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MOTHERS' EATING BELIEFS AND BEHAVIORS AND THEIR RELATIONSHIP
TO DAUGHTERS' BULIMIC AND ANOREXIC SYMPTOMS

by

Colette M. Candy

A dissertation submitted in partial fulfillment
of the requirements for the degree

of

DOCTOR OF PHILOSOPHY

in

Psychology

UTAH STATE UNIVERSITY
Logan, Utah

2001

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ABSTRACT

Mothers' Eating Beliefs and Behaviors and Their Relationship
to Daughters' Bulimic and Anorexic Symptoms

by

Colette M. Candy, Doctor of Philosophy

Utah State University, 2001

Major Professor: David M. Stein, Ph.D.
Department: Psychology

The present study examined whether there was a relationship between daughters' eating disorder symptomology and maternal food control and health-conscious eating attitudes. Eighty-eight females with a continuum of eating disorder behaviors (DSM-IV eating disorders through nondieters) and 74 of their mothers participated. Participants completed the Anorexia Bulimia Inventory, two subscales from the Eating Disorder Inventory, the Three Factor Eating Questionnaire, the Family Environment Scale, the Maternal Food Control and Meal Preparation Scale, and the Marlowe-Crowne Social Desirability Scale.

Results indicated that, in general, daughters' reported eating disorder symptomology and perceived familial control were related. Some of the more specific maternal food control variables perceived by daughters were also related to their reported symptomology. Yet, maternal reports on these same variables tended not to correspond

to daughters' reported symptomology. Specifically, regression analyses indicated that a combination of perceived high familial control, perceived low maternal concern with healthy meal preparation and restriction, and perceived high maternal anxiety regarding healthy eating predicted higher levels of reported anorexic symptomology. Similar variables predicted reported bulimic symptomology, but only increased general familial control predicted symptoms characteristic of both disorders.

Analyses also revealed that daughters' eating disorder symptomology tended to be inversely related to responding in a socially desirable manner. Perceptual differences were noted and discussed between mothers' and daughters' reports of familial control. Lastly, mothers' report of food control was not correlated with reported familial control.

This study was the first to examine the more specific maternal control issues, maternal health-conscious attitudes, and their relationship to daughters' maladaptive eating behaviors. The results of the present study are consistent with the speculation that a combination of daughters' perception of high familial control, high maternal anxieties about children's eating practices, and low maternal concern with healthy meal preparation might contribute to the development or maintenance of anorexic and bulimic symptomology. Finally, limitations were discussed and recommendations were made for future research.

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CONTENTS

	Page
ABSTRACT.....	iii
ACKNOWLEDGMENTS	v
LIST OF TABLES	x
LIST OF FIGURES.....	xii
CHAPTER	
I. PROBLEM STATEMENT	1
II. REVIEW OF THE LITERATURE.....	5
Familial Components Involved in Eating Disorders.....	5
General Literature Reviews.....	5
Research with the Family Environment Scale	7
Research Studies of Perceived Parental Bonding	15
Relationships Between Parent and Child Responses of Eating, Control, and Pressure	17
Relationship Between Maternal Eating Disorders and Feeding Practices	21
Research Comparing Eating Disorder Groups on Perceived Parental Care	24
Influences on Women's Dieting Practices	27
Dietary Restraint and the Disinhibition Hypothesis.....	28
Parents and Their Children's Dieting Practices	28
The Media's Notion of "Healthy"	34
Summary and Conclusions.....	34
Research Hypotheses	37
III. METHOD	41

	Page
Participants.....	41
Procedures for Recruitment of Participants	41
Procedures.....	46
Assessment.....	47
Anorexia Bulimia Inventory	48
Eating Disorder Inventory	48
Three-Factor Eating Questionnaire	50
Family Environment Scale—Form R	50
Maternal Food Control and Meal Preparation	51
Marlowe-Crowne Social Desirability Scale.....	52
IV. RESULTS	53
Preliminary Analyses	53
Daughters' Tendency to Respond in a Socially Desirable Manner	53
Maternal Food Control and Eating Disorder Symptoms.....	56
Maternal Food Control and General Parental Control	58
Mothers' and Daughters' Perceptions of Control	58
Primary Analyses	62
Hypothesis 1: Daughters' Eating Disorder Symptomology and Perceived Familial Control	62
Hypothesis 2: Daughters' Eating Disorder Symptomology and Mothers' Reports of Familial Control.....	65
Hypothesis 3: Daughters' Eating Disorder Symptomology and Perceived Maternal Food Control	67
Hypothesis 4: Daughters' Eating Disorder Symptomology and Maternal Report of Food Control.....	70
Hypothesis 5: Daughters' Eating Disorder Symptomology and Perceived Maternal Health Conscious Eating Attitudes ...	72
Hypothesis 6: Daughters' Eating Disorder Symptomology and Maternal Report of Health Conscious Eating Attitudes....	73
Hypothesis 7: Daughters' Eating Disorder Symptomology and Mothers' Eating Disorder Symptomology	74

	Page
Supplementary Analyses	77
Prediction of Daughters' Anorexic Symptoms	77
Prediction of Daughters' Bulimic Symptoms	81
Prediction of Daughters' General Eating Disorder Symptoms	83
Summary	86
V. DISCUSSION.....	87
Relationship Between Eating Disorder Symptomology and the Tendency to Respond in a Socially Desirable Manner	87
Relationship Between Maternal Food Control and General Familial Control	90
Relationship Between Mothers' Eating Disorder Symptoms and Controlling Behavior.....	90
Relationship Between Mothers' and Daughters' Perception of Control in the Family.....	92
Relationship Between Daughters' Reported Eating Disorder Symptomology and Familial Control.....	93
Correspondence Between Daughters' Reported Eating Disorder Symptomology and Maternal Control of Food in the Home	97
Relationship Between Daughters' Reported Eating Disorder Symptomology and Maternal Health-Conscious Eating Attitudes.....	100
Relationship Between Mothers' and Daughters' Reports of Their Own Eating Disorder Symptomology	102
Control Variables as Predictors of Daughters' Eating Disorder Symptoms	104
Summary of the Major Findings	106
Limitations and Directions for Future Research	109
REFERENCES	112
APPENDICES	121
Appendix A: DSM-IV Diagnostic Checklists.....	122
Appendix B: Informed Consent for Initial Recruitment	124
Appendix C: Phone Script for Invitation into the Study.....	125
Appendix D: Consent Form for Completion of All Questionnaires	126
Appendix E: Daughters' Demographic Questionnaire	127

	Page
Appendix F: Introduction Letter Sent to Mothers.....	128
Appendix G: Consent Form for Mothers.....	129
Appendix H: Mothers' Demographic Questionnaire.....	130
Appendix I: Anorexia Bulimia Inventory	131
Appendix J: Combined EDI (DT & BD Scales).....	135
Appendix K: The Three-Factor Eating Questionnaire.....	136
Appendix L: Family Environment Scale (Form R).....	140
Appendix M: Maternal Food Control and Meal Preparation (MFCMP)—Daughter's Form	145
Appendix N: Maternal Food Control and Meal Preparation (MFCMP)--Mother's Form	149
Appendix O: Factor Structure of the Maternal Food Control and Meal Preparation (MFCMP)	153
Appendix P: The Marlowe-Crowne Social Desirability Scale (MCSD).....	158
VITA.....	160

LIST OF TABLES

Table	Page
1	Summary of Research Hypotheses.....39
2	Pearson Product-Moment Correlations Coefficients of Daughters' Eating Disorder Symptomology, Perception of Family and Food Control, and Social Desirability Response Set54
3	Pearson Product-Moment Correlation Coefficients of Mothers' Eating Disorder Symptomology and Family Control, Food Control, and Health-Conscious Eating Attitudes.....57
4	Pearson Product-Moment Correlation Coefficients of Mothers' and Daughters' Perception of Family Control, Food Control, and Health-Conscious Eating Attitudes59
5	Pearson Product-Moment Correlation Coefficients Between Mothers' Eating Disorder Symptomology and Family Control, Food Control, and Health-Conscious Eating Attitudes.....60
6	Pearson Product-Moment Correlation Coefficients Between Daughters' Eating Disorder Symptomology and Perceived Familial Control63
7	Pearson Product-Moment Correlation Coefficients Between Daughters' Eating Disorder Symptomology and Mothers' Reports of Family Control66
8	Pearson Product-Moment Correlation Coefficients Between Daughters' Eating Disorder Symptomology and Perceived Maternal Food Control and Health-Conscious Eating Attitudes68
9	Pearson Product-Moment Correlation Coefficients Between Daughters' Eating Disorder Symptomology and Mothers' Reports of Maternal Food Control and Health-Conscious Eating Attitudes71
10	Pearson Product-Moment Correlation Coefficients of Mothers' and Daughters' Eating Disorder Symptomology_76
11	Summary of Stepwise Regression Analysis for the Prediction of ABI Anorexia Subscale Scores (<u>N</u> = 86)78

Table	Page
12	Summary of Stepwise Regression Analysis for the Prediction of TFEQ Restraint Subscale Scores (<u>N</u> = 86)79
13	Summary of Stepwise Regression Analysis for the Prediction of EDI Drive for Thinness Subscale Scores (<u>N</u> = 86)80
14	Summary of Stepwise Regression Analysis for the Prediction of ABI Combined Bulimic Symptoms (<u>N</u> = 86)82
15	Summary of Stepwise Regression Analysis for the Prediction of ABI Compensatory Behaviors Scores (<u>N</u> = 86)83
16	Summary of Stepwise Regression Analysis for the Prediction of TFEQ Disinhibition Subscale Scores (<u>N</u> = 86).....84
17	Summary of Stepwise Regression Analysis for the Prediction of the EDI Body Dissatisfaction Subscale Scores (<u>N</u> = 86)85
18	Summary of Stepwise Regression Analysis for the Prediction of the EDI Exercise Subscale Scores (<u>N</u> = 86).....85

LIST OF FIGURES

Figure	Page
1	Global maternal control versus excessive food control.....37

CHAPTER I

PROBLEM STATEMENT

The prevalence of anorexia and bulimia nervosa as well as other eating-related problems appears to be increasing, particularly among female adolescents and young women in industrialized societies (Shisslak, Crago, Neal, & Swain, 1987). According to the Diagnostic and Statistical Manual of Mental Disorders (4th ed.; DSM-IV, American Psychiatric Association, 1994), 90% of those afflicted with eating disorders are female. The infliction of problematic eating in women, particularly those in industrialized cultures, has led many researchers to study the etiology of eating disorders. Most researchers and clinicians agree that these disorders are multidimensional syndromes with biological, psychological, and sociocultural influences.

Although dieting has become “normative” in the U.S. among adolescent girls and young women (Polivy & Herman, 1987), it is nonetheless viewed as a risk factor for the development of eating disorders (Kirkley & Burge, 1989; Smead, 1984). The binge eating that eventually becomes conditioned to episodes of severe dietary restraint has become the focal point of the “disinhibition hypothesis” (Herman & Polivy, 1980). This hypothesis was originally developed to help explain patterns of overeating that may cause obesity in some individuals. While its utility in helping to explain obesity has proved limited, it has been a useful model for explaining binge eating behaviors, as well as bulimia and anorexia nervosa (Ruderman, 1986). Further, the disinhibition hypothesis has prompted researchers to study possible familial contributors to severe dietary restraint behaviors, such as chronic dieting (through social learning principles). For example,

researchers have begun to examine the possible relationship between parents' modeling of dietary restraint practices and their children's eating behaviors. In general, investigators of parents' and daughters' eating behaviors indicate that a girl's eating behaviors and attitudes are associated with her mother's (but not her father's) eating behaviors (Kanakis & Thelen, 1995; Moreno & Thelen, 1993; Pike & Rodin, 1991; Rozin, 1991; Streigel-Moore, Silberstein, & Rodin, 1986). Presently, it is unclear what specifically about mothers' beliefs and attitudes might be associated with the development of their daughters' eating disorders. For example, daughters who develop eating disorders may be influenced or even controlled by extreme maternal beliefs about what constitutes healthy eating, such as the view that it is imperative to avoid fat in one's diet.

Certainly, there is a need to examine the nature of the relationship between parents' beliefs and behaviors regarding healthy eating, and their children's eating behaviors in more detail. For instance, Evans and le Grange (1995) found that women with eating disorders schedule-feed their children much more than their noneating-disordered counterparts. Thus, it is conceivable that if a child's mother is extremely concerned with her own weight and diet, and subsequently restricts the family's food choices (e.g., strictly controls the availability of certain foods in the home), the child may be more at risk for developing an eating disorder.

While specific family factors may play a role in the risk for eating disorders, most models of the etiology include more general notions of extreme parental control. Bruch (1994) stated that family influence or control has long been recognized clinically as an important variable in eating disorders. Yet, as will be demonstrated, the research on the

nature of family control and its relationship with eating disorders is limited, and findings vary. These mixed findings may be due to how the more general family constructs of parental control are measured. For instance, labels commonly used to designate aspects of control include “overprotection,” “enmeshment,” and “parental overcontrol.”

Furthermore, some researchers have reported that familial control constructs do not differentiate individuals with eating disorders from those with other psychiatric disorders, while other investigators have reported significant relationships between eating disorder symptomology and familial control. These mixed results may be due to the diverse ways the construct of parental control is defined and measured.

In summary, the results of studies examining the relationship between general parental control constructs and eating disorders are contradictory. However, as will be demonstrated, speculations that general parental control may play a role in the development of eating disorders cannot be dismissed out of hand, based on the available research. Furthermore, no research to date has examined the more specific maternal control issues regarding mothers’ health attitudes and their relationship to daughters’ food choices and intake. It may be that unhealthy food control or dietary restraint patterns are being modeled and reinforced in the home by well-intentioned mothers. Consequently, when the young girl becomes a teenager and garners more freedom over her food selections (e.g., she increasingly has access to fatty foods outside the home), she may be entering an especially high-risk life situation or period for developing an eating disorder. Such adolescents may experience especially pronounced dieting-versus-eating conflicts. Crawford (1996, cited in Graber & Brooks-Gunn, 1996) stated that the independence experienced by adolescents often results in unhealthy nutritional habits,

particularly an increased consumption of junk food and skipping meals.

To date, no studies have been conducted with anorexics, bulimics, dieters, and control women and their mothers to examine the possible relationships between mothers' food-restriction, weight-preoccupation, or extreme health-conscious attitudes and behaviors, and their daughters' eating behaviors. Indeed, if a mother was extremely controlling, especially with her children's food intake and believed in healthy eating and/or strict dieting, her child may be more likely to develop an eating disorder than children who did not experience this home situation.

Also of interest was whether specific food and diet control attitudes and behaviors are idiosyncratic or part of a general overcontrolling parental style. Is it a general, maternal style of controlling behaviors that is most strongly associated with eating disorders or is diet/food-specific control the more prominent correlate of symptomology in daughters? Consequently, the purpose of this study was to examine the possible relationship between familial control, mothers' food restriction in the home and daughters' eating behaviors as well as whether specific food and diet control by mothers was part of a general overcontrolling parenting style or independent of that.

CHAPTER II

REVIEW OF THE LITERATURE

In the following literature review, the familial constructs implicated in the development of eating disorders, particularly parental control, protection, pressures and conflicts, are reviewed. As there is a substantial amount of diversity in family influence constructs, measures, and study outcomes in relationship to eating disorders, research examining the relationship between eating and diverse conceptualizations of familial patterns of control is discussed. Additionally, it has been suggested that girls exhibit similar eating behaviors and attitudes (e.g., the level of dietary restraint) as their mothers. Consequently, it is important to examine available research on the relationship between mothers' and daughters' eating behaviors and cognitions. In this regard, the available literature on dietary restraint and eating behaviors in parents and daughters is reviewed (i.e., published literature reviews and more recent research). Finally, the research purposes and hypotheses for the proposed present dissertation are described.

Familial Factors Involved in Eating Disorders

General Literature Reviews

There are many factors within family relationships that have been implicated in the development of eating disorder symptoms. Striegel-Moore et al. (1986) reviewed the literature on the risk factors for bulimia. One risk factor identified dealt with the relationship and interaction among family members. They proposed that certain family characteristics may amplify the sociocultural variables that have been implicated in the

development of bulimia. For example, they proposed that a girl's risk for bulimia increases

if the family emphasizes appearance and thinness; if the family believes and promotes the myth that weight is under volitional control, and thus holds the daughter responsible for regulating it; if family members, particularly females (mother, sisters, aunts), model weight preoccupation and dieting.... (p. 256)

They also described family enmeshment, overprotectiveness, rigidity, and poor conflict resolution as the general family characteristics associated with bulimia. Similarly, Strober and Humphrey (1987) reviewed possible familial contributions to the development and course of both anorexia and bulimia nervosa, and found the aforementioned variables as contributors, as well as the family's tendency to evidence either emotional overinvolvement or detachment, and a lack of affection and empathy.

In Rosenfield's (1988) review, the families of bulimics were characterized as more restrictive, controlling, and conflictual than families of nonbulimics. Also, Strober and Humphrey (1987) described a disengaged, chaotic family that lacked in expressive communication as being characteristic of bulimics' families. On the other hand, the families of anorexics were depicted as interdependent and unusually close, in comparison to families of bulimics and women without eating disorders (Rosenfield). Additionally, bulimics' families are described as more enmeshed, overprotective, and controlling (Strober & Humphrey) than anorexics' families. Rosenfield also indicated that anorexics have consistently reported having at least one other family member with deviations in eating behavior and weight. Additionally, Boskind-White and White (1987) have speculated that females currently presenting with bulimia are the daughters of the first generation of Weight Watchers' members.

Although it appears from these reviews that particular family variables are correlated with the development of eating disorders, researchers have recently suggested that the specific familial component(s) contributing to the development of anorexia and bulimia are unclear. The review that follows examines research conducted during the past decade addressing the notion of parental control. The construct of control has been defined in numerous ways, including family/parental enmeshment, overprotection, pressure, and overinvolvement.

Research with the Family Environment Scale

Several studies in this review used the Family Environment Scale (FES) in investigations of possible associations between familial variables and eating disorders. As will be shown, the results are mixed, with some indicating a familial link and others not.

The FES consists of a total of 90 items, 10 subscales: (1) degree of *family cohesion* (family's commitment, support and help provided by the family members); (2) degree of *expressiveness* (family members' encouragement to act openly and freely express their feelings); (3) amount of *conflict* (anger, aggression, and conflict expressed among family members); (4) amount of *achievement orientation* (extent to which activities are cast into an achievement or competitive framework); (5) amount of *intellectual-cultural interests* (degree of interest in political, social, intellectual, and cultural activities); (6) amount of *active-recreational activities* (extent to which one participates in social and recreational activities); (7) degree of *moral-religious beliefs* (degree of emphasis on religious issues, values and ethics); (8) *organization* (degree of

importance of clear organization and structure in planning family activities and responsibilities); (9) amount of *control* (extent to which rules are set and procedures are used to run the family); and (10) degree of *independence* of family members (individual family members' ability to be assertive, self-sufficient, and make their own decisions).

The subscales that reflect family control are of particular interest (particularly the "control" subscale) due to their possible relationship with the other family environment variables (e.g., conflict, cohesion, and expressiveness). Specifically, healthy or unhealthy degrees of control can be present in a family, depending on its association with other variables. For example, a high degree of control combined with low cohesion and expressiveness may lead to more problematic family interactions than the combination of high control, high cohesion, and high expressiveness.

Family environment research with nonclinical populations. As has been noted, a number of researchers have utilized the FES in studies examining the association between family influence/control factor and eating disorders. Bailey (1991), for example, examined the correlations between a continuous measure of symptoms of bulimia and family environment. Within a nonclinical sample of college women, he found that perceived low family cohesion, low expressiveness, and high conflict were associated with more severe bulimic symptoms. Bailey also indicated that higher degrees of independence and activity levels were negatively correlated with the severity of bulimic symptoms. Thus, in a nonclinical college population, family relationships with low cohesion, low levels of independence and activity, but high conflict, are associated with bulimic symptoms. Therefore, the author concluded that bulimic symptoms appear to be related to a family system of chaos rather than enmeshment.

Felker and Stivers (1994) also studied a nonclinical population of females and males enrolled in a private high school. They correlated a measure that assessed whether students were at-risk for developing anorexia or bulimia with the FES. Similar to Bailey's findings, they found that males and females who purportedly were at-risk for developing an eating disorder perceived their families as high in conflict and control, and low in cohesion, expressiveness, organization, and independence. Therefore, they concluded that the family environment is significantly associated with risk of developing an eating disorder. However, a limitation of this study appears to be the limited self-report measure (22 questions) employed to determine risk for an eating disorder.

McNamara and Loveman (1990) examined the relationship between eating disorders and family environment, as assessed by the Family Assessment Device (FAD). The FAD is purported to measure general family functioning, problem-solving, roles, affective responsiveness, affective involvement, and behavior control. McNamara and Loveman's participants were college women who met the criteria for one of the following categories: bulimics, dieters, or nondieters. They found that the bulimic group, in comparison to the other two groups, reported poorer family functioning, including higher affective involvement (e.g., enmeshment, overinvolvement of family members), less affective responsiveness, poor problem-solving skills, poor communication skills, and less behavioral control. In conclusion, they suggested that quality familial functioning may serve as a moderating variable in determining which repeat dieters are likely to become bulimic.

In all of the aforementioned studies, one apparent limitation is the sampling of a nonclinical population. That is, although subjects may score high on measures of eating

concerns and disorders, many do not meet the criteria for a formal eating disorder diagnosis. Thus, they would not necessarily be representative of an eating-disordered population. However, McNamara and Loveman (1990) noted that although they recruited from a nonclinical population, they diagnosed 30 women with bulimia from a sample of 600. Their proportion of diagnosed subjects reflected a prevalence rate in accord with other research.

Family environment research with clinical populations. In contrast to the above results, Head and Williamson (1990) reported that family environment, particularly low expressiveness and high conflict, was not associated with bulimic symptoms in their sample of 58 women diagnosed with bulimia. However, a dysfunctional family, as indicated on the family functioning factor, was associated with the secondary psychopathology noted in bulimia (e.g., neuroticism and introversion). Also, contrary to expectation, they found that restrictive/conflictual families and high parental control were negatively associated with bulimic and anorexic cognitions and behaviors. This finding appears to support the idea that families of bulimics are often low in control. However, Head and Williamson's use of factor analysis with 58 subjects, appears to be of questionable validity, given the number of variables analyzed. Also noteworthy is the fact that because the subscales on the Eating Disorder Inventory (EDI) and FES were correlated, they factor analyzed the three measures they used in their study together (FES, Millon Clinical Multiaxial Inventory [MCMI], and the EDI). The significant correlations between the subscales on these measures appear to support the hypothesis that there is a relationship between eating disorders and family variables. Additionally, it would have been useful for the authors to provide a table summary of participants' mean scores on

the FES so that one could compare them to normative data. Unfortunately, the means were not provided.

Similarly, Thienemann and Steiner (1993) studied the relationship between family environment and eating disorders, while controlling for social desirability and depression. They compared the FES responses of women with anorexia nervosa-restricting type, anorexia nervosa with bulimic features, bulimia nervosa, and major depression. Interestingly, there were no significant differences between the groups on one depression measure; indicating that the eating disorder clients also demonstrated a possible diagnosis of depression. Thus, the confound of depression may mask any discriminable familial variables of individuals with eating disorders. Furthermore, Thienemann and Steiner indicated that the sample as a whole significantly differed from the normative data only on the Independence subscale of the FES. They concluded that the use of psychiatric patients as a comparison group tends to produce results that fail to support the hypothesis of an association between family environment and eating disorders. However, the use of a psychiatric control group with depression appears to be questionable, given that depressive symptoms/disorders are often noted in clients with eating disorders (DSM-IV, APA, 1994). Also, it may have been useful in this study to calculate effect sizes between the groups to determine practical/clinical significance.

Williams, Charmove, and Millar (1990) also examined the relationship between eating disorders and family environment with the FES, as well as locus of control, assertiveness, and hostility. They compared eating disorder clients with either anorexia or bulimia, psychiatric controls with various diagnoses, dieters, and normal controls. They found that eating disorder symptomology (measured by the EDI) was correlated

with an external locus of control, inwardly directed hostility, and family control (though, this particular correlation was not as strong as the others). The authors interpreted the finding that individuals with eating disorders perceive their families as less encouraging of independence, to mean that such families evidence a more subtle form of family control, than the overt control measured in the control subscale. The eating disorder group reported higher self-control and social systems control, higher inwardly directed hostility, and lower assertiveness and family independence than the normal group and the diet group, but not the psychiatric control group. Thus, they concluded that the factors they assessed are not specific to eating disorders, although they may be more pronounced in their group than in other psychiatric patients.

One issue that limits the generalizability of the Williams et al. (1990) study is the inclusion of both individuals with anorexia and bulimia in the eating disorder group. Researchers have suggested different family system dynamics for these disorders. Thus, when the groups are combined, they may tend to cancel one another out.

Horesh et al. (1996) attempted to assess the relationship between abnormal psychosocial situations and eating disorders in adolescents. The investigators included a psychiatric control group as well. They assessed psychosocial variables (including many family variables) through clinical interview ratings. On many variables, individuals with eating disorders proved to be no different than the members of a psychiatric comparison group. However, one variable that distinguished these groups was parental pressure. That is, higher parental pressure scores, being forced into exaggerated feminine styles of behavior, exposure to parental discussions of sensitive developmental topics (e.g., parental sex), and feeling pressure to engage in activities that reflected parents' ambitions

(rather than subjects' ambitions) were all related to higher eating disorder scores.

Additionally, high scores on the eating measure were associated with parental hostility toward the child, sibling disability, parental overprotection, inappropriate parental pressure, and negative changes in the family relationships. Thus, the researchers suggested that negative family tone may lead to some maladaptive eating behaviors even in individuals without clinical eating disorders. They also asserted that their results lend support to the theory that problematic family relationships play a role in the development of eating disorders.

Lipson, Stevens, Graybill, and Mark (1995) also examined the possible relationship among psychological stability, perceptions of the family, and the presence of bulimia. Women with bulimia and those without completed the Minnesota Multiphasic Personality Inventory--2 (MMPI-2) and the FES. Their mothers and fathers were also sent the FES to complete. They found no significant differences between the women with bulimia and those without on the FES. However, they did find that mothers of women with bulimia scored higher than the control mothers on the active-recreational orientation subscale and lower on the control subscale. Thus, this indicates that mothers of women with bulimia perceive less family control and more family involvement in activities in their families than the mothers in the control group. Also of interest was that there were no significant correlations between women with bulimia and their mothers' and fathers' scores on the FES subscales. Yet, there were significant positive correlations between the control women and their mothers on the FES control subscale, the active-recreational orientation subscale, and the moral-religious subscale. These findings suggest that there is more perceptual agreement about family dynamics between

daughters without bulimia and their mothers than between daughters with bulimia and their mothers.

