solution appeared initially (see Appendix B.3). The first factor was comprised of 10 items that seemed to be describing "things you say," and the second factor was made up of 7 items that were indescribable. The coefficient alpha for the 17-item scale was at an acceptable level of .86 (Nunnally, 1978). Reliability was calculated for factor 1 (10 items, $\alpha = .89$, mean inter-item correlation = .44) and factor 2 (7 items, $\alpha = .57$, mean inter-item correlation = .21) separately. The unacceptable alpha level (and mean inter-item correlation) for factor 2 indicated that these items were not very reliable (Carmines & Zeller, 1979). Thus, the 10-item POD will be used in the remaining analyses, and will be referred to simply as the POD.

Problems with Normality of POM and POD Scores

The POM and POD scores for this sample were not normally distributed (see Appendix B.4). Evidence suggests that girls do not view their fathers as dissatisfied

with their own (fathers') bodies as they believe their mothers are with their own (mothers') bodies.

Frequency of Dieting Behaviors

A definition of dieting was given and the girls were asked to indicate how many times they had dieted, as well as how often they were aware of their mothers and/or fathers dieting. Dieting was defined as: "When you change what you eat in order to lose weight." In addition, the girls were asked to indicate if their mothers and/or fathers encourage them to diet.

Demographic Information

General information about the respondents was gathered, including the following: grade, age, father's/mother's occupation, whether or not they live with each parent, number and ages of siblings. Race was determined by the experimenter and recorded on each questionnaire after the girls completed the items.

Other Information

Additional questions were included in the questionnaire in order to gather more information about the respondents. The six open-ended questions include: [1] What do you like about yourself? [2] If you could be different, how would you like to be? [3] If you could look different, how would you like to look? [4] What do you like best about your body? [5] What do you think your Mom likes best about her body?[6] What do you think your Dad likes best about his body? In addition, the respondents were asked to indicate their overall assessment (thin, average,

overweight, or very overweight) of themselves (GIRL SIZE) and each of their parents (MOM SIZE, DAD SIZE) and also to indicate how happy (not very happy, somewhat happy, happy, very happy) each girl was with her body (GIRL HAPPY) and how happy she believes her parents are with their own bodies (MOM HAPPY, DAD HAPPY).

Body Mass Index

After completion of the questionnaire, the girls were weighed and measured by the experimenter. After the height (HEIGHT) and weight (WEIGHT) measures were converted to metric, the body mass index ($BMI = \text{weight [kg]} / \text{height [m]}^2$; Keys, Fidanza, Karvonen, Kimura, & Taylor, 1972) was calculated. The BMI is considered to be a reliable indicator of body fat by many researchers (Jequier, 1987; Keys et al., 1972; Wormersly, & Durnin, 1977) and is suitable for use with children (Rolland-Cachera, Sempe, Guillard-Batoille, Patois, Pequignot-Guggenbuhl, & Fautard, 1982).

The BMI scores of the present sample indicate that the majority of the girls fell within the normal range, with 87% of the sample between the 5th and 95th percentiles for BMI for their age, gender and race (Must, Dallal, & Dietz, 1991). The BMI scores for 3 girls indicated that they had less body fat compared to their age group (they were below the 5th percentile) and those for 5 girls scores indicated that they had more body fat than their agemates (they were above the 95th percentile).

Procedure

Following parental permission and consent of participants (see Appendix C.1 for a copy of the Informed Consent letters) questionnaires were administered to small groups of 4 to 10 girls, at 10 Girls Scout troops and 1 after-school program (see Appendix C.2 for copy of permission letter from G.S.Council and from ORC at UTK). The girls were spaced apart so that they could not look at one another's answers, and the questionnaire was read aloud while the respondents recorded their answers. The researcher pointed to the various body parts mentioned (hips, thighs, stomach, and buttocks) when reading the EDI-2, BD items. The girls were asked not to discuss their answers aloud, yet they were encouraged to ask questions if they needed help. None of the children appeared to have difficulty reading or understanding the questionnaires. Data collection took between 30-45 minutes per group.

Following completion of the questionnaires, girls' height and weight were measured by the experimenter, taking care to keep this information confidential. The girls' races were also recorded on the questionnaire by the experimenter.

CHAPTER IV

RESULTS

The first research question addressed in the study was the investigation of the possible relationship between elementary school girls' perceptions of their mothers' level of body satisfaction and the daughters' level of comfort with their own body. The second question involved the same basic research question; however, it focused on the fathers' roles. The third research question involved examining the possible relationship between girls who reported that their mothers diet and girls who reported that their mothers do not diet. The fourth and final question addressed the nature of the relationship between girls who reported that their fathers diet and girls who reported that their fathers do not diet.

Hypothesis One

No relationship exists between elementary school girls' perceptions of their mothers' level of body satisfaction and the daughters' level of comfort with their own body.

Three multiple regressions were used to test hypothesis one. The first regression using POM, MOM SIZE, MOM HAPPY, and MOM DIET to predict BMI, had an $R^2 = .09$ (nonsignificant, $F=1.46$). The nonsignificant results provided no information to answer research question one (see Appendix D.1) in the affirmative. The second regression using POM, MOM SIZE, MOM HAPPY, MOM DIET to predict EDI, had an $R^2 = .05$ (nonsignificant, $F=.79$). This analysis

provided no significant information to address research question one (see Appendix D.2). Because the criterion variable (GIRL DIET) was dichotomous, a logistic regression was used to examine how POM, MOM SIZE, MOM HAPPY, MOM DIET predict GIRL DIET. This third regression equation was also nonsignificant (see Appendix D.3). This last regression was affected by the low number of girls who reported dieting ($n=11$). None of the three regressions provided any significant results to answer question number one in the affirmative. Hypothesis One was accepted.

Hypothesis Two

No relationship exists between elementary school girls' perceptions of their fathers' level of body satisfaction and the daughters' level of comfort with their own body.

