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Chapter One: Introduction

Female body image and, more specifically, weight concerns are issues that regularly receive attention in research (Adams et al., 2000; Benedikt et al., 1998; Donovan et al., 2006). For the purposes of this study, body image is defined as a person’s self-perception of how his or her body looks. Weight concerns refer to any feelings that a person has about the size or weight of his or her body. Previous research shows that many women have a desire to lose weight and be thin (Ata et al., 2007; Benedikt et al., 1998; Clarke and Griffin, 2007; Thompson et al., 1999). Though research suggests that a significant amount of the direct pressure to lose weight or be thin comes from mothers, such as suggesting that their daughter lose weight, existing scholarship has not considered how indirect pressure, such as how mothers talking about their own concerns with losing weight or being thin affects their daughters (Benedikt et al., 1998; Cooley et al., 2008; Fulkerson et al., 2002). Both direct and indirect pressures are explored in this project.

The current study examines young adult females aged 18-25 years old to investigate how their mothers influence their body image and weight concerns. There is evidence that this relationship exists but it has not been examined among young adult...
females (Bendikt et al., 1998; Cooley et al., 2008; Fulkerson et al., 2002). Instead, prior research has focused on girls ranging from five-year-olds to 7th and 8th graders (Fulkerson et al., 2002; Neumark-Sztainer et al., 2002; Rierdan and Koff, 1997). This study focuses on 18-25 year old females because women in this age group are at a critical point in life. Women in this age group are often living on their own for the first time and are developing attitudes and behaviors during young adulthood, which is an important point in life for influencing adult health and behaviors (Wadsworth, 1997). The patterns established at these ages will set the health trajectory for adulthood (Harris, 2010).

Additionally, information from this project can be used by individuals to craft intervention programs addressing eating disorders and body image. More specifically, this project identifies factors that contribute to the development of unhealthy weight control behaviors, disordered eating and poor body image. It provides information on specific issues that should be addressed to help young women who have, or may develop, an eating disorder. Additionally, the results from this project can help develop resources to aid mothers who are concerned that their daughters may develop eating disorders.

In order to assess body image and weight concerns among college-aged females, this study examines one central research question: To what extent are young women’s attitudes and behaviors about weight and body image influenced by their perceptions of their mothers’ attitudes and behaviors about weight and body image?

The current study examines the research question above in order to provide information about an age group that is missing from existing literature. This study utilizes a survey of 18-25 year old females to examine their attitudes and behaviors about weight
and body image. The findings from this research help explain the relationship between mothers and their daughters in regard to weight and body image.
Chapter Two: Literature Review

The preoccupation with losing weight is not new to American culture. Since women’s desire to lose weight, as well as the pressure to lose weight, are prevalent issues in America, it is crucial to identify sources of the pressure to lose weight to aid in education and intervention about body image and eating disorders. By identifying sources of pressure to lose weight, this project identifies issues that contribute to the development of unhealthy weight control practices and disordered eating that may be curtailed by education. Prior research shows that mothers significantly contribute to the pressure females feel to lose weight and social learning theory can help to explain why maternal attitudes and behaviors are influential in developing their daughters’ attitudes and behaviors.

Social Learning Theory

Social learning theory, or the modeling of behavior, helps to explain why mothers and daughters can exhibit similar attitudes and behaviors. Albert Bandura’s social learning theory suggests that individuals learn from each other by witnessing behavior and imitating that behavior. The act of modeling means that a person observes others’ behavior and then integrates those behaviors into their own lives (Evans, 1989). While
mothers may not encourage their daughters to lose weight, their daughters learn the behaviors their mothers exhibit and model that behavior.

Additionally, modeling is responsible for transferring more than specific behaviors between individuals. Modeling also allows for ideas and attitudes to be transmitted between people as well (Evans, 1989). In the case of body image and weight concerns, daughters are able to detect, or perceive, the attitudes that mothers have about their bodies and will often mimic those attitudes. If daughters have mothers who express dissatisfaction with their weight, it is likely they will model those same attitudes about themselves.

*Why Females?*

It is important to examine weight loss and body image among females because existing research on young children and teenagers shows that they are affected by pressures to lose weight much more often than males (Adams et al., 2000; Ata et al., 2007; Donovan et al., 2006) and are more likely to struggle with body image and weight concerns (Ata et al., 2007; Fulkerson et al., 2002). Previous literature on body image and weight concerns suggests that teenage males and females experience pressure to lose weight from different sources and these sources have different affects on males and females (Ata et al. 2007; Neumark-Sztainer 2002). Existing research shows that girls are teased about their weight by family members and friends more often than boys (Neumark-Sztainer 2002), and the most severe pressure to lose weight comes from same-sex peers (Shomaker and Furman 2007). Furthermore, overweight girls are more negatively affected by the teasing and ridicule compared to boys (Neumark-Sztainer, 2002).
It is also evident that grade school and teenage boys do not struggle nearly as much as girls with body image and weight concerns (Adams et al., 2000; Ata et al., 2007). In general, male adolescents are more comfortable with their weight than are females, and they also have higher body satisfaction than do females (Adams et al., 2000; Ata et al., 2007). Previous research on teenagers shows that when females are asked what their ideal body size would look like, there are large discrepancies between ideal and current weights, with their ideal sizes being much smaller than their current size (Ata et al, 2007). Research shows that females express a strong desire to be smaller than they are even though very high proportions of those females are classified as being at a healthy weight or underweight (Ata et al., 2007; Donovan et al., 2006). Additionally, teenage females who are a healthy weight or underweight still want to lose weight and report dieting in the past (Ata et al., 2007; Donovan et al., 2006). While previous research focuses on young girls and teenagers, this research focuses on 18-25 year olds.

18-25 Year Olds

This study focuses on 18-25 year olds because females at this stage in life are in a transitional period. The behavioral patterns, specifically relating to health and diet, that they develop at this point in time will set the health trajectory for the rest of their lives (Harris, 2010). Discomfort and dissatisfaction with weight is found in females as young as five years old. Previous research shows that five-year-olds report lower self-esteem when they weigh more than their peers and think that they are not as smart as thinner classmates (Davidson and Birch, 2000). Research also shows that fourth graders are concerned about their weight and feel some degree of pressure to maintain a certain weight (Adams et al., 2000). Additionally, 7th graders report concern with their weight.
and increasing pressure to lose or maintain weight (Adams et al., 2000). This point is
critical because dissatisfaction with weight and body image starts at a very young age and
is likely carried into later periods of life. However, most research focuses on younger
females and it is important to examine the extent to which these issues exist during
emerging adulthood.

Additionally, prior scholarship demonstrates that females in college gain some
amount of weight their first year, which emphasizes why it is important to examine
females within the 18-25 year old age group (Economos et al., 2008). If females are
already experiencing criticism from their mothers about their weight it is possible that
they will experience increased criticism after gaining weight. Additionally, females who
gain weight become more stressed and unhappier with their weight (Economos et al.,
2008). While Economos et al.’s (2008) study focuses on females in college, the emphasis
is on physical body changes whereas the current study focuses on the emotional effects
and influences to lose weight.