Conclusions from the family environment research with clinical and nonclinical populations. Several observations can be made regarding the results of the studies reviewed. First, it appears that studies using nonclinical populations have reported a correlation between high familial control and high conflict, and self-reported eating disorder symptomology. Yet, in the nonclinical study that focused on bulimic symptoms correspondence was found between these symptoms and reported low familial control. Furthermore, low levels of cohesion, expressiveness, organization, and independence in a family appear to be related to self-reported eating disorder symptomology in nonclinical populations. The nonclinical research studies at this time offer a mixed picture of the relationship between control and eating disorder symptomology. It may be that the specific disorders have different familial patterns.

Researchers who have compared individuals with eating disorders to individuals with other psychiatric disorders have also reported conflicting results. In general, these studies have noted that few specific familial relationship patterns were unique to eating disorders. However, of these researchers, only one group that studied the clinical population reported the difference between the mean scores obtained by the eating disorder group on the FES to that of a normative sample. And in fact, one clinical study with women with eating disorders and a psychiatric control group did find a relationship between familial patterns of pressure and control and eating disorder symptomology. Overall, as was previously mentioned, the methodology and findings of these studies vary, and they do not provide conclusive evidence to completely dismiss the possibility

of specific familial patterns in the development of anorexia and bulimia.

Research Studies of Perceived Parental Bonding

Three groups of researchers studied the relationship between eating behaviors and perceived parental control and protection, on parental bonding (Ahmad, Waller, & Verduyn, 1994; McCourt & Waller, 1995; Palmer, Oppenheimer, & Marshall, 1988). The Parental Bonding Instrument (PBI) was used in all three studies. This measure includes scales that assess perceived maternal and paternal care and overprotection. The overprotection subscale has been used as a measure of perceived parental control (Ahmad et al.).

Ahmad et al. (1994) and McCourt and Waller (1995) report similar results when they compared the relationship between Asian girls' eating attitudes and behaviors and scores on the PBI, with those of Caucasian girls. Ahmad and colleagues found that Asian girls reported significantly higher levels of bulimic behaviors and body dissatisfaction and that in their sample of fourth grade Asian girls' bulimic symptoms were correlated with higher levels of perceived maternal control. They found that, in general, reported eating psychopathology was associated with perceptions of low maternal care and high maternal control. McCourt and Waller found similar results with older Asian and Caucasian adolescents, with the Asian girls reporting more unhealthy eating attitudes. Furthermore, they found that older Asian girls (14 to 16 years of age) perceived their mothers and fathers as more controlling than the Caucasian girls. The Asian children's perceptions of their mothers as more controlling explained a significant amount of the difference between the groups' eating attitudes. This was particularly true in the older

age group. The authors in both studies cautioned that girls' perceptions of their parents may not reflect actual parenting behavior. Also, neither group of researchers addressed the potential differences in cultural eating practices. Thus, it is unclear whether a measure of eating practices normed on Caucasians measures unhealthy eating attitudes and behaviors among Asians.

Palmer et al. (1988) compared females diagnosed with anorexia, bulimia, and a control group on the PBI. They sought to determine whether differences existed in the way these individuals remembered their parents. The authors found no differences between the groups on the protection scale, while a small but inconsistent difference was found on the parental care scale. Furthermore, they reported that the subjects produced widely variable results and that eating disorder clients do not have a childhood characterized by any particular parental pattern. However, this conclusion appears almost unfounded when the results are examined. That is, both eating disorder groups had statistically significant lower mean maternal care scores than controls. Furthermore, bulimics had statistically significant lower paternal care score than either the anorexics or controls. These results appear to the present reviewer to support the literature suggesting that fathers of bulimic daughters may be present in the home, but tend to be ineffectual. Hence, girls likely perceive their mothers and fathers as "not caring." Additionally, a possible methodological flaw in this study is the extreme, unequal sample sizes (i.e., the control group consisted of 410 subjects, while both clinical groups numbered in the mid-30s). Lastly, these researchers only examined the way that the young women remembered their parents. They did not obtain the parents' reports, which may have provided a different, potentially valid perspective of parental control behaviors.

All three of the aforementioned studies appear to support the role of perceived parental control in the development of eating disorders. Certainly some of these researchers were more cautious in the presentation of their results than others. However, taken together, the studies suggest that perceived familial control, particularly perceived low levels of care, poor maternal bonding, and a high amount of maternal control as measured by the PBI, may contribute to the development of eating disorders (particularly bulimia). Nonetheless, as Palmer et al. (1988) stated, there appears to be a great deal of variability among participants with eating disorders in terms of their perception of their parents. Perhaps the variability is attributable to the general construct of parental control being employed.

Relationships Between Parent and Child Responses of Eating, Control, and Pressure

The eating disorder literature contains studies that examined not only participants' perception of parental attitude, control, and so forth, but compared their reports to their parents' reports. These researchers used a variety of instruments to measure family factors.

Thelen and Cormier (1995) conducted a study with 118 fourth-grade girls and boys. However, only 70 were fully included in their analysis, because the others did not have both parents present in the home. Thus, the present study may be generalizable only to girls living in two-parent homes. In this study, parents and children completed several measures including: a rating of satisfaction with body size and shape, self-reported dieting frequency, eating behaviors (i.e., dieting and binge-purge behaviors), assessment of parental concern and control over their child's weight as well as the child's perception

of parental concern and control over his/her weight, and lastly, height and weight measurements (obtained to calculate body mass ratios).

The authors concluded that perceived communication from parents regarding weight correlated with prepubescent females' desire to be thinner. Further, they suggested that such messages impact girls' dieting attempts more than parent modeling of weight concerns or weight loss. Also, they suggested that an interaction between communication and modeling may exist, and that further research is needed to understand the different effects that weight control modeling versus direct communication can have on girls' eating behaviors.

Kanakis and Thelen (1995) studied attitudes about body image, eating and dieting behaviors, pressures from parents to lose weight, and self-esteem of daughters and parents in a college-age population. They administered several scales and an interview to the daughters to categorize them into one of three groups: (a) bulimics (those meeting the criteria for bulimia), (b) subclinicals (those with symptoms but not with the full-blown disorder), and (c) controls (those not exhibiting any notable symptoms of eating disorders). They found that bulimic daughters perceived more parental pressure to diet, restrain food intake, and exercise than did the control group. They also found that the subclinical group differed from the control group in most of these areas as well. In particular, the subclinical group felt more pressure from their mothers to diet and exercise than the control group perceived. Additionally, bulimics and the subclinical bulimics reported more teasing about their weight from their family than the control group perceived. However, the mothers and fathers across the groups did not differ on any of the dimensions assessed. Thus, they concluded that mothers of eating-disordered

daughters are either minimizing their own behavior, or the daughters are misperceiving their mothers' behavior. In any event, it appears that the family environment, whether perceived or "real," is related to bulimic symptomology.

Levine, Smolak, Moodey, Shuman, and Hessen (1994) evaluated sixth- through eighth-grade girls on menarcheal status, dating status, academic threat, family messages concerning weight and shape, and peer messages concerning weight and shape as well as their shape dissatisfaction, weight management behavior, and disturbed eating practices. Maternal investment into slenderness, peer modeling and simultaneous change (dating and starting to menstruate in the same year) predicted girls' reported weight management and shape dissatisfaction. Disturbed eating was predicted by a combination of the factors: simultaneous changes with academic threat, simultaneous change with academic threat and ideal shape, parents investment in dieting, and peer investment in dieting. They found that increments in parental pressure to be slender and peer investment in dieting at the high end of the scale were associated with accelerated increments in disturbed eating. Interestingly, those two variables were not independent correlates of the regression analyses that predicted nonpathological dieting. Thus, they suggested that further research is warranted to determine whether girls with higher disturbed eating behaviors scores actually receive or just perceive more pressure from their parents and peers about weight.

In 1999, Smolak, Levine, and Schermer examined the effects that mothers' and fathers' direct comments about their child's weight and behavioral modeling of weight concerns have on their child's body esteem, weight-related concerns, and weight loss attempts. They found that mothers' comments concerning daughter's weight were

significantly correlated with weight loss attempts, but their fathers' comments were not related. In their regression analyses, they found that maternal comments about their children's weight and maternal beliefs in the effectiveness of dieting were the significant predictors of their children's concerns about getting or being fat. Fathers' reports on both of these variables were not significant predictors. Again, these findings appear to support the theory that parents' messages and behaviors (particularly mothers') influence their children's eating practices.

An additional family environment study (reviewed earlier) also included an analysis of the parents' responses on the FES (Thienemann & Steiner, 1993). No relationship was found between parental FES responses and the subjects' eating disorder diagnosis or depressive symptoms. Likewise, no differences (analyzed with a MANOVA) were found between parents' and daughters' responses on the FES. Correlations were not reported but may have been helpful in determining if a relationship existed between these variables. A limitation of this study is that the parents may not perceive and, thus, do not describe themselves as different from others. However, it appears that at some point, women with eating disorders do actually receive more food- and weight-related messages from parents or remember more of these messages than their noneating-disordered peers (as is indicated in other studies, e.g., Kanakis & Thelen, 1995). The type of message they receive/perceive could also explain some of these differences. That is, the number of messages may be the same but the impact of the messages on a girl's behavior could be very different if the message is that eating is negative and it is weight that is important, rather than food is positive and weight does not affect who one is.

In summary, although the researchers have presented some conflicting results with regard to the role that family relationships have in the development of eating disorders, it is difficult to compare the studies due to their varied methodology and the samples they assessed. However, maternal eating disorder symptomology does appear to affect childhood eating problems, which may later develop into an eating disorder. Overall, these studies suggested that family influences do appear to be correlated with eating disorders. Yet, whether it is the anorexic or bulimic's selective attention to family messages or an actual increased amount of these messages remains unclear.

Relationship Between Maternal Eating Disorders and Feeding Practices

To understand the manner in which women with eating disorders care for their children, particularly regarding feeding practices, Evans and le Grange (1995) conducted a study with 10 mothers who were previously diagnosed with an eating disorder. They compared these women's behaviors with mothers who had no prior diagnosis. They found that both groups displayed similar levels of satisfaction with their body size and their child's body shape and size. However, in a qualitative analysis of feeding practice, they reported that 10 children in the clinical group, compared to two children in the control group, were fed by their mothers on a rigid schedule. Furthermore, Evans and le Grange indicated that clinical mothers often felt confused and anxious when their child displayed external signs of hunger outside of the scheduled feeding times. Additionally, one mother reported "dieting" her infant, another mother stated "when they say 'mummy, I'm hungry,' I just want to run." Finally, one mother described her son as having an eating problem: "He's got my obsessive quality with food and my hankering for food. If

he can't eat it, he's got to open it, handle it, put it away, offer it to somebody. He's got a problem and it upsets him" (p. 45). Thus, this study provides some insight into the finding that anorexia runs in families (Rosenfield, 1988; Strober, Lampert, Morrell, Burroughs, & Jacobs, 1990), as well as suggesting that parental attitudes and behaviors regarding food may affect the child's eating behaviors.

Recently additional research has been conducted to further explore the relationship between maternal eating disorders and child feeding problems. Stein, Woolley, and McPherson (1999) evaluated mothers with eating disorders and their 12-month-old infants and a comparison group. They videotaped mother and child interactions during meals. They identified antecedents to mealtime conflicts between the parent and child, and indicated that the conflict at mealtime was related to maternal eating disorder psychopathology. They found that "the core psychopathology often interfered with the mothers' capacity to respond to her child in a child-sensitive manner when faced with numerous 'normal' mealtime issues..." (p. 460). Consequently, the authors suggested that mothers with eating disorders are less likely to afford their child the opportunity to experiment with food and develop autonomy, causing increasing conflict between the mother and child during meals. Furthermore, they suggested that when a parent does not allow food to be handled by the child and keeps food out of reach, the infant's sense of feeding autonomy is denied and future problems with eating and weight are likely to arise.

Stice, Agras, and Hammer (1999) assessed children and their parents for the first five years of the children's lives. They examined the risk factors for the development of early eating problems/preadolescent eating disorders. They suggested that childhood

eating disturbances (e.g., inhibited eating, secretive eating, overeating, and vomiting) were predicted by maternal body dissatisfaction, maternal internalization of the thin-ideal culture, maternal dieting, maternal bulimic symptoms, and both parents' Body Mass Index (BMI). They also found that certain infant behaviors predicted the later development of eating disturbances in the child. Thus, they concluded that certain parental and infant characteristics portend the emergence of early childhood eating disturbances.

Whelen and Cooper (2000) also attempted to discern the relationship between childhood feeding problems and maternal eating disorders. They assessed 4-year-old children and categorized them into three groups; children with feeding problems, children with a nonfeeding form of disturbance (shyness, anxiety, behavioral problems), and children without problems. Blind psychiatric interviews assessing for eating disorders and depression were completed with their mothers. The mothers of children with feeding problems compared to the mothers of the two control groups had statistically significant higher incidences of past or current diagnoses of DSM-IV (APA, 1994) eating disorders.

In summary, the research in this area consistently found relationships between maternal eating disorders and childhood feeding practices. That is, it appears that mothers with eating disorders are more likely to have conflict with their children at mealtime and feed them on a rigid schedule. Similarly, when researchers compared the mothers of children with feeding problems to the mothers of control groups, they found a higher incidence of maternal eating disorders, but not a higher incidence of maternal depression. Consequently, further research is warranted to discern the likelihood that a child/infant with feeding problems will develop an eating disorder.

Research Comparing Eating Disorder Groups on Perceived Parental Care

Schmidt et al. conducted three separate studies examining the childhood experiences (particularly aversive incidents) that may be characteristic of individuals with eating disorders. Their studies focused on the family characteristics of women with anorexia compared to those with bulimia and women with late versus early onset of an eating disorder. An additional qualitative study was also identified that examined perceived parental care in women with both disorders.

Using structured interviews Schmidt, Tiller, and Treasure (1993) examined the childhood care experiences reported by restricting anorexics, anorexics with bulimic symptoms, bulimics with a history of anorexia, and normal weight bulimics. They found that anorexics and bulimics reported different childhood antecedents, with bulimics experiencing more childhood adversity (defined by measures of parental indifference, high control, family discord, and violence in the family) than those with anorexia. Additionally, the bulimics reported the highest levels of perceived parental disapproval and the restricting anorexics the lowest. Schmidt et al. measured perception of high versus low parental pressure, and found that 41% of the normal weight bulimics reported one or the other extremes, though excessive pressure/control was the most common experienced.

In another study, Schmidt, Slone, Tiller, and Treasure (1993) found that individuals with eating disorders used fewer mature defenses, and more neurotic and immature defenses, than the control group. In particular, the bulimic group reported the lowest use of mature defenses. Furthermore, parental control, measured by a

semistructured interview of childhood care, was a factor. That is, excessive parental control during childhood was a negative predictor of mature defense style. If individuals with eating disorders do, in fact, have less mature defenses, one can cautiously infer (based on their findings) that they may experience excessive parental control.

In a third study, Schmidt, Hodes, and Treasure (1992) examined the differences between those individuals with early onset bulimia (e.g., before the age of 15) with those who developed the disorder at the "typical" age (between 17 and 21). The theoretical underpinning of the study was that those who develop the disorder earlier will exhibit more than an average number of risk factors, thus providing an opportunity to better understand the risk factors. One relevant finding was that inadequate parental control (e.g., lack of parental supervision in the home primarily due to parent's work schedules) was reported significantly more often in the early onset group. Interestingly, other familial indicators were not different in the two groups.

One limitation in the methodology employed in the above study (Schmidt et al., 1992) is that the assessments do not appear to have been planned for this particular study. That is, the assessments were part of the other two studies by Schmidt et al. and thus, different measures were administered to some of the individuals. For instance, 39 members of the adult groups were administered the Childhood Parental Care Interview, yet 5 of the 7 cases in the children's department were assessed with a semistructured family interview (i.e., this was a different assessment tool than the one given to the adults). However, the authors did take steps to help ensure consistent ratings between the different constructs. Schmidt and colleagues also ensured comparability by implementing extensive checks on their interview procedure in all three studies.

One final study is an informative, qualitative investigation (Evans & Street, 1995). The authors compared family histories of a client with anorexia and two clients with bulimia by using self-reported accounts of their family life. All subjects participated in family and individual counseling at some point during their treatment. The authors acknowledged that their findings may not generalize due to the nature of the study, but they do provide insights into the families of three individuals with eating disorders. The authors reported:

The anorexic's pattern is one of overcontrol; the history is stark, with little information about the extended family, emotions are held in check, social conformity is important and major emotional events are hidden. In contrast, the bulimic pattern is one of undercontrol with acting-out behaviour and chaotic emotions and panic never far away. (p. 126)

An additional quote from one woman whose eating problems began around the age of 10 and who was diagnosed with bulimia was, "I had to be secretive about eating sweets, as my mother had very strict rules about keeping slim and not eating carbohydrates. I felt badly about eating sweets and vomited to ease the guilt" (p. 122). Evans and Street concluded that bulimic parents were uninvolved and disengaged with their daughters, which suggests a lack of control, yet with regard to food this mother seemed particularly controlling.

Overall, these studies suggested that women with bulimia tend to perceive their childhood as more aversive, their parents as more disapproving, and developing less mature defenses than women with anorexia. Families of bulimics were also described as more uninvolved and disengaged, yet maternal food control appeared to be an issue in one study.

In summary, the "control" construct in the literature on parental control may have

been defined diversely and/or too broadly to differentiate eating-disordered families, psychiatric control families, and normal families. Also, the findings from available research may not be generalizable to the eating disorder population (as was the case in the aforementioned study), though they provide information worthy of consideration and demonstrate the need for additional research. Furthermore, although the researchers' methodologies and findings varied, a familial link cannot be discounted at this time. It appears that further research is warranted to better understand the family relationship and issues involved in those families with an eating-disordered member. For example, research that more specifically defines parental control appears to be needed. With precise and specific definitions for the components being evaluated, it would hopefully clarify some of the conflicting data that has been reviewed here.

Influences on Women's Dieting Practices

Researchers have studied the hypothesis that periods of strict dieting may lead to a breakdown in restraint, often referred to as bingeing. Consequently, how women learn this restraint cycle is of interest. Certainly, the sociocultural suggestions/pressures to be thin, as well as the current diet culture, contribute to the development of maladaptive eating behaviors in women. It is possible that some of the media's messages to young girls and women to diet and be "health conscious" may do more harm than good. In addition to these sociocultural pressures, researchers have examined the relationship between mothers' and daughters' dietary restraint practices. Thus, a brief overview of the restraint literature is described followed by a review of the research on the relationship between mothers' and daughters' dietary restraint behaviors. Lastly, some

researchers' reactions to the current health-conscious/diet-focused social climate is discussed.

Dietary Restraint and the Disinhibition Hypothesis

Heatherton, Herman, Polivy, King, and McGree (1988) defined dietary restraint as "a multifaceted syndrome involving both a propensity to restrict food intake as well as a tendency to splurge" (p. 26). Furthermore, in Herman and Polivy's (1980) "disinhibition hypothesis" they proposed that self-control in restrained eaters may be temporarily abandoned by certain events called "disinhibitors." In Ruderman's (1986) review of the dietary restraint literature, it was concluded that the research supported this hypothesis. The problems and potential eating disorder behaviors associated with severe dietary restraint were highlighted in a statement by Kirschenbaum and Tomarken (1982): "restrained eaters...more frequently exhibit problematic eating behavior, including binge eating..." (p. 326). The purported high frequency of dietary restraint in our society, that is, dieting (Polivy & Herman, 1987), has led many researchers to examine how these behaviors develop.

Parents and Their Children's Dieting Practices

In 1990, Hill, Weaver, and Blundell attempted to address a number of questions regarding young girls' dieting concerns, particularly in relation to their mothers' concerns. They found a strong positive relationship between dietary restraint in mothers and daughters ($r = .68$). For instance, mothers of high-restraint daughters scored significantly higher on the dietary restraint measure than mothers of the low-restraint

group. However, when mothers were grouped by their daughters' scores on the Eating Attitudes Test (EAT; i.e., high and low scores) there were no differences between the mothers. Yet, the high-restraint girls had significantly higher scores on the EAT than the low-restraint girls, and shared their mothers' tendency toward disinhibitory effects of negative mood states on their eating behaviors. The authors concluded that there is a strong family link between mothers and their 10-year-old daughters in their motivation to diet. They further suggested that the reasons for this link are diverse and that they may reflect both genetic and environmental variables, including "weight status, the propensity to gain weight, food preferences and family economics" (Hill et al., p. 347).

Although there are limitations in the methodology of this study, it was the first to examine the possible relationship between mothers' and daughters' food restriction. Additional studies were identified that focused on the relationship between mothers' and daughters' dietary restraint behaviors. These studies have produced varied results (Bushman, 1993, 1995; Levine et al., 1994; Pike & Rodin, 1991; Ruther & Richman, 1993; Sanftner, Crowther, Crawford, & Watts, 1996; Smolak et al., 1999; Steiger, Stotland, Ghadirian, & Whitehead, 1995; Steiger, Stotland, Trottier, & Ghadirian, 1996).

Ruther and Richman (1993) found similar results to those obtained by Hill et al., (1990). That is, mothers' eating restraint scores were associated with their daughters' eating restraint scores and internal locus of control. Interestingly, there were no significant correlations found between the mothers and the sons in this study. In light of these results, Ruther and Richman suggested that mothers possibly have more influence over their daughters' (than their sons') behaviors. For instance, the mother may take control of her food intake and encourage her daughter to do the same. However, a

limitation is that the measures used in this study were adapted (from adult measures) for the children, which could have changed the reliability and validity of the measure (Candy & Fee, 1998).

Pike and Rodin (1991) completed a study on the relationship between the disordered eating attitudes of mothers and related attitudes in their adolescent daughters. Mothers of daughters with disordered eating behaviors had more disordered eating behaviors themselves, and reported that they started to diet at a significantly earlier age than the control groups' mothers. However, no differences in weight were found to explain this trend. The researchers also speculated that the mothers were not only passively influential as models for eating patterns, but also may have put pressure on their daughters to lose weight. This idea was supported by the finding that the mothers with disordered eating behaviors rated their daughters as less attractive (than the daughters judged themselves to be) and that their daughters should lose weight, more often than the control groups' mothers. Lastly, in support of the family differences in individuals with eating disorders, Pike and Rodin found that the eating-disordered mothers reported a desire for greater family cohesion than did noneating-disordered mothers.

Two additional studies were conducted by Bushman (1993, 1995). The first study included the assessment of 140 mother/daughter dyads, who completed several self-report measures. She found that there was an association between mothers' and daughters' scores on a measure that assessed bulimic behaviors, but not on a measure of dietary restraint. However, on the measure of bulimic behaviors, the subscales were significantly correlated. The results from these subscales indicated that mothers and

daughters reported similar levels of control over eating, but daughters tended not to engage in compensatory behaviors following a binge. Additionally, increased report of bulimic behaviors by mothers corresponded to higher levels of dietary restraint in daughters. Although these results were slightly different from those found by Hill et al. (1990), Ruther and Richman (1993), and Pike and Rodin (1991), they, too, appear to support the link in eating behaviors between mothers and daughters. Similar measurement problems as the ones mentioned above in Ruther and Richman's (1993) study were of concern here as well.

A second study by Bushman (1995) examined the relationship between mothers' and daughters' actual eating behaviors (i.e., an ice cream taste test) as well as those relationships assessed in her prior study. In this study, a relationship between mothers' and daughters' restraint scores was found, which was similar to the previously described research (Hill et al., 1990; Ruther & Richman, 1993). The results in this study, including laboratory observation, also suggested that mothers may be modeling abnormal eating and dieting behaviors for their daughters. In addition, dysphoric mood and parental conflict were positively associated with more severe bulimic symptoms in both mothers and daughters. Not only does this research support a relationship between mothers and daughters, it also adds to the literature on the familial component of control (e.g., conflict between mother and daughters) involved in the development of eating disorders.

Sanftner and colleagues (1996) explored the possible relationship between eating-disordered attitudes and symptoms of fourth- through eighth-grade girls and their mothers. They separated the girls into two groups: prepubertal and postpubertal. In the prepubertal group, significant relationships were not found between mothers and

daughters weight preoccupation and eating psychopathology. However, significant relationships were revealed between postpubertal daughters and their mothers on the weight preoccupation variables (dieting, drive for thinness, body dissatisfaction, and bulimia symptoms). They also found that mothers' weight preoccupation significantly predicted daughters' dieting and drive for thinness, but not their bulimia symptoms or body dissatisfaction. Yet, their interpretation of the results is of concern. They suggested that because the relationships were not present in prepuberty, as they were in postpuberty, the development of symptomology may be more related to social pressures than their mothers' behaviors. Although, there is support for the notion that societal pressures play a role in young girls desire to be thin, and so forth, maternal behavior appears to play a role as well, whether it be through direct or indirect communication or modeling.

Levine and colleagues (1994; reviewed earlier) also indicated that maternal investment in slenderness contributed to the prediction of their daughters' weight management behaviors and shape dissatisfaction. Furthermore, increments in parental pressure to be slender was one of the factors associated with accelerated increments in their daughters' disturbed eating scores. Also in a study reviewed earlier was the finding that maternal beliefs in the effectiveness of dieting was one of the significant predictors of their children's concern with getting or being fat (Smolak et al., 1999).

Another set of studies examined eating and dieting practices among several different groups (e.g., eating-disordered, psychiatric controls, and normals) and their relatives (Steiger et al., 1995, 1996). In the first study, Steiger et al. (1995) examined the correlations and differences among those individuals characterized as restrictors, bingers, psychiatric controls, normal dieters, and nondieter controls, and those family members

who agreed to participate. Although a number of mothers, fathers, brothers, and sisters responded, there were a significant number of women who did not have all or any of these family members included in the comparison. Based on their results, the authors suggested that caution is warranted before assuming that abnormal eating behaviors and concerns or psychopathological traits are present in family members of individuals with eating disorders. Furthermore, they suggested that parents' psychopathology cannot yet be fully separated from speculations that it is related to the daughters' development of an eating disorder, and that familial traits may be too diverse, thus erasing any consistent mean tendencies.