Multiple regressions were used to address hypothesis two. The first regression using POD, DAD SIZE, DAD HAPPY, DAD DIET to predict EDI, had an $R^2 = .19$ and was significant ($p < .05$) with $F=2.90$. It yielded the following regression equation: $EDI = 13.59 + .99 \text{ DAD DIET} - 2.45 \text{ DAD HAPPY} - 1.58 \text{ DAD SIZE} + .29 \text{ POD}$ (with only DAD HAPPY and POD being significant at $p < .05$ level; see Appendix D.4). However, since EDI was found to have reliability and validity problems, this equation has questionable meaning. The second regression using POD, DAD SIZE, DAD HAPPY, DAD DIET to predict BMI, had an $R^2 = .02$ (nonsignificant, $F=.31$). No significant information was provided by this analysis to

address research question two (see Appendix D.5). Because the criterion variable (GIRL DIET) was dichotomous, a logistic regression was used to explore how POD, DAD SIZE, DAD HAPPY, DAD DIET predict GIRL DIET. This third regression equation was found to be significant (see Appendix D.6), yet it was affected by the low number of girls who reported dieting. In fact, only 42% of dieters were predicted correctly. The three regressions provided no significant information to help answer question two in the affirmative. Hypothesis Two was accepted.

Hypothesis Three

No relationship exists between elementary school girls who report their mothers diet and those who report their mothers do not diet.

T-tests for independent samples and chi-square analyses were used to test hypothesis three. T-tests were used to compare girls, who reported that their mothers diet and those who reported that their mothers do not diet, on the continuous variables. Results of these analyses are shown in Appendix D.7. T-tests revealed that girls with dieting mothers had higher scores on the POM [$t(46) = -3.99, p < .001$] and higher scores on the POD [$t(42) = -2.59, p < .01$]. Mothers who were reported as non-dieters were seen as happier with their own bodies [$t(45) = 2.05, p < .05$] than mothers who were reported as dieters. Hypothesis Three was not accepted.

Chi-square tests were used to analyze the dichotomous variables. Three separate chi-square tests produced no significant differences between girls who reported that their mothers diet and girls who reported that their mothers do not diet

on the following variables: [1] whether mother encourages her daughter to diet, [2] whether the daughter diets, [3] age of the daughter.

Hypothesis Four

No relationship exists between elementary school girls who report their fathers diet and those who report their fathers do not diet.

T-tests for independent samples and chi-square analyses were used to test hypothesis four. T-tests were used to compare girls, who reported that their fathers diet and those who reported that their fathers do not diet, on the continuous variables. Results of these analyses are shown in Appendix D.8. T-tests revealed that girls with dieting fathers had higher scores on the POD[$t(39) = -2.04, p < .05$]. Girls with fathers who diet reported that their mothers were happier with their own bodies than girls' with non-dieting fathers [$t(39) = -3.04, p < .01$]. Hypothesis Four was not accepted.

Chi-square tests were used to analyze the dichotomous variables. Three separate chi-square tests produced no significant differences between girls who reported that their fathers diet and girls who reported that their fathers do not diet on the following variables: [1] whether father encourages her daughter to diet, [2] whether the daughter diets, [3] age of the daughter.

Other Findings

The answers to the open-ended questions and their most frequent responses are reported in Appendix D.9: The girls rated themselves as thin (33%) and average

(64%) with no girl evaluating herself as overweight or very overweight. Mother was rated thin (21%), average (70%), or overweight (8%), and dad was rated thin (11%), average (73%), or overweight (11%). None of the girls rated their mothers or fathers as very overweight. Ninety-four percent of the girls revealed that they were “happy” to “very happy” with their own bodies, 94% rated their mother as “happy” to “very happy” with her body, and 92% rated their father as “happy” to “very happy” with his body.

Only 18% of the girls (N=11) reported that they had been on a diet at some point in their life. However, 67% reported that their mothers have dieted at least once, and 54% indicated that their fathers had dieted. Sixteen percent of the girls reported that their mothers encourage them to diet, while only 6% report that their fathers encourage them to diet.

Means and standard deviations for all non-dichotomous variables are presented in Appendix D.10. A correlation matrix was constructed to determine the relationship between the non-dichotomous criterion variables (BMI, EDI), predictors variables (POM/POD, MOM SIZE/ DAD SIZE, MOM HAPPY/DAD HAPPY), and demographic variables (HEIGHT, WEIGHT, AGE). The correlation matrix is presented in Appendix D.11.

As discussed in the EDI section, there were some problems with this sample of girls actually completing some of the EDI-2,BD questions correctly. Due to this finding, it is appropriate to address the following question: “Can Elementary School

Girls Answer Questions Reliably?” In other portions of the data analysis, there is evidence that the girls were able to complete many of the items in an appropriate manner. As discussed previously, girls were able to reliably answer items about body parts such as their head and feet. In addition, Appendix D.11 shows intercorrelations among the variables, and this information provides evidence of girls completing the questionnaire reliably, such as: [1] The more I weigh (WEIGHT), the heavier I see myself (GIRL SIZE, $r=.38^{**}$, $p<.01$); [2] The happier I am with my body (GIRL HAPPY) the less I report dieting (GIRL DIET, $r=-.29^{*}$, $p<.05$); [3] The heavier I evaluate Mom (MOM SIZE) the less happy I believe she is with her body (MOM HAPPY, $r=-.32^{*}$, $p<.05$). This information indicates that elementary school age girls can respond to questions in a consistent manner.

With respect to demographic variables, the matrix in Appendix D.11 did not reveal correlations that were theoretically meaningful. (Note: BMI= HEIGHT/WEIGHT squared, so correlations of height and weight with BMI are expected, however, meaningless). HEIGHT and WEIGHT are also correlated with one another ($r=.69^{**}$) and with age ($r=.66^{**}$, and $.49^{**}$, respectively), as one would expect.

The weak yet positive correlations of GIRL SIZE with WEIGHT ($r=.39^{**}$) and HEIGHT ($r=.26^{*}$) indicate that the girls evaluated themselves in accordance with their actual measurements. In addition, the correlation between GIRL SIZE and BMI ($r=.38^{**}$) follows, because as girls evaluate themselves as heavier their body mass

indexes increase. These expected correlations indicate that the girls were appropriately completing the questionnaire.

The strongest and probably most interesting correlational finding is the rather high positive correlation between POM and POD scores ($r=.77^{**}$). In addition, there is a strong positive correlation between the girls rating their moms as happy with their body and rating their dads as happy with his body ($r=.61^{**}$). These correlations indicate that girls tend to rate mother and father similarly when asked to evaluate them using the same questions.

There is some evidence to suggest that if the girl rated herself as happy with her body, she also rated her mother as happy with her own body ($r=.31^*$) and her father as happy with his own body ($r=.43^{**}$). A weak negative correlation exists between mother being rated as happy with her body and mother's size ($r=-.32^*$), providing some evidence to suggest what researchers have often found; that is, mother is happier with her body when she is thinner.