Research shows that the pressure to be thin begins early and continues into early
adolescence (Adams et al., 2000; Davidson and Birch, 2000). Females begin feeling
pressure to be a certain weight and to control their weight at a very young age.
Additionally, adolescents’ diet gets worse as they age (Harris et al., 2006), which may
lead to increased pressure to control their weight. It is possible that young females still
face the same concerns about being thin and losing weight later in adolescence and into
young adulthood and that is explored in this study. Additionally, it is important to
consider how mothers can influence their daughters’ body image and weight concerns.
Maternal Influences

It is clear that family influences much of what individuals do and what individuals believe, so it is possible that family behaviors and beliefs could be indicators of future behavior and attitudes. Previous research shows that family structure is crucial to the development of belief systems and that parents are constantly shaping their children’s attitudes (Haworth-Hoepper, 2000), including beliefs and attitudes concerning weight. Mothers influence their daughters through their actions and words and their daughters pick up on even the subtlest clues.

Previous research on teenagers shows that mothers encourage their daughters to lose weight (Benedikt et al., 1998; Fulkerson et al., 2002; Pike and Rodin, 1991). Mothers who engage in their own weight control behaviors also tend to encourage their teenage daughters to diet (Benedikt et al., 1998; Fulkerson et al., 2002; Pike and Rodin, 1991). Teenage daughters also report that their mothers’ weight control attitudes and behaviors contribute to their concern about their weight and weight gain (Fulkerson et al., 2002). Additionally, when mothers vocally encourage their daughters to lose weight, their daughters engage in moderate weight loss practices such as exercise and some dietary restriction. However, when mothers’ exhibit dissatisfaction with their own weight as well as extreme weight control behaviors like fasting, their daughters also exhibit extreme weight control behaviors (Benedikt et al, 1998). Additionally, previous research on teenage females shows similarities among weight control behaviors between mothers and daughters. Mothers of diagnosed disordered eaters are also disordered eaters themselves (Pike and Rodin, 1991).
Mothers’ opinions of their daughters’ weight also affect their opinions of other attributes of their daughters, such as attractiveness and intelligence. Interestingly, the mothers of disordered eaters more often feel that their teenage daughters need to lose additional weight, and they also rank their daughters’ attractiveness lower than the daughters rank themselves (Pike and Rodin, 1991). Research also shows that mothers of daughters who weigh more than other girls feel that they are not as smart as the other thinner girls (Davidson and Birch, 2000). Additionally, mothers feed their daughters less if their daughters are larger than other girls (Davidson and Birch, 2000), which can have adverse effects on a young girl (Francis and Birch, 2005). Research shows that this method of withholding food is actually a counterproductive practice as it leads to their daughters eating more often when they are not hungry in the future (Francis and Birch, 2005). In sum, mothers significantly influence their daughters’ body image and weight concerns. It is also important to note that the pressure to lose weight or be thin can come in different forms.

*Direct vs. Indirect Pressures*

While much of the focus on body image and weight concerns is on direct pressure, or the obvious conversations about losing weight and encouragement to lose weight, it is also important to recognize that female adolescents are perceptive of indirect pressures coming from their family, such as witnessing behaviors that those individuals are using to control or lose weight. Previous research suggests that a significant amount of pressure to lose weight and be thin comes from the mother (Benedikt et al., 1998; Cooley et al., 2008; Fulkerson et al., 2002) but research fails to differentiate between direct and indirect pressure. The pressure that females feel to be thin does not have to be
direct or intentional as females are able to perceive concern from their mothers about their weight even if it is not explicitly stated (Thompson et al, 1999; Shomaker and Furman, 2007). As many females spend the majority of their time with family it is likely that they are receiving messages about losing weight regularly. Along with direct pressure, simply observing a conversation about losing weight leads to a decrease in women’s personal body satisfaction (Shomaker and Furman, 2007).

Research on college females suggests that simply the perception of negative attitudes about their body image from their mothers leads daughters to have more difficulty with their body image (Cooley et al., 2008). In addition to perceptions of their mothers’ attitudes, daughters report that negative feedback from their mothers, the eating behaviors of their mothers, as well as outright disapproval of their figure from their mother negatively affect their body image and their eating patterns (Cooley et al, 2008). Research using both mother and child reports shows there is a strong correlation between mothers’ attitudes and behaviors and their high school daughters’ body image and eating behaviors (Usmiani and Daniluk, 1997).

Because many females receive messages from their mothers about what they should look like and how much they should weigh, they are likely to internalize that pressure, resulting in underreporting of their weight. Interestingly, previous research establishes that there may be some level of embarrassment among females when it comes to their actual weight. Young females often underreport their weight when asked for it in pounds, but still classify themselves as overweight when asked more indirectly (Rierdan and Koff, 1997). The expectation is that females should weigh a certain amount, so they may view underreporting their weight as a way to be accepted by friends and family.
These findings are important because if many females regularly receive messages about being thin and losing weight, they are likely to be affected by them. The overwhelming pressure to lose weight has the potential to lead to negative outcomes, which are explored in the following section.

**Negative Effects of the Pressure to Lose Weight**

Being constantly pressured to lose weight or to be thinner has detrimental effects on a female’s self-esteem. Prior research on young females demonstrates that females expressing more concern about their weight as well as females having a higher Body Mass Index (BMI) increases the number of depressive symptoms women exhibit (Donovan et al., 2006; Rierdan and Koff, 1997). BMI refers to the ratio of a person’s weight in relation to his/her height. Additionally, research shows that teenage females with lower self-esteem feel more pressure to lose weight and report both more negative attitudes about eating and negative eating behaviors (Ata et al., 2007). This is evidence that weight and body image concerns have a huge impact on a female’s overall well-being. Low self-esteem could be due to the amount of negative reactions, such as teasing, that females are subject to, or that they see their weight as a personal failure. In both cases their weight is an issue that causes them distress. These findings reinforce the importance of a healthy body image for purposes of having healthy mental stability.

Along with poor self-esteem, research on high school females also shows that higher levels of suicidal thought as well as suicide attempts are correlated with negative weight control practices. Females who exhibit mild and extreme weight control behaviors, such as dieting, exercising, and restricting food, as well as dissatisfaction with their bodies are more likely to think about, and attempt, suicide (Crow et al, 2008; Geller
et al., 2003). Research shows that parents are unaware of their daughters’ self-esteem and they usually rank their daughters’ self-esteem higher than the daughters rank themselves (Geller et al., 2003). This is an important issue because it suggests that females are struggling with poor self-esteem, which contributes to suicide ideation and attempt, and their mothers are not likely to be aware of the struggles.

Additionally, research on young women shows that conversations about being thinner and losing weight, as well as being made fun of by friends and family, result in a decrease in body satisfaction (Shomaker and Furman 2007) and unhealthy weight control behaviors, such as fasting, taking diet pills, using laxatives or diuretics, or eating very little food (Neumark-Sztainer, 2002). Females experience the pressure to lose weight from their family, which leads to dissatisfaction with their bodies, and they subsequently change their behavior in hopes of changing their appearance. Unfortunately, their behavior modification becomes unhealthy. The effect that teasing has on females is evidence that pressures to lose weight contribute significantly to females’ attitudes and behaviors about weight.