Steiger and colleagues (1996) evaluated body image, eating attitudes and behaviors, dietary restraint and emotional eating, and personality features of three groups: (a) women with eating disorders, (b) psychiatric controls, and (c) normals, as well as their relatives. Again, there were a significant number of participants that did not have all or any of their family members included in the comparison. An additional limitation is the combination of diagnoses (anorexia and bulimia) in the eating disorder group. The authors found positive correlations between the families' and daughters' eating attitudes and concerns, dietary restraint, and body satisfaction, but no distinctions between the women with eating disorders and women with other psychiatric illnesses were identified. Therefore, they suggested that a transgenerational effect exists for eating attitudes and psychopathological traits, but does not uniquely identify families in which clinical eating disorders syndromes occur. Although there were no distinguishable differences between the psychiatric control groups' family traits and the eating disorder, it is possible that subclinical eating pathology is occurring in the subjects of the psychiatric group (or in a

few of them, increasing their mean scores).

The Media's Notion of "Healthy"

Recently, the promotion of healthy eating attitudes (e.g., low fat and caloric foods) have been implicated in the theories explaining extreme dieting and eating disorders. In a study of young adolescent girls' dieting behaviors, Hill, Oliver, and Rogers (1992) concluded that educational programs need to take care to promote sound nutrition rather than calorie restriction and avoidance of fat. The danger, of course, is that young women may simply exchange one health problem for another (Hill et al.). Dixey (1996) also voiced concerns regarding simplistic media notions of healthy eating that commonly exhort even young children to watch their weight and eat healthy, with the possible consequence of eating disorders. She suggested that research is needed in this area to determine if a link exists between these two variables.

Summary and Conclusions

The results of available studies suggest that familial factors are associated with eating disorders and may be related to their etiology. The relationship between mothers' and daughters' eating behaviors appears to be a part of a broader familial influence or control component. Additionally, of the broad constructs of family influence studied to date, maternal modeling, pressure, and control (either overly controlled or no/little control or guidance is provided) seem to be the most salient features of families with individuals with eating disorders. The more recent research still appears to support the literature review conclusions discussed earlier (Rosenfield, 1988; Striegel-Moore et al., 1986; Strober & Humphrey, 1987) on the family's role in the development of eating

disorders, although the research findings are not unanimous.

Mothers' and daughters' perceptions of the family appear to be a salient issue in the studies reviewed. Thus, several of the researchers have suggested that it may actually be daughters' perception of the family's behaviors versus the way the family members are actually behaving. The lack of correspondence between family members' descriptions (particularly the women with eating disorders and their mothers' reports) suggests that the family dynamics may be perceived differently. That is, women with eating concerns may pay closer attention to or misinterpret messages that their mothers are communicating about weight and eating, or it may be that these mothers send increased messages without recognizing it. An alternative explanation is that mothers send different messages about eating and weight to each child in the family, accounting for the discrepancy in siblings' reports (however, few studies actually included siblings). Overall, perception versus the "actual family climate" has been identified in the literature, but no definitive answers are available at this time.

There appear to be several methodological limitations in the studies conducted to date. First, when studying relationships between eating disorder symptoms and family environment factors, correlations in a homogenous diagnostic group may be nonsignificant due to the smaller range of scores on measures of eating disorders symptoms compared to the broader range of scores on the family environment scales. Thus, it may be more informative to compare scores from an eating disorder group with those of a control sample, and/or standard norms. A second issue in the literature is the different results obtained when the comparison groups are a noneating-disordered clinical population (e.g., depressed patients), rather than a nonclinical group. Perhaps a better

way to assess differences is by using groups that represent a “nonpathological” or “subclinical” level of eating disorder (i.e., comparing anorexics and bulimics to appropriate “symptomatic control groups” and to nondieters). This method may allow researchers to discern the components that are involved in the transition from “average” concern with dieting and weight to clinical/pathological concern. Third, some researchers have studied an “eating disorder” population without differentiating among diagnostic groups (i.e., bulimics and anorexics). Combining such groups may obscure meaningful differences in parenting style. For example, parents of anorexic daughters may be more controlling while parents of bulimics may provide little or no structure. Combining the extreme group means of anorexic and bulimic samples would erroneously suggest that overall women with eating disorders generally show unremarkable or normative family control patterns.

Also, diverse, global constructs of parental control have been commonly measured in studies to date, because of the speculation that individuals with eating disorders may have over- or undercontrolling parents. However, it may be that while parents of individuals with eating disorders are either over-/undercontrolling in a global or nonspecific way, most significant may be the manner in which mothers may specifically exert excessive control over food intake, or model an absence of personal control around food. Thus, it may be that the most important aspect of mothers’ controlling behaviors are her undue strictures over food intake in the family and in a similar vein, extreme concern with her daughter’s eating habits and weight. This concern may directly relate to a tendency to enforce extreme control over daughters’ food choices and a tendency to limit certain foods choices in the home; such excessive control of her

children's eating may correlate strongly with her own issues with weight and/or health concerns (see Figure 1). As is demonstrated in Figure 1, general maternal overcontrol in the home may translate into a more specific control over food. On the other hand, it may be that, in general, the mother is not particularly controlling over her children, but due to her issues related to food and weight she may be controlling when it comes to food choices in the home. If true, this hypothesis could explain some of the mixed findings regarding the involvement of maternal control in individuals with eating disorders.

Research Hypotheses

The primary purpose of this research was to examine the following hypotheses: 1. If a relationship exists between daughters' reported eating disorder symptomology and their perception of familial control (i.e., over- or undercontrolling); 2. If a relationship exists between daughters' reported eating disorder symptomology and mothers' reports of familial control (i.e., over- or undercontrolling); 3. If a relationship exists between

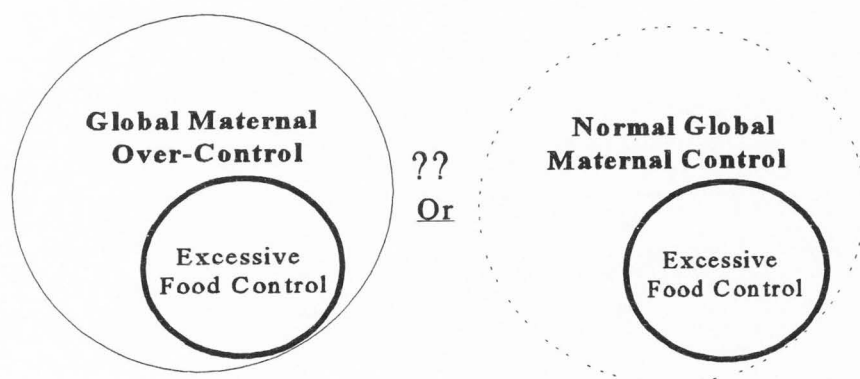


Figure 1. Global maternal control versus excessive food control.

daughters' reported eating disorder symptomology and their perception of their mothers' control of food in the home by limiting or restricting food choices during childhood and adolescence (e.g., the availability of high calorie/fat snacks and sweets); 4. If a relationship exists between daughters' reported eating disorder symptomology and their mothers' reports of control of food in the home by limiting or restricting food choices during childhood and adolescence (e.g., the availability of high calorie/fat snacks and sweets); 5. If there is an association between daughters' perception of their mothers' health-conscious attitudes regarding food and daughters' reported eating disorder symptomology; 6. If there is a relationship between daughters' reported eating disorder symptomology and their mothers' reported health-conscious attitudes regarding food; and 7. If a relationship exists between daughters' reported eating disorder symptomology and their mothers' reported eating disorder symptomology.

Due to the possible differences between familial contributors of anorexia and bulimia, symptoms for anorexia and bulimia were analyzed separately for each variable. Table 1 outlines the expected associations between daughters' anorexic and bulimic symptomology and their mothers' parenting style, control over food, and health-conscious behaviors. A positive sign (+) indicates the expected positive correlation between the variables and a negative sign (-) represents the expected negative correlation between variables. Consistent with what some researchers have suggested, it was predicted that high parental control (per report of mothers and daughters) would be positively correlated with daughters' anorexic symptomology and negatively correlated with daughters' bulimic symptomology.

Because no studies have examined the more specific aspect of control (i.e., food

Table 1
Summary of Research Hypotheses

Maternal behavior	Daughters symptoms	
	Anorexic symptoms	Bulimic symptoms
Global parental control		
Mothers' self-report	+	-
Daughters' report (of mother)	+	-
Specific food control in the home		
Mothers' self-report	+	+
Daughters' report (of mother)	+	+
Health-conscious attitudes towards eating		
Mothers' self-report	+	+
Daughters' report (of mother)	+	+
Mothers' eating disorder symptoms		
Mothers' self-report	+	+

Note. (+) = hypothesized positive correlation and (-) = hypothesized negative correlation.

control), there was no empirical basis for the hypothesis regarding maternal control of food and daughters' eating disorder symptomology. Nonetheless, it was suspected that a positive relationship would exist between maternal control over food and eating disorder symptomology; this was similar to the positive relationship that Kanakis and Thelen (1995) found between bulimic symptomology and parental pressure to diet, restrain food intake, and exercise. There was no reason to believe that the relationships hypothesized for the present study would differ across women with anorexic and bulimic symptoms. Similarly, it was hypothesized that extreme health-conscious behaviors and attitudes of mothers would be positively related to both eating disorders.

In addition to the hypotheses outlined, correlations were calculated to evaluate whether there was a relationship between daughters' reported eating-disordered symptomology and endorsing socially desirable responses. Additionally, it was suspected that mothers' eating disorder symptoms are related to general familial control, controlling food in the home, and with healthy eating attitudes and behaviors. Correlations were calculated to address those expectations. Also of interest was whether specific food and diet control attitudes and behaviors of mothers are idiosyncratic or part of a general over-controlling parental style. Thus, correlations were calculated to address these expected associations. Lastly, to address the issue of perception, correlations were calculated between mothers' self-reported and daughters' perception of their mothers on measures of familial control, control over food, and health food attitudes.

CHAPTER III

METHOD

Participants

The participants were adult females and their mothers, because statistics show that 90% of the eating-disordered population are females (DSM-IV, APA, 1994). Women between 18 and 35 years of age and their mothers were recruited from Logan, Utah, and the Washington, DC, area. The fathers were not included, as the literature generally indicates that mothers' and daughters' eating attitudes and behaviors are related, where fathers' behaviors have been less implicated in the research to date.

Eighty-eight women were recruited from large diverse classes at Utah State University (USU), the USU Counseling Center, and advertisements in the Washington Post newspaper. Women were recruited to represent each of five following groups: (a) anorexia nervosa (defined by the DSM-IV (APA, 1994) criteria and subclinical criteria), (b) bulimia nervosa (defined by the DSM-IV and subclinical criteria), (c) dieters that represent a symptomatic control group for anorexics, (d) dieters that represent a symptomatic control group for bulimics, and (e) nondieters or normals.

Procedures for Recruitment of Participants

Women who represented the aforementioned groups were recruited for the study to insure that a sample encompassing a range of eating behaviors was included. Women who met the DSM-IV criteria for anorexia nervosa, bulimia nervosa, or an eating disorder not otherwise specified (e.g., with specific bulimic or anorexic behaviors) were recruited

from the USU Counseling Center and newspaper ads. To represent the “anorexic” group, the participant had to meet the DSM-IV criteria for anorexia nervosa with exceptions to two of the criteria. That is, the criteria stating a refusal to maintain body weight greater than 85% of that expected and the absence of three consecutive menstrual cycles were modified. Women with a body weight approximately 8% lower than is expected were included, along with women who did not develop the symptom of amenorrhea, as this was the more typical presentation of those being treated at the USU Counseling Center. All women in the anorexia nervosa group endorsed irregularity in their menstrual cycle. Likewise, women were included in the study who exhibited symptoms of bulimia nervosa or subclinical bulimia. These women met the criteria defined in the DSM-IV for bulimia nervosa, with the inclusion of women who reported binge eating and inappropriate compensatory behaviors an average of once a week for at least 3 months. Again, this criterion was more representative of those being treated at the USU Counseling Center.

Clients seeking help at the university counseling center for an eating disorder were asked by the center staff if they were willing to participate in a study on family factors relating to eating disorders. If the client agreed, her name was released to the researcher and she was contacted and scheduled for an assessment. The therapist completed a symptom checklist (Appendix A) derived from the diagnostic criteria of the DSM-IV (APA, 1994) and the modifications noted above to ensure the minimum requirements were met. The women identified through the newspaper ads (all of the women had been with diagnosed with one of the disorders) were interviewed over the telephone using the Structured Clinical Interview for DSM-III (SCID; Spitzer, Williams, Gibbon, & First, 1992). The information obtained in this interview was then used to

complete the same DSM-IV checklist. The women identified at the counseling center either completed the questionnaires with the researcher or were given the assessment and the packet was returned to their therapist and then to the researcher. The women identified through the newspaper ads were sent the questionnaires and a postage paid envelope for the return of the questionnaires. If they did not respond within 2 weeks, they were contacted by phone twice and then sent a reminder postcard.

Participants without eating disorders were obtained from large introductory courses at USU. A consent form (Appendix B) and the Three-Factor Eating Questionnaire (TFEQ; Stunkard & Messick, 1985, described in detail in the assessment section) were administered to all female volunteers. They were encouraged to participate in the initial screening by the offer of extra course points. Due to this incentive there was 100% participation. To obtain a sample that reflected a continuum of eating and dieting behaviors, women were recruited to represent each of the three general subgroups reflecting increments in the number and severity of symptoms (i.e., nondieters, dieters with anorexic symptomology, and dieters with bulimic symptomology). Veron-Guidry, Williamson, Lawson, and Cubic (1994) identified symptomatic control groups for anorexia and bulimia on the TFEQ. Symptomatic controls for anorexia were defined as those who obtained a high TFEQ restraint score (above the 67th percentile) and a low TFEQ disinhibition score (below the 33rd percentile). Symptomatic controls for bulimia included those with a high TFEQ restraint score (above the 67th percentile) and a high TFEQ disinhibition score (above the 67th percentile). Nondieter controls included those with a low TFEQ restraint score (below the 33rd percentile) and a low TFEQ disinhibition score (below the 33rd percentile). These were the criteria used to identify women to

represent the control groups.

Of the women identified as potential symptomatic controls and those meeting the minimum requirements for an eating disorder, 11 women chose not to participate (one to three women from each of the five groups). Two of the 11 women did not provide their correct phone numbers to be contacted for the follow-up portion of the study. The remaining 9 women reported that they knew their mothers would not complete the questionnaires, they did not want their mothers to receive the questionnaires, or that they did not have the time to complete the questionnaires.

Seventy-four mother/daughter dyads were included in the study. There were 14 mothers who did not return the packet of questionnaires. Upon comparing the demographics of daughters of mothers who did and did not respond, the only notable difference for daughters of mothers who did not respond was that daughters' mean age was higher, 25 ($SD = 5.0$), than the daughters' mean age of mothers who did respond. As this was the only difference, the data from the 14 daughters whose mothers did not respond were included in the analyses that only required daughter data. Thus, the actual sample size used in the daughter-only analyses was different from those analyses that examined mother and daughter similarities and differences.

Of the women that completed the questionnaires, 26 of them were classified as nondieters (29%), 21 were classified as symptomatic controls for bulimia (24%), 17 were classified as symptomatic controls for anorexia (19%), 13 were classified as bulimic (15%), and 11 were classified as anorexic (13%). Of the 74 women whose mothers completed and returned the packet of questionnaires, 20 represented the nondieters (27%), 20 represented the symptomatic control group for bulimia (27%), 17 represented

the symptomatic control group for anorexia (23%), 9 represented the bulimic group (12%), and 8 represented the anorexic group (11%). The women's mean age was 21.1 years ($SD = 3.74$) with a range of 18 to 34. Thirty-eight of the women were freshman (43%), 10 were sophomores (11%), 19 were juniors (22%), 14 were seniors (16%), 3 were in graduate school (3%), and 4 had recently completed their bachelor degrees (5%). Ninety-two percent of the women were Caucasian. The other 8% were African American (1%), Asian American (2%), Hispanic (2%), Native American (1%), half Caucasian and half African American (1%), and one did not report her ethnicity (1%). Eighty-two percent of the women were single, 14% were married, and 4% were divorced. They reported a mean of 4.4 ($SD = 2.1$) siblings in their families of origin, with a range of 1 to 10 children in the family.

Per daughters' report, 32% of their mothers did not work as they were growing up. Of the 58% of mothers who did work, the mean age of daughters when their mother began working was 6.9 years of age ($SD = 4.71$). Fifty-seven percent worked full-time and 43% worked part-time when their daughters were growing up. Twenty percent of the women reported that they grew up in a city, 46% reported that they lived in the suburbs, 33% reported living on a farm, and one did not report where she grew up. Of those who resided in a rural area, 31% lived on a farm (10% of the total sample). At the time of the study, 88% of the women were not living at home and 12% were still living with their parents. Eighty-four percent of the women reported that their father resided with them when they were growing up, with 16% of the women reporting the absence of their father in the home.

The mothers' mean age was 47.4 years ($SD = 6.3$) with a range of 38 to 63.

Mothers were asked to estimate their income when their daughter was between the age of 12 and 14. The median income reported was \$38,000 with a mean of \$47,655 ($SD = \$29,749$, range \$10,000 - \$230,000). Four mothers left that item blank. The ethnic background of the mothers paralleled that of the daughters' reported ethnic background. Eighty-three percent of the mothers reported that they were married, 16% reported that they were divorced, and 1% reported single as her marital status. Eleven percent of the mothers reported that they had a health condition that impacted their diet. The health condition reported was primarily food allergies. Two percent of the mothers reported that they had struggled with an eating disorder.

Procedures

Participants who met the criteria for one of the groups were contacted by telephone and invited to participate in the study (Appendix C). Women willing to participate then completed a consent form (Appendix D), a demographic questionnaire (Appendix E), the additional self-report measures, and they provided their mothers' name, address, and telephone number to the researcher. Their names were placed in a drawing for \$50 and they received a body lotion or a bag of potpourri for their participation. They completed the assessment in the USU Psychology Community Clinic under the supervision of the researcher or a trained assistant, or the questionnaires were sent to their home. The measures included the Anorexia Bulimia Inventory (ABI), two subscales from the Eating Disorder Inventory (EDI; drive for thinness and body dissatisfaction), the Family Environment Scale (FES), the Maternal Food Control and

Meal Preparation Scale (MFCMP), and the Marlowe-Crowne Social Desirability Scale (MCSD).

Their mothers were sent a similar packet of self-report measures, including an introduction letter (Appendix F), a detailed consent form (Appendix G), a demographic questionnaire (Appendix H), and an entry ticket into a drawing along with a 2-year calendar as an incentive to complete the measures. After 3 weeks, mothers who did not respond were contacted by telephone. If they did not return the questionnaires after an additional month, reminder postcards were sent. A final telephone call was made after a month and a half to encourage them to participate. All of the mothers agreed to participate verbally on the phone; however, 15.9% (14 of the 88 mothers) still did not return the questionnaires.

Assessment

The participants were assessed on demographic variables to describe the participants and to understand some of the factors that may affect food choices (Appendices E and H). All of the measures administered to both daughters and mothers were counterbalanced by alternating the order of administration.

The areas that were assessed in this study included: the number of maladaptive eating attitudes and behaviors, along with overall weight satisfaction of the daughter and her mother (ABI and EDI - drive for thinness and body dissatisfaction subscales); the degree of dietary restraint and disinhibition reported by both mother and daughter (TFEQ); the degree of familial control perceived and reported by daughters and reported by mothers (FES); the extent of mothers' control over food (MFCMP); mothers' and

daughters' reports of mothers' healthy eating attitudes and behaviors (MFCMP); and mothers' and daughters' tendency to respond in a socially desirable manner (MCSD) .

Anorexia Bulimia Inventory

The Anorexia-Bulimia Inventory (ABI; Stein, 1991a) was used as a measure of both mothers' and daughters' anorexic and bulimic symptoms and behaviors. The ABI is a 75-item self-report inventory that assesses both anorexia and bulimia symptomology, as well as depression, anxiety, maladaptive cognitions about dieting, lack of influence/control with parents, physical exercise, purging, and anergia. For each of the ABI items the participants indicate the frequency that they exhibit the behavior on a 4-point Likert scale ("1" Never to "4" Very Often). The nine subscales of the ABI include: bingeing, anorexia, parent conflict, anergia, depressed mood, anxiety, maladaptive cognitions, purging, and exercise. The subscales have moderate to excellent internal consistency, ranging from .64 to .94. The test-retest reliabilities for the subscales remain quite stable over a 4- to 6-week period, ranging from .63 to .80. Additionally, the subscales of the ABI appear to have good concurrent and predictive validity (Appendix I).

Eating Disorder Inventory

The Eating Disorder Inventory (EDI; Garner, Olmstead, & Polivy, 1983; Garner & Olmstead, 1984) is a 64-item self-report measure that assesses cognitive and behavioral aspects of bulimia and anorexia. The original EDI contained eight clinically derived subscales: (a) drive for thinness, (b) bulimia, (c) anorexia, (d) body dissatisfaction, (e) ineffectiveness, (f) perfectionism, (g) interpersonal distrust, (h)

interceptive awareness, and (i) maturity fears. The EDI was originally standardized on women with bulimia, anorexia, obesity, former obesity, and normal college women and men (Polivy & Herman, 1987). Internal consistency reliability of the subscales are all above .80, and there is a modest degree of internal consistency among the scales ($r = .63$). Expert ratings were used to evaluate criterion validity of the scales (correlations ranged from .43 to .68). Although Garner (1991) revised the EDI by adding 27 additional items to form three new constructs (asceticism, impulse regulation, and social insecurity), forming the EDI-2, the original eight subscales remain the same.

Due to the number of measures being given to the participants, two of the eight original subscales from the EDI were included (Appendix J). They were the drive for thinness subscale and the body dissatisfaction subscale. Stein (1991b) examined whether an abbreviated version of the EDI (the drive for thinness subscale, the body dissatisfaction subscale, and the interceptive awareness) altered the pattern of responding in adolescent girls. The girls were randomly mailed either the full EDI inventory or just the three subscales, presented consecutively. He found that the mean scores and the variance for each sample were not statistically different on any of the subscales. Thus, this finding suggests that the order of presentation and abbreviated format do not alter young women's responses. Stice and colleagues (1999) also assessed disordered eating with selected subscales of the EDI. Consequently, to reduce redundancy in questions in the ABI and the EDI and the time necessary to complete the measures, only the two aforementioned subscales were completed by the participants.

Three-Factor Eating Questionnaire

The Three-Factor Eating Questionnaire (TFEQ; Stunkard & Messick, 1985) was used in this study as an initial screening of dieting behavior and then to assess the extent to which the mothers and their daughters use dietary restraint as a weight loss strategy. This questionnaire is a 51-item, self-report assessment that measures three factors associated with dietary restraint, namely: (a) cognitive restraint of eating, (b) disinhibition, and (c) hunger. The first two scales each discriminate significantly between dieters and “free eaters” beyond the .001 level; thus it was deemed an adequate test to administer in the initial recruitment phase to determine the three noneating-disordered groups. Reliabilities of the subscales range from $r = .85$ to $r = .92$. Furthermore, Veron-Guidry et al. (1994) defined symptomatic control groups for both anorexia and bulimia with the TFEQ. They found that symptomatic control groups can be formed using high or low scores (above the 67th percentile and below the 33rd percentile) on the dietary restraint and disinhibition subscales of the TFEQ. They reported that an appropriate symptomatic control group for anorexics are those who endorse a high-restraint/low-disinhibition profile. For bulimics, they reported that the most appropriate symptomatic control group were the participants that indicate high-restraint/high-disinhibition (Appendix K).

Family Environment Scale--Form R

The Family Environment Scale--Form R (FES-R; Moos & Moos, 1974) is a 90-item, self-report measure that assesses the social environment of all types of families (Appendix L). The FES-R includes 10 subscales that are described in the literature

review. The subscales form three dimensions: the Relationship Dimension (cohesion, expressiveness, and conflict); Personal Growth Dimension (independence, achievement orientation, intellectual-cultural orientation, active-recreational orientation, and moral-religious emphasis); and the System Maintenance Dimension (organization and control). The internal consistency of the subscales ranges from $\underline{r} = .61$ to $\underline{r} = .78$. Test-retest reliabilities range from $\underline{r} = .68$ to $\underline{r} = .86$ at 2 months, and at 4 months from $\underline{r} = .54$ to $\underline{r} = .91$ (Moos & Moos, 1994). Due to the retrospective nature of this study, the long-term stability of this measure is particularly important. The stability is fair to adequate for most of the subscales on intervals of 1 year ($\underline{r} = .53$ to $\underline{r} = .84$), 3-4 years ($\underline{r} = .51$ to $\underline{r} = .77$), 6 years ($\underline{r} = .45$ to $\underline{r} = .81$), and even 9-10 years ($\underline{r} = .38$ to $\underline{r} = .77$). It is important to note that the $\underline{r} = .38$ at 9-10 years was obtained on the independence subscale, which would be likely to change over a 10-year period (i.e., when children age 10 years, they should be obtaining more independence from their parents).

Maternal Food Control and Meal Preparation

The Maternal Food Control and Meal Preparation assessment (MFCMP; Appendix M) measures the control of food in the home as well as health-conscious attitudes of mothers. Appendix N contains the mothers' version of the MFCMP. A previously developed measure assessing these variables was not identified in the literature; consequently, a measure was developed by the researcher for this study. Initially, 52 self-report items were generated to assess these variables per daughter's reports of her experiences growing up and mother's reports of her attitudes and behaviors when she was raising her children. In the development of this measure, 214 females

(mean age 22.95, SD = 5.6) completed the MFCMP. Factor analysis with varimax rotation revealed five stable factors (Appendix O). The internal consistency of the factors were as follows: mother's anxieties about children's eating practices ($r = .76$), mother's meal preparation/behavior ($r = .75$), availability of treats and junk food in the home ($r = .73$), mother's concerns with calories/fat ($r = .69$), and mother's use of health foods and vitamins ($r = .74$).

Marlowe-Crowne Social Desirability Scale

The Marlowe-Crowne Social Desirability Scale (MCSD; Crowne & Marlowe, 1960) is a 33-item self-report measure designed to assess the report of (a) desirable but uncommon behaviors, and (b) undesirable but common behaviors. Paulhus (1991) reported that the MCSD scale is well supported as a measure of situational demand, but this does not necessarily imply that the participant "consciously" modified their self-presentations. Internal consistency from studies with various samples range from .73 to .88, and test-retest correlations were .88 at over 1 month. The measure can be found in Appendix P.

CHAPTER V

RESULTS

The question of whether a relationship exists between maternal control, specifically food control, and daughters' eating disorder symptomology was the primary focus of this study. Mothers and daughters completed several self-report measures of eating disorder behaviors, familial control, and maternal food control behaviors. Relationships between specific anorexic behaviors, specific bulimic behaviors, and behaviors characteristic of both disorders and daughters' perceived control and mothers' reported control were explored with correlations and regression analyses that are described in this chapter.