Weak negative correlations exist between the girls being happy with their bodies and their perceptions of mother's body dissatisfaction (POM, $r=-.33^{**}$) and their perceptions of father's body dissatisfaction (POD, $r=-.30^*$). This weak finding may indicate that girls who are more dissatisfied with their own bodies tend to perceive their parents as more dissatisfied with their own bodies (Note: POM and POD are measuring the negative characteristic of body *dissatisfaction*.)

Other weak correlations include the negative correlation between BMI and

POM ($r = -.25^*$). It is interesting to note the correlation of DAD SIZE with POD

($r = .33^*$). However, no significant correlation existed between MOM SIZE and POM

($r = -.11$). Little meaning can be surmised from these correlations because they are so weak.

CHAPTER V

DISCUSSION

Limitations of the Measures

The EDI-2, BD

The results indicated that the coefficient alpha for the EDI-2, BD was at an acceptable level; however, the correlations between EDI-2,BD items and the “filler” items implied that the girls may not be completing the questionnaire appropriately. The results of these correlations demonstrated that this sample of elementary school girls was unable to differentiate between the size of certain body parts, and probably did not comprehend the questions about these parts of the body. It is possible that 3rd, 4th, and 5th graders cannot conceptualize certain parts of the body (such as thighs and buttocks) possibly because these have not become focal in their body image development at these young ages.

Since possible scores for the EDI-2, BD range from 0 to 27, it follows that the present sample was less symptomatic than the sample studied by Wood et al.(1996). In addition, there is evidence to suggest that the sample in Wood et al. was more normally distributed than the present sample. Wood et al. did not include a way of assessing if the girls were actually comprehending the questions on the EDI, BD. The EDI-2, BD was not found to be a reliable measure with the present sample, and there is no way to compare to Wood et al. because they have no additional information

besides the reported alpha level.

Body Mass Index

The sample was found to be within the normal range for height and weight for their age and race; therefore, the calculated body mass for each girl was also within the normal range. The lack of variability in body fat limited the usefulness of this measure.

Dieting Frequency

Because only 11 out of 63 girls reported that they had ever dieted, the study gathered little information about elementary school girl dieters. This low number of dieters made it impossible to perform statistically powerful tests differentiating dieters from non-dieters. Other researchers have found that 53% of sixth grade girls (n=206) between the ages of 9 and 11 reported that they had dieted (Koff & Rierdan, 1991). In addition, Thelen et al. (1992) reported that in a sample of 191 male and female students, 28% of 2nd graders, 33% of 4th graders, and 35% of 5th graders reported that they had dieted. In the present study, few girls reported that they had ever dieted.

Discussion of the Hypotheses

Hypothesis One: No relationship exists between elementary school girls' perceptions of their mothers' level of body satisfaction and the daughters' level of comfort with their own bodies.

Hypothesis Two: No relationship exists between elementary school girls' perceptions of their fathers' level of body satisfaction and the daughters' level of comfort with their own bodies.

Both hypotheses #1 and #2 were addressed using multiple regression analysis. Given that the body mass (BMI), dieting frequency, and EDI-2,BD were the three criterion variables used for the regression equations, it would follow that the regressions would not be significant given the limitations of these measures discussed previously. Future researchers may need to collect data from a more diverse population in order to sample from girls who have dieted and to obtain girls with more variability in their body fat content. It is interesting to note that approximately 33% of the Girl Scout troop leaders chose not to allow their scouts the opportunity to participate in the study. Some reasons for not wanting to participate include the following: [1] concern that the topic of study was "too mature" for their troop, [2] knowledge that some girls (or mothers) in the troop were "weight conscious," [3] concern because there were girls in the troop who were obviously overweight, [4] concern that completing the questionnaire would somehow invite the girls to become distressed about the issues discussed, and lastly, [5] the desire to shelter the girls from "thinking about their bodies in these ways." These reasons for not wanting to participate in the study provide evidence to suggest that the sample of girls who actually completed the questionnaire may be different from the girls who were not allowed the opportunity to complete the questionnaire.

Hypothesis Three: No differences exist between girls who report that their mothers diet and girls who report that their mothers do not diet.

Results of the t-tests comparing girls who reported their mothers diet and girls who reported their mothers do not diet suggest that a relationship exists between these two groups on the POM, on the POD, and on how happy the girl perceives her mother to be with her own body. More specifically, girls with moms who diet see their moms as more dissatisfied with their body than girls of moms who do not diet. Interestingly, girls with moms who diet see their dads as more dissatisfied with their (dads') body than girls with moms who do not diet. Girls with moms who do not diet view their moms as happier with their bodies than girls with moms who diet. It seems that girls are equating maternal dieting with body dissatisfaction in their mothers and maternal non-dieting with body satisfaction in their mothers. Insufficient evidence prevents clear understanding of the relationship between maternal dieting and perceived paternal body dissatisfaction. One explanation for this finding may have to do with the data collection procedures. The order and organization of the items on the questionnaires remained constant for all participants. All girls rated Mom on each item first, and then rated Dad on the same item. The results may have been affected by the order in which girls were asked to rate their parents (i.e., they were asked to think about Mom in regard to the item and then to think about Dad). Different results may have been obtained if the girls were asked to complete all of the items about Mom and then complete all of the items about Dad separately, or if the

order of parents were alternated on each question. Because the procedure may have influenced the results, less faith can be placed in the information gathered because this study did not control for order effects.

Hypothesis Four: No differences exist between girls who report that their fathers diet and girls who report that their fathers do not diet.

Results of the t-tests comparing girls who reported their fathers diet and girls who reported their fathers do not diet suggest that a relationship exists between these two groups on the POD. The daughters of dads who diet had higher POD scores than those with dads who do not diet. This indicates that girls with dads who diet perceive their dads as more dissatisfied with their bodies than girls with dads who do not diet. In addition, girls with dads who diet perceived their mothers as happier than girls with dads who did not diet.

These findings are similar to the results reported for hypothesis three. Notice that girls with moms who diet see their moms as more dissatisfied with their bodies than girls with moms who do not diet. Similarly, girls with dads who diet see their dads as more dissatisfied with their bodies than girls with dads who do not diet.

It is interesting to note that moms who did not diet were seen as happier with their bodies by their daughters, than mothers who dieted. In addition, moms were perceived as happier with their own body when girls reported that their dads diet. So moms' happiness with their own bodies appears to be related to whether or not moms diet, and also related to whether or not their husband diets.