All of these negative effects have the potential to be very influential in a person’s life. If a female is feeling pressure to lose weight, then her chances of experiencing these negative outcomes are increased. This study examines the pressure females feel, as well as the source of that pressure, to assess if young women engage in more negative behaviors. This study also examines how mothers influence their daughters in regard to body image and weight concerns. Additionally, this study investigates to what extent indirect pressure from the mother, such as talking about her own weight and losing weight, is correlated with their daughter’s weight control behaviors as well as their self-
esteem. The main purpose of the current study is to examine how mothers’ attitudes and behaviors about weight influence their daughters’ attitudes and behaviors about weight. The current study tests the following hypotheses to assess the relationship between mothers and their 18-25 year old daughters in regard to body image and weight concerns.

Hypotheses

Based on prior research findings, this study proposes the following hypotheses:

H1 – Females aged 18-25 years old, will report unhappiness with their weight. They view their bodies as larger than they wish they would be. Prior scholarship demonstrates that the majority of female adolescents have an ideal body image that is much smaller than their actual body (Ata et al., 2007; Donovan et al., 2006).

H2 – Females aged 18-25 years old who report their mothers diet or stress the importance of being thin are more likely to struggle with weight and body image issues than those females who do not report their mothers diet or stress the importance of being thin. Previous research illustrates that children experience a significant amount of pressure to be thin or lose weight from the mother (Benedikt et al., 1998; Cooley et al., 2008; Fulkerson et al., 2002).
Chapter Three: Data and Methods

Population

The population for this study is women in the United States who are between the ages of 18 and 25 because the purpose of the project is to examine the extent to which young adult women’s body image and weight control behaviors are influenced by their perceptions of their mothers’ attitudes about weight and weight control behaviors. For purposes of the study males and people who are outside that age group are excluded. This study focuses on 18-25 year old women because there has not been much research conducted on young adult women about the pressures they feel to lose weight or the predictors of their body image.

Sampling

The sample consists of current college students at a mid-sized Midwestern university. Various racial and ethnic backgrounds may be under represented at the university. Random sampling is used to recruit females between the ages of 18 and 25 who are enrolled in the Midwestern university. Random sampling is used to ensure that there is randomness in the data because regression analysis is performed. A list of all females, undergraduate and graduate, who were currently enrolled at the university
during the Fall 2010 semester was used in order to contact participants. The university’s Communication Center made contact with participants for the study. The researcher asked the Communication Center to send out emails to females at the university requesting participation in the survey.

There are 1,189 respondents in the survey. Of the 1,189 respondents, 876 (73.7%) meet the age criteria for this study. Respondents are included in the analysis whether they completed the whole survey or not as each response provides valuable information.

Data Collection

An internet survey provides the data for this study. The survey consists of questions about the respondents’ body image and weight control behaviors. Additionally, the survey includes questions about the perceived messages respondents receive from their mothers about body image and weight control while growing up. The survey is included in Appendix A.

Dependent Variables

The dependent variables in this project are young adult females’ satisfaction with their current weight, self-esteem, weight loss and weight control behaviors. The female’s satisfaction with her current weight is determined by using an additive scale of satisfaction. The female’s self-esteem is determined by using an additive scale of self-esteem. Weight loss behaviors include the actions that respondents engage in to lose weight, and weight control behaviors include the actions that respondents engage in to prevent weight gain, such as avoid certain foods, count calories, exercise, fast, lift weights, purge, restrict food, take diet pills, or use meal replacements.
The survey instrument includes questions about satisfaction, acceptance, and the desire to be smaller. Responses to these questions are combined to create an additive scale of satisfaction with weight. These questions use the following Likert scale response options: strongly agree, agree, neutral, disagree, and strongly disagree. The following are sample statements addressing weight satisfaction:

1. I am comfortable with my current weight.
2. I am happy with my current weight.
3. I am embarrassed by my current weight.
4. I wish my body were smaller.
5. I am confident with my current weight.

These statements are included because they best capture satisfaction with current weight for the purposes of this study. Any question asking about weight is included in the weight satisfaction scale and the alpha reliability for the satisfaction scale is .534. An alpha reliability score of .534 means that the satisfaction with weight scale is 53.4% reliable.

Self-esteem is assessed with multiple questions indicating the respondent’s feelings about her weight, her body image, and her attractiveness. An additive scale assesses an overall measure of self-esteem. These questions use the following Likert scale response options: strongly agree, agree, neutral, disagree, and strongly disagree.

The following are sample statements addressing self-esteem:

1. I am happy with my life.
2. I am confident in my abilities.
3. I think that I will be successful in what I choose to do.
4. I am attractive.
5. I could be more attractive if I lost weight.
6. I am generally a happy person.

These statements are used because they best capture self-esteem for the purposes of this research. If a question concerns the respondent’s feelings toward herself in general, it is
included in the self-esteem scale. The alpha reliability for the self-esteem scale is .568. An alpha reliability score of .568 means that the self-esteem scale is 56.8% reliable.

Weight loss and weight control behaviors are assessed by asking the respondent what activities she has done in the past to lose or maintain weight, as well as asking what products the respondent has used in order to lose or maintain weight. The respondent is asked which types of behaviors she has engaged in during the last six months to either lose weight or prevent weight gain. The options for this question are: avoid certain foods, count calories, exercise, fast, lift weights, purge, restrict food, take diet pills, or use meal replacements. The alpha reliability for the weight loss behaviors scale and weight control behaviors scale is .699 and .675 respectively. The weight loss behaviors scale is 69.9% reliable and the weight control behaviors scale is 67.5% reliable.

The responses to the weight control behavior questions are then categorized into one of three groups. They are categorized as mild weight control behaviors, moderate weight control behaviors or extreme weight control behaviors. Mild weight control behaviors include: avoid certain foods, count calories, exercise and lift weights. Moderate weight control behaviors include: use meal replacements and restrict foods consumed. Extreme weight control behaviors include: vomit, purge, fast and take diet pills. The respondent is only asked about behaviors in the last six months because it is a time frame that can usually be remembered easily and accurately. For example, it would be more difficult for respondents to recall what they have done in the past two years. In sum, there are four dependent variables in this study: young adult females’ satisfaction with their current weight, young adult females’ self-esteem, young adult females’ weight loss
behaviors and young adult females’ weight control behaviors. Each of the four dependent variables is a scale.

Independent Variables

The independent variables focus on daughters’ perceptions of their mothers’ eating attitudes and behaviors, daughters’ perceptions of direct pressures on the daughter to lose weight, daughters’ perception of indirect influences on the daughter to lose weight, as well as previous weight control behaviors they witnessed their mother engaging in while they were growing up. In other words, daughters are asked about their mothers’ attitudes and behaviors rather than asking mothers directly about their attitudes and behaviors. The mothers’ eating attitudes and behaviors are assessed through questions that ask the respondent to report which of the following the mother engaged in: avoid certain foods, count calories, exercise, fast, lift weights, purge, restrict food, take diet pills, or use meal replacements. Again, perceptions are important because it can be argued that daughters witness behaviors and then model those same behaviors. An additional independent variable examines the weight control behaviors the mother has engaged in, such as: avoid certain foods, count calories, exercise, fast, lift weights, purge, restrict food, take diet pills, or use meal replacements. This variable is assessed by asking the respondent to report if she has ever witnessed her mother engaged in any of the previously listed behaviors. These questions are very similar to the questions that ask if the female respondent engaged in any of the items on a list of behaviors.