Preliminary Analyses

Daughters' Tendency to Respond in a Socially Desirable Manner

To address whether the tendency to respond in a socially desirable manner correlated with daughters' reported symptoms, Pearson product-moment correlations were calculated. It is important to recognize whether those with versus those without eating disorder symptoms tend to portray themselves and possibly their families in a socially desirable manner. If individuals are presenting in a socially desirable manner, this necessitates consideration in the interpretation of the results.

Table 2 contains the correlations between daughters' reported eating disorder symptoms and their scores on the MCSD. A significant inverse relationship was revealed between daughters' anorexic symptoms reported on the ABI anorexia subscale

Table 2

Pearson Product-Moment Correlation Coefficients of Daughters' Eating Disorder Symptomology, Perception of Family and Food Control, and Social Desirability Response Set

Symptoms	Daughter social desirability response set (MCSD)
Anorexic symptoms	
ABI anorexia	-.33*
TFEQ restraint	-.15
EDI drive for thinness	-.37**
Bulimic symptoms	
ABI combined	-.53**
ABI bingeing	-.54**
ABI purging	-.40**
ABI compensatory behavior	-.30*
TFEQ disinhibition	-.43**
Symptoms characteristic of both eating disorders	
EDI body dissatisfaction	-.42**
ABI exercising	-.10
Control Dimensions	
FES control	-.13
MFCMP Factor 1	.03
MFCMP Factor 2	.35**
MFCMP Factor 3	.17
MFCMP Factor 4	.32*
MFCMP Factor 5	.08

Note. MCSD = Marlowe-Crowne Social Desirability Scale; FES control = Family Environment Scale's control subscale; MFCMP = Maternal Food Control and Meal Preparation; Factor 1 = mother's anxieties about children's eating practices; Factor 2 = mother's meal preparation/behavior; Factor 3 = availability of treats and junk food in the home; Factor 4 = mother's concerns with calories/fat; Factor 5 = mother's use of health foods and vitamins; ABI combined bulimia score = Anorexia Bulimia Inventory purging subscale score + bingeing subscale score; ABI compensatory behavior = Anorexia Bulimia purging subscale score + exercising subscale score. Sample Size: $N = 88$.
* $p \leq .05$. ** $p \leq .001$.

and their tendency to respond in a socially desirable manner ($r = -.33, p \leq .05$). That is, daughters' increased report of anorexic symptoms tended to correspond to the likelihood that they were willing to avow symptoms, rather than answering in a socially desirable manner. Similarly, an inverse relationship was revealed between daughters' EDI drive for thinness subscale scores and their tendency to respond in a socially desirable manner ($r = -.37, p \leq .05$).

Of all the subscales used to measure daughters' reported bulimic symptoms, the scores were inversely correlated with daughters' reported MCSD score. Again, this finding indicated that daughters' increased report of bulimic behaviors decreased the likelihood that they responded in a socially desirable style. Similarly, regarding symptoms characteristic of both disorders, daughters' scores on the EDI body dissatisfaction subscale were inversely related to their MCSD score ($r = -.42, p \leq .001$).

Of the subscales that assessed daughters' perceived general familial control and food control, two of the six were positively correlated with their reports on the MCSD. Factor 2 of the MFCMP, which assessed mothers' concern with healthy meal preparation, was positively related to answering in a socially desirable manner ($r = .35, p \leq .001$). That is, the more daughters reported that their mothers were concerned with healthy meal preparation, the more likely they were to be responding in a socially desirable manner. Likewise, Factor 4 of the MFCMP, which evaluated mothers' concern with calories and fat, was positively associated with a socially desirable response set ($r = .32, p \leq .05$). This again indicates that the more daughters reported that their mothers were concerned with fat and calorie content, the more likely they were to be responding in a socially desirable manner.

Overall, most of the subscales measuring eating disorder symptomology corresponded inversely with social desirability. This indicates that women who avowed eating disorder symptoms tended not to endorse socially desirable responses where women who did not avow eating disorder symptoms tended to endorse socially desirable responses. For women with eating disorder symptoms, this response set may indicate a willingness to avow their problems as well as a possible tendency toward being more self-critical and open than those not reporting high levels of eating disorder symptomology. Conversely, positive correlations were indicated between two of the MFCMP factor scores and social desirability scores. Thus, a constraint to be considered when interpreting the results of the present study is whether daughters' perception of maternal concern with calories and fat and healthy eating has validity; or whether daughters' retrospective responses could be accounted for, or influenced by social demands to endorse these types of behaviors.

Maternal Food Control and Eating Disorder Symptoms

It was speculated that mothers' eating disorder symptoms would be related to their reports of familial control over their daughters' behaviors, controlling food in the home, and with healthy eating attitudes and behaviors. However, as can be seen in Table 3, there were few significant correlations between mothers' reported eating disorder symptoms and personal avowal of their historical tendency to strictly control familial eating behavior and food.

There was a positive relationship between mothers' reported anorexic symptomology, measured by the ABI anorexia subscale, and the MFCMP Factor 5,

Table 3

Pearson Product-Moment Correlation Coefficients of Mothers' Eating Disorder
Symptomology and Family Control, Food Control, and Health-Conscious Eating
Attitudes

Mothers' ED symptoms	* MFCMP--Mothers report form					
	FES control	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Anorexic symptoms						
ABI anorexia	-.00	.21	-.07	-.10	.16	.33*
TFEQ restraint	.16	.30*	.14	.04	.23*	.12
EDI drive for thinness	-.08	.03	-.17	-.05	.17	.08
Bulimic symptoms						
ABI combined	.12	.06	-.15	-.05	.11	.13
ABI binging	.12	.09	-.13	.03	.10	.14
ABI purging	.08	-.04	-.12	-.20	.10	.07
ABI compensatory behavior	.18	.15	-.19	-.13	.08	.10
TFEQ disinhibition	.05	-.01	-.01	-.06	.19	-.01
Symptoms characteristic of both ED						
EDI body dissatisfaction	-.05	.10	-.09	.09	.17	.21
ABI exercising	.08	.23*	-.17	-.04	.04	.08

Note. MFCMP = Maternal Food Control and Meal Preparation; Factor 1 = mother's anxieties about children's eating practices; Factor 2 = mother's meal preparation/behavior; Factor 3 = availability of treats and junk food in the home; Factor 4 = mother's concerns with calories/fat; Factor 5 = mother's use of health foods and vitamins; ABI combined = Anorexia Bulimia Inventory purging subscale score + binging subscale score; ABI compensatory behavior = Anorexia Bulimia Inventory purging subscale score + exercising subscale score.

Sample Size: $N = 74$.

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

which measures mothers' tendency to buy and prepare health food products ($r = .33, p \leq .05$). Similarly, mothers' scores on the measure of personal dietary restriction (TFEQ restraint subscale) were positively correlated with both Factor 1 ($r = .30, p \leq .05$) and Factor 4 ($r = .23, p \leq .05$) of the MFCMP. This suggests that mothers' degree of personally avowed food restriction tended to correlate with their anxieties about their children's eating practices, and monitoring their children's calorie and fat content. Lastly, mothers' reported tendency to exercise also corresponded with their anxieties about their children's healthy eating practices, Factor 1 of the MFCMP ($r = .23, p \leq .05$).

Maternal Food Control and General Parental Control

To address the question posed in Figure 1 (whether specific food and diet control attitudes and behaviors are idiosyncratic or part of a general overcontrolling parental style), correlations were calculated between mothers' and daughters' reports on the FES control subscale and the five factors of the MFCMP. Yet, as can be seen in Table 4, neither mothers' nor daughters' reports of familial control corresponded to mothers' or daughters' reports of maternal food control in the home and health-conscious eating attitudes. Thus, these findings suggest that maternal food control and health-conscious attitudes toward food may be idiosyncratic to general familial control.

Mothers' and Daughters' Perceptions of Control

Correlations were calculated between mothers' self-reported familial control, food control, health food attitudes, and daughters' reports on corresponding measures. Table 5

Table 4

Pearson Product-Moment Correlation Coefficients of Mothers' and Daughters' Perception of Family Control, Food Control, and Health-Conscious Eating Attitudes

MFCMP scores	FES control subscale	
	Daughters' scores	Mothers' scores
Mothers' reports on the MFCMP		
Factor 1	.03	.18
Factor 2	.12	.16
Factor 3	.06	.03
Factor 4	-.18	.15
Factor 5	.21	.12
Daughters' reports on the MFCMP		
Factor 1	.16	.01
Factor 2	.07	.05
Factor 3	-.05	.03
Factor 4	-.10	.00
Factor 5	.01	-.11

Note. MFCMP = Maternal Food Control and Meal Preparation - Mothers' Report Form; Factor 1 = mother's anxieties about children's eating practices; Factor 2 = mother's meal preparation/behavior; Factor 3 = availability of treats and junk food in the home; Factor 4 = mother's concerns with calories/fat; Factor 5 = mother's use of health foods and vitamins; FES = Family Environment Scale.
Sample Size: $N = 74$.

Table 5

Pearson Product-Moment Correlation Coefficients Between Mothers' Eating Disorder Symptomology and Family Control, Food Control, and Health-Conscious Eating Attitudes

Daughters' report	MFCMP – Mothers' report form					
	FES control	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
FES control	.14	.03	.12	.05	-.18	.21
MFCMP Factor 1	.01	.30*	.22	.12	.11	.15
MFCMP Factor 2	.05	.18	.47**	.02	.02	.11
MFCMP Factor 3	.03	.25*	.19	.34*	-.04	.08
MFCMP Factor 4	.00	.17	.28*	.01	.17	.10
MFCMP Factor 5	-.11	.11	.28*	.02	.18	.37**

Note. MFCMP = Maternal Food Control and Meal Preparation; Factor 1 = mother's anxieties about children's eating practices; Factor 2 = mother's meal preparation/behavior; Factor 3 = availability of treats and junk food in the home; Factor 4 = mother's concerns with calories/fat; Factor 5 = mother's use of health foods and vitamins; FES control = Family Environment Scale's Control subscale.

Sample Size: $N = 73$.

* $p \leq .05$. ** $p \leq .001$.

contains the correlations between mothers' and daughters' scores on the Control subscale of the FES and the five food control factors on the MFCMP. Since mothers' and daughters' reported on the same home environment, the assumption was that their scores would be closely related. Positive statistically significant correlations were revealed between four of the five corresponding factors on the MFCMP for mothers and daughters. That is, mothers' reports on Factor 1 of the MFCMP were positively related to daughters' reports on this same factor ($r = .30, p \leq .05$). A moderate positive relationship was also indicated between mothers' and daughters' reports on Factor 2 of the MFCMP ($r = .47, p \leq .001$). Factors 3 and 5 also revealed significant positive relationships between mothers' and daughters' reports ($r = .34, p \leq .05$ and $r = .37, p \leq .001$, respectively). However, mothers' and daughters' reports were not statistically significant on Factor 4 of the MFCMP and the FES control subscale. That is, mothers and daughters did not recall similar levels of general familial control nor maternal concern with calories and fat.

Interestingly, daughters' scores on Factor 4 and mothers' scores on Factor 2 were positively related ($r = .28, p \leq .05$). That is, daughters' perception of their mothers' concern with calorie and fat content was related to mothers' reports of their concern with healthy meal preparation. Likewise, maternal reports of healthy meal preparation (Factor 2) were positively related to daughters' perception that their mother cooked with health foods and encouraged vitamin use (Factor 5, $r = .28, p \leq .05$). A positive, statistically significant relationship was also revealed between daughters' perception of availability of treats and junk food in the home and mothers' reports of her anxieties regarding her children's eating practices ($r = .25, p \leq .05$). Overall, there was a moderate amount of

consistency between mothers' and daughters' reports on food control in the home, but not general familial control.

Primary Analyses

Pearson product-moment correlation coefficients were calculated to investigate daughters' eating disorder symptomology and daughters' perception of their mothers' tendency to be controlling with food and the level of familial control present in the home.

Likewise, Pearson product-moment correlation coefficients were calculated to investigate daughters' eating disorder symptomology and their mothers' reported family and food control. The Research Hypotheses section outlines the hypotheses that a relationship exists between the aforementioned variables with the expected relationships indicated in Table 1. However, two-tailed correlation analyses were computed, as study of the relationship between general family control, specific maternal food control, and eating disorders was considered exploratory.

Hypothesis 1: Daughters' Eating Disorder Symptomology and Perceived Familial Control

To address the question of whether daughters' reported eating disorder symptomology was related to their perception of familial control, Pearson product-moment correlation coefficients were calculated between several subscales measuring specific anorexic symptomology, specific bulimic symptomology, eating disorder symptomology characteristic of both disorders, and the FES control subscale. As is described in Table 6, daughters' reported eating disorder symptoms were related to their perception of general familial control.

Table 6

Pearson Product-Moment Correlation Coefficients Between Daughters' Eating Disorder Symptomology and Perceived Familial Control

ED symptoms	FES control
Anorexic symptoms	
ABI anorexia	.33**
TFEQ restraint	.28**
EDI drive for thinness	.34***
Bulimic symptoms	
ABI combined	.33**
ABI bingeing	.25*
ABI purging	.35***
ABI compensatory behavior	.35***
TFEQ disinhibition	.24*
Symptoms characteristic of both ED	
EDI body dissatisfaction	.24*
ABI exercising	.26*

Note. FES control = Family Environment Scale control Subscale score; ABI combined bulimia score = Anorexia Bulimia Inventory purging subscale score + bingeing subscale score; ABI compensatory behavior score = Anorexia Bulimia purging subscale score + exercising subscale score.

Sample Size: $N = 87$, one woman did not complete the entire FES.

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Inspection of Table 6 reveals several statistically significant relationships. As was hypothesized, daughters' anorexic symptoms corresponded to higher levels of perceived familial control. This finding was true for the symptoms that they reported on the ABI anorexia subscale ($r = .33, p \leq .01$), the TFEQ restraint subscale ($r = .28, p \leq .01$), and the EDI drive for thinness subscale ($r = .34, p \leq .001$).

Though not specifically hypothesized, a similar, positive relationship was found between daughters' reports of bulimic symptoms and perceived familial control. The analyses revealed that women who indicated higher levels of bulimic symptoms, measured by the ABI bingeing and purging subscales and the TFEQ disinhibition subscale, also tended to describe higher levels of perceived familial control. This finding was true for the individual subscales of the ABI measuring bingeing ($r = .25, p < .05$) and purging behaviors ($r = .35, p < .001$) as well as a combination of these subscales ($r = .33, p < .01$). A more global index of compensatory behaviors for bingeing commonly observed in bulimia was more completely considered by combining the ABI purging and exercising subscales. The combination of these subscales revealed a positive relationship between compensatory behaviors and perceived familial control ($r = .35, p < .001$).

Lastly, symptoms that are common to both eating disorders were examined in relationship to perceived familial control. Again, a positive relationship was found between the daughters' reported body dissatisfaction and perceived familial control ($r = .24, p < .05$). That is, the more dissatisfied a woman reported she was with her body, the more likely she was to describe a higher level of perceived familial control. Likewise, exercising is often noted as a symptom of both anorexia and bulimia and was, therefore,

also examined in this category. A positive relationship was indicated between the ABI exercising subscale scores and the FES control subscale scores ($r = .26, p \leq .05$). That is, daughters who reported higher levels of exercising tended to report greater levels of perceived familial control.

Hypothesis 2: Daughters' Eating Disorder Symptomology and Mothers' Reports of Familial Control

To examine whether daughters' reported eating disorder symptomology was related to their mothers' reports of familial control, Pearson product-moment correlation coefficients were computed between several subscales measuring specific anorexic symptomology, specific bulimic symptomology, eating disorder symptomology characteristic of both disorders, and their mothers' scores on the FES control subscale. As displayed in Table 7, daughters' reported eating disorder symptoms were not related to their mothers' reports of general familial control.

Similar to the hypothesized relationship between daughters' reported anorexic symptomology and perceived familial control, it was expected that there would be a positive relationship between daughters' reported anorexic symptomology and their mothers' reported control in the family. However, there were no statistically significant relationships between daughters' eating disorder symptomology and mothers' reported control in the family. An inverse relationship was anticipated between daughters' reports of bulimic symptoms and their mothers' reports of familial control. Again, no statistically significant relationships were indicated between the mothers' reports of control and the several subscales measuring daughters' bulimic behaviors. Lastly, neither

Table 7

Pearson Product-Moment Correlation Coefficients Between Daughters' Eating Disorder Symptomology and Mothers' Reports of Family Control

ED symptoms	Mothers' FES control
Anorexic symptoms	
ABI anorexia	-.10
TFEQ restraint	.05
EDI drive for thinness	-.01
Bulimic symptoms	
ABI combined	.01
ABI bingeing	.05
ABI purging	-.03
ABI compensatory behavior	-.01
TFEQ disinhibition	.09
Symptoms characteristic of both ED	
EDI body dissatisfaction	.03
ABI exercising	.01

Note. FES control = Family Environment Scale control subscale score; ABI combined bulimia score = Anorexia Bulimia Inventory purging subscale score + bingeing subscale score; ABI compensatory behavior score = Anorexia Bulimia Inventory purging subscale score + exercising subscale score.

Sample Size: N = 74.

of the subscales characteristic of both eating disorders, body dissatisfaction and exercising, was related to mothers' reports of her familial control. These findings are consistent with the aforementioned lack of correspondence between mother and daughter perceptions of familial control, measured by the FES control subscale. Together these findings indicate that there is a considerable discrepancy between mothers' and daughters' perception of familial control present in the family.

Hypothesis 3: Daughters' Eating Disorder Symptomology and Perceived Maternal Food Control

To explore whether daughters' reported eating disorder symptomology was related to their perception of maternal food control in the home (by limiting or restricting food choices), Pearson product-moment correlation coefficients were computed between several subscales measuring specific anorexic symptomology, specific bulimic symptomology, eating disorder symptomology characteristic of both disorders, and their scores on two of the MFCMP subscales. Factor 2 (mother's meal preparation/behavior) and Factor 3 (availability of treats and junk food in the home) on the MFCMP were used to address daughters' perception of maternal food control in the home. A positive relationship was expected between daughters' eating disorder symptomology and their perception of their mothers' food control behaviors in the home. Statistically significant relationships were revealed between daughters' reported eating disorder symptoms and Factor 2 of the MFCMP, but not with Factor 3 (see Table 8).

The ABI's anorexia subscale was inversely correlated with Factor 2 ($r = -.23, p \leq .05$). That is, the more daughters reported anorexic symptoms the less they

Table 8

Pearson Product-Moment Correlation Coefficients Between Daughters' Eating Disorder
Symptomology and Perceived Maternal Food Control and Health-Conscious Eating
Attitudes

ED symptoms	MFCMP				
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Anorexic symptoms					
ABI anorexia	.10	-.23*	-.06	-.21*	.11
TFEQ restraint	.29*	-.01	.18	.15	.12
EDI drive for thinness	.13	-.20	.04	-.16	-.05
Bulimic symptoms					
ABI combined	-.04	-.30**	-.04	-.20	-.09
ABI bingeing	-.12	-.27*	-.08	-.22*	-.11
ABI purging	.05	-.26*	.01	-.14	-.03
ABI compensatory behavior	.11	-.23*	.01	-.04	-.01
TFEQ disinhibition	-.05	-.13	-.08	-.01	-.20
Symptoms characteristic of both ED					
EDI body dissatisfaction	.19	-.14	.07	-.05	-.01
ABI exercising	.17	-.12	-.00	-.00	.01

Note. MFCMP = Maternal Food Control and Meal Preparation; Factor 1 = mother's anxieties about children's eating practices; Factor 2 = mother's meal preparation/behavior; Factor 3 = availability of treats and junk food in the home; Factor 4 = mother's concerns with calories/fat; Factor 5 = mother's use of health foods and vitamins; ABI combined bulimia score = Anorexia Bulimia Inventory purging subscale score + bingeing subscale score; ABI compensatory behavior = Anorexia Bulimia Inventory purging subscale score + exercising subscale score.

Sample Size: $N = 87$.

* $p \leq .05$. ** $p \leq .01$.

perceived their mothers as being concerned with controlling meal preparation. Similar relationships were revealed between the MFCMP Factor 2 and subscales measuring bulimic behaviors. Factor 2 was inversely associated with the ABI bingeing ($r = -.27, p \leq .05$) and purging ($r = -.26, p \leq .05$) subscales as well as the composite scores addressing the two main characteristics of bulimia ($r = -.30, p \leq .01$), and the composite score for compensatory behaviors for bingeing ($r = -.23, p \leq .05$). That is, the more bingeing, purging, and compensatory behaviors reported, the less daughters perceived their mothers as being controlling with food preparation. Neither Factor 2 nor Factor 3 of the MFCMP was associated with the EDI's body dissatisfaction scores and the ABI exercising scores.

A positive correlation was indicated between daughters' scores on the MFCMP Factor 2 and their MCSD scores and an inverse correlation was indicated between daughters' aforementioned ABI subscale scores and the MDSD scores. Consequently, these correlations could explain part of the above findings. Thus, to control for social desirability, partial correlations was computed between daughters' MFCMP Factor 2 scores and the ABI subscales while controlling for their MCSD score. When controlling for daughters' MCSD scores, the relationship between their ABI anorexia scores and their MFCMP Factor 2 scores were not significant ($r = -.14, p \geq .05$). Likewise, when controlling for daughters' MCSD scores, the relationship between daughters' MFCMP Factor 2 scores and their ABI bingeing scores ($r = -.10, p \geq .05$), purging scores ($r = -.15, p \geq .05$), ABI composite bulimic scores ($r = -.14, p \geq .05$), and ABI compensatory behavior scores ($r = -.14, p \geq .05$) was not significant.

Hypothesis 4: Daughters' Eating Disorder Symptomology and Maternal Report of Food Control

To determine whether daughters' reported eating disorder symptomology was related to their mothers' reports of their food control in the home (by limiting or restricting food choices), Pearson product-moment correlation coefficients were computed between several subscales measuring specific anorexic symptomology, specific bulimic symptomology, eating disorder symptomology characteristic of both disorders, and their mothers' scores on two of the MFCMP subscales. Again, mothers' reports on the MFCMP Factor 2 (mother's meal preparation/behavior) and Factor 3 (availability of treats and junk food in the home) were used to address the mothers' perception of maternal food control behavior in the home.

Table 9 contains the correlations between daughters' reported eating disorder symptoms and maternal perception of her food control behaviors in the home. Similar to the lack of relationship found between daughters' reports on the MFCMP Factor 3 and anorexic and bulimic symptomology was the lack of relationship between mothers' reports on Factor 3 and symptomology, that is, no statistically significant relationships were indicated. Unlike the statistically significant relationships revealed between daughters' reports on the MFCMP Factor 2 scores and eating disorder symptomology, no statistically significant relationships were revealed between mothers' reports on Factor 2 and daughters' specific anorexic and bulimic symptomology. This is surprising given that there was a statistically significant moderate correlation between daughters' reports on Factor 2 and mothers' reports on Factor 2 of the MFCMP ($r = .47, p \leq .001$).

Table 9

Pearson Product-Moment Correlation Coefficients Between Daughters' Eating Disorder Symptomatology and Mothers' Reports of Maternal Food Control and Health-Conscious Eating Attitudes

Daughters' ED symptoms	Mothers' MFCMP scores				
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Anorexic symptoms					
ABI anorexia	-.26*	-.13	-.15	-.05	.04
TFEQ restraint	.07	-.01	.13	-.02	-.04
EDI drive for thinness	-.00	-.17	-.05	.17	.08
Bulimic symptoms					
ABI combined	.01	-.16	.01	-.16	.20
ABI bingeing	.04	-.21	.03	-.13	.22
ABI purging	-.03	-.06	-.02	-.14	.13
ABI compensatory behavior	.02	-.04	.06	-.14	.10
TFEQ disinhibition	.10	-.16	.17	-.13	.19
Symptoms characteristic of both ED					
EDI body dissatisfaction	.02	-.09	.17	.17	.21
ABI exercising	.08	-.01	.16	-.10	.04

Note. MFCMP = Maternal Food Control and Meal Preparation; Factor 1 = mother's anxieties about children's eating practices; Factor 2 = mother's meal preparation/behavior; Factor 3 = availability of treats and junk food in the home; Factor 4 = mother's concerns with calories/fat; Factor 5 = mother's use of health foods and vitamins; ABI combined bulimia score = Anorexia Bulimia Inventory purging subscale score + bingeing subscale score; ABI compensatory behavior = Anorexia Bulimia Inventory purging subscale score + exercising subscale score.

Sample Size: $N = 74$.

* $p < .05$.

Hypothesis 5: Daughters' Eating Disorder Symptomology and Perceived Maternal Health-Conscious Eating Attitudes

The relationship of daughters' reported eating disorder symptomology and their perception of their mothers' health-conscious attitudes toward eating were examined with Pearson product-moment correlation coefficients between several subscales measuring the specific and general eating disorder symptomology, and their scores on three of the MFCMP subscales. Table 8 contains the correlations between specific anorexic symptomology, specific bulimic symptomology, eating disorder symptomology characteristic of both disorders, and Factor 1 (mother's anxieties about children's eating practices), Factor 4 (mother's concerns with calories/fat), and Factor 5 (mother's use of health foods and vitamins) of the MFCMP.

Positive relationships were expected between the daughters' reported anorexic symptomology and the aforementioned MFCMP factors. A significant relationship was indicated between daughters' reports on the TFEQ's restraint subscale and Factor 1 of the MFCMP ($r = .29, p \leq .05$), which evaluated maternal anxieties regarding tempting food around the house as well as ensuring that their children ate healthy. Conversely, the ABI's anorexia subscale was inversely correlated with Factor 4 ($r = -.21, p \leq .05$). That is, the more daughters reported anorexic symptoms the less they perceived their mothers as concerned with calorie and fat content. However, because daughters' MCSD scores were inversely related to their ABI anorexia score and positively related to their MFCMP Factor 4 scores, a partial correlation was computed. When controlling for social desirability, a significant relationship was not indicated between daughters' reports on the ABI anorexia subscale and the MFCMP Factor 4 subscale ($r = -.12, p \geq .05$). Factor 5

of the MFCMP (the purchasing and use of health foods and encouragement of vitamins) was not associated with any of the subscales assessing anorexic symptomology.

Similarly, positive relationships were predicted between bulimic symptomology and the aforementioned MFCMP factors. Bulimic symptomology addressed by the ABI subscales and the TFEQ disinhibition subscale were not associated with Factor 1 nor Factor 5 of the MFCMP. However, Factor 4 was inversely associated with the ABI's bingeing subscale ($r = -.22, p \leq .05$). That is, the more bingeing behaviors reported, the less daughters perceived their mothers as being concerned with the calorie and fat content of their children's diet. Again, however, daughters' MCSD scores were inversely related to their reports on the ABI bingeing subscale and positively related to their reports on the MFCMP Factor 4. Consequently, a partial correlation was computed. When controlling for social desirability, there was no significant relationship between daughters' reports on the ABI bingeing subscale and the MFCMP Factor 4 ($r = -.06, p \geq .05$).