Limitations of the Study

The study was conducted with white school children from one state; therefore, the findings should not be generalized to other populations. Future research may need to sample from more diverse populations in order to get more dieters. Furthermore, many variables not investigated in this study may influence or be influenced by children's weight-related behaviors and concerns, such as: parents' actual body weights, socioeconomic factors, and pressure from society via the media, their peers and others to maintain a certain body size and shape.

Practical Implications

In this study very few 3rd, 4th, and 5th graders reported that they have ever been on a diet. In addition, the girls who chose to participate in the study fell into the average range for body fat as indicated by their body mass index. It is possible that there was little variability in the BMI scores for the girls because some of the troop leaders chose not to allow their scouts to participate (possibly because they had scouts who were overweight and/or concerned about weight and dieting).

As many researchers that have suggested, society must embrace children's varied body sizes and shapes in order to teach children that their value does not depend on their physical attributes. Parents and other adults are invited to become involved in making changes that will influence the media to portray more realistic and accepting attitudes towards childrens', adolescents', and adults' bodies.

Indirectly, children are shown that love and respect are dependent on their physical

appearance (Pipher, 1995). These beliefs damage our children's self-esteem and cause them to fear normal developmental changes. Both children and their parents need to be educated about normal body changes that occur during normal development from childhood into adulthood. Young girls, between the ages of 9 and 11 years, begin to prepare for adolescence by accumulating fat in their bodies (Gustafson-Larson & Terry, 1992). Providing appropriate information to children and their parents may help to prevent children from fearing obesity when their bodies are simply preparing for the growth and changes of adolescence.

For the present sample, the most focal body part was hair. The open-ended questions showed that hair was a concern for many of the girls, whether it was what they liked about themselves or what they wanted to change. This provided evidence that in these early preadolescent ages, girls are less aware of specific parts of their body (such as thighs, hips, & buttocks): however, they are very aware of their hair.

In the past 10 years there has been a lot more information available about the risk of eating disorders for young girls. Since other researchers have reported a higher incidence of dieting than was found in the present study, it is conceivable that some of the girls in the study were not honest about whether or not they had been on a diet.

Because the data was primarily collected from Girl Scout troops, it may be that the girls had already been "taught" that being concerned about weight was "wrong", and so they answered in the socially appropriate way (given that the data was collected at the troop meeting). The Girl Scout handbook (as well as the

Brownie handbook for younger girls) has units about the body and self-esteem. In addition, the troops that agreed to participate had troop leaders that were open and willing to talk about the “uncomfortable” topics such as girls bodies and self-esteem.

Theoretical Implications

This study provided evidence to question the results of the study conducted by Woods et al.(1996) who reported that the EDI, BD was a reliable and valid measure for use with elementary school girls. (Note: As discussed previously, the EDI, BD and EDI-2, BD are comprised of the same nine questions.) Woods et al. provided no method of measuring whether the girls were actually comprehending the individual items on the EDI, BD. In the present study the reliability was found to be at a lower level than Woods et al.; however, it was still in the acceptable range. If the present study had not included “filler” items as comparisons, the researcher would have most likely concluded that the EDI-2, BD was a reliable and valid measure for the present study. However, there is evidence that this is not the case.

Recommendations for Future Research

Researchers may need to find a more appropriate method of measuring body dissatisfaction in elementary school girls. In addition, researchers should sample from more diverse populations if they want to compare young dieters to non-dieters. In order to gather more information about parental influences on young girls' dieting behaviors and beliefs, an interview format may be needed to provide the flexibility to gather more specific and individualized information from the participants.

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APPENDICES

APPENDIX A: QUESTIONNAIRE

INSTRUCTIONS FOR QUESTIONNAIRE

The entire questionnaire will be read aloud while the scouts follow along and fill in the answers.

The questionnaire should take approximately 30 minutes to complete.

Instructions were purposefully omitted in order to make the questionnaire less confusing.

1] On page 1, a 4-point Likert scale ranging from "very unhappy-unhappy-happy-very happy" will be used for the following items:

How happy are you with your body?
How happy is your Mom with her body?
How happy is your Dad with his body?

Scouts will be instructed to mark the corresponding circle with the smallest circle being "very unhappy" and the largest circle being "very happy".

2] On pages 3, 4, and 5 the following scale will be used: (Scouts will mark the circles.)

o = never
o = sometimes
o = most of the time
o = always

DO NOT PUT YOUR NAME ON THIS PAPER !!!

Please answer the following questions as honestly as you can. Remember, there are no right or wrong answers. Thank you.

GRADE:

BIRTHDATE:

RACE:

FATHER'S JOB:

MOTHER'S JOB:

Do you live in the same house as your mother? YES NO _____

Do you live in the same house as your father? YES NO _____

How many sisters do you have? ____ How old are they? _____

How many brothers do you have? ____ How old are they? _____

I am:	Thin	Average	Overweight	Very overweight
My mother is:	Thin	Average	Overweight	Very overweight
My father is:	Thin	Average	Overweight	Very overweight

How happy are you with your body? o o O O

How happy is your Mom with her body? o o O O

How happy is your Dad with his body? o o O O

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What do you like about yourself?

If you could be different, how would you like to be?

If you could look different, how would you like to look?

What do you like best about your body?

What do you think your Mom likes best about her body?

What do you think your Dad likes best about his body?

Have you ever been on a diet?	YES	NO		_____
Does your Mom diet?	YES	NO	DK	_____
Does your Dad diet?	YES	NO	DK	_____
Does your Mom encourage you to diet?	YES	NO		
Does your Dad encourage you to diet?	YES	NO		

I think that my stomach is too big.*	o	o	O	O
I think that my thighs are too large.*	o	o	O	O
I think that my stomach is just the right size.*	o	o	O	O
I like the shape of my buttocks.*	o	o	O	O
I think my hips are too big.*	o	o	O	O
I think my buttocks are too large.*	o	o	O	O
I think that my thighs are just the right size.*	o	o	O	O
I think that my hips are just the right size.*	o	o	O	O
I feel satisfied with the shape of my body.*	o	o	O	O
I think my hips are too small.	o	o	O	O
I think my feet are too big.	o	o	O	O
I think my buttocks are too small.	o	o	O	O
I think my thighs are too small.	o	o	O	O
I think my hands are just the right size.	o	o	O	O
I think my stomach is too small.	o	o	O	O
I think my feet are just the right size.	o	o	O	O
I think my hands are too large.	o	o	O	O
I think my head is too small.	o	o	O	O
I think my hands are too small.	o	o	O	O
I think my head is just the right size.	o	o	O	O