Direct influences on the daughter to lose weight are assessed using questions that ask the daughter if her mother has ever told her that she should lose weight or start working out. Indirect influences on the daughter to lose weight are assessed using
questions that ask how often the respondent heard her mother talking about the importance of being thin or how often the respondent heard her mother express the desire to lose weight. These questions use the following Likert scale response options: every day, several times a week, several times a month, several times a year, once a year and never. The following are a few examples of this measure:

1. How often does your mother talk about your weight?
2. How often does your mother make negative comments about your weight?
3. How often does your mother make negative comments about her own weight?
4. How often does your mother talk about the importance of being thin?

*Control Variables*

The first control variable is age. While there is already a specified age range for the project, it is further divided into each year of the respondent’s age (e.g. 18, 19, 20…) in the analysis to see if there are differences in relation to specific ages. Previous research examines age in relation to body image and self-esteem and finds that self-esteem is influenced by physical appearance and that there is support for the claim that body satisfaction is related to self-esteem as a person ages (Sira and White, 2010).

Another control variable in the study is college experience. This information consists of the respondents’ class status, such as freshman, sophomore, junior, senior, graduate. Research indicates that self-esteem can be influenced publicly through school institutions (Ferkany, 2008), meaning that involvement in the institution can encourage and promote high self-esteem, so it is possible that there could be a relationship between the experience in college a female has and her body image as well as the amount of pressure she feels to lose weight.
The final control variable in this project is race. While females in general have serious concerns with their weight and body image, there are differences based on race. Prior research demonstrates that African American females report being more satisfied with their current weight and body size than Caucasian females and that African American females are more comfortable with their weight regardless of their actual weight (Adams et al., 2000; Thompson et al., 1999). Additionally, African American females have higher overall body satisfaction than Caucasian females, which is interesting because African American females and their mothers are, on average, heavier than Caucasian females and their mothers (Adams et al., 2000; Garn, 1994). These racial differences could be attributed to cultural differences in expectations of women, which could also speak to the messages that females perceive from their mothers about weight and body image. The respondent’s race is obtained by asking what race she identifies with and that information is used to determine if there are any patterns in responses with respect to race.

Analysis Strategy

Once all of the data were collected, the responses were entered into the statistical program SPSS. Preliminary statistics, such as response totals and whether anyone left the survey before finishing, were determined in order to get an overall description of the sample. Descriptive statistics, such as means, medians, and modes of the entire data set, were analyzed to determine what ages, races and college experiences were represented and if there are any gaps in the responses that could affect the analysis process. Additionally, frequency distributions were run to determine the most common responses
to each of the survey questions. Preliminary racial variation was also examined by comparing the responses of Caucasian and African American respondents.

In addition to descriptive statistics, regression analysis was performed to examine the relationship between the mother’s perceived attitudes and behaviors and the current attitudes and behaviors of the daughters. For the purposes of this study, Ordinary Least Squares (OLS) Regression was used. OLS Regression was chosen because the dependent variables that were included in the analysis were scales measured as continuous interval-ratio variables (satisfaction with weight, self-esteem, weight control behaviors and weight loss behaviors). Prior to running the regressions, variables to be included were first examined with a bivariate correlation table to minimize multicollinearity. Maternal weight loss behaviors and maternal weight control behaviors were the only two variables that were highly correlated with one another. More respondents answered the maternal weight loss behaviors question, meaning it was missing less data, so that variable was included in the analyses. The reports of mother’s attitudes and behaviors were compared against their daughters’ current attitudes and behaviors to determine the extent to which mothers influence their daughters on issues related to weight. In running the regression analyses, SPSS automatically removes cases that are missing variable data. The N for each model is reported in the findings section as the number of cases included varies based on available data.
Chapter Four: Findings

Descriptive Results

Table 1 reports the descriptives of the sample. As stated earlier, 876 females are included in the analyses. Overwhelmingly, respondents report growing up with an older female who had significant impact on their upbringing (93.6%) and that female guardian is the respondents’ biological mother (88.7%). The majority of respondents also report currently having contact with their female guardians at least several times per week (78.2%). Additionally, almost all respondents are currently enrolled in college (99.0%) and most commonly the respondents are freshmen (43.6%). More than half of the respondents are between 18 and 19 years old (55.3%) and the sample is overwhelmingly Caucasian (90.2%).

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<td>College Experience (1-Fre, 2-Sop, 3-Jun, 4-Sen, 5-Grad)</td>
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<tr>
<td>Confidence with weight (1- Strongly Disagree, 3-Neutral, 5- Strongly Agree)</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>Happiness with weight</td>
</tr>
<tr>
<td>I am attractive</td>
</tr>
<tr>
<td>Mothers talk about daughter's weight</td>
</tr>
<tr>
<td>Mothers tell daughter to eat healthier</td>
</tr>
<tr>
<td>Mothers tell daughter to go on diet</td>
</tr>
<tr>
<td>Mothers tell daughter to lose weight</td>
</tr>
<tr>
<td>Mothers want to diet</td>
</tr>
<tr>
<td>Mothers want to be thinner</td>
</tr>
<tr>
<td>Mothers weight loss behaviors</td>
</tr>
<tr>
<td>Negative comments daughter's weight</td>
</tr>
<tr>
<td>Negative comments mother's weight</td>
</tr>
<tr>
<td>Pressure to be thin frequency</td>
</tr>
<tr>
<td>Pressure from yourself to be thin</td>
</tr>
<tr>
<td>Pressure from your family to be thin</td>
</tr>
<tr>
<td>Satisfaction with weight</td>
</tr>
<tr>
<td>Self-esteem scale</td>
</tr>
<tr>
<td>Talk about losing weight frequency</td>
</tr>
<tr>
<td>Think about losing weight frequency</td>
</tr>
<tr>
<td>Think about weight frequency</td>
</tr>
<tr>
<td>Weight control behaviors</td>
</tr>
<tr>
<td>Weight loss behaviors</td>
</tr>
<tr>
<td>Wish body was larger</td>
</tr>
<tr>
<td>Wish body was smaller</td>
</tr>
</tbody>
</table>
Satisfaction and Happiness with Current Weight

The data suggests that a significant number of females are unhappy with their weight. Almost half of the respondents (47%) report being uncomfortable with their weight. Also, respondents most often disagree or strongly disagree that they are confident with their current weight (43.7%) and more than half of respondents report disagreeing or strongly disagreeing with the statement that they are happy with their current weight (52.6%).

Additionally, respondents were asked about their body size. Overwhelmingly, respondents agree or strongly agree that they wish their bodies were smaller (71.9%). In addition, many respondents overwhelmingly agree or strongly agree that they want to lose weight (76.4%). Interestingly, 3.8% of the respondents report wishing that their bodies were larger than it was at the time of survey.

Respondents were also asked if they felt that they were attractive. Less than half of the respondents report that they feel attractive (46.5%) and most respondents feel they could be more attractive if they lost weight (63%). Also, many respondents report that their weight influences the clothes they chose to wear (76.1%); however, fewer respondents report their weight influences their daily activities (30.7%).

Overall, most respondents report unhappiness with their weight. Their bodies are larger than they wished they would be. Additionally, most respondents feel that they would be more attractive if they lost weight.