Again, positive relationships were expected between general eating disorder symptoms and the three aforementioned MFCMP factors. No relationships were indicated between the EDI body dissatisfaction subscale and the MFCMP factors nor between the ABI exercising subscale and those factors.

Hypothesis 6: Daughters' Eating Disorder Symptomology and Maternal Report of Health-Conscious Eating Attitudes

To evaluate whether there was a relationship between daughters' reported eating disorder symptomology and their mothers' reported health-conscious attitudes toward eating, Pearson product-moment correlation coefficients between several subscales

measuring the specific and general eating disorder symptomology, and their scores on three MFCMP factors were computed. Table 9 contains the correlations between specific anorexic symptomology, specific bulimic symptomology, eating disorder symptomology characteristic of both disorders, and their mothers' reports on Factor 1 (mother's anxieties about children's eating practices), Factor 4 (mother's concerns with calories/fat), and Factor 5 (mother's use of health foods and vitamins) of the MFCMP.

Positive relationships were expected between the specific and the general eating disorder symptomology and the factors measuring mothers' reported health-conscious attitudes toward eating. The only statistically significant correlation revealed was between daughters' reported anorexic symptomology (ABI anorexia subscale) and their mothers' reports on MFCMP Factor 1 ($r = -.26, p \leq .05$), which assesses maternal anxieties regarding their children's healthy eating practices. Thus, the more anorexic symptomology reported by daughters, the less their mothers reported anxiety about unhealthy foods around the house and efforts to ensure their daughters ate healthy. Interestingly, daughters' reports on the MFCMP Factor 1 were positively associated with daughters' reports on the TFEQ restraint subscale but not with their scores on the ABI anorexia subscale.

Hypothesis 7: Daughters' Eating Disorder Symptomology and Mothers' Eating Disorder Symptomology

To determine if a positive relationship exists between daughters' reported eating disorder symptomology and their mothers' reported eating disorder symptomology, Pearson product-moment correlation coefficients were computed between daughters'

reported specific and general eating disorder symptomology and their mothers' reports on the same subscales. Table 10 contains the correlations between mothers' and daughters' symptomology. There were several statistically significant positive relationships between mothers' and daughters' anorexic, bulimic, and general eating disorder symptoms.

Several of the daughters' reported anorexic symptomology were associated with their mothers' reported anorexic and bulimic symptomology. Similarly, daughters' reported bulimic symptoms were associated with both mothers' reported anorexic and bulimic symptoms.

Mothers' and daughters' scores on most of the ABI subscales assessing specific anorexic and bulimic symptoms correlated modestly with one another. However, daughters' reports on the EDI drive for thinness did not reveal a statistically significant relationship with mothers' reports on this subscale. Yet, daughters' scores on this subscale did correlate with mothers' ABI anorexia subscale ($r = .25, p \leq .05$) and Combined Bulimic behaviors subscale ($r = .23, p \leq .05$). Similarly, daughters' scores on the TFEQ disinhibition subscale did not correlate with their mothers' reports on this subscale. However, there was a positive, statistically significant relationship between daughters' TFEQ disinhibition scores and mothers' EDI body dissatisfaction scores. Daughters' eating disorder symptoms characteristic of both disorders tended to correlate with mothers' anorexic, bulimic, and general symptoms. In particular, daughters' score on the EDI body dissatisfaction questionnaire tended to increase with mothers' increasing scores on the ABI anorexia subscale ($r = .26, p \leq .05$); the EDI drive for thinness subscale ($r = .26, p \leq .05$); ABI combined bulimia score ($r = .26, p \leq .05$); ABI purging subscale ($r = .25, p \leq .05$); ABI compensatory behavior score ($r = .23, p \leq .05$); and the EDI body

Table 10

Pearson Product-Moment Correlation Coefficients of Mothers' and Daughters' Eating Disorder Symptomology

Daughters ED symptoms	Mothers' ED symptoms									
	Anorexia symptoms				Bulimic symptoms				General symptoms	
	1	2	3	4	5	6	7	8	9	10
Anorexia										
1. ABI AN	.25*	-.06	.27*	.33*	.27*	.31*	.19	.21	.13	.04
2. TFEQ RS	.21	.19	.23*	.31*	.27*	.27*	.29*	.20	.23*	.21
3. EDI DT	.25*	.07	.14	.23*	.18	.22	.14	-.00	.04	.04
Bulimia										
4. ABI Comb	.28*	-.04	.14	.24*	.20	.21	.13	.06	.16	.02
5. ABI Bing	.20	-.07	.11	.16	.18	.06	.02	.07	.27*	-.02
6. ABI Purg	.31*	-.01	.12	.27*	.18	.32*	.22	.03	.00	.07
7. ABI Comp	.28*	.07	.12	.25*	.17	.32*	.26*	-.03	-.04	.12
8. TFEQ Dis	.11	-.07	.03	.10	.16	-.07	-.04	.09	.30*	-.01
General										
9. EDI BD	.26*	.22	.26*	.26*	.21	.25*	.23*	.14	.26*	.13
10. ABI Excer	.17	.16	.08	.17	.10	.24*	.25*	-.09	-.09	.16

Note. 1. ABI AN = Anorexia Bulimia Inventory anorexia subscale; 2. TFEQ RS = Three-Factor Eating Questionnaire restraint subscale; 3. EDI DT - Eating Disorder Inventory drive for thinness subscale; 4. ABI Comb = Anorexia Bulimia Inventory combined bulimia score = ABI purging subscale score + ABI bingeing subscale score; 5. ABI Bing = Anorexia Bulimia Inventory bingeing subscale; 6. ABI Purg = Anorexia Bulimia Inventory purging subscale; 7. ABI Comp = Anorexia Bulimia Inventory compensatory behavior score = ABI purging subscale score + ABI exercising subscale score; 8. TFEQ Dis = Three-Factor Eating Questionnaire disinhibition subscale; 9. EDI BD = Eating Disorder Inventory body dissatisfaction subscale; 10. ABI Exer = Anorexia Bulimia Inventory exercise subscale.

Sample Size: $N = 74$.

* $p \leq .05$.

dissatisfaction subscale ($r = .26, p \leq .05$). Daughters' ABI exercising subscale scores only correlated with mothers' reported purging behavior ($r = .24, p \leq .05$) and mothers' reported compensatory behavior ($r = .25, p \leq .05$).

Overall, it appears that mothers' and daughters' anorexic and bulimic symptoms tended to be positively related to one another. That is, as mothers' reports of specific eating disorders symptoms increased, daughters' reported symptoms tended to increase.

Supplementary Analyses

To further understand the relationships between daughters' eating disorder symptoms and maternal control issues, stepwise regression analyses were computed. The FES control subscale scores and the five factors on the MFCMP were tested as predictors of daughters' anorexic symptoms, bulimic symptoms, and symptoms characteristic of both disorders.

Prediction of Daughters' Anorexic Symptoms

To explore whether a statistically optimal, linear combination of factors relating to scores on the ABI anorexia subscale existed, a stepwise regression analysis was conducted with the five factors from the MFCMP and the Control subscale of the FES used as predictor variables. The FES control subscale entered on the first step, followed by the MFCMP Factors 2, 1, 3, 4, and 5. Overall, the regression model was statistically significant, $F(3, 82) = 8.62, p \leq .001$, and accounted for 24% of the variance in ABI anorexia scores. The FES control scores accounted for 11% of the variance, Factor 2 of

the MFCMP contributed an additional 6%, and Factor 1 contributed an additional 7%.

Factors 3, 4, and 5 of the MFCMP made no additional significant contribution. Similar to the findings in the correlation analyses, the MFCMP Factor 2 inversely contributed to the prediction of the ABI anorexia scores. The beta coefficients for this regression equation can be found in Table 11.

To examine variables that predict the scores on the TFEQ restraint subscale, a stepwise regression analysis was performed with the FES control subscale and the five factors from the MFCMP used as predictors. The regression equation was statistically significant, $F(3, 82) = 6.63$, $p \leq .001$, and accounted for 20% of the variance in TFEQ restraint scores. The scores on Factor 1 of the MFCMP accounted for 8% of the variance

Table 11

Summary of Stepwise Regression Analysis for the Prediction of ABI Anorexia Subscale Scores (N = 86)

Risk factor	<u>B</u>	SE <u>B</u>	β	<u>F</u>	<u>p</u>	<u>R</u>	<u>R</u> ²
Step 1: FES control subscale	1.05	.33	.33	9.94	.002	.32	.11
Step 2: MFCMP Factor 2	-.66	.25	-.26	8.68	.000	.42	.17
FES control subscale	1.11	.32	.34				
Step 3: MFCMP Factor 1	.53	.20	.32	8.62	.000	.49	.24
MFCMP Factor 2	-1.15	.31	.45				
FES control subscale	.98	.31	.31				

Note. Total R² = .24; R² = .11 for step 1; Δ R² = .06 for step 2; Δ R² = .07 for step 3.

and the MFCMP Factor 2 scores, and the FES control subscale scores each contributed another 6%. Again, Factor 2 yielded an inverse relationship in the prediction of the TFEQ restraint score. The MFCMP Factors 3, 4, and 5 made no additional significant contributions. Table 12 contains the beta coefficients for the regression equation for the TFEQ restraint subscale.

The EDI drive for thinness subscale was also employed as a measure to assess specific anorexic symptoms. A stepwise regression equation was calculated with the same predictor variables used above to discern the factors that predict this symptom. The regression equation accounted for 23% of the variance in EDI drive for thinness scores and was statistically significant, $F(3, 82) = 8.30, p \leq .001$. The FES control subscale scores accounted for 11% of the variance, with Factor 2 of the MFCMP contributing

Table 12

Summary of Stepwise Regression Analysis for the Prediction of TFEQ Restraint

Subscale Scores (N = 86)

Risk factor	<u>B</u>	<u>SE B</u>	β	<u>F</u>	<u>p</u>	<u>R</u>	<u>R²</u>
Step 1: MFCMP Factor 1	.36	.13	.29	7.76	.006	.29	.08
Step 2: MFCMP Factor 1	.58	.16	.47	6.93	.002	.38	.14
MFCMP Factor 2	-.59	.25	-.30				
Step 3: MFCMP Factor 1	.53	.15	.43	6.63	.001	.44	.20
MFCMP Factor 2	-.57	.24	-.29				
FES control subscale	.57	.25	.23				

Note. Total $\underline{R}^2 = .20$; $\underline{R}^2 = .08$ for step 1; $\Delta\underline{R}^2 = .06$ for step 2; $\Delta\underline{R}^2 = .06$ for step 3.

another 5%, and Factor 1 contributing the final 7%. Of note again is that Factor 2 inversely contributed to the predicted scores. The remaining factors of the MFCMP did not contribute additional significance to the equation. Table 13 contains the beta coefficient for the equation.

Consistently for each of the measures employed to assess specific anorexic symptomology, the FES control subscale score, and the MFCMP Factor 1 and 2 scores together predicted a portion of their anorexic symptomology. Thus, a combination of perceived high familial control, perceived low maternal concern with meal preparation, and perceived high maternal anxiety regarding whether their family ate healthy contributed to higher levels of reported anorexic symptomology. However, given that these variables accounted for a relatively small proportion of the variance in scores, it is

Table 13

Summary of Stepwise Regression Analysis for the Prediction of EDI Drive for Thinness Subscale Scores (N = 86)

Risk factor	<u>B</u>	SE <u>B</u>	β	<u>F</u>	<u>p</u>	<u>R</u>	<u>R</u> ²
Step 1: FES control subscale	.86	.26	.34	10.68	.001	.34	.11
Step 2: MFCMP Factor 2	-.46	.20	-.23	8.17	.001	.41	.16
FES control subscale	.91	.26	.35				
Step 3: MFCMP Factor 1	.43	.16	.33	8.30	.000	.48	.23
MFCMP Factor 2	-.86	.25	-.42				
FES control subscale	.81	.25	.31				

Note. Total $\underline{R}^2 = .23$; $\underline{R}^2 = .11$ for step 1; $\Delta\underline{R}^2 = .05$ for step 2; $\Delta\underline{R}^2 = .07$ for step 3.

apparent that other factors contribute to women's anorexic symptoms.

Prediction of Daughters' Bulimic Symptoms

Stepwise regression analyses were used to further examine the relationship between general maternal control, specific maternal food control, and reported bulimic symptomology. The ABI combined score of bulimic symptoms was obtained from the combination of the ABI bingeing and purging subscales scores. A stepwise regression equation was calculated with the combined score as the dependent variable and the FES control subscale scores and the five factor scores of the MFCMP as predictor variables. The regression equation was statistically significant, $F(2, 83) = 10.85, p \leq .001$, and accounted for 21% of the variance in the combined bulimic symptoms scores. The FES control subscale scores accounted for 11% of the variance, with Factor 2 of the MFCMP contributing an additional 10%. Again, Factor 2 inversely predicted reported bulimic behaviors. The remaining factors of the MFCMP did not contribute additional predictive value to the equation. The beta coefficients for the ABI combined bulimic symptoms regression can be found in Table 14.

The ABI evaluates both exercising and purging as forms of compensatory behavior. These subscales scores were combined into a single compensatory factor. To predict daughters' reported compensatory behaviors, a stepwise regression analysis was calculated with daughters' reported FES control subscale scores and the five factors on the MFCMP as the predictor variables. The regression equation accounted for 25% of the variance and was statistically significant, $F(3, 82) = 9.23, p < .0001$. The FES control subscale scores accounted for 12% of the variance, with Factor 2 of the MFCMP

Table 14

Summary of Stepwise Regression Analysis for the Prediction of ABI Combined Bulimic Symptoms (N = 86)

Risk factor	<u>B</u>	SE <u>B</u>	β	<u>F</u>	<u>p</u>	<u>R</u>	<u>R</u> ²
Step 1: FES control subscale	1.17	.37	.32	9.92	.002	.32	.11
Step 2: MFCMP Factor 2	-.91	.28	-.32	10.85	.000	.46	.21
FES control subscale	1.26	.35	.35				

Note. Total $\underline{R}^2 = .21$; $\underline{R}^2 = .11$ for step 1; $\Delta\underline{R}^2 = .10$ for step 2.

(inverse relationship) contributing another 6%, and the addition of Factor 1 contributing the final 7%. Again, the remaining factors of the MFCMP did not contribute additional significance to the equation. Table 15 contains the beta coefficients for the ABI compensatory behaviors regression equation.

Lastly, the TFEQ disinhibition subscale was included as a measure of specific bulimic symptomology. A stepwise regression analysis was computed with daughters' reported FES control subscale scores and the MFCMP five factor scores used as predictor variables. Despite the significant regression equation, $\underline{F}(1, 84) = 4.91$, $p \leq .05$, the FES control subscale score was the only significant predictor and accounted for only 6% of the variance. Table 16 contains the beta coefficients for the TFEQ disinhibition regression equation.

In summary, it appears that similar factors predict reported bulimic and anorexic symptomology. High levels of perceived familial control and low levels of perceived

Table 15

Summary of Stepwise Regression Analysis for the Prediction of ABI Compensatory Behaviors Scores (N = 86)

Risk factor	<u>B</u>	<u>SE B</u>	β	<u>F</u>	<u>p</u>	<u>R</u>	<u>R²</u>
Step 1: FES control subscale	1.00	.30	.35	11.49	.001	.35	.12
Step 2: MFCMP Factor 2	-.58	.23	-.25	9.35	.000	.43	.18
FES control subscale	1.06	.29	.36				
Step 3: MFCMP Factor 1	.48	.17	.33	9.23	.000	.50	.25
MFCMP Factor 2	-1.03	.27	-.45				
FES control subscale	.94	.28	.33				

Note. Total $R^2 = .25$; $R^2 = .12$ for step 1; $\Delta R^2 = .06$ for step 2; $\Delta R^2 = .07$ for step 3.

maternal concern with meal preparation were associated with bulimic behaviors.

Similarly, the compensatory behaviors associated with bulimia were predicted by the above two factors along with high levels of perceived maternal anxiety regarding healthy eating practices. Again, these factors accounted for a relatively small proportion of the variance in the scores, suggesting that other constructs may be more important in understanding women's bulimic symptoms.

Prediction of Daughters' General Eating Disorder Symptoms

Stepwise regression analyses were also conducted with the nonspecific eating disorder symptoms and control factors. The EDI body dissatisfaction subscale was the dependent variable and the FES control subscale scores and the five factor scores of the

Table 16

Summary of Stepwise Regression Analysis for the Prediction of TFEQ DisinhibitionSubscale Scores (N = 86)

Risk factor	<u>B</u>	SE <u>B</u>	β	<u>F</u>	<u>p</u>	<u>R</u>	<u>R</u> ²
Step 1: FES control subscale	.41	.18	.24	4.91	.03	.24	.06

Note. Total R² = .06 ($p \leq .05$).

MFCMP as the predictor variables. Despite the fact that the regression equation was significant, $F(1, 84) = 4.83$, $p \leq .05$, it only accounted for 5% of the variance in EDI body dissatisfaction scores. The FES control subscale was the only significant contributing factor. Consequently, it appears that the perceived maternal food control and health consciousness are not significant predictors of women's body dissatisfaction. The beta coefficients for the body dissatisfaction regression equation are outlined in Table 17.

Lastly, the ABI Exercise subscale was identified as a general characteristic of both eating disorders. Stepwise regression analyses revealed a statistically significant regression equation, $F(1, 84) = 5.78$, $p \leq .05$, but only accounted for 6% of the variance in ABI Exercise scores. The FES control subscale was the single contributing factor. Similar to the findings for body image dissatisfaction, perceived maternal food control and health food consciousness do not appear to be predictive of the use of exercise as a compensatory behavior for eating. Table 18 contains the beta coefficients for the ABI exercise subscale regression equation. Overall, it appears that maternal food control

Table 17

Summary of Stepwise Regression Analysis for the Prediction of the EDI BodyDissatisfaction Subscale Scores (N = 86)

Risk factor	<u>B</u>	SE <u>B</u>	β	<u>F</u>	<u>p</u>	<u>R</u>	<u>R</u> ²
Step 1: FES control subscale	.82	.37	.23	4.83	.031	.23	.05

Note. Total R² = .05 (p < .05).

Table 18

Summary of Stepwise Regression Analysis for the Prediction of ABI Exercise SubscaleScores (N = 86)

Risk factor	<u>B</u>	SE <u>B</u>	β	<u>F</u>	<u>p</u>	<u>R</u>	<u>R</u> ²
Step 1: FES control subscale	.36	.15	.25	5.78	.018	.25	.06

Note. Total R² = .06 (p < .05).

issues and health-conscious attitudes are less involved in the general eating disorder symptoms that were measured opposed to the specific symptomology evaluated.

Summary

The primary purpose of this study was to investigate the relationship between daughters' eating disorder symptomology and familial control and maternal food control in the home. Likewise, the relationship between daughters' eating disorder symptomology and mothers' reported familial control and food control was explored. Preliminary analyses addressed mother and daughter perceptions of the home environment and the likelihood of responding in a socially desirable manner. Supplementary analyses explored predicting daughters' specific eating disorder symptoms with general familial control, specific maternal food control scores, and maternal health-conscious behaviors and attitudes. The results and limitations of the findings are summarized and discussed in the following chapter.

CHAPTER V

DISCUSSION

The results of studies examining the relationship between general parental control constructs and eating disorders are contradictory. In addition, no research to date has examined the more specific maternal control issues regarding mothers' healthy eating attitudes and their relationship to daughters' food choices and intake. There have also been no studies conducted with anorexics, bulimics, dieters, and control women and their mothers to examine the possible relationships between mothers' food-restriction, weight-preoccupation, or extreme health-conscious attitudes and behaviors, and their daughters' eating behaviors. Consequently, the purpose of the present study was to examine the possible relationship between familial control, maternal food restriction in the home, and maternal health-conscious attitudes/behaviors, and daughters' anorexic and bulimic symptomology.

In this chapter the finding for each hypothesis is analyzed and discussed. Additionally, the findings in the preliminary and supplementary analyses are explored. Limitations of the present study are discussed and suggestions are outlined for future research.

Relationship Between Eating Disorder Symptomology and the Tendency to Respond in a Socially Desirable Manner

Thienemann and Steiner's (1993) study of women with depression, women with eating disorders, and a control group did not find statistically significant differences in

MCSD scores. They had hypothesized that the clinical groups would have higher social desirability scores than the control group. Thus, it was suspected that if any relationship existed in the present study, it would be that those with more eating disorder symptomology would be more likely to respond in a socially desirable manner.

However, the results suggested that in fact those reporting eating disorder symptomology (specific anorexic, bulimic, and symptoms characteristic of both eating disorders) were less likely to respond in this manner. This suggests that the cognitive set of the women reporting eating disorder symptoms are not particularly concerned with presenting themselves in a socially desirable manner. Their response set indicates a willingness to avow their problems as well as suggesting a possible tendency toward being more self-critical and open than those not reporting high levels of eating disorder symptomology. The women in the study that were diagnosed with eating disorders were or had been in treatment and, thus, this may have influenced their willingness to be open. Furthermore, this inverse relationship may also indicate that those not reporting symptoms are responding in a socially desirable manner and/or are unwilling to avow their eating disorder symptomology.

Regarding daughters' perceived familial control and maternal food control, two of the six measures assessing these variables correlated with a tendency to respond in a socially desirable manner. Daughters' scores on the MFCMP Factor 2, which assessed mothers' concern with meal preparation, increased with the tendency to answer in a socially desirable manner. This finding may be indicative of the current trend in society that emphasizes "healthy living." That is, the items on this factor assessed mothers' tendency to provide at least three complete meals each day; the degree to which they

were health conscious; the type and degree of the rules they had about food; and their tendency to ensure that their children ate healthy food, which may be behaviors that place a greater demand on individuals to respond in a socially accepted “health-conscious” manner.

The subscale that assessed daughters’ perception of their mothers’ concern with calories and fat also increased with daughters’ tendency to respond with a socially desirable response set. This subscale consisted of items addressing mothers’ emphasis on having their family eat a low fat/calorie diet, mothers’ tendency to make cautionary statements about their children’s intake of fat and calories, maternal reminders to eat healthy, and mothers’ tendency to remove fat from meat in preparation. Again, as society as placed considerable emphasis on calorie and fat content, it is not surprising that this scale elicited a socially desirable response set.

These findings suggest that these two factors on the MFCMP may have elicited a socially desirable style of responding. The content of these scales appears to be consistent with current health-conscious trends in society. That is, within the last two decades a greater emphasis has been placed on counting calories and within the last decade fat content. Given the positive correlation between these subscales and social desirability, a noteworthy constraint that must be considered when interpreting the results of the present study is whether daughters’ perception of their mothers as being concerned with calories and fat and healthy eating has high validity; or whether daughters’ retrospective responses could be accounted for, or influenced by social demands to endorse these types of behaviors.

Relationship Between Maternal Food Control and General Familial Control

The question posed in Figure 1 was whether specific food and diet control attitudes and behaviors are idiosyncratic or part of a general overcontrolling parental style. Interestingly, there were no statistically significant correlations found between mothers' reports and daughters' reports of familial control and their reports of maternal food control in the home and health-conscious eating attitudes. These findings suggest that maternal food control and health-conscious eating attitudes may be idiosyncratic to general familial control. However, a notable limitation is that the FES control subscale measures general familial control versus specific maternal control in the family. Thus, it is possible that maternal food control is related to a specific maternal controlling style, but not part of a general family system of control.

Relationship Between Mothers' Eating Disorder Symptoms and Controlling Behavior

To understand maternal motivation to restrict food in the home, relationships were explored between mothers' eating disorder symptoms and control issues in the home. Evan and le Grange (1995) found qualitatively that mothers with eating disorders tended to feed their infants on a more rigid schedule. Similarly, Stein et al. (1999) suggested that a mother with an eating disorder, compared to a mother without an eating disorder, might be less likely to allow her child to handle food by keeping it out of his/her reach. The result of this restriction is that the infants' need for feeding autonomy is denied,

creating negative associations and problems at mealtime. Thus, it was suspected that mothers' reports of familial control, controlling food in the home, and their healthy eating attitudes would be related to their own eating disorder symptoms. However, there were only a few significant associations found between mothers' reported eating disorder symptoms and their reports of familial controlling behavior and food control behaviors.

Mothers' reported anorexic symptomology and their reported tendency to buy and prepare health food products tended to covary. Similarly, their reported tendency to restrict their own food intake was correlated with their tendency to be anxious about their children's healthy eating practices and their concern with the calorie and fat content of their children's meals. Birch and Fisher (2000) also found that mothers who reported dietary restraint also reported a higher degree of maternal control over their child's eating. Prior research also indicated maternal stress at their children's mealtime is related to mothers' own eating disorder symptomology (Evans & le Grange, 1995; Stein et al., 1999). Additionally, mothers' reported tendency to exercise corresponded with their anxiety about their children's healthy eating practices.

The lack of relationships between mothers' reported bulimic symptomology and food control may suggest that maternal bulimic behaviors do not increase the chance that they will be controlling with food in the home. It may be that mothers with bulimia cannot control their own food intake well and thus it makes it difficult to regulate their children's food intake. Together these findings suggest that mothers with anorexic symptomology, particularly food restriction symptomology, may tend to be more anxious about encouraging healthy eating practices and more concerned with calorie and fat content in their children's diet than mothers who do not endorse anorexic symptomology.

Prior research with maternal eating disorders and childhood feeding problems did not differentiate bulimic and anorexic symptomology. However, the findings of the present study suggest that anorexic symptomology (specifically food restriction) could be one of the etiological factors behind mothers controlling their children's eating, whereas bulimic symptomology is not.

Relationship Between Mothers' and Daughters'

Perception of Control in the Family

Given that mothers and daughters were reporting on the same home environment, one would speculate that their responses would be similar. In the present study, mothers' and daughters' reports of familial control were not in agreement. This finding is contrary to the results of Laliberte, Boland, and Leichner (1999), who found, in a nonclinical sample, moderate agreement between mothers' and daughters' perception of their families on several different family variables. Although they included subscales of the FES in their study, the Control subscale was not one of them, yet they found agreement on the other FES subscales that they did include. In another study evaluating a clinical sample, researchers found that women with bulimia and their mothers did not report corresponding data on any of the FES subscales (Lipson et al., 1995). Interestingly Lipson et al. did find significant positive correlations between the nonbulimic women's reports and their mothers' responses on the FES control subscale. The present findings may be explained by the fact that this study contained women with and without eating disorders.