HOW OFTEN DO YOU HEAR YOUR MOM OR DAD SAY SOMETHING THAT SOUNDS LIKE THIS:

	MOM			DAD		
"I shouldn't eat that"	o	o	O	o	o	O
"I need to eat less"	o	o	O	o	o	O
"Oh, I can't eat that it is fattening"	o	o	O	o	o	O
"I'm fat"	o	o	O	o	o	O
"I need to exercise"	o	o	O	o	o	O
"I hate the way my body looks"	o	o	O	o	o	O
"My hips are too big"	o	o	O	o	o	O
"My stomach is too flabby"	o	o	O	o	o	O
"My rear end is too big"	o	o	O	o	o	O
"I'm out of shape"	o	o	O	o	o	O

APPENDIX B: PRELIMINARY ANALYSES

Appendix B.1

Correlations between EDI-2, BD items and "Filler" Items

	<u>Just right</u>	<u>Too big</u>
I think my stomach is just the right size.		
I think my stomach is too big.	-.34**	
I think my stomach is too small.	-.02	-.06
I think my thighs are just the right size.		
I think my thighs are too large.	-.51**	
I think my thighs are too small.	-.18	.43**
I like the shape of my buttocks.		
I think my buttocks are too large.	-.18	
I think my buttocks are too small.	-.18	.57**
I think my hips are just the right size.		
I think my hips are too big.	-.23	
I think my hips are too small.	-.05	-.02
I feel satisfied with the shape of my body.		
I think my hands are just the right size.		
I think my hands are too large.	-.17	
I think my hands are too small.	-.07	.07
I think my feet are just the right size.		
I think my feet are too big.	-.34**	
I think my head is just the right size.		
I think my head is too small.	-.34**	

(Note: EDI-2, BD items are written in **bold**.)

** $p < .05$

* $p < .01$

Appendix B.2: Perceptions of Mom's Body Dissatisfaction (POM)

Factor 1: *Eating and Exercising Behaviors*

1. Talking about "fat grams" (MOM4)
2. "Counting Calories" (MOM3)
3. "I shouldn't eat that" (MOM11)
4. "My stomach is too flabby" (MOM18)
5. "I need to eat less" (MOM12)
6. "Oh, I can't eat that it is fattening" (MOM13)
7. Exercising (MOM2)
8. Dieting (MOM1)
9. "I need to exercise" (MOM15)
10. "My rear end is too big" (MOM19)
11. "I'm out of shape" (MOM20)

Number of items = 11

Cronbach's alpha = .88

Factor 2: *"Looking", How you look*

1. Making negative comments about own body (MOM8)
2. Happy about the way s/he looks (MOM6)
3. "I hate the way my body looks" (MOM16)
4. "I'm fat" (MOM14)
5. Making positive comments about own body (MOM7)
6. Getting angry about the way s/he looks (MOM5)

Number of items = 6

Cronbach's alpha = .77

Items dropped out from original POM:

MOM10 Making negative comments about another person's body

MOM9 Making positive comments about another person's body

MOM17 "My hips are too big"

			Mean Inter-item corr
TOTAL POM	Items = 20	Alpha = .86	
POM (factor1)	Items = 11	Alpha = .88	.40
POM(factor 2)	Items = 6	Alpha = .77	.38
POMFAC12	Items = 17	Alpha = .87	.29

Appendix B.3: Perceptions of Dad's Body Dissatisfaction (POD)

Factor 1: *Things you "say"* (Except for "dieting")

- | | | |
|-----|---|---------|
| 1. | "I'm out of shape" | (POD20) |
| 2. | "I hate the way my body looks" | (POD16) |
| 3. | Talking about "fat grams" | (POD4) |
| 4. | "I shouldn't eat that" | (POD11) |
| 5. | "Counting calories" | (POD3) |
| 6. | Dieting | (POD1) |
| 7. | "My stomach is too flabby" | (POD18) |
| 8. | "My hips are too big" | (POD17) |
| 9. | Oh, I can't eat that it is fattening" | (POD13) |
| 10. | Making negative comments about own body | (POD8) |

Number of items = 10

Cronbach's alpha = .89

Factor 2: *Undifferentiated*

- | | | |
|----|--|---------|
| 1. | Exercising | (POD2) |
| 2. | "My rear end is too big" | (POD19) |
| 3. | Making negative comments about another person's body | (POD10) |
| 4. | "I'm fat" | (POD14) |
| 5. | Happy about the way s/he looks | (POD6) |
| 6. | "I need to eat less" | (POD12) |
| 7. | Getting angry about the way s/he looks | (POD5) |

Number of items = 7

Cronbach's alpha = .57

Items dropped out from original POD:

DAD15 "I need to exercise"