Weight Loss Behaviors

Table 2 reports the results of behaviors that respondents engage in to lose weight and the behaviors respondents engage in to control their weight. In addition to asking
respondents to report how they felt about their current weight, they were asked about their attempts to lose weight in the past six months. The questions asked in this section of the survey asked the respondent to identify from a list the things they have done in order to lose weight. The list includes: avoided certain foods, counted calories, exercised, fasted, lifted weights, purged, restricted food, took diet pills, used meal replacement products, or vomited. The most often used method to lose weight is exercise; 85% of respondents report exercising in the past six months to lose weight. The use of exercise to lose weight is followed by avoiding certain foods, as 76.4% of respondents report using this method in the past six months. Nearly 49% of respondents report lifting weights to lose weight in the past six months, 47.9% report restricting food, and 41.4% report counting calories. Some respondents also report fasting (17.4%), using meal replacements (12.4%), and using diet pills (7.9%) to lose weight.

Responses to the weight loss behaviors questions are then combined to form a scale of how many weight loss behaviors respondents engaged in. The options for this scale include: zero, one to three, four to six, and seven to ten behaviors. Most often, respondents report engaging in four to six weight loss behaviors (43.2%), followed by one to three weight loss behaviors (40.9%). Very few respondents report engaging in zero behaviors (10.3%) or seven to ten behaviors (5.7%).

Weight Control Behaviors

Respondents were asked about the same behaviors in relation to preventing weight gain. Interestingly, respondents report avoiding certain foods, counting calories, exercising, restricting food and vomiting more often when it is for the purpose of preventing weight gain and not for the purpose of losing weight.
Responses to these questions were then combined to form a scale of how many weight control behaviors respondents engage in. Most often, respondents report engaging in one to three weight control behaviors (46.4%) or four to six weight control behaviors (41.8%). Very few respondents report engaging in zero weight control behaviors (5.7%) or seven to ten behaviors (6.2%).

The items on the list were then separated into three categories: mild, moderate and extreme. Mild weight control behaviors include avoiding certain foods, counting calories, lifting weights and exercising. Moderate weight control behaviors include using meal replacements and restricting the food they consumed. Extreme weight control behaviors include vomiting, purging, fasting and taking diet pills. Respondents are more likely to engage in the mild weight control behaviors than they are to engage in the moderate and extreme behaviors. The majority of respondents, 94%, report engaging in at least one of the mild weight control behaviors in the past six months. Additionally, 49.4% of respondents report engaging in one or two of the moderate weight control behaviors in the past six months. Finally, 22.9% of respondents report engaging in at least one of the four listed extreme weight control behaviors.

Overall, respondents are most likely to engage in mild weight control behaviors in order to lose weight or to prevent weight gain. Respondents are more likely to report engaging in weight control behaviors for the purposes of preventing weight gain than for the purpose of losing weight.
Table 2 - Comparison of Weight Loss and Weight Control Behaviors

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Weight Loss</th>
<th>Weight Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid certain foods (Mild)</td>
<td>76.4%</td>
<td>83.3%</td>
</tr>
<tr>
<td>Count Calories (Mild)</td>
<td>41.4%</td>
<td>43.0%</td>
</tr>
<tr>
<td>Diet pills (Extreme)</td>
<td>7.9%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Exercise (Mild)</td>
<td>85.0%</td>
<td>87.3%</td>
</tr>
<tr>
<td>Fast (Extreme)</td>
<td>17.4%</td>
<td>17.4%</td>
</tr>
<tr>
<td>Lift weights (Mild)</td>
<td>48.6%</td>
<td>47.9%</td>
</tr>
<tr>
<td>Meal replacements (Moderate)</td>
<td>12.4%</td>
<td>11.7%</td>
</tr>
<tr>
<td>Purge (Extreme)</td>
<td>5.4%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Restrict food (Moderate)</td>
<td>47.9%</td>
<td>48.1%</td>
</tr>
<tr>
<td>Vomit (Extreme)</td>
<td>4.1%</td>
<td>4.5%</td>
</tr>
</tbody>
</table>

Preliminary Race Variation

Table 3 reports variations by race. While no statistically significant findings can be determined in terms of race variation for this project because there are only 35 African American respondents, it is interesting to note how responses to the survey questions differed by race. Examining racial variation in the data is important because previous research shows that African American females are usually more likely to be more secure and happier with their weight and body image than Caucasian females. Caucasian respondents report feeling pressure to be thin more often than African American respondents (62.6% versus 37%). Both Caucasian and African American respondents report feeling the most pressure from themselves to be thin and the least pressure from their friends to be thin. Additionally, Caucasian respondents think about their weight more often than African American respondents (81% versus 57.1%). Interestingly, African American respondents are more likely to talk about wanting to lose weight and to make negative comments about their weight than are Caucasian respondents.

African Americans also report being more satisfied with their current weight than Caucasian respondents and African American respondents report higher self-esteem.
ratings than Caucasian respondents. Additionally, African Americans also report being more confident with their weight, happier with their weight, and rate themselves as more attractive than Caucasian respondents. Caucasian respondents report wanting to lose weight more often than African American respondents and Caucasian respondents engage in more weight loss and weight control behaviors than African American respondents.

Table 3 - Racial Variations in Means

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Confidence with weight (1- Strongly Disagree, 3-Neutral, 5- Strongly Agree)</td>
<td>3.11</td>
<td>35</td>
<td>2.88</td>
<td>788</td>
</tr>
<tr>
<td>Happiness with weight (1- Strongly Disagree, 3-Neutral, 5- Strongly Agree)</td>
<td>2.86</td>
<td>35</td>
<td>2.66</td>
<td>788</td>
</tr>
<tr>
<td>I am attractive (1- Strongly Disagree, 3-Neutral, 5- Strongly Agree)</td>
<td>4.09</td>
<td>35</td>
<td>3.59</td>
<td>789</td>
</tr>
<tr>
<td>Make negative comments frequency (1-Never, 3-Several times, 6-Always)</td>
<td>3.74</td>
<td>35</td>
<td>3.65</td>
<td>788</td>
</tr>
<tr>
<td>Pressure to be thin frequency (1- Never, 3-Sometimes, 5-Always)</td>
<td>3.11</td>
<td>35</td>
<td>3.74</td>
<td>790</td>
</tr>
<tr>
<td>Pressure from yourself to be thin (1-None, 2-Some, 3-A lot)</td>
<td>1.97</td>
<td>35</td>
<td>2.32</td>
<td>788</td>
</tr>
<tr>
<td>Pressure from your family to be thin (1-None, 2-Some, 3-A lot)</td>
<td>1.60</td>
<td>35</td>
<td>1.67</td>
<td>787</td>
</tr>
<tr>
<td>Satisfaction with weight (1- Strongly Disagree, 3-Neutral, 5- Strongly Agree)</td>
<td>3.29</td>
<td>35</td>
<td>1.93</td>
<td>781</td>
</tr>
<tr>
<td>Self-esteem scale (1-Very low, 12-Moderate, 24-Very high)</td>
<td>17.74</td>
<td>35</td>
<td>16.32</td>
<td>785</td>
</tr>
<tr>
<td>Talk about losing weight frequency (1- Never, 3-Several times, 6-Always)</td>
<td>3.71</td>
<td>35</td>
<td>3.79</td>
<td>785</td>
</tr>
<tr>
<td>Think about losing weight frequency (1- Never, 3-Several times, 6-Always)</td>
<td>4.51</td>
<td>35</td>
<td>4.96</td>
<td>787</td>
</tr>
<tr>
<td>Think about weight frequency (1- Never, 3-Several times, 6-Always)</td>
<td>4.71</td>
<td>35</td>
<td>5.26</td>
<td>789</td>
</tr>
<tr>
<td>Weight control behaviors (Number engaged in)</td>
<td>3.42</td>
<td>33</td>
<td>3.49</td>
<td>756</td>
</tr>
<tr>
<td>Weight loss behaviors (Number engaged in)</td>
<td>3.38</td>
<td>32</td>
<td>3.40</td>
<td>767</td>
</tr>
<tr>
<td>Wish body was larger (1-Strongly Disagree, 3-Neutral, 5-Strongly Agree)</td>
<td>1.59</td>
<td>34</td>
<td>1.37</td>
<td>780</td>
</tr>
<tr>
<td>Wish body was smaller (1-Strongly Disagree, 3-Neutral, 5-Strongly Agree)</td>
<td>3.74</td>
<td>35</td>
<td>3.81</td>
<td>787</td>
</tr>
</tbody>
</table>
Maternal Influence on Daughters’ Satisfaction, Self-Esteem, Weight Loss Behaviors and Weight Control Behaviors