More similar to Laliberte and colleagues' (1999) results, was the present finding of a correspondence between four of the five factors on the measure of maternal food control issues, the MFCMP. That is, mothers' and daughters' reports on maternal food control and health-conscious attitudes were generally in agreement. These correlations were modest, ranging from .30 to .47. Although different family variables were measured in Laliberte and colleagues' study, the range in the correlations is similar (.25 to .54). The correlations found in the present study suggest that there remains a good deal of unaccounted-for variance in mothers' and daughters' perception of maternal food control and health-conscious attitudes.

Mothers' and daughters' reports on the factor assessing mothers' concern with calories and fat content were not related, suggesting a perceptual difference. However, this factor was modestly correlated with daughters' tendency to respond in a socially desirable manner, which may account for part of the discrepancy. That is, the recent societal pressures to be aware of calorie and fat content in food may have influenced mothers' and daughters' memory of maternal concern with this issue.

Relationship Between Daughters' Reported Eating Disorder Symptomology and Familial Control

Prior research has indicated mixed findings regarding eating disorder symptoms and control issues in the family. The results of the present study consistently revealed a relationship between daughters' perception of high levels of familial control and eating disorder symptoms. Similar results were found in a study by Felker and Stivers (1994), which showed that a nonclinical sample containing individuals identified as being at risk

for developing an eating disorder scored higher on the FES Conflict and Control subscales than their low-risk counterparts. Clinicians have described families of women with anorexia as enmeshed, overprotective, rigid, and controlling more than families of noneating disorder women (Bruch, 1973; Minuchin, Roseman, & Baker, 1978; Strober & Humphrey, 1987; Evans & Street, 1995). Yet, most of the recent research on family influences and eating disorders has either focused on eating disorders symptomology in general or specifically bulimic symptomology. The present study suggested that, in fact, anorexic symptoms are related to higher levels of perceived familial control. Although these findings are correlational, the inclusion of women with eating disorders, symptomatic controls, and nondieting controls in the present study along with these results is consistent with speculations regarding the importance of maladaptive familial control in eating problems.

Early literature reviews characterized bulimic's families as controlling (Rosenfield, 1988; Strober & Humphrey, 1987). However, more recent research has offered conflicting findings. For instance, a few studies of women with bulimia did not find significant differences between those with bulimia and control groups on the FES control subscale (Lipson et al., 1995; Thienemann & Steiner, 1993). On the other hand, Felker and Stiver (1994) found higher levels of reported familial control in those at risk for developing an eating disorder compared to those who were identified as not at risk. Alternatively, McNamara and Loveman (1990) found less behavioral control in women with bulimia compared to dieters and nondieters. Similarly, Head and Williamson (1990) found that eating disorder behaviors and cognitions were inversely related to high parental control. The results of the present study indicated that daughters who endorsed

higher levels of bulimic symptoms also tended to describe higher levels of perceived familial control. Likewise, the more symptoms reported on the subscales assessing compensatory behaviors for eating also corresponded with higher levels of perceived familial control.

Additionally the present study assessed exercise frequency and body dissatisfaction, which appear to measure characteristics commonly observed in both anorexia and bulimia. Both of these subscales were associated with increasing scores on perceived familial control. These findings are consistent with Felker and Stiver's (1994) and Williams and colleagues' (1990) results; that is, positive correlations between general eating disorder symptomology and family control were noted.

Contrary to several of the prior clinical studies reviewed, the present study consistently revealed a significant positive relationship between specific bulimic behaviors, anorexic behaviors, general eating disorder symptomology, and perceived familial control. Prior research identified familial control as a significant variable involved in eating disorder behaviors in nonclinical samples (e.g., Felker & Stiver, 1994; McNamara & Loveman, 1990). On the other hand, research with clinical and psychiatric control groups generally did not find differences between women with an eating disorder and women with other psychiatric diagnoses on the familial control variable (Horesh et al., 1996; Thienemann & Steiner, 1993). The present study, which included a clinical sample, found a significant relationship between eating disorder behaviors and perceived familial control. It may be that women with other clinical disorders also struggle with a more controlling family, yet this does not dismiss the importance of this finding to eating disorders. That is, it may not be a discriminating factor from other psychiatric disorders,

but a conflict-laden controlling home may be associated with the development of eating disorder symptomology. Consequently, it appears to be an important variable that can be targeted in both prevention and treatment.

Analogous to the hypothesized relationships between daughters' reported eating disorder symptomology and perceived familial control was the hypothesis that there would be a relationship revealed between daughters' reported eating disorder symptomology and their mothers' reports of familial control. No significant relationships were revealed between daughters' eating disorder symptomology and mothers' reports of familial control. This is consistent with findings involving mothers' and daughters' reports (discussed earlier); that is, the lack of correspondence between daughters' perception of familial control and mothers' perception of family control. Yet, this finding is contrary to Lipson et al. (1995), who reported that mothers of bulimics avowed significantly less familial control than mothers of nonbulimics.

Based on the results of the present study, there appears to be a general discrepancy between mothers' and daughters' perception of familial control. As mentioned, the relationship between daughters' perceived familial control and symptoms are important to understand for prevention and treatment. However, it is important to recognize that it may be daughters' perception of high familial control versus actual higher levels of family control. Conversely, it may be that daughters' perceptions are accurate ratings of the levels of control and their mothers are underreporting control issues. In fact prior research actually indicated that mothers of daughters with bulimia may perceive less control than mothers of women without bulimia (Lipson et al., 1995). That finding may be due to the sense of helplessness felt when their daughter suffers

from an eating disorder. Yet, the present study did not offer evidence to support that result.

Correspondence Between Daughters' Reported Eating Disorder Symptomology and Maternal Control of Food in the Home

The possibility of a relationship between daughters' reported eating disorder symptomology and maternal food control in the home was the primary focus of this study. No study to date has addressed this specific question. However, one very recent study hypothesized a similar theory. Birch and Fisher (2000) suggested that "parents will impose greater restrictive control over their daughters' eating if 1) eating and appearance are particularly valued by, or problematic for, the parent, or 2) the child is perceived to be at risk of overweight" (p. 1055). Indeed, Birch and Fisher found that "daughters' weight status influenced mothers' perceptions of daughters' risk of overweight, which in turn influenced mothers' child-feeding practices" (p. 1059). Furthermore, they indicated that maternal concern and efforts to control her own weight (through dietary restraint) in combination with her perception that her daughter is at risk for being overweight was predictive of maternal use of greater restrictive control over her child's diet.

In the present study, two subscales of the MFCMP measured maternal control over food in the home. They were Factor 2, mother's meal preparation/behavior, and Factor 3, availability of treats and junk food in the home. A positive relationship was expected between daughters' eating disorder symptomology and their perception of their mothers' food control behaviors in the home.

Anorexic symptomology was inversely associated with maternal preoccupation

with planning and ensuring their children ate healthy. This relationship indicates that the more daughters reported anorexic symptomology the less they perceived their mothers as being overly concerned with proper nutrition (i.e., eating food from all the food groups, planning three meals a day, being a “health nut,” etc.). This may indicate that mothers’ lack of meal structure (not planning three meals a day, not ensuring the family ate healthy etc.) or lack of appropriate modeling of healthy eating practices actually places daughters at risk for developing anorexic symptoms. However, the issue of social desirability may be involved. That is, as was previously discussed, daughters’ tendency to report anorexic symptoms was inversely related to responding in a socially desirable manner, where Factor 2 of the MFCMP was positively associated with socially desirable responses. The partial correlations revealed that, in fact, when social desirability was controlled for, the aforementioned relationship was not significant. Thus, the social demand to present mothers as nutrition conscious may have masked the actual relationship between these variables. However, despite the positive correlation with social desirability, the measure may still accurately reflect daughters’ perceptions of their mothers’ behaviors, which may be influenced by social desirability. Paulhus (1991) noted that the MCSD does not imply that the participants “consciously” modified their self-presentation. Thus, the relationship between anorexic symptoms and maternal meal preparation behavior cannot be confirmed nor dismissed based on this finding.

Similarly, the more bulimic symptoms (binging, purging, and compensatory behaviors) reported by daughters the less they perceived their mothers as being concerned with healthy meal preparation. This finding may indicate that mothers who do not pay a lot of attention to nutrition and meal preparation create a risk factor for bulimic

tendencies in their daughters. Yet, again it is noted that there was a significant relationship between social desirability and these subscales, and when social desirability was controlled for, these relationships were not significant. Thus, it may be that daughters with eating disorder symptomology have heightened awareness of proper nutrition related to societal pressures. Consequently, when they reflect on their mothers' behaviors, they may feel that their mothers were not conscious enough about these issues (e.g., with the belief that "if she paid attention to this I would not have these problems"). When in truth, their mothers may have attended to these issues as much as mothers of women without eating disorders or possibly even more.

Body dissatisfaction and reported exercising were not associated with either healthy meal preparation/behavior, or the availability of treats and junk food in the home. It may be that these eating disorder symptoms are more general and "socially accepted" aspects of eating disorders and subsequently less influenced by maternal food control behaviors, and perhaps more influenced by societal pressures.

A positive relationship was also hypothesized between maternal reports of food control in the home and daughters' reported symptoms. Similar to their daughters' reports on the availability of junk food in the home and eating disorder symptomology, there was no relationship found between mothers' scores on this factor and daughters' eating disorder symptomology. Yet, discrepant from the relationship found between daughters' reports on maternal meal preparation/behavior and eating disorder symptoms was the lack of relationship between mothers' reports on these behaviors and daughters' eating disorder symptoms. However, mothers' and daughters' reports of maternal meal preparation and behaviors were correlated. Thus, the lack of correspondence between

mothers' reports on this variable and daughters' symptomology is unexpected. This discrepancy may be related to the previously discussed issue of social desirability. That is, the relationship was not significant when daughters' social desirability scores were controlled for in the analysis. However, this again does not dismiss the importance of the finding, as daughters' reports, even if influenced by social desirability, are a reflection of the way they perceive the home environment.

Relationship Between Daughters' Reported Eating Disorder Symptomology and Maternal Health-Conscious Eating Attitudes

Positive relationships were anticipated between the daughters' reported eating disorder symptomology and daughters' perception of maternal health-conscious attitudes toward eating. A significant relationship was noted between daughters' reported tendency to restrain their food intake and their perception of maternal anxieties regarding tempting food around the home and ensuring that their children ate healthy. This finding supports the premise that in homes where mothers tend to restrict the amount of tempting food around the house due to concerns about their children eating healthy increased the likelihood that daughters will restrict their food intake. Likewise, Birch and Fisher (2000) found that daughters, when their mothers were not present, ate a substantial amount of food in a free-access procedure even though they had just consumed a lunch and indicated they were not hungry.

Contrary to the aforementioned finding was the inverse relationship indicated between daughters' reported anorexic symptomology and their perception of maternal concern with calorie and fat content of their children's diet. Similarly, the only

relationship indicated between daughters' bulimic behaviors and maternal health consciousness was the inverse relationship between daughters' reported bingeing behaviors and maternal concern about calorie and fat content. This suggests that mothers who do not focus on calorie and fat content of their children's diet may increase the likelihood of their daughter developing eating disorder symptomology. Yet again, as was previously discussed, this subscale was associated with answering in a socially desirable manner, and when controlled for, the relationship was not significant. Thus, it could be that daughters with anorexic and/or bingeing behaviors tend to perceive their mothers as being unconcerned, uncaring, or inattentive to issues of calories and fat content (which are currently considered to be "important" and thus may be influenced by social desirability). This perception of maternal lack of caring to these issues may also be related to the feeling that other family members are not as cautious, concerned, nor disciplined about this issue (which they value) as much as they would like. Conversely, it may be that maternal lack of concern with calories and fat does not provide daughters with needed knowledge about proper food intake, consequently increasing their chance of engaging in maladaptive eating behaviors.

Similar relationships were expected between daughters' reported symptoms and their mothers' reports of health-conscious attitudes toward eating. However, there was only one significant relationship revealed between daughters eating disorder symptomology and mothers' reported health-conscious attitudes toward eating. Unexpectedly, there was an inverse relationship revealed between daughters' reported anorexic symptomology and their mothers' reported lack of anxiety regarding their children's eating practices. This finding is not consistent with daughters' perception of

their mothers' anxieties regarding her children's eating practices as no relationship was indicated between daughters' perception on this factor and their symptomology. Again, this finding demonstrates the different perceptions that mothers and daughters have of the same home environment regarding maternal food behavior. Yet these conflictual findings may suggest that daughters reporting anorexic symptomology are unaware of their mothers lack of anxiety about healthy eating because of their own concern with the issue. On the other hand, this finding could be a statistical anomaly, as mothers' reports of maternal food control and health-conscious behaviors tended not to be associated with daughters' reported symptoms.

Relationship Between Mothers' and Daughters' Reports of Their Own Eating Disorder Symptomology

Researchers indicate a maternal transmission of anorexia nervosa to daughters (Strober et al., 1990) and the transmission of eating disorders among female relatives of women with bulimia (Stein et al., 1999). As usual the question of the relative import of genetic versus environmental factors in familial eating disorders underlies the study of this relationship. However, several studies provide support for environmental variables to be at minimum a significant contributor to the noted familial transmission. That is, researchers have found relationships between daughters' eating disorder symptomology and mother's weight preoccupation, modeling of weight and body shape attitudes and behaviors (Pike & Rodin, 1991; Sanftner et al., 1996; Smolak et al., 1999; Steiger et al., 1996; Stice et al., 1999), and parental encouragement/pressures to control weight (Kanakis & Thelen, 1995; Levine et al., 1994; Thelen & Cormier, 1995). Consequently,

as was expected, the present study produced several significant positive relationships between mothers' and daughters' anorexic, bulimic, and general eating disorder symptoms.

Hill et al. (1990) and Ruther and Richman (1993) found a positive relationship between mothers and daughters dietary restraint behaviors. Yet, similar to Bushman's (1993) results was the failure of the present study to find significant relationships between mothers' and daughters' reports of dietary restraint on the TFEQ restraint subscale. However, daughters' reported anorexic symptoms were associated with several of their mothers' reported anorexic and bulimic symptoms (measured by the ABI). Likewise, daughters' reported bulimic symptoms were associated with their mothers' reported anorexic and bulimic symptoms. Lastly, symptoms characteristic of both eating disorders reported by the daughters tended to correlate with their mothers' anorexic, bulimic, and general eating disorder symptoms.

Also consistent with Bushman (1993) was the present finding that mothers' and daughters' scores on the ABI subscales covaried. On the other hand, mothers' TFEQ restraint and disinhibition scores did not correlate with any of their daughters' scores on any of the measures. Yet, daughters' TFEQ restraint and disinhibition scores tended to correspond with their mothers EDI body dissatisfaction and drive for thinness scores.

One explanation for the conflicting results is that both the present study and Bushman's (1993) study implemented the TFEQ to measure dietary restraint, where the other studies reviewed used various measures of dietary restraint. Thus, researchers' use of different measures of similar constructs may account for the divergent results.

Overall, the results of the present study resemble the findings of prior research,

suggesting that maternal eating disorder symptoms seem related to daughters' eating disorder symptoms.

In summary, it appears that mothers' disordered eating behaviors may or may not be related to mothers controlling the food available in the home and ensuring healthy eating. Yet, their eating disorder behaviors are possibly associated with their daughters' tendency to exhibit these behaviors.

Control Variables as Predictors of Daughters' Eating Disorder Symptoms

The FES control subscale scores, maternal anxieties regarding healthy eating practices scores (MFCMP Factor 1), and maternal concern with healthy meal preparation/behavior scores (MFCMP Factor 2) predicted central anorexic behaviors among daughters (ABI anorexia subscale), as well as their dietary restraint (TFEQ restraint subscale), and pursuit of thinness (EDI drive for thinness).

Consistently, a combination of perceived high familial control, perceived low maternal preoccupation with meal preparation, and perceived high maternal anxiety about their children's eating practices tended to explain daughters' self-avowed anorexic and dietary restraint symptomology. This result is consistent with that of Birch and Fisher (2000), who found that greater maternal restriction predicted daughters' difficulty in regulating their energy intake, which might be mediated by mothers' perception of their daughters weight (as daughters' weight increased maternal concern and efforts to control her daughters' diet increased). Further, the linear combination of daughters' reports of higher levels of familial control and lower levels of maternal concern with meal preparation predicted a range of bulimic symptoms. In addition, compensatory behaviors

for bingeing were predicted by high maternal anxiety about children's eating practices (a similar combination of factors to those predicting anorexic scores). The TFEQ disinhibition subscale had only one significant predictor, high familial control. Thus, it appears that specific bulimic behaviors may be related to general familial control as well as specific maternal food control attitudes and behavior, whereas disinhibition after food intake may be less related to maternal specific food over/under control and more related to general familial control constructs.

Overall, it appears that similar factors predict reported bulimic and anorexic symptomology. Perceived general familial control was a consistent predictor of reported bulimic symptoms, along with perceived, low maternal concern with meal preparation and high maternal anxiety with healthy eating practices. A noteworthy finding was daughters' perception of high maternal anxiety about healthy eating practices and low maternal concern with meal preparation behaviors predicting symptomology. It may be that daughters with anorexic and/or bulimic symptoms perceive increased maternal anxieties related to healthy eating due to actual maternal anxieties or their own anxieties. Furthermore, they may not observe/perceive these anxieties translating into actual maternal behavior (e.g., ensuring three meals a day for her children, preparing food from all of the food groups, having rules about food, etc.). On the other hand, although perceived low maternal concern with meal preparation was a significant predictor, it should be noted that in previous analysis this was mediated by social desirability. As was discussed previously, this variable should not necessarily be dismissed, but clearly that finding impacts the predictive value of this variable and warrants further research.

Both body image dissatisfaction and reported exercise behavior were predicted only by perceived familial control. Thus, it appears that the perceived maternal food control and concern with healthy eating are not significant predictors of body dissatisfaction, nor the exercise behaviors commonly observed in eating disorders. Furthermore, even though familial control was a significant predictor, it explained only a small amount of the variance in these scores. Thus, the symptoms that are typically present in both anorexia and bulimia nervosa (body dissatisfaction and frequent exercise to compensate for eating) were not predicted by the same variables that predicated the symptomology of each disorder. It may be that these behaviors are not specific enough to eating disorders, as society tends to hold a norm that women should be dissatisfied with their bodies and exercise is necessary for a healthy lifestyle.

Summary of the Major Findings

In summary, the results of studies examining the relationship between general parental control constructs and eating disorders have produced mixed findings. The present study, however, consistently found a relationship between daughters' reports of anorexic symptoms, bulimic symptoms, and familial control. The sample in the present study was not artificially segregated into subgroups based on symptoms of eating disorders. Rather, it included women all along the continuum of maladaptive eating behaviors and thus, the present findings may be relevant to the development of a spectrum of eating disorder problems.

Of interest was that daughters' symptomology and daughters' reports of familial control were related, yet mothers' reports of family control were not related to daughters'

symptomology. Thus, it appears that it is daughters' perception of high family control that relates to their eating disorder symptomology. Whether the reported familial control issues reported by daughters are factual accounts of the home environment or are biased perceptions is unclear given the lack of correspondence between mothers' and daughters' reports. Obtaining other family member's perception of this would be important for future research as well as how to integrate this information into treatment.

This study was the first to examine the more specific maternal control issues, maternal health-conscious attitudes and their relationship to daughters' maladaptive eating behaviors. It was speculated that maternal food control or dietary restraint patterns are being modeled and reinforced in the home by well-intentioned mothers. Consequently, it was proposed that when the young girl enters her teenage years and garners more freedom over her food selections, she may be entering an especially high risk period for developing an eating disorder. The results of the present study are consistent with the speculation that a combination of daughters' perceptions of high familial control, high maternal anxieties about children's eating practices, and low maternal concern with healthy meal preparation might contribute to the development or maintenance of anorexic and bulimic symptomology. Of interest was that daughters' perception of high maternal anxiety regarding healthy eating predicted symptomology, whereas perceived low maternal behaviors of healthy meal preparation predicted daughters' symptoms. It is tenuously speculated that the difference may be accounted for by daughters perceived maternal lack of congruence between anxiety and actual behaviors. That is, mothers may be anxious about eating healthy but may not follow

through in their behavior to ensure healthy eating and daughters may be aware of this incongruence.

Also of interest was whether specific food and diet control attitudes and behaviors are idiosyncratic or part of a general overcontrolling parental style. The lack of correspondence between maternal food control and health-conscious attitudes (both mothers' and daughters' reports) and familial control suggests that these behaviors are most likely a separate issue from a general overcontrolling parental style. It appears that maternal food control behaviors are actually more related to mothers' own anorexic symptoms than general maternal control. Yet, as was noted previously future research is warranted with a measure of specific maternal family control as this study included a measure of general familial control.

Lastly, mothers and daughters presented different pictures of the family regarding familial control, as there was a lack of correspondence in their FES control scores. However, in general (one factor of the five did not correspond), mothers' and daughters' reports on maternal food control and health-conscious attitudes were generally in agreement. Yet, a greater number of relationships were found among daughters' symptoms and their reports of maternal behaviors than between daughters' symptoms and their mothers' reports of control and food control behaviors. It may be that daughters with eating disorders attend more to mothers' messages, particularly maternal anxieties about children's eating practices, than mothers recognize in themselves.

Overall, the results of the present study support some of the hypothesized relationships between maternal food control, maternal health-conscious attitudes, and daughters' eating disorder symptomology. Yet, a broader range of constructs relating to

maternal food control behaviors and health-conscious attitudes was expected to predict daughters' eating disorder symptoms. In fact, a few unexpected (though important) relationships were found between these variables.

Limitations and Directions for Future Research

The retrospective data collection in this study is an obvious limitation to the conclusions that can be drawn from the results. Likewise, the correlational data analyses implemented in the study only imply relationships between the variables rather than causation. Given that several important relationships have been identified between familial control, maternal food control, and daughters' eating disorder symptomology, future research with observational data may be helpful in discerning the way these relationships materialize in the home. Also group comparisons between women with anorexia, bulimia, and symptomatic and nonsymptomatic control groups would allow further exploration of the current findings.

The external validity of the current study is limited to women between the ages of 18 and 35, who are attending or have attended a college/university. Future research using other populations, perhaps adolescents, would be beneficial to further understand the possible impact of maternal food control behavior and health-conscious attitudes and eating disorder symptomology. Most of the current literature that has begun to explore this issue has focused on maternal feeding behaviors and measures symptomology in very young children. Thus, future studies that assess preadolescent and adolescent females are recommended.

More relationships were revealed between daughters' symptomology and their

reports of maternal behaviors than between their symptomology and their mothers' reports of their behavior. Thus, further observational data of maternal behavior may be helpful in discerning their actual behavior. Future research with the inclusion of siblings may also be warranted to discern these perception differences. That is, are daughters with eating disorder symptomology more attentive to their mothers' messages and anxieties about healthy eating than siblings without eating disorder symptomology, or is it that mothers are unaware of the messages and anxieties about eating that they are communicating to their child?

Another limitation of the present study was that the present author could not identify a preexisting measure of maternal food control in the research literature. Thus, a measure had to be designed specifically for this study. Consequently, only limited psychometric data are available on it, and two of the subscales on this measure correlated with social desirability. Therefore, future research adding validity data and further understanding of the social desirability relationship is needed. As the relationships between eating disorder symptomology, maternal food control, and maternal health-conscious attitudes and behaviors appear to be very specific, future research is warranted with multiple measures of familial control and specific food control. Birch and Fisher (2000) also designed a measure to assess maternal food restriction and monitoring behaviors, which may be useful in addition to the MFCMP in future studies.

Lastly, some unexpected findings in the present study need confirmation by future research (e.g., the consistent positive relationship revealed between eating disorder symptomology and familial control). Conflictual findings and the lack of differentiation between eating disorder groups and other psychiatric control groups have led some

researchers to dismiss this factor. Based on the current findings this does not appear to be appropriate, so further definitive research on this relationship appears warranted. It may be that some researchers have dismissed important findings based on the movement away from "mother blaming." As Sanftner et al. (1996) expressed:

Rather than blaming women for their daughters' problems, then, these data suggest that mothers and daughters are pursuing similar means in their attempts to manage challenges they are faced with as females in this culture—challenges that become more salient as girls reach adolescence. (p. 157)

Researchers should attend to this issue but be careful not to dismiss their findings based on this premise, as relevant issues between mothers and their daughters can be addressed both in prevention efforts and treatment without maligning mothers.

Finally, the researcher recognizes that eating disorders etiologies are complex and that many factors impact and perpetuate the problematic behaviors involved in them. This study only suggested that maternal food control anxieties and behaviors may contribute to and mediate the complex interaction of risk factors involved in the development of an eating disorder.

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APPENDICES

Appendix A

DSM-IV Diagnostic Checklists

DSM-IV and Subclinical Criteria Checklist for Anorexia Nervosa

Directions. Please place a check next to the symptoms that best describes your client.

1. _____ Refusal to maintain body weight at or above minimally normal weight for age and height (e.g., body weight **85% or less**)
- OR
- _____ Refusal to maintain body weight at or above minimally normal weight for age and height (e.g., body weight **92% or less**)
2. _____ Intense fear of gaining weight or becoming fat, even though underweight.
3. _____ Disturbance in the way one's body weight or shape is experienced
- _____ Undue influence on body weight or shape on self evaluation
- _____ Denial of the seriousness of the current low body weight
4. _____ Postmenarcheal woman with amenorrhea (absence of 3 cycles)
- OR
- _____ Abnormality in cycles without the loss of 3 cycles
- OR
- _____ Amenorrhea criteria not met
- Specify Type*
- _____ *Restricting Type* - not regularly engaged in binge-eating or purging behavior
- _____ *Binge-Eating/Purging Type* - regularly engaged in binge-eating or purging behavior (i.e., self-induced vomiting or the misuse of laxatives, diuretics or enemas).

DSM-IV and Subclinical Criteria Checklist for Bulimia Nervosa

Directions. Please place a check next to the symptoms that best describes your client.

1. _____ Recurrent episodes of binge eating characterized by both of the following:
 1) eating in a discrete period of time (within a 2 hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances
 2) a sense of lack of control over eating during the episode (feeling that one cannot stop eating or control what or how much one is eating)
2. _____ Recurrent inappropriate compensatory behavior in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, enemas, or other medications; fasting; or excessive exercise.
3. _____ Binge eating and inappropriate compensatory behaviors both occur on average, at least **twice** a week for 3 months.
- OR
- _____ Binge eating and inappropriate compensatory behaviors both occur on average, at least **once** a week for 3 months.
4. _____ Self-evaluation is unduly influenced by body shape and weight.
5. _____ Disturbance does not occur exclusively during episodes of AN.