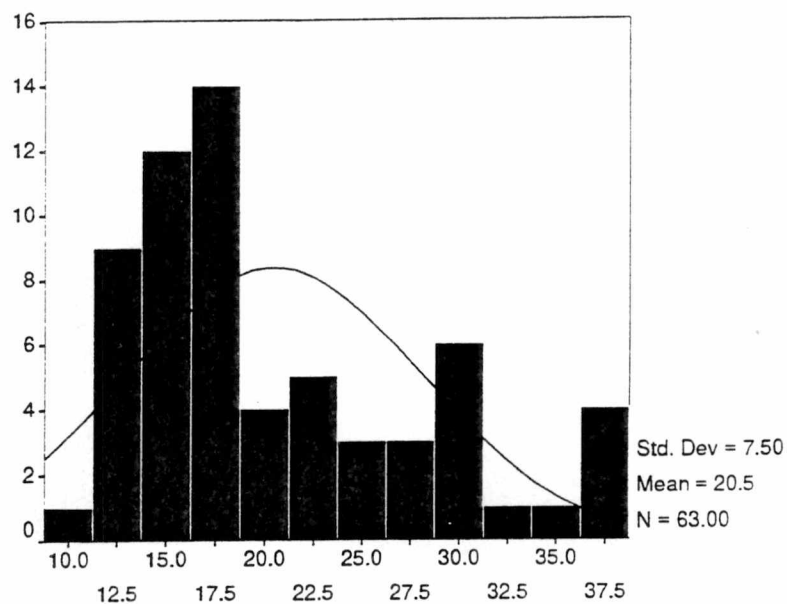
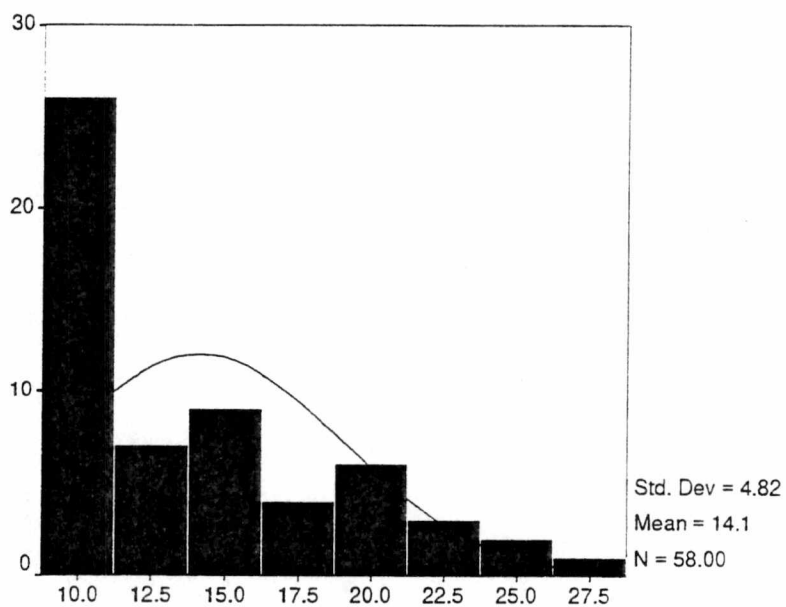
DAD9 Making positive comments about another person's body

DAD7 Making positive comments about own body

Mean Inter-item corr

TOTAL POD Items = 20	Alpha = .82	
POD (factor1) Items = 10	Alpha = .89	.44
POD(factor 2) Items = 7	Alpha = .57	.21
PODFAC12 Items = 17	Alpha = .86	.30

Appendix B.4

Histogram of POM Scores as Compared to a Normal CurveHistogram of POD Scores as Compared to a Normal Curve

APPENDIX C: IMPORTANT LETTERS

Appendix C.1

PARENT OR GUARDIAN'S INFORMED CONSENT STATEMENT**The Relationship Between Elementary School Girls' Perceptions of Their Parents' Body Satisfaction and the Girl's Satisfaction with Her Own Body**

I would like to invite your daughter to participate in a research study that will be partial fulfillment of my doctoral dissertation. The study will take place at the regularly scheduled time and place of her scout troop meeting. The purpose of this study is to learn about the beliefs of 3rd, 4th, and 5th grade girls. Your daughter will be asked to answer questions concerning her beliefs about dieting and her body image. It will take approximately 30 minutes to complete the questionnaire. The questionnaire will be read aloud in a group and the girls will be asked to answer on their paper. There are no right or wrong answers, the researchers are interested in the girl's opinions. In addition to the questionnaire, the girl's height and weight will be recorded. The researcher and research assistant will be the only people who have access to these measurements. There are no expected risks from participating in this study. The benefits of participation include contributing to our understanding of the factors that influence our daughter's views of dieting and their bodies. All of the written information collected will be kept confidential, and the girl's will be asked not to put their name on any of the papers. During the group time confidentiality of the girl's questions and comments cannot be guaranteed, however, confidentiality will be maintained to the best of the researchers ability. Data will be stored securely (until the completion of the project and then it will be destroyed) and will be made available only to persons conducting the study unless you and your daughter specifically give permission in writing to do otherwise. No reference will be made in oral or written reports which could link you or your daughter to the study.

If you or your daughter have questions at any time about the study or the procedures, you may contact the researcher, Marsha Burdette, or faculty advisor, Dr. Charles Thompson at 231 Claxton Addition, The University of Tennessee, Knoxville and (423) 974-5131. If you or your daughter have questions about her rights as a participant, contact the Compliance Section of the Office of Research at (423) 974-3466. Your daughter's participation in this study is voluntary; she may decline to participate without penalty. If your daughter decides to participate, she may withdraw from the study at anytime without penalty. If she withdraws from the study before data collection is completed her data will be destroyed. Signed letters of consent will be stored for 3 years past the completion of the study in a locked file cabinet at a UT location.

My questions have been satisfactorily answered and I agree to allow my daughter to participate. I have received a copy of this form to keep for my records.

Parent or Guardian's signature: _____

Parent or Guardian's printed name: _____

Date: _____

Investigator's signature: _____

Date: _____

SCOUT'S INFORMED CONSENT STATEMENT**The Relationship Between Elementary School Girls' Perceptions of Their Parents' Body Satisfaction and the Girl's Satisfaction with Her Own Body**

I am a student at the University of Tennessee. In order to graduate, I must complete a research study. I have decided to study about 3rd, 4th, and 5th grade girls and their beliefs about dieting and body image. Your parents have agreed to allow you to be in my study. Now I am asking if YOU would like to take part in my study. The study will take place at the regularly scheduled time and place of your scout troop meeting. Girls who want to be in the study will meet with me in one corner of your meeting room. The girls who are not in the 3rd, 4th or 5th grade, and the girls who don't want to be in my study will have a regular scout meeting in another part of the room.

You will be asked to answer questions about dieting and your body image. It will take about 30 minutes to answer the questions. I will read the questions to the group, and you will be asked to answer on your paper. This is not a test and there are no right or wrong answers. I want to know about your ideas. I will measure and weigh each of you in a private area of the room so that no one except you, me, and my helper will know your measurements. I don't expect there to be any risks to answering the questions. If you answer the questions you will be helping other people understand more about the beliefs of 3rd, 4th, and 5th grade girls. All of your answers will be kept private from your scout leaders, the other scouts in your troop, and everyone else except for me and my helper. No one else will be able to read your answers unless you give your written permission. Since we will be reading the questions in a group, it is important to remember not to talk about your answers aloud, just mark them on your paper. If you have questions and you choose to talk in the group, I cannot keep your talk private because the other girls will hear it too.