The results concerning the indirect and direct influences that mothers have on their daughters in regard to their body image and weight control behaviors were obtained using OLS regression. Four separate models were run for each of the dependent variables. The dependent variables in this analysis were four Likert scales measuring respondent’s satisfaction, respondent’s self-esteem, respondent’s weight loss behaviors, and respondent’s weight control behaviors. For each model, the independent variables used in the analyses are the mother’s weight loss behaviors, how often the mother talks about wanting to go on a diet, how often the mother makes negative comments about her own weight, how often the mother talks about wanting to be thinner, how often the mother talks about her daughter’s weight, how often the mother tells her daughter she should lose weight, how often the mother tells her daughter she should go on a diet, and how often the mother makes negative comments about her daughter’s weight. The models also include age, college experience and race as control variables. Collinearity diagnostcs were included for each model and excessive multicollinearity was not an issue.

Table 4 reports the findings for model one. Model one examines how mothers’ behaviors influence her daughter’s satisfaction with her weight. The R² for the model is .154, meaning that the model only explains 15.4% of the variation in respondent satisfaction. Additionally, only two of the independent variables included in the analysis are statistically significant. How often the mother made negative comments about her own weight is significant. As the frequency of which the mother made negative
comments about her own weight increases by one, there is a .652 unit decrease in the respondent’s satisfaction. Additionally, how often the mother told her daughter she should lose weight is also statistically significant. As the frequency of which the mother told her daughter she should lose weight increases by one, there is a 1.315 unit decrease in respondent satisfaction.

<table>
<thead>
<tr>
<th>Table 4 – OLS Estimates of Satisfaction with Weight</th>
<th>B</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>6.082</td>
<td>0.678</td>
</tr>
<tr>
<td>Mothers weight loss behaviors</td>
<td>-0.093</td>
<td>0.111</td>
</tr>
<tr>
<td>Mothers want to diet</td>
<td>0.022</td>
<td>0.177</td>
</tr>
<tr>
<td>Negative comments mother's weight</td>
<td>-0.652**</td>
<td>0.244</td>
</tr>
<tr>
<td>Mothers want to be thinner</td>
<td>0.375</td>
<td>0.238</td>
</tr>
<tr>
<td>Mothers talk about daughter's weight</td>
<td>-0.306</td>
<td>0.194</td>
</tr>
<tr>
<td>Mothers tell daughter to lose weight</td>
<td>-1.315***</td>
<td>0.307</td>
</tr>
<tr>
<td>Mothers tell daughter to eat healthier</td>
<td>-0.015</td>
<td>0.149</td>
</tr>
<tr>
<td>Mothers tell daughter to go on diet</td>
<td>-0.464</td>
<td>0.274</td>
</tr>
<tr>
<td>Negative comments daughter's weight</td>
<td>0.424</td>
<td>0.291</td>
</tr>
<tr>
<td>Daughter's age</td>
<td>-0.254</td>
<td>0.219</td>
</tr>
<tr>
<td>Daughter's college experience</td>
<td>0.317</td>
<td>0.293</td>
</tr>
<tr>
<td>Daughter's race</td>
<td>1.219</td>
<td>0.642</td>
</tr>
<tr>
<td>N= 747</td>
<td>R²= .154</td>
<td></td>
</tr>
</tbody>
</table>

***=.000, **≤.01, *≤.05

Table 5 reports the findings for model two. The second model examines how mothers’ behavior influences their daughter’s self-esteem. The R² for the model is .141, meaning that the model only explains 14.1% of the variation in respondent self-esteem. Additionally, two of the independent variables and two of the control variables in this analysis are statistically significant. How often the mother made negative comments about her own weight is statistically significant. As the frequency at which the mother made negative comments about her own weight increases by one, the respondents’ self-esteem decreases by .556. Additionally, how often the mother told the respondent that she should go on a diet is statistically significant. As the frequency at which the mother told
the respondent to diet increases by one, the respondent’s self-esteem decreases by .560. College experience is also significant in this model. As college experience increases by one, the respondents’ self-esteem also increases by .420. In other words, respondents in higher classes report higher self-esteem. Additionally, race was significant. Non-white respondents’ self-esteem increases by .908; meaning that non-white respondents report higher self-esteem.

<table>
<thead>
<tr>
<th>Table 5 – OLS Estimate of Self-Esteem</th>
<th>B</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>18.750</td>
<td>0.483</td>
</tr>
<tr>
<td>Mothers weight loss behaviors</td>
<td>0.108</td>
<td>0.079</td>
</tr>
<tr>
<td>Mothers want to diet</td>
<td>0.028</td>
<td>0.127</td>
</tr>
<tr>
<td>Negative comments mother's weight</td>
<td>-0.556**</td>
<td>0.174</td>
</tr>
<tr>
<td>Mothers want to be thinner</td>
<td>0.242</td>
<td>0.169</td>
</tr>
<tr>
<td>Mothers talk about daughter's weight</td>
<td>-0.154</td>
<td>0.138</td>
</tr>
<tr>
<td>Mothers tell daughter to lose weight</td>
<td>-0.349</td>
<td>0.216</td>
</tr>
<tr>
<td>Mothers tell daughter to eat healthier</td>
<td>-0.037</td>
<td>0.106</td>
</tr>
<tr>
<td>Mothers tell daughter to go on diet</td>
<td>-0.560*</td>
<td>0.195</td>
</tr>
<tr>
<td>Negative comments daughter's weight</td>
<td>-0.092</td>
<td>0.204</td>
</tr>
<tr>
<td>Daughter's age</td>
<td>-0.236</td>
<td>0.156</td>
</tr>
<tr>
<td>Daughter's college experience</td>
<td>0.420*</td>
<td>0.209</td>
</tr>
<tr>
<td>Daughter's race</td>
<td>0.908*</td>
<td>0.457</td>
</tr>
<tr>
<td>N= 748  R2= .141</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***=.000, **≤.01, *≤.05

Table 6 reports the findings for model three. Model three examines which of the mothers’ behaviors influences their daughters’ weight loss behavior. The R² for this model is .082, meaning that the model only explains 8.2% of the variation in respondent weight loss behaviors. Also, three of the independent variables are statistically significant and one control variable is significant in this model. The number of weight loss behaviors that the mother engaged in is significant. As the number of weight loss behaviors the mother engaged in increases by one, the number of weight loss behaviors her daughter
engaged in increases by .201. Additionally, how often the mother told her daughter that she should lose weight is significant. As the frequency at which the mother told her daughter to lose weight increases, the number of weight loss behaviors the respondent engaged in increases by .310. Also, how often the mother told her daughter that she should eat healthier is significant. As the frequency at which the mother told her daughter to eat healthier increases by one, the number of weight loss behaviors the daughter engaged in decreases by .115. College experience is also significant in this model. As class standing increases, the number of respondents’ weight loss behaviors decreases by .232 units. In other words, respondents in higher classes report engaging in fewer weight loss behaviors. This finding will be discussed further in the next section.