Specify Type

_____ *Purging Type* - regularly engaged in self-induced vomiting or the misuse of laxatives, diuretics, or enemas

_____ *Nonpurging Type* - used other inappropriate compensatory behaviors, such as fasting or excessive exercise, but has not regularly engaged in self-induced vomiting or the misuse of laxatives, diuretics, or enemas

Appendix B

Informed Consent for Initial Recruitment

I hereby give my consent to participate in a study conducted by Colette Candy, a doctoral student in the Psychology Department of Utah State University, and supervised by David M. Stein, Ph.D.

I understand that the research will include completing a questionnaire and that I may be contacted to complete additional questionnaires at a later date. The purpose of the study is to understand college womens' and mens' eating and dieting practices.

I understand that the questionnaires will take approximately 25 minutes to complete and that I will receive extra credit points for completing this survey in line with agreements I have with my Professor. I realize that I do not have to complete the entire survey. However, I understand that the points I receive will be in proportion to how much of the questionnaire I completed. Otherwise, I understand that this survey will not affect my grade in any way in this class. Additionally, I understand that I can withdraw my participation at any time without consequence.

I understand that if I complete this questionnaire, I can be assured that all of my answers will be kept confidential. I understand that all data collected will be held in the strictest confidence in a locked office and locked file, and will be used only for the present research and by the present researchers (Colette Candy and David Stein).

I understand that this survey has no right or wrong answers, and that there are no known risks associated with participation in this study. I understand that completing this questionnaire may not have any personal benefits to me besides the extra credit points, but that my participation and the subsequent results will be of great benefit to clinicians and researchers.

I understand that I can talk with the doctoral student or her supervisor at any time about any questions that I have regarding this research. Any questions can be directed to: Colette Candy at 797-3391 or David M. Stein, Ph.D. at 797-3274.

I have read and understand this Consent Form and I am willing to participate in the study.

Please Print Name

Signature

Date

Phone Number

David Stein, Ph.D., Principal Investigator

Appendix C

Phone Script for Invitation into the Study

Hello, my names is Colette Candy, as part of your _____ Psychology class you completed an extra credit survey about dieting and eating behaviors. We are taking the study a step further and therefore are looking for women with a variety of eating behaviors and dieting practices. We ask your assistance with this study by completing some additional questionnaires that will take you approximately 45 minutes to an hour. We realize that your time is limited so we would be extremely grateful as well as provide you with a choice of a body lotion, bath accessory or potpourri along with an entry ticket into a monetary drawing. Can I set up a time with you??

If no, prompt again

If no again - ask for a brief explanation

Appendix D

Consent Form for Completion of All Questionnaires

I hereby give my consent to participate in the follow-up study conducted by Colette Candy, a doctoral student in the Psychology Department of Utah State University, and supervised by David M. Stein, Ph.D. I understand that the purpose of this phase of the study is to understand college womens' eating and dieting practices in relation to their mothers'.

I understand that the research will include completing questionnaires and providing my mother's address and phone number so the researchers can contact her to complete a similar series of questionnaires. I understand that the questionnaires will take approximately a hour and a half to complete and that I will receive an entry ticket into a drawing and a small thank-you gift. I realize that I do not have to complete the entire survey, and that I can withdraw my participation at any time without consequence.

I understand that if I complete these questionnaires, I can be assured that all of my answers will be kept confidential. I understand that all data collected will be held in the strictest confidence in a locked office and locked file, and will be used only for the present research. Additionally, I understand that my mother will be contacted to participate in the research study as well, yet my responses will not be shared with her nor will her responses be shared with me.

I understand that the researchers are not interested in the responses or data of individual participants, but that of groups of people. Therefore, results from the questionnaires will report only group data and will be used for research purposes only. Any information about my individual responses will be lost when the data are analyzed as groups. Approximately 100 women and their mothers will be recruited to complete these questionnaires.

I understand that these questionnaires have no right or wrong answers, and that there are no known risks associated with participation in this study. I understand that completing this questionnaire may not have any personal benefits to me besides the drawing and small gift, but that my participation and the subsequent results will be of great benefit to clinicians and researchers.

I understand that I can talk with the doctoral student and/or her supervisor at any time about any questions that I have regarding this research. Any questions can be directed to: Colette Candy at xxx-xxxx or David M. Stein, Ph.D. at xxx-xxxx.

I have read and understand this Consent Form and I am willing to participate in this study.

David Stein, Ph.D., Principal Investigator

Please Print Name

Signature

Date

Mother's Name

Mother's Phone Number

Mother's Address

Appendix E

Daughters' Demographic Questionnaire

1. Age:

2. Student Status:

- Freshman
 Sophomore
 Junior
 Senior
 Graduate
 Non-matriculating

3. Ethnicity:

- African American
 Asian American
 Caucasian
 Hispanic
 Native American

4. Martial Status:

- Single
 Divorced
 Married

5. Number of Children in the Family I grew up in:

6. I have a health condition (e.g., diabetes, thyroid condition, allergies, etc.) that dictates my diet:

- No
 Yes, I have

7. During the majority of my childhood we lived in a:

- City
 Suburb
 Rural area, if so was it on a Farm? Yes No

8. I am currently living with my parents

- Yes
 No, I have not lived at home for _____ number of years.

9. My father lived with us when I was growing up

- Yes
 No, but he did live with us for _____ number of years when I was a child.

10. I have(had) been diagnosed with an Eating Disorder:

- No
 Yes, I have(had) _____ and I have(had) receive treatment for it: No Yes

Appendix F

Introduction Letter Sent to Mothers

Date

Dear XXX,

Recently your daughter, XXX, was kind enough to assist us with research on eating behaviors and dieting practices by completing some questionnaires. We are asking for your assistance with this study as well. We are looking at the similarities and differences between mothers' and daughters' eating behaviors. Therefore, to complete our study we are asking you to help us by completing a similar set of questionnaires that will take approximately 45 minutes to complete.

We realize that your time is limited and valuable, so along with being extremely grateful for your help we have enclosed a calendar as a small gift to demonstrate our appreciation of your time. We will also enter you into a drawing for \$50.00 when you return the questionnaires. If the questionnaires are returned within one week we enter your name into the drawing a second time, thus increasing your chances of winning.

In the following packet you will find:

- 1) A calendar - this is for you to keep for your time
- 2) A consent form - please read and sign
- 3) Directions for completing the questionnaires - please complete the questionnaires in the order specified
- 4) Two entry tickets one for completing the questionnaires and another for completing the questionnaires in one week - please fill them out
- 5) A postage paid envelope to send the Questionnaires, Scantrons, and Entry ticket back to me

If you have any questions please feel free to contact me, Colette Candy (xxx) xxx-xxxx or Dr. David Stein, supervisor, at (xxx) xxx-xxxx. Again, Thank-you for your time.

Sincerely,

Colette Candy, M.S.
Doctoral Student in Psychology
Utah State University

Appendix G

Consent Form for Mothers

I hereby give my consent to participate in a study conducted by Colette Candy, a doctoral student in the Psychology Department of Utah State University, and supervised by David M. Stein, Ph.D. I understand that the purpose of this study is to understand college women's eating and dieting practices in relation to their mothers'.

I understand that the research will include completing questionnaires that will take approximately an hour to hour and a half to complete. I understand that the entry ticket into a drawing and the small thank-you gift are mine to keep for participating in this study. I realize that I can withdraw my participation at any time without any consequences to myself or my daughter.

I understand that if I complete these questionnaires, I can be assured that all of my answers will be kept confidential. I understand that all data collected will be held in the strictest confidence in a locked office and locked file, and will be used only for the present research. Additionally, I understand that my responses will not be shared with my daughter nor will her responses be shared with me.

I understand that the researchers are not interested in the responses or data of individual participants, but that of groups of people. Therefore, results from the questionnaires will report only group data and will be used for research purposes only. Any information about my individual responses will be lost when the data are analyzed as groups. Approximately 100 women and their mothers will be recruited to complete these questionnaires.

I understand that these questionnaires have no right or wrong answers, and that there are no known risks associated with participation in this study. I understand that completing this questionnaire may not have any personal benefits to me besides the drawing and small gift, but that my participation and the subsequent results will be of great benefit to clinicians and researchers.

I understand that I can talk with the doctoral student and/or her supervisor at any time about any questions that I have regarding this research. Any questions can be directed to: Colette Candy at xxx-xxxx or David M. Stein, Ph.D. at xxx-xxxx.

I have read and understand this Consent Form and I am willing to participate in this study.

Name

Date

Signature

David Stein, Ph.D., Principal Investigator

Appendix H

Mothers' Demographic Questionnaire

Directions: Please place a check mark next to the answer that best described you and fill in any additional information requested.

1. Age:

2. The estimated income level of our family when my daughter was between the ages of 12 and 14 was _____.

3. Ethnicity:

___ African American

___ Asian American

___ Caucasian

___ Hispanic

___ International (Country: _____)

___ Native American

4. Martial Status:

___ Single

___ Divorced

___ Married

5. I worked part or full time when my daughter was between the ages of 1 - 18.

___ No

___ Yes, I started working when my daughters was _____ years of age.

6. I have a health condition (e.g., diabetes, thyroid condition, allergies, etc.) that dictates my diet:

___ No

___ Yes, I have

7. I have(had) been diagnosed with an Eating Disorder:

___ No

___ Yes, I have (had) _____ and I have (had) received treatment for it: ___ No ___ Yes

Appendix I

Anorexia Bulimia Inventory

HEALTH AND DEVELOPMENT QUESTIONNAIRE (ABI91)

Rate each of the statements below on a scale from 1 to 4 as they describe how you feel, act, or believe at present. The rating should identify whether or not the statement generally describes you at the present time. Mark all of your answers on the Answer Sheet that has been provided. Do Not mark this questionnaire.

- 1 = I NEVER think, feel, or act this way.
- 2 = I RARELY think, act, or act this way.
- 3 = I OFTEN think, act, or act this way.
- 4 = I VERY OFTEN think, act, or act this way

- 01. My parents and I have mastered the art of honest communication in all areas.
- 02. My moods are so low that it is painful.
- 03. I think that a successful, respectable woman would not be fat.
- 04. (Leave this item BLANK if your periods have not started yet.) In the last year, I've missed more than 2 menstrual periods.
- 05. I feel full of energy.
- 06. I often found myself in the middle of my parent's arguments.
- 07. I try to get things done, but I feel too slow or sluggish.
- 08. When I throw-up, I feel less nervous about gaining weight afterwards.
- 09. Lately, I feel unusually tired.
- 10. I feel very nervous when something gets in the way of my exercise schedule.
- 11. I have sudden changes in my mood.
- 12. If I eat a sweet roll, my body will likely turn to fat.
- 13. I have periods of sadness that last for days.
- 14. I think that any person aware of fitness will always exercise with great energy.

15. I feel hallow and empty inside.
16. Certain thoughts really bother me because they repeat in my mind over and over again.
17. I feel worm out.
18. Within the last month or so, I've thought about suicide.
19. If I start eating, I won't be able to easily stop.
20. Anyone can be overweight, but it takes someone special to be thin.
21. Even when I do something well, I still do not feel very worthwhile.
22. I go back and forth between trying to diet, and suddenly eating more snacks than most people eat in several days.

CHECK YOUR ANSWER SHEET TO MAKE SURE YOU JUST MARKED # 22.

23. My muscles seem to lack energy.
24. The food I eat is rapidly turned into fat.
25. Being overweight is a sign of serious weakness in one's personality.
26. I probably please my parents far more than I disappoint them.
27. I wake up a lot during the night, and toss and turn when I sleep.
28. My worries keep me from getting other things done.
29. I feel like giving up.
30. Lately, it takes extra effort to get myself started doing things.
31. Weekends and holidays should be like any other day to a person who is serious about regular exercise and fitness.
32. For no real reason, my heart will pound or race, and I will feel on edge.
33. People who are overweight risk rejection by loved ones.
34. I wish that I felt more lively and energetic.
35. Others tend to be too worried about my health.
36. When I need to concentrate, my mind seems to wander.

37. Thin people are much happier than overweight people.
38. I would like to weight myself several times a day.
39. My parents told me that things were o.k., even when I really sensed that they were not.
40. (Leave this item BLANK if you have not started your period yet.) My menstrual periods are very regular.
41. It is/was nearly impossible to change my parents' mind about something.
42. If I eat too much, I just can't hold it down.
43. Butterflies or jitters in the stomach are with me much of the day.
44. I have eating sprees where I suddenly eat as much food as most people eat during a period of two days.
45. Even though I've carefully checked my work, I continue to feel the urge to recheck it again.
46. Others would prefer if I ate more.
47. Medicine that gives me diarrhea is a regular part of my diet.
48. Most of the time, it is/was useless to try to get my way at home.

CHECK YOUR ANSWERS AND MAKE SURE YOU JUST MARKED # 48.

1 = I NEVER think, feel, or act this way.

2 = I RARELY think, act, or act this way.

3 = I OFTEN think, act, or act this way.

4 = I VERY OFTEN think, act, or act this way

49. At least twice a week, I start an eating spree and can't stop until my stomach hurts.
50. The activities that usually bring me joy don't make me happy these days.
51. If I gain two more pounds, I will not be able to comfortably wear a swimsuit.
52. By the middle of the day, I am so fatigued that I have a hard time finishing my work.
53. Others say my weight is too low, but certain areas of my body still feel very fat.
54. If I fail in my diet, I must be a weak person.
55. It takes a lot of time to unwind or relax.

56. I take diet pills to help me lose weight.
57. When I wear loose-fitting clothes, others are less likely to lecture me to stop dieting.
58. I have frequent diarrhea.
59. While most women are concerned about their body shape, I am unusually worried about mine.
60. I think about all the calories I will burn up when I exercise.
61. I wish my nerves would calm down.
62. I feel restless if I am unable to be active after eating a meal.
63. I would say that being able to really get close to someone you like has a lot to do with being as thin and attractive as possible.
64. Throwing-up is a convenient way for me to avoid too many calories.
65. I feel especially guilty about my weaknesses and failures these days.
66. My friends say that I am too thin; however, I really feel quite fat.
67. In public, I eat sensibly; but when alone, I will quickly eat enough food to satisfy 3-4 people.
68. Other people seem less sad than me.
69. The more I struggle to keep my weight down, the more I seem to have eating sprees.
70. I have to fight to convince people that I don't need as much food as others to be healthy.
71. I feel nervous inside every day.
72. I have attacks of anxiety where I feel something terrible may happen.
73. Conflicts arise at home that never get talked about.
74. I wonder if the things I worry about would seem silly to other people.
75. I rarely take the time to exercise to lose weight.

Appendix J

Combined EDI (DT & BD Scales)

This scale measures your attitudes, feelings, and behavior. Some of the items relate to food or eating. Other items ask about your feelings about yourself. THERE ARE NO RIGHT OR WRONG ANSWERS SO TRY TO BE COMPLETELY HONEST IN GIVING YOUR ANSWERS. RESULTS ARE COMPLETELY CONFIDENTIAL. Read each question and then choose one of the following letters that is closest to how you feel, think, or act:

A = Always, B = Usually, C = Often, D = sometimes, E = Rarely, F = Never

1. I eat sweets and carbohydrates without feeling nervous.
2. I think that my stomach is too big.
3. I think that my thighs are too large.
4. I feel extremely guilty after overeating.
5. I think that my stomach is just the right size.
5. I am terrified of gaining weight.
7. I feel satisfied with the shape of my body.
6. I exaggerate or magnify the importance of weight.
9. I like the shape of my buttocks.
7. I am preoccupied with the desire to be thinner.
11. I think my hips are too big.
8. If I gain a pound, I worry that I will keep gaining.
13. I think that my thighs are just the right size.
9. I think my buttocks are too large.
15. I think that my hips are just the right size.

Appendix K

The Three-Factor Eating Questionnaire

There are two parts to this questionnaire. For PART I, please mark each item TRUE (T) or FALSE (F) based on how you currently think, feel or believe. Mark option "A" on the answer sheet for true and "B" for false. For PART II, darken one of the four choices for each question, based on how you currently think, feel or believe.

PART I - True or False

01. When I see a sizzling steak or a juicy piece of meat, I find it very difficult to keep from eating, even if I have just finished a meal.
02. I usually eat too much at social occasions, like parties and picnics.
03. I am usually so hungry that I eat more than three times a day.
04. When I have eaten my quota of calories, I am usually good about not eating anymore.
05. Dieting is so hard for me because I just get too hungry.
06. I deliberately take small helpings as a means of controlling my weight.
07. Sometimes things just taste so good that I keep on eating even when I am no longer hungry.
08. Since I am often hungry, I sometimes wish that while I am eating, an expert would tell me that I have had enough or that I can have something more to eat.
09. When I feel anxious, I find myself eating.
10. Life is too short to worry about dieting.
11. Since my weight goes up and down, I have gone on reducing diets more than once.
12. I often feel so hungry that I just have to eat something.
13. When I am with someone who is overeating, I usually overeat too.
14. I have a pretty good idea of the number of calories in common food.
15. Sometimes when I start eating, I just can't seem to stop.
16. It is not difficult for me to leave something on my plate.
17. At certain times of the day, I get hungry because I have gotten used to eating then.

18. While on a diet, if I eat food that is not allowed, I consciously eat less for a period of time to make up for it.
19. Being with someone who is eating often makes me hungry enough to eat also.
20. When I feel blue, I often overeat.
21. I enjoy eating too much to spoil it by counting calories or watching my weight.
22. When I see a real delicacy, I often get so hungry that I have to eat right away.
23. I often stop eating when I am not really full, as a conscious means of limiting the amount that I eat.
24. I get so hungry that my stomach often seems like a bottomless pit.
25. My weight has hardly changed at all in the last ten years.
26. I am always hungry so it is hard for me to stop eating before I finish the food on my plate.
27. When I feel lonely, I console myself by eating.
28. I consciously hold back at meals in order not to gain weight.
29. I sometimes get very hungry late in the evening or at night.
30. I eat anything I want, any time I want.
31. Without even thinking about it, I take a long time to eat.
32. I count calories as a conscious means of controlling my weight.
33. I do not eat some foods because they make me fat.
34. I am always hungry enough to eat at any time.
35. I pay a great deal of attention to changes in my figure.
36. While on a diet, if I eat food that is not allowed, I often then splurge and eat other high calorie foods.

PART II

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

37. How often are you dieting in a conscious effort to control your weight?
 1 Rarely 2 Sometimes 3 Usually 4 Always
38. Would a weight fluctuation of 5 lbs. affect the way you live your life?
 1 Not at all 2 Slightly 3 Moderately 4 Very much
39. How often do you feel hungry?
 1 Only at mealtimes 2 Sometimes between meals 3 Often between meals 4 Almost Always
40. Do your feelings of guilt about overeating help you to control your food intake?
 1 Never 2 Rarely 3 Often 4 Always
41. How difficult would it be for you to stop eating halfway through dinner and not eat for the next four hours?
 1 Easy 2 Slightly difficult 3 Moderately difficult 4 Very difficult
42. How conscious are you of what you are eating?
 1 Not at all 2 Slightly 3 Moderately 4 Extremely
43. How frequently do you avoid "stocking up" on tempting foods?
 1 Almost never 2 Seldom 3 Usually 4 Always
44. How likely are you to shop for low calorie foods?
 1 Unlikely 2 Slightly likely 3 Moderately likely 4 Very likely
45. Do you eat sensibly in front of others and splurge when alone?
 1 Never 2 Rarely 3 Often 4 Always
46. How likely are you to consciously eat slowly in order to cut down on how much you eat?
 1 Unlikely 2 Slightly likely 3 Moderately likely 4 Very likely
47. How frequently do you skip dessert because you are no longer hungry?
 1 Almost never 2 Seldom 3 At least once a week 4 Almost every day

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

1	2	3	4
Unlikely	Slightly likely	Moderately likely	Very likely

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

1	2	3	4
Never	Rarely	Sometimes	At least once a week

50. On a scale from 1 to 5, where "1" means no restraint in eating (eating whatever you want, whenever you want it), and "5" means total restraint (constantly limiting food intake and never "giving in") what number would you give yourself?

- 1: eat whatever you want, whenever you want it.
- 2: usually eat whatever you want, whenever you want it
- 3: often eat whatever you want, whenever you want it
- 4: usually limit food intake, rarely "give in".
- 5: constantly limiting food intake, never "giving in".

51. To what extent do the statements below describe your eating behavior?

"I start in the morning, but because of any number of things that happen during the day, by evening I have given up and eat what I want, promising myself to start dieting again tomorrow."

1	2	3	4
Not like me	A little like me	Pretty good description of me	Describes me perfectly

52. "When I have eaten too many calories and feel that I have ruined my dieting for the day, I tend to continue eating. I promise to commit myself to dieting tomorrow."

1	2	3	4
Not like me	A little like me	Pretty good description of me	Describes me perfectly

53. "If there is food on my plate, I tend to eat it all, even if I am full. I eat it because I am used to eating all that is in front of me."

1	2	3	4
Not like me	A little like me	Pretty good description of me	Describes me perfectly

Appendix L

Family Environment Scale (Form R)

There are 90 statements in this booklet. They are statements about families. You are to decide which of these statements are true of your family and which are false. Make all your marks on the separate answer sheet. If you think the statement is *True* or mostly *True* of your family, make an X in the box labeled T (true). If you think the statement is *False* or mostly *False* of your family, make a X in the box labeled F (false).

You may feel that some of the statements are true for some family members and false for others. Mark T if the statement is *true* for most members. Mark F if the statement is *false* for most members. If the members are evenly divided, decide what is the stronger overall impression and answer accordingly.

Remember, we would like to know what your family seems like to *you*. So *do not* try to figure out how other members see your family, but *do* give us your general impression of your family for each statement.

01. Family members really help and support one another.
02. Family members often keep their feelings to themselves.
03. We fight a lot in our family.
04. We don't do things on our own very often in our family.
05. We feel it is important to be the best at whatever you do.
06. We often talk about political and social problems.
07. We spend most weekends and evenings at home.
08. Family members attend church, synagogue, or Sunday School fairly often.
09. Activities in our family are pretty carefully planned.
10. Family members are rarely ordered around.
11. We often seem to be killing time.
12. We say anything we want to around home.
13. Family members rarely become openly angry.

14. In our family, we are strongly encouraged to be independent.
15. Getting ahead in life is very important in our family.
16. We rarely go to lectures, plays or concerts.
17. Friends often come over for dinner to visit.
18. We don't say prayers in our family.
19. We are generally very neat and orderly.
20. There are very few rules to follow in our family.
21. We put a lot of energy into what we do at home.
22. It's hard to "blow off steam" at home without upsetting somebody.
23. Family members sometimes get so angry they throw things.
24. We think things out for ourselves in our family.
25. How much money a person makes is not very important to us.
26. Learning about new and different things is very important in our family.
27. Nobody in our family is active in sports, Little League, bowling, etc.
28. We often talk about the religious meaning of Christmas, Passover, or other holidays.
29. It's often hard to find things when you need them in our household.
30. There is one family member who makes most of the decision.
31. There is a feeling of togetherness in our family.
32. We tell each other about our personal problems.
33. Family members hardly ever lose their tempers.
34. We come and go as we want to in our family.
35. We believe in competition and "may the best man win."
36. We are not that interested in cultural activities.
37. We often go to movies, sports events, camping, etc.

38. We don't believe in heaven or hell.
39. Being on time is very important in our family.
40. There are set ways of doing things at home.
41. We rarely volunteer when something has to be done at home.
42. If we feel like doing something on the spur of the moment we often just pick up and go.
43. Family members often criticize each other.
44. There is very little privacy in our family.
45. We always strive to do things just a little better the next time.
46. We rarely have intellectual discussions.
47. Everyone in our family has a hobby or two.
48. Family members have strict ideas about what is right and wrong.
49. People change their minds often in our family.
50. There is a strong emphasis on following rules in our family.
51. Family members really back each other up.
52. Someone usually gets upset if you complain in our family.
53. Family members sometimes hit each other.
54. Family members almost always rely on themselves when a problem comes up.
55. Family members rarely worry about job promotions, school grades, etc.
56. Someone in our family plays a musical instrument.
57. Family members are not very involved in recreational activities outside work or school.
58. We believe there are some things you just have to take on faith.
59. Family members make sure their rooms are neat.
60. Everyone has an equal say in family decisions.
61. There is very little group spirit in our family.

62. Money and paying bills is openly talked about in our family.
63. If there's a disagreement in our family, we try hard to smooth things over and keep peace.
64. Family members strongly encourage each other to stand up for their rights.
65. In our family, we don't try that hard to succeed.
66. Family members often go to the library.
67. Family members sometimes attend courses or take lessons for some hobby or interest (outside of school).
68. In our family each person has different ideas about what is right and wrong.
69. Each person's duties are clearly defined in our family.
70. We can do whatever we want to in our family.
71. We really get along well with each other.
72. We are usually careful about what we say to each other.
73. Family members often try to one-up or out-do each other.
74. It's hard to be by yourself without hurting someone's feelings in our household.
75. "Work before play" is the rule in our family.
76. Watching T.V. is more important than reading in our family.
77. Family members go out a lot.
78. The Bible is a very important book in our home.
79. Money is not handled very carefully in our family.
80. Rules are pretty flexible in our household.
81. There is a plenty of time and attention for everyone in our family.
82. There are a lot of spontaneous discussions in our family.
83. In our family, we believe you don't ever get anywhere by raising your voice.
84. We are not really encouraged to speak up for ourselves in our family.

85. Family members are often compared with others as to how well they are doing at work or school.
86. Family members really like music, art and literature.
87. Our main form of entertainment is watching T.V. or listening to the radio.
88. Family members believe that if you sin you will be punished.
89. Dishes are usually done immediately after eating.
90. You can't get away with much in our family.

Appendix M

Maternal Food Control and Meal Preparation (MFCMP)--Daughter's Form

DIRECTIONS: Circle the number that best corresponds to the way your mother was WHEN YOU WERE GROWING UP. Remember there are NO right or wrong answers!