If you have questions at any time about the study you may call me, Marsha Burdette, or my teacher, Dr. Charles Thompson at 231 Claxton Addition, The University of Tennessee, Knoxville and (423) 974-5131. If you have questions about your rights as a participant, contact the Compliance Section of the Office of Research at (423) 974-3466. You may only participate in this study if you want to, and if your parent or guardian gives written permission for you to be in the study. If you decide not to be in the study that will be fine, you can meet with the rest of the troop. If you agree to be in the study, but you change your mind and decide not to continue, you will be excused so that you can join the troop. If you decide not to continue in the study after you have answered some of the questions, your answers will be thrown away and not used in the study. If you agree to be in the study, this letter and your parent's letter will be stored for 3 years after the study is over in a locked file cabinet at a UT location.

My questions have been satisfactorily answered and I agree to participate. I have a copy of this sheet to keep for myself.

Student's signature: _____

Student's printed name: _____

Date: _____

Investigator's signature: _____

Date: _____

Appendix C.2

THE UNIVERSITY OF TENNESSEE
KNOXVILLE

10/22/97

Office of Research
420 Old Hall Tower
Knoxville, Tennessee 37996-0142
PHONE (423) 975-2800
FAX (423) 975-2805
URL: <http://www.utk.edu/or>

IRB #: 5439B

Title: The Relationship Between Third Grade Girls' Perceptions of Their
Parents' Body Satisfaction and the Girl's Satisfaction with Her Own Body

Burdette, Marsha
Counselor Ed & Counseling Psy
10605 Sprawls Point
Knoxville, TN 37932

Thompson, Dr. Charles
Counselor Ed & Counseling Psy
231 Claxton Addn.
Campus

The points of clarification you submitted to this office regarding the above-captioned project, satisfied the concerns of the reviewers, thus your project has been approved.

This approval is for a period ending one year from the date of this letter. Please make timely submission of renewal or prompt notification of project termination (see item #3 below).

Responsibilities of the investigator during the conduct of this project include the following:

1. To obtain prior approval from the Committee before instituting any changes in the project.
2. To retain signed consent forms from subjects for at least three years following completion of the project.
3. To submit a Form D to report changes in the project or to report termination at 12-month or less intervals

The Committee wishes you every success in your research endeavor. This office will send you a renewal notice on the anniversary of your approval date.

Sincerely,


Brenda Lawson
Compliances

cc. Dr. Mark Hector



Tanasi Girl Scout Council, Inc.
1600 Breda Drive
Knoxville, TN 37918
Ph (423) 688-9440 Fx (423) 689-9835
Toll Free (800) 474-1912

On my honor, I will try to serve God and my country, to help people at all times, and to live by the Girl Scout Law

September 26, 1997

Marsha Burdette
10605 Sprawls Point
Knoxville, TN 37932

RE: University of Tennessee Research Study of Third Grade Girls - "What
Girl's Believe About Their Bodies"

Dear Ms. Burdette:

This letter gives you Tanasi Girl Scout Council's permission to:

1. You may contact troop leaders regarding requesting permission from Girl Scouts' parents to survey their daughters.
2. Upon the troop leader's consent, you may then request a parental meeting to explain your research project and request parental permission to attempt to conduct your research project.
3. The girls must also agree to participate in this study.

Sincerely,

Gloria Yates
Assistant Executive Director, Council Services

APPENDIX D: ANALYSIS OF DATA

Appendix D.1

Multiple Regression with POM, MOM SIZE, MOM HAPPY, MOM DIET
Predicting BMI

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	20.402	3.273		6.234	.000
	POM	-.103	.050	-.266	-2.060	.044
	MOM SIZE	-.894	.747	-.162	-1.197	.236
	MOM HAPPY	3.502E-02	.586	.008	.060	.953
	MOM DIET	.275	.499	.070	.552	.583

a. Dependent Variable: BMI

Appendix D.2

**Multiple Regression with POM, MOM SIZE, MOM HAPPY, MOM DIET
Predicting EDI****Coefficients^a**

Model		Unstandardized Coefficients		Standardiz ed Coefficien ts	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.294	5.834		1.250	.216
	POM	.124	.089	.184	1.396	.168
	MOM SIZE	-.147	1.332	-.015	-.111	.912
	MOM HAPPY	-.896	1.045	-.118	-.857	.395
	MOM DIET	-.168	.889	-.024	-.189	.851

a. Dependent Variable: EDI

Appendix D.3

Logistic Regression with POM, MOM SIZE, MOM HAPPY, MOM DIET
Predicting GIRL DIET

Estimation terminated at iteration number 4 because
 Log Likelihood decreased by less than .01 percent.

-2 Log Likelihood	48.758
Goodness of Fit	62.611
Cox & Snell - R ²	.138
Nagelkerke - R ²	.227

	Chi-Square	df	Significance
Model	9.207	4	.0561
Block	9.207	4	.0561
Step	9.207	4	.0561

Classification Table for DIET

The Cut Value is .50

		Predicted			Percent Correct
		.00	1.00		
Observed		0	1		
.00	0	48	3		94.12%
1.00	1	9	2		18.18%
Overall					80.65%

Appendix D.4

**Multiple Regression with POD, DAD SIZE, DAD HAPPY, DAD DIET
Predicting EDI****Coefficients^a**

Model		Unstandardized Coefficients		Standardiz ed Coefficien ts	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.585	5.930		2.291	.026
	DAD DIET	.985	.752	.168	1.309	.196
	DAD HAPPY	-2.447	1.208	-.268	-2.026	.048
	DAD SIZE	-1.584	1.436	-.152	-1.103	.275
	POD	.290	.139	.281	2.093	.041

a. Dependent Variable: EDI

Appendix D.5

Multiple Regression with POD, DAD SIZE, DAD HAPPY, DAD DIET
Predicting BMI

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	17.606	3.772		4.667	.000
	DAD DIET	4.078E-02	.479	.012	.085	.932
	DAD HAPPY	3.982E-02	.768	.008	.052	.959
	DAD SIZE	.272	.914	.045	.298	.767
	POD	-9.784E-02	.088	-.163	-1.109	.273

a. Dependent Variable: BMI

Appendix D.6

Logistic Regression with POD, DAD SIZE, DAD HAPPY, DAD DIET
Predicting GIRL DIET

Estimation terminated at iteration number 6 because
 Log Likelihood decreased by less than .01 percent.