<table>
<thead>
<tr>
<th>Table 6 – OLS Estimates of Weight Loss Behaviors</th>
<th>B</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>2.647</td>
<td>0.262</td>
</tr>
<tr>
<td>Mothers weight loss behaviors</td>
<td>0.201***</td>
<td>0.043</td>
</tr>
<tr>
<td>Mothers want to diet</td>
<td>0.040</td>
<td>0.069</td>
</tr>
<tr>
<td>Negative comments mother's weight</td>
<td>0.006</td>
<td>0.095</td>
</tr>
<tr>
<td>Mothers want to be thinner</td>
<td>-0.055</td>
<td>0.092</td>
</tr>
<tr>
<td>Mothers talk about daughter's weight</td>
<td>0.113</td>
<td>0.075</td>
</tr>
<tr>
<td>Mothers tell daughter to lose weight</td>
<td>0.310**</td>
<td>0.118</td>
</tr>
<tr>
<td>Mothers tell daughter to eat healthier</td>
<td>-0.115*</td>
<td>0.058</td>
</tr>
<tr>
<td>Mothers tell daughter to go on diet</td>
<td>0.034</td>
<td>0.108</td>
</tr>
<tr>
<td>Negative comments daughter's weight</td>
<td>-0.127</td>
<td>0.111</td>
</tr>
<tr>
<td>Daughter's age</td>
<td>0.135</td>
<td>0.084</td>
</tr>
<tr>
<td>Daughter's college experience</td>
<td>-0.232*</td>
<td>0.113</td>
</tr>
<tr>
<td>Daughter's race</td>
<td>-0.063</td>
<td>0.252</td>
</tr>
</tbody>
</table>

N= 736   R2= .082

***=.000, **≤.01, *≤.05

Finally, Table 7 reports the findings for model four. Model four examines which of the mothers’ behaviors influences their daughters’ weight control behavior. The R² for this model is .108, meaning that the model only explains 10.8% of the variation in respondent weight control behaviors. Also, two of the independent variables and one
control variable are statistically significant in this model. The number of weight loss behaviors that the mother engaged in is significant. As the number of weight loss behaviors that the mother engaged in increases by one, the number of weight control behaviors her daughter engaged in increases by .238. Additionally, how often the mother simply talked about her daughter’s weight is significant. As the frequency at which the mother talked about her daughter’s weight increases by one, the number of weight control behaviors the daughter engaged in increases by .217. College experience is also significant. As college experience increases by one, respondents’ weight control behaviors decrease by .228. In other words, people in higher classes engage in fewer weight control behaviors.

<table>
<thead>
<tr>
<th>Table 7 – OLS Estimates of Weight Control Behaviors</th>
<th>B</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>2.445</td>
<td>0.247</td>
</tr>
<tr>
<td>Mothers weight loss behaviors</td>
<td>0.238***</td>
<td>0.041</td>
</tr>
<tr>
<td>Mothers want to diet</td>
<td>-0.018</td>
<td>0.065</td>
</tr>
<tr>
<td>Negative comments mother's weight</td>
<td>0.086</td>
<td>0.091</td>
</tr>
<tr>
<td>Mothers want to be thinner</td>
<td>-0.048</td>
<td>0.088</td>
</tr>
<tr>
<td>Mothers talk about daughter's weight</td>
<td>0.217**</td>
<td>0.071</td>
</tr>
<tr>
<td>Mothers tell daughter to lose weight</td>
<td>0.113</td>
<td>0.110</td>
</tr>
<tr>
<td>Mothers tell daughter to eat healthier</td>
<td>-0.085</td>
<td>0.054</td>
</tr>
<tr>
<td>Mothers tell daughter to go on diet</td>
<td>0.070</td>
<td>0.101</td>
</tr>
<tr>
<td>Negative comments daughter's weight</td>
<td>-0.098</td>
<td>0.104</td>
</tr>
<tr>
<td>Daughter's age</td>
<td>0.121</td>
<td>0.080</td>
</tr>
<tr>
<td>Daughter's college experience</td>
<td>-0.228*</td>
<td>0.107</td>
</tr>
<tr>
<td>Daughter's race</td>
<td>0.069</td>
<td>0.236</td>
</tr>
</tbody>
</table>

N= 727  R2= .108

***=.000, **<=.01, *<=.05

Overall, the respondents’ satisfaction with their weight, self-esteem, weight loss behaviors and weight control behaviors are influenced only slightly by the perceptions of their mothers’ attitudes and behaviors. As the models demonstrate, the majority of the variance in those dependent variables is not explained by the independent variables or
control variables in the models. Maternal influence does not seem to be as influential in this sample of respondents as originally expected because only a few of the variables are statistically significant, and some of those variables are control variables.
Chapter Five: Discussion and Conclusion

Discussion

Much information was gained in this project about the attitudes and behaviors of 18-25 year old females’ body image and weight concerns. The findings suggest there is some support for the hypothesis that females aged 18-25 are unhappy with their weight. Overwhelmingly, respondents report feeling pressure to be thin and they feel the most amount of pressure to be thin from themselves. On average, respondents report being at least somewhat uncomfortable with their weight and report a lack of confidence with their weight. The majority of respondents report thinking about their weight often, thinking about losing weight often and thinking negative thoughts about their weight often. Overwhelmingly, respondents are unhappy with their weight and are not confident with their weight. Additionally, respondents report engaging in at least a few different behaviors to lose weight.

The data suggests that there is some support for the second hypothesis that females who have mothers who diet or talk about weight and body image issues are more likely to struggle with weight and body image themselves. Across all four models, the variation in respondent satisfaction with weight, self-esteem, weight loss and weight
control behaviors is somewhat explained by the attitudes and behaviors of their mothers because between 8 and 15% of the variance is explained across the four models, and certain variables are statistically significant.