01. Mother typically planned at least 3 complete meals each day
 1.....2.....3.....4
 Yes, always Never
02. My mother made sure our family's diet included foods from all the food groups
 1.....2.....3.....4
 Yes, always Never
03. My mother encouraged us to take vitamin supplements
 1.....2.....3.....4
 Everyday Never
04. My mother tried to have us eat a fat free and/or low calorie diet
 1.....2.....3.....4
 Everyday Never
05. My mother closely watched what we ate and when we ate it
 1.....2.....3.....4
 Everyday Never
06. We had cake or cookies around the house
 1.....2.....3.....4
 Everyday Never
07. My mother shopped at health food stores
 1.....2.....3.....4
 All the time Never
08. Mother felt that we ate healthy
 1.....2.....3.....4
 Everyday Never
09. When my mother prepared a meal for us, she removed the fat off the meat
 1.....2.....3.....4
 Yes, always Never

10. My mother cautioned me about my intake of fat/calories

1.....2.....3.....4
 Everyday Never

11. If a neighbor or friend brought over cake or dessert, mother expressed concern about the ingredients

1.....2.....3.....4
 Yes, always Never

12. We had real ice cream around the house

1.....2.....3.....4
 Everyday Never

13. If we ate lunch at the school cafeteria, my mother wondered if it was healthy enough

1.....2.....3.....4
 Yes, always Never

14. My mother thought that having candy bars around the house was too great of a temptation

1.....2.....3.....4
 Yes, always Never

15. When my mother saw us eating unhealthy foods, she felt uncomfortable

1.....2.....3.....4
 Yes, always Never

16. Having candy around the house created hassles between my mother and me

1.....2.....3.....4
 Yes, always Never

17. We had potato chips/Doritos around the house

1.....2.....3.....4
 Everyday Never

18. My mother preferred preparing all the family meals to ensure that they had healthy ingredients, rather than going out to eat

1.....2.....3.....4
 Yes, always Never

19. My mother purposefully avoided buying breakfast foods that kids might like because she felt that they were unhealthy

1.....2.....3.....4
 Yes, always Never

20. We had chocolate and other candy around the house

1.....2.....3.....4
 Everyday Never

21. My mother felt she had a difficult time teaching us to eat healthy foods

1.....2.....3.....4
Yes, always Never

22. My mother cooked with health food store products

1.....2.....3.....4
Yes, always Never

23. My mother is concerned that we will not remember what she taught us about healthy eating when we are adults

1.....2.....3.....4
Yes, always Never

24. Growing up, my mother reminded us about healthy eating

1.....2.....3.....4
Yes, always Never

25. If I looked in my mother's cupboards and refrigerator on a typical day, I would find only healthy foods (e.g., those low in fat and calories)

1.....2.....3.....4
Yes, always Never

26. Because we might miss eating some of the food groups, mom asked us to take vitamins

1.....2.....3.....4
Everyday Never

27. My mother bought carob instead of chocolate

1.....2.....3.....4
Yes, always Never

28. When we had cake, cookies, pancakes, my mom added wheat germ

1.....2.....3.....4
Yes, always Never

29. We ate sugar cereals (e.g., Frosted Flakes, Captain Crunch, etc) growing up

1.....2.....3.....4
Everyday Never

30. While I was growing up my mother was

- A. a health food "nut"
- B. concerned about eating and limited our intake of "unhealthy" snack foods
- C. not very concerned with our eating, but had some rules
- D. not concerned with our eating and allowed us eat whatever we wanted

31. I would say my mom's rules about food were

- A. extremely strict
- B. strict
- C. relaxed
- D. extremely relaxed

Appendix N

Maternal Food Control and Meal Preparation (MFCMP)--Mother's Form

DIRECTIONS: Circle the number that best corresponds to the way you were as a mother WHEN YOUR KIDS WERE GROWING UP. Remember there are NO right or wrong answers!

01. I typically planned at least 3 complete meals each day
 1.....2.....3.....4
 Yes, always Never
02. I made sure my family's diet included foods from all the food groups
 1.....2.....3.....4
 Yes, always Never
03. I encouraged my children to take vitamin supplements
 1.....2.....3.....4
 Everyday Never
04. I tried to have my family eat a fat free and/or low calorie diet
 1.....2.....3.....4
 Everyday Never
05. I closely watched what my children ate and when they ate it
 1.....2.....3.....4
 Everyday Never
06. I had cake or cookies around the house
 1.....2.....3.....4
 Everyday Never
07. I shopped at health food stores
 1.....2.....3.....4
 All of the time Never
08. I felt that my family ate healthy
 1.....2.....3.....4
 Everyday Never
09. When I prepared a meal for my family, I removed the fat off the meat
 1.....2.....3.....4
 Yes, always Never

10. I cautioned my children about their intake of fat/calories

1.....2.....3.....4
 Everyday Never

11. If a neighbor or friend brought over cake or dessert, I expressed concern about the ingredients

1.....2.....3.....4
 Yes, always Never

12. I had real ice cream around the house

1.....2.....3.....4
 Everyday Never

13. If my children ate lunch at the school cafeteria, I wondered if it was healthy enough

1.....2.....3.....4
 Yes, always Never

14. I thought that having candy bars around the house was too great of a temptation

1.....2.....3.....4
 Yes, always Never

15. When I saw my children eating unhealthy foods, I felt uncomfortable

1.....2.....3.....4
 Yes, always Never

16. Having candy around the house created hassles between my children and me

1.....2.....3.....4
 Yes, always Never

17. I had potato chips/Doritos around the house

1.....2.....3.....4
 Everyday Never

18. I preferred preparing all the family meals to ensure that they had healthy ingredients, rather than going out to eat

1.....2.....3.....4
 Yes, always Never

19. I purposefully avoided buying breakfast foods that kids might like because I felt that they were unhealthy

1.....2.....3.....4
 Yes, always Never

20. I had chocolate and other candy around the house

1.....2.....3.....4
 Everyday Never

21. I felt I had a difficult time teaching my children to eat healthy foods

1.....2.....3.....4
Yes, always Never

22. I cooked with health food store products

1.....2.....3.....4
Yes, always Never

23. I am concerned that my children will not remember what I taught them about healthy eating when they are adults

1.....2.....3.....4
Yes, always Never

24. When my children were growing up, I reminded them about healthy eating

1.....2.....3.....4
Yes, always Never

25. If I looked in my cupboards and refrigerator on a typical day, I would find only healthy foods (e.g., those low in fat and calories)

1.....2.....3.....4
Yes, always Never

26. Because my children might miss eating some of the food groups, I asked them to take vitamins

1.....2.....3.....4
Everyday Never

27. I bought carob instead of chocolate

1.....2.....3.....4
Yes, always Never

28. When I made my family cake, cookies, pancakes, I added wheat germ

1.....2.....3.....4
Yes, always Never

29. I allowed my children to eat sugar cereals (e.g., Frosted Flakes, Captain Crunch, etc) when they were growing up

1.....2.....3.....4
Everyday Never

30. While my children were growing up I was

- A. a health food "nut"
- B. concerned about their eating and limited their intake of "unhealthy" snack foods
- C. not very concerned with their eating, but I had some rules
- D. not concerned with their eating and allowed them to eat whatever they wanted

31. I would say my rules about food were

- A. extremely strict
- B. strict
- C. relaxed
- D. extremely relaxed

Appendix O

Factor Structure of the Maternal Food Control and Meal Preparation (MFCMP)

Daughter's Form

Factor 1 - Mother's Anxieties About Children's Eating Practices

- 16. Having candy around the house created hassles between my mother and I
- 21. My mother felt she had a difficult time teaching us to eat healthy foods
- 14. My mother thought that having candy bars around the house was too great of a temptation
- 15. When my mother saw us eating unhealthy foods, she felt uncomfortable
- 11. If a neighbor or friend brought over cake or dessert, mother expressed concern about the ingredients
- 23. My mother is concerned that we will not remember what she taught us about healthy eating when we are adults
- 29. We ate sugar cereals (e.g., Frosted Flakes, Captain Crunch, etc) growing up - *Reverse Scoring*
- 19. My mother purposefully avoided buying breakfast foods that kids might like, because she felt that they were unhealthy
- 13. If we ate lunch at the school cafeteria, my mother wondered if it was healthy enough
- 18. My mother preferred preparing all the family meals to ensure that they had healthy ingredients, rather than going out to eat

Factor 2 - Mother's Meal Preparation/Behavior

- 05. My mother closely watched what we ate and when we ate it
- 02. My mother made sure our family's diet included foods from all the food groups
- 08. Mother felt that we ate healthy
- 01. Mother typically planned at least 3 complete meals each day

30. While I was growing up my mother was
- A. A health food “nut”
 - B. Concerned about eating and limited our intake of “unhealthy” snack foods
 - C. Was not very concerned with our eating, but had some rules
 - D. Let us eat whatever we wanted
31. I would say my mom’s rules about food were
- A. extremely strict
 - B. strict
 - C. relaxed
 - D. extremely relaxed

Factor 3 - Availability of Treats and Junk Food in the Home

20. We had chocolate and other candy around the house
06. We had cake or cookies around the house
12. We had real ice cream around the house
17. We had potato chips/Doritos around the house
25. If I looked in my mother’s cupboards and refrigerator on a typical day, I would find only healthy foods (e.g., those low in fat and calories) - *Reverse Scoring*

Factor 4 - Mother’s Concerns with Calories/Fat

04. My mother tried have us eat a fat free and/or low calorie diet
10. My mother cautioned me about my intake of fat/calorie
24. Growing up, my mother reminded us about healthy eating
09. When my mother prepared a meal for us, she removed the fat off the meat

Factor 5 - Mother’s Use of Health Foods and Vitamins

07. My mother shopped at health food stores
22. My mother cooked with health food store products
27. My mother bought carob instead of chocolate
28. When we had cake, cookies, pancakes, my mom added wheat germ

26. Because we might miss eating some of the food groups, mom asked us to take vitamins

03. My mother encouraged us to take vitamin supplements

Factor Structure of the Maternal Food Control and Meal Preparation (MFCMP)

Mother's Form

Factor 1 - Mother's Anxieties About Children's Eating Practices

- 16. Having candy around the house created hassles between my children and me
- 21. I felt I had a difficult time teaching my children to eat healthy foods
- 14. I thought that having candy bars around the house was too great of a temptation
- 15. When I saw my children eating unhealthy foods, I felt uncomfortable
- 11. If a neighbor or friend brought over cake or dessert, I expressed concern about the ingredients
- 23. I am concerned that my children will not remember what I taught them about healthy eating when they are adults
- 29. I allowed my children to eat sugar cereals (e.g., Frosted Flakes, Captain Crunch, etc) growing up - *Reverse scoring*
- 19. I purposefully avoided buying breakfast foods that kids might like, because I felt that they were unhealthy
- 13. If my children ate lunch at the school cafeteria, I wondered if it was healthy enough
- 18. I preferred preparing all the family meals to ensure that they had healthy ingredients, rather than going out to eat

Factor 2 - Mother's Meal Preparation/Behavior

- 05. I closely watched what my children ate and when they ate it
- 02. I made sure my family's diet included foods from all the food groups
- 08. I felt that my family ate healthy
- 01. I typically planned at least 3 complete meals each day
- 30. While my children were growing up I was
 - A. A health food "nut"
 - B. Concerned about eating and limited our intake of "unhealthy" snack foods
 - C. Was not very concerned with our eating, but had some rules
 - D. Let us eat whatever we wanted

31. I would say my rules about food were

- A. extremely strict
- B. strict
- C. relaxed
- D. extremely relaxed

Factor 3 - Availability of Treats and Junk Food in the Home

20. I had chocolate and other candy around the house

06. I had cake or cookies around the house

12. I had real ice cream around the house

17. I had potato chips/Doritos around the house

25. If I looked in my cupboards and refrigerator on a typical day, I would find only healthy foods (e.g., those low in fat and calories) - *Reverse scoring*

Factor 4 - Mother's Concerns with Calories/Fat

04. I tried to have my family eat a fat free and/or low calorie diet

10. I cautioned my children about their intake of fat/calorie

24. When my children were growing up, I reminded them about healthy eating

09. When I prepared a meal for us, I removed the fat off the meat

Factor 5 - Mother's Use of Health Foods and Vitamins

07. I shopped at health food stores

22. I cooked with health food store products

27. I bought carob instead of chocolate

28. When I made my family cake, cookies, pancakes, I added wheat germ

26. Because my children might miss eating some of the food groups, I asked them to take vitamins

03. I encouraged my children to take vitamin supplements

Appendix P

The Marlowe-Crowne Social Desirability Scale (MCSD)

Directions. Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you. ON THE SCANTRON 1 = TRUE AND 2 = FALSE

- T F 01. Before voting I thoroughly investigate the qualifications of all candidates.
- T F 02. I never hesitate to go out of my way to help someone in trouble.
- T F 03. It is sometimes hard for me to go on with my work if I am not encouraged.
- T F 04. I have never intensely disliked a person.
- T F 05. On occasion I have had doubts about my ability to succeed in life.
- T F 06. I sometimes feel resentful when I don't get my way.
- T F 07. I am always careful about my manner of dress.
- T F 08. My table manners at home are as good as when I eat out in a restaurant.
- T F 09. If I could get into a movie without paying and be sure I was not seen, I would probably do it.
- T F 10. On a few occasions, I have given up doing something because I thought too little of my ability.
- T F 11. I like to gossip at times.
- T F 12. There have been times when I felt like rebelling against people of authority even though I knew they were right.
- T F 13. No matter who I'm talking to, I'm always a good listener.
- T F 14. I can remember "playing sick" to get out of something.
- T F 15. There have been occasions when I took advantage of someone.
- T F 16. I'm always willing to admit it when I make a mistake.
- T F 17. I always try to practice what I preach.

- T F 18. I don't find it particularly difficult to get along with loud-mouthed, obnoxious people.
- T F 19. I sometimes try to get even, rather than forgive and forget.
- T F 20. When I don't know something, I don't at all mind admitting it.
- T F 21. I am always courteous, even to people who are disagreeable.
- T F 22. At times I have really insisted on having things my own way.
- T F 23. There have been occasions when I felt like smashing things.
- T F 24. I would never think of letting someone else be punished for my wrongdoings.
- T F 25. I never resent being asked to do a favor.
- T F 26. I have been irked when people expressed ideas very different from my own.
- T F 27. I never make a long trip without checking the safety of my car.
- T F 28. There have been times when I was quite jealous of the good fortune of others.
- T F 29. I have almost never felt the urge to tell someone off.
- T F 30. I am sometimes irritated by people who ask favors of me.
- T F 31. I have never felt that I was punished without cause.
- T F 32. I sometimes think when people have a misfortune they only got what they deserved.
- T F 33. I have never deliberately said something that hurt someone's feelings.

VITA

Colette Marie Candy

Education

- 2001 Ph.D. - Combined (Clinical, Counseling, & School Psychology)
Utah State University
Logan, UT
Dissertation: Mothers' eating beliefs and behaviors and their relationship to daughters' bulimic and anorexic symptoms.
Supervisor: David M. Stein, Ph.D.
- 1996 M.S. - Clinical Psychology
Mississippi State University
Starkville, MS
Thesis: A self-report scale to measure problematic eating behaviors in preadolescent children: The Eating Behaviors and Body Image Test (EBBIT) for Preadolescent Girls.
Supervisor: Virginia E. Fee, Ph.D.
- 1994 B.A. - Psychology and Business Administration
Muhlenberg College
Allentown, PA

Clinical Experience

- 8/99 - 9/00 Clinical Internship at Malcolm Grow Medical Center
Andrews AFB, MD (2000 hours)
Completed a 6-month rotation at the Outpatient Mental Health Clinic providing psychological assessment and treatment to children and adults. Provided services to clients with a variety of health psychology concerns for 6-months at the Behavioral Medicine Clinic while completing a minor rotation in Neuropsychology.
- 9/98 - 6/99 Clinical Assistantship at Bear River Mental Health Center
Logan, UT (20 hours a week)
Provide individual, family and couples therapy to children, adolescents, and adults. Responsible for intake assessments reports, psychological evaluations, and treatment plans.
Supervisor: Leland Winger, Ph.D.
- 9/98 - 6/99 Counseling Practicum at Utah State University Counseling Center
Logan, UT (10 hours a week)
Provide therapy to college students with a variety of disorders, as well as perform

- initial intake sessions and complete reports. Group supervision, case presentations, and presentations of totaled 3 hours of the 10 hour week.
Supervisor: Mark Nafziger, Ph.D.
- 9/98 - 5/99 Co-leader of a Group for Women who are Survivors of Severe Sexual Abuse
Utah State University, Logan, UT (2 hours a week)
Observe and assist with a long-term therapy group (7 years in progress) for adult women survivors of severe sexual and physical abuse.
Supervisor: Carolyn Barcus, Ph.D.
- 9/97 - 6/99 Therapist at the Child Evaluation and Treatment Center (Program Sanctioned Training)
Logan, UT (4 - 5 hours a week)
Provide therapy to children including individual sessions, family sessions, group therapy, and psychological evaluations. Conduct initial intake sessions and provide therapy to approximately 4 clients a week. Receive one hour of supervision per week.
Supervisor: Steven Gentry, Ph.D.
- 10/97 - 6/98 School Practicum in Weber School District
Ogden, UT (completed 300 hours)
Conducted psychological assessments for children with learning disabilities, behavior disorders, and intellectual deficits, which usually included the WISC-III, Woodcock Johnson Test of Academic Achievement - Revised, and Behavioral Observations. Attended IEP meetings and staff meetings. Developed interventions for children with behavioral problems, along with consultation to teachers following Kratochwill and Bergan's behavioral model. Provided counseling to students in a behavioral unit. Practicum included 1 day a week in the schools and 2 hours of supervision at USU every other week.
Supervisors: Gretchen Gimpel, Ph.D., Utah State University
Julie Zolinger, Certified School Psychologist, Weber School District
- 10/96 - 8/96 Clinical Practicum at Psychology Community Clinic
Logan, UT (completed 300 hours)
Conducted intake evaluations, psychological assessments, and provided therapy to clients from the community including both children and adults. Psychological assessments typically included the MMPI-2, BDI, and other appropriate measures (e.g., EDI-2, Incomplete Sentences, etc.). Practicum included seeing 5 to 6 clients each week and 3 hours of supervision.
Supervisor: Dr. Kevin Masters, Ph.D.
- 5/96 - 9/96 Adult Mental Health Consultant at Community Counseling Services
Ackerman, MS (completed 680 hours)
Responsible for all adult clients and their mental health treatment. Conducted intake evaluations and therapy sessions, wrote treatment plans, performed treatment plan reviews and conducted staffing sessions. Started with case load of 45 clients and left with a case load of 70 clients.
Supervisors: Francis Baird, L.P.C. & Juawice McCormick, M.S.

- 1/96 - 5/96 Clinical Practicum at Hudspeth Mental Retardation Center
Jackson, MS (completed 300 hours)
Observed clients and wrote behavior modification plans. Worked in the local schools with children with autism and implemented a treatment plan developed by Dr. Ivar Lovaas of UCLA for a child with autism. Performed testing and assistance to teachers in a language oriented school for deaf children.
Supervisors: Mark Pang, Ph.D., Hudspeth Mental Retardation Center
Lori Rokicki, Ph.D., Mississippi State University
- 7/95 - 8/95 Clinical Practicum at Pinecrest Developmental Center
Pineville, LA (completed 320 hours)
Performed a complete assessment on clients by completing the Vineland Adaptive Behavior Scale (VABS), Diagnostic Assessment for the Severely Handicapped (DASH) or The Psychopathology Inventory for Mentally Retarded Adults (PIMRA), Matson Evaluation of Social Skills for Individuals with Severe Retardation (MESSIER) or the Social Performance Survey Schedule (SPSS), Functional Analysis for Psychopathology (FAP), Motivation Assessment Scale (MAS), and the Questions about Behavioral Function (QABF). Wrote Behavior Treatment Plans based on assessments. Administered the Stanford Binet-LM or the Leiter International Intelligence Tests to clients and wrote Psychological Reports.
Supervisor: Johnny L. Matson, Ph.D., Director of Clinical Training at LSU
Virginia E. Fee, Ph.D., Mississippi State University
- 1/94 - 5/94 Internship at Lehigh Valley Hospital's Adolescent Psychiatric Unit
Allentown, PA (completed 250 hours)
Attended staffing sessions, offered one on one supportive services to clients, charted sessions with clients, and helped with occupational group activities. Observed psychological testing and initial interviews. Helped facilitate group therapy sessions.
Supervisor: Jeffery Knauss, Ph.D.

Publications

- Candy, C. M., & Fee, V. E. (2000). A timely, comprehensive evaluation of pediatric and adolescent health psychology issues. Journal of Clinical Child Psychology,
- Candy, C. M. & Fee, V. E. (1998). Reliability and concurrent validity of the Body Image Silhouettes (BIS) with preadolescent girls. Eating Disorders, The Journal of Treatment and Prevention, 6, 297-308.
- Candy, C. M. & Fee, V. E. (1998). Underlying dimensions and psychometric properties of the Eating Behaviors and Body Image Test (EBBIT) for preadolescent girls. Journal of Clinical Child Psychology, 27, 117-127.
- Fee, V. E. & Candy, C. M. (1998). EBBIT Eating Behaviors and Body Image Test for Preadolescent Girls Manual. Copyright Mississippi State University.

Presentations

- Candy, C. M. & Stein, D. M. (November 2001). Predicting Symptoms of Anorexia and Bulimia in Women. Poster accepted at the Association for Advancement of Behavior Therapy Conference. Philadelphia, PA.
- Candy, C. M., & Stein, D. M. (August 2000). Mothers' Control of Food and Daughters' Bulimic and Anorexic Symptoms. Poster present at the American Psychological Association Conference. Washington D. C.
- Candy, C. M., & Dobmeyer, A. (April 1999) Primary Prevention Programs for Eating Disorders in the Schools: What Do We Know and Where Should We Go?. Paper presented at the National Association of School Psychologists Conference. Las Vegas, NV.
- Candy, C. M. (September 1998) Preadolescent eating behaviors: A cause for concern. Paper presented at the Annual Virginia Beach Conference: Children and Adolescents with Emotional, Behavioral, and Developmental Disorders. Virginia Beach, VA.
- Candy, C. M. & Fee, V. E. (April 1998) Psychometric properties of the Body Image Silhouettes with preadolescent girls. Poster presented at the Rocky Mountain Psychological Association and Western Psychological Associations Joint Convention. Albuquerque, NM.
- Stein, D., Candy, C., & Dagang, S. (April 1998). Dietary restraint and food consumption: An evaluation of the findings. Poster presented at the Rocky Mountain Psychological Association and Western Psychological Associations Joint Convention. Albuquerque, NM.
- Candy, C. M., Roberts, R. N., Behl, D. D., & Akers, A. (April 1997) Parent's perspective on early intervention services for children with disabilities. Paper presented at the Annual Convention of the Rocky Mountain Psychological Association. Reno, NV.
- Candy, C. M., & Fee, V. E. (April 1997) Underlying dimensions of problematic eating behaviors and body image in preadolescent girls. Poster presented at the Annual Conference of the Rocky Mountain Psychological Association. Reno, NV.
- Candy, C. M., Fee, V. E. & Carmack, R. (April 1997) A self-report scale to measure problematic eating behaviors and distorted body image in preadolescent girls: The Eating Behaviors and Body Image Test (EBBIT) for Preadolescent Girls. Poster presented at the Annual Convention of the Southeastern Psychological Association. Savannah, GA.

Teaching Experience

- 11/98 Guest Lecturer in Child Psychopathology
Utah State University, Logan, UT
Presented information on eating disorders in the preadolescent and adolescent populations.

- 6/98 - 8/98 Summer Quarter Instructor of Educational Psychology
Utah State University, Logan UT
Responsibilities included conducting lectures and running the supplementary lab for both the elementary and secondary education majors. Prepared lectures, tests, as well as graded papers and issued final grades.
- 2/98 Guest Lecturer in Psychology 101
Utah State University, Logan UT
Presented information on sexual functioning and disorders, and eating disorders.
- 6/97 - 5/98 Teaching Assistant for Dr. Carla Reyes and Dr. Lani VanDusen, Professors of Educational Psychology
Utah State University, Logan UT (20 hours a week)
Responsibilities included teaching the supplementary lab for both the elementary and secondary education majors as well as 3 to 4 lectures each quarter.
Responsible for holding office hours, grading papers, proctoring tests, and maintaining the students' grades.

Graduate Research Assistantships

- 10/96 - 9/97 Research Assistant for Dr. Richard Roberts, Director of the Early Intervention Research Institute, Logan, UT (20 hours a week)
Assisted with the activities of the Opening Doors grant (federally funded) which was designed to define, synthesize, and disseminate recommended practices for home visiting services for children with special health care needs and their families within states' early intervention systems. Involved with coding articles for the meta-analysis and dissemination activities including reviewing current material available and manuscript preparation. Also assisted with grant writing.
- 1/95 - 5/96 Research Assistant for Dr. David McMillen and Elisabeth Wells-Parker, Researchers at the Social Science Research Center, Starkville, MS (20 hours a week, excluding the summer). Assisted with research by collecting data and performing statistical analysis which included scanning the data and writing SPSS programs to perform analysis.
- 1/95 - 5/95 Research Assistant for Dr. Susan Fussel, Interpersonal Communication Research at Mississippi State University, Starkville, MS (20 hours a week)
Organized research projects, which included recruiting and scheduling subjects, preparing materials, entering data, and attending lab groups.

Honors and Awards

Women and Gender Research Institute Research Grant (for \$400)
The Psi Chi and Rocky Mountain Psychological Association Regional Research Award
Psi Chi

Phi Kappa Phi
 Muhlenberg Merit Scholarship
 Omicron Delta Epsilon - National Economic Honor Society
 Muhlenberg College Department of Business and Accounting, Award of
 Academic Excellence

Positions

- 4/00 – 6/00 Chief Resident
 Malcolm Grow Medical Center, Fairchild AFB, MD
 Coordinated resident duties with the faculty and served as a liaison between residents and faculty.
- 9/98 – 6/99 Graduate Student Representative
 Utah State University Psychology Department, Logan, UT
 Nominated by the graduate students to represent them in the monthly faculty meetings. Responsibilities also include assisting with the organization of faculty and student events as well as with new student interviews.
- 1/97 - 4/97 Student Representative for Open Faculty Position
 Utah State University Psychology Department, Logan, UT
 Organized graduate student meetings with candidates for an open faculty position and reported feedback from students to the Chair of the Committee. Participated in logistical matters with the candidates (e.g., picking them up from the airport, dinners).

Certifications and Workshops Attended

- 4/00 *“Community Crisis Response Team Training”* by the National Organization for Victim Assistance and the Walter Reed Army Medical Center, Washington, DC.
- 3/98 *“An Afternoon with a Master”* by Irvin Yalom. The 4th Annual USU Counseling Center Conference, Weber State University, UT.
- 5/96 *“Training and Certification for the Provision of Pre-Evaluation Screening”* by the Mississippi Department of Mental Health, Jackson, MS.

Professional Organizations

- 10/98 -present National Association of School Psychologists, Student Affiliate
- 8/95 - present American Psychological Association, Student Affiliate
- 12/96 – 12/99 Rocky Mountain Psychological Association, Student Affiliate
- 8/95 - 8/96 Association for the Advancement of Behavior Therapy, Student Affiliate

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