-2 Log Likelihood	26.890
Goodness of Fit	50.884
Cox & Snell - R ²	.239
Nagelkerke - R ²	.452

	Chi-Square	df	Significance
Model	15.308	4	.0041
Block	15.308	4	.0041
Step	15.308	4	.0041

Classification Table for DIET

The Cut Value is .50

		Predicted			Percent Correct		
		.00		1.00			
		0	1	1			
Observed		+-----+-----+					
.00	0	I	48	I	1	I	97.96%
		+-----+-----+					
1.00	1	I	4	I	3	I	42.86%
		+-----+-----+					
Overall						91.07%	

Appendix D.7

Comparison of Girls Who Report Their Moms Diet and Girls Who Report Their Moms Do Not Diet on All Variables Assessed by Means of Student's t

Variables	<u>Moms</u> <u>Do Not</u> <u>Diet (N=21)</u>		<u>Moms</u> <u>Diet</u> <u>(N=28)</u>		t
	M	SD	M	SD	
POM	17.05	5.26	24.71	8.16	-3.99*** ^t
POD	12.64	3.57	16.06	5.34	-2.59** ^t
EDI	6.69	5.55	6.45	5.15	0.16
BMI	17.03	2.08	16.84	3.12	0.24
Girl Happy	3.52	0.68	3.32	0.82	0.92
Mom Happy	3.67	0.48	3.29	0.81	2.05* ^t
Dad Happy	3.57	0.60	3.61	0.63	-0.20
Girl Size	1.68	0.48	1.61	0.50	0.53
Mom Size	1.90	0.55	1.89	0.57	0.04
Dad Size	1.95	0.51	2.04	0.51	-0.58

^t T-test was adjusted for unequal variances.

***p < .001

** p < .01

* p < .05

Appendix D.8

Comparison of Girls Who Report Their Dads Diet and Girls Who Report Their Dads Do Not Diet on All Variables Assessed by Means of Student's t

Variables	<u>Dads</u> <u>Do Not</u> <u>Diet (N=30)</u>		<u>Dads</u> <u>Diet</u> <u>(N=11)</u>		t
	M	SD	M	SD	
POM	19.43	7.14	22.09	7.22	-1.05
POD	13.43	4.40	16.86	5.69	-2.04*
EDI	5.57	4.50	5.36	5.55	0.12
BMI	16.84	2.60	17.50	3.17	-0.68
Girl Happy	3.63	0.56	3.45	0.52	0.93
Mom Happy	3.37	0.72	3.91	0.30	-3.40*** [†]
Dad Happy	3.70	0.54	3.73	0.65	-0.14
Girl Size	1.70	0.47	1.70	0.48	0.00
Mom Size	2.00	0.45	1.91	0.54	0.54
Dad Size	2.00	0.59	2.09	0.30	-0.49

[†] T-test was adjusted for unequal variances.

***p < .001

** p < .01

* p < .05

Appendix D.9

Most Frequent Responses to the Six Open-Ended Questions**[1] What do you like about yourself?**

Related to Academics	N=8
Nice/Kind	N=7
Hair	N=6
Body	N=5
Personality	N=5

[2] If you could be different, how would you like to be ?

Stay the same	N=11
Hair	N=9
Related to Academics	N=7
Thinner	N=5
Be nicer	N=4

[3] If you could look different, how would you like to look?

Hair	N=16
Prettier	N=8
Stay the same	N=8
Thinner	N=5
Change complexion	N=3

[4] What do you like best about your body?

Everything	N=7
Eyes	N=7
Hair	N=7
It's healthy	N=5

[5] What do you think your Mom likes best about her body?

Hair	N=12
Face	N=6
Weight	N=6
Looks	N=4
Stomach	N=3

[6] What do you think your Dad likes best about his body?

Face	N=5
Hair	N=5
Muscles	N=5
Weight	N=5

Appendix D.10

Means and Standard Deviations for Continuous Variables

VARIABLE¹	MEAN	SD
POM (N=63)	20.52	7.50
POD (N=58)	14.15	4.82
BMI (N=63)	17.04	2.91
EDI (N=63)	6.44	5.18
GIRL SIZE (N=63)	1.66	.48
MOM SIZE (N=61)	1.87	.53
DAD SIZE (N=60)	2.00	.49
GIRL HAPPY (N=63)	3.49	.72
MOM HAPPY (N=63)	3.51	.67
DAD HAPPY (N=61)	3.62	.58
HEIGHT-in. (N=63)	54.25	2.91
WEIGHT-lbs. (N=63)	71.90	16.65
AGE (N=62)	8.84	.83

¹ Variation in sample size is due to missing data.

Appendix D.11

Correlation Matrix for All Continuous Variables

Pearson Correlation	POM	POD	BMI	EDI	GIRL SIZE	MOM SIZE	DAD SIZE	GIRL HAPPY	MOM HAPPY	DAD HAPPY	HEIGHT	WEIGHT	AGE
POM	1.00												
POD	.77**	1.00											
BMI	-.25*	-.15	1.00										
EDI	.17	.24	.02	1.00									
GIRL SIZE	-.13	.02	.38**	.13	1.00								
MOM SIZE	-.11	.05	-.14	.01	.20	1.00							
DAD SIZE	.22	.33*	.02	.03	.29*	.39**	1.00						
GIRL HAPPY	-.33**	-.30*	-.10	-.37**	-.02	.10	-.10	1.00					
MOM HAPPY	-.13	.03	.10	-.11	.02	-.32*	-.21	.31*	1.00				
DAD HAPPY	-.15	-.07	.06	-.31*	.11	-.00	-.24	.43**	.61**	1.00			
HEIGHT	.00	.01	.30*	-.01	.26*	.07	.03	-.18	-.17	.15	1.00		
WEIGHT	-.20	-.12	.89**	-.00	.39**	-.09	.01	-.15	-.00	.12	.69**	1.00	
AGE	-.09	-.03	.24	-.08	-.02	-.05	-.17	-.16	-.12	.12	.66**	.49**	1.00

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

VITA

Marsha P. Burdette was born in Memphis, Tennessee and grew up in Asheville, North Carolina. She graduated from Asheville High School in 1981. She went to Appalachian State University in Boone, NC and graduated in 1985 with a B.S. in Psychology. In 1990, she received her Master's degree from the University of Tennessee, Knoxville in Child & Family Studies, and was simultaneously admitted as a candidate to the doctoral program in Experimental Psychology at UTK. After completing her graduate coursework in Experimental Psychology, she decided to change her course of study and pursue a Ph.D. in Counseling Psychology at UTK. She plans to apply for internship in the fall of 1998.