The significant variables in the regression models include the following: mothers making negative comments about their own weight, mothers telling their daughters to lose weight, mothers weight loss behaviors, mothers telling their daughters to eat healthier, college experience and race. In the respondent satisfaction model (model one), daughter’s satisfaction is negatively influenced by her mother making negative comments about her own weight and telling her daughter to lose weight. The self-esteem model (model two) shows that daughters’ self-esteem is negatively influenced by her mother making negative comments about her own weight and telling her daughter to go on a diet. However, respondents who are not Caucasian or who have more college experience report higher self-esteem. The respondent weight loss behaviors model (model three) shows that daughters’ weight loss behaviors increase when the mothers weight loss behaviors increase, but decrease when the respondent’s mother told her she should eat healthier. Additionally, respondent weight loss behaviors decrease as class standing increases. The last model (model four), respondent weight control behaviors, shows that respondent weight control behaviors increase when their mother’s weight loss behaviors increase and when their mothers talk about the respondent’s weight. When college experience increases, respondent weight control behaviors decrease. In the first two models, respondent satisfaction with weight and self-esteem, mothers making negative comments about their own weight is statistically significant. Additionally, in models one and three, respondent satisfaction with weight and weight loss behaviors, mothers telling
their daughters to lose weight is statistically significant. In models three and four, respondent weight loss and weight control behaviors, mothers’ weight loss behaviors are statistically significant. College experience is statistically significant across models two (self-esteem), three (weight loss behaviors), and four (weight control behaviors). In sum, across multiple models some measures of both indirect pressure, such as mothers making negative comments about her own weight and mothers weight control behaviors, as well as direct pressure, such as mothers telling their daughter that she should lose weight, are significantly influential in college age females’ weight satisfaction, self-esteem, weight control and weight loss behaviors.

It is interesting to note that college experience is negatively correlated with weight loss behaviors but positively correlated with self-esteem. There are several possibilities for these results. It is possible that females who have low self-esteem are dropping out of school so upperclassmen have higher self-esteem. Also, it is possible that females in college are being educated about body image through classes they take and are more aware of matters related to weight and body image. If these females have higher self-esteem, they will likely engage in fewer weight control behaviors because they are more secure with themselves.

Limitations

As with any project, this research is not without flaws. There are many trade-offs to consider when deciding how to design the method for collecting data for this study. The first limitation is that the sample consists of one university in the Midwest. Sampling at a university is beneficial for the defined purposes of the study; however, it is not
possible to generalize the results for all females between the ages of 18 and 25 as the general population may differ from the population at the university.

Additionally, as with any survey, there is a lack of depth to the information. While the survey used provided the researcher with plenty of information for this project, it is only one of the ways in which to obtain valuable information. Using the survey allowed for data to be collected from many respondents in a relatively short amount of time, whereas interviews would have provided richer data but from much fewer sources. Interviews would allow the respondents to share more information about their personal struggles rather than simply stating if they experienced some form of pressure or another. The survey allows for a snapshot of many different aspects of the issue being studied.

This study initially aimed to examine differences between Caucasian respondents and African American respondents; however, due to a small African American sample size, only simple frequencies could be compared. When race variation was examined, Caucasian respondents felt pressure to be thin, thought about their weight, felt unsatisfied with their weight, and rated their self-esteem lower more often than African American respondents. In looking at these preliminary differences in races, there is evidence that Caucasian respondents more often struggle with body image and weight concerns than African Americans. It would be important, and useful, for future research to examine the racial differences among African American and Caucasian respondents as previous research suggests that there are differences based on race. The African American sample in this project was too small to do so, but if that information is made available it would be helpful in crafting educational and intervention programs that can be better tailored to individual needs.
Conclusion

This study investigated the extent to which mothers influence their 18-25 year old daughters’ body image and weight concerns. Surprisingly, the research shows that mothers have much less influence on their daughters’ body image and weight concerns than previous research suggests due to few statistically significant variables in the models. This study contributes to knowledge about female body image and weight concerns in a few ways. This research adds to existing literature by demonstrating that females feel a lot of pressure to be thin and to lose weight and that they report feeling the pressure most often from themselves, rather than feeling pressure from their mothers. However, there are a few ways that mothers significantly influence their daughters both directly and indirectly, such as the mother making negative comments about her own weight, telling their daughters to lose weight, and engaging in weight loss behaviors, which reinforce the importance of modeling and social learning theory. Daughters perceive attitudes and behaviors from their mothers and incorporate those attitudes and behaviors into their own lives through modeling.

Examining the 18-25 year old age group also reveals that mothers may not have as much influence on their daughters’ body image and weight concerns as the daughters get older and that age could be a more influential factor in female body image and weight concerns due to the college experience. It is possible that females become more aware of body image and weight struggles while being at college and that information has more of an impact than what they perceive about their mothers.

The results from this project are important because they help to identify influential factors in college females’ body image and weight concerns. This research
shows that college age females do struggle with their weight and body image and it is important to be aware that their perceptions of their mothers’ attitudes and behaviors significantly contribute to that struggle. Findings from this study can be used to help craft educational programs and intervention programs about weight and body image issues for college age females. This information can also help demonstrate what mothers can do, or not do, if they are concerned about their daughters’ body image. Specifically, mothers should refrain from making negative comments about their weight, or their daughters’ weight, as doing so negatively impacts females’ self-esteem and encourages engaging in weight control activities. Additionally, mothers should avoid engaging in unhealthy weight control behaviors and telling their daughters that they should lose weight as this also negatively impacts females’ self-esteem and increases the number of weight control behaviors they engage in.
Bibliography


APPENDIX A

Section One: Informed Consent

BODY IMAGE AND WEIGHT CONCERNS: ASSESSING THE RELATIONSHIP BETWEEN MOTHERS AND THEIR DAUGHTERS

Welcome to the Female Body Image and Weight Concerns survey!

Thank you for taking the time to complete this survey and assisting with this valuable research. This survey should only last about 10-15 minutes.

The following is a survey about your attitudes and behaviors regarding body image and weight. There are also questions pertaining to your perception of your mother’s body image and weight concerns while you were growing up.

The purpose of this research is to look at the relationship between mothers and daughters in regard to body image and weight concerns.

Participation in the survey is completely voluntary and you can stop participating at any time by exiting the survey.

Participation in this survey, including all data collected, will be treated as anonymous and will not be connected with you in any way. You will never be asked for your name.

There are no foreseeable risks to participation besides moderate discomfort. For some respondents, questions about your body image and weight concerns may be a sensitive topic.

Please do not continue if you are under age 18.

For questions about this specific research project, please contact Jessica Metcalf, Sociology Graduate Student, jlmetcalf@bsu.edu

For questions about your rights as a research subject, please contact Research Compliance, Sponsored Programs Office, Ball State University, Muncie, IN 47306, (765) 285-5070, irb@bsu.edu.

Section Two: Weight Pressures

1. How often do you feel pressure to be thin?
   - Always
   - Often
   - Sometimes
   - Rarely
   - Never

2. Where do you feel the most pressure to be thin from? (Choose one.)
3. Please rate the amount of pressure you feel from yourself to be thin.
   A lot of pressure     Some pressure     No pressure

4. Please rate the amount of pressure you feel from peers to be thin. (Peers refers to people you see daily but do not have a relationship with. Eg: people in your classes, at work)
   A lot of pressure     Some pressure     No pressure

5. Please rate the amount of pressure you feel from friends to be thin. (Friends are the people you choose to have a relationship with. Eg: people you talk to outside of class, spend free time with.)
   A lot of pressure     Some pressure     No pressure

6. Please rate the amount of pressure you feel from your family to be thin. (Family includes parents and siblings.)
   A lot of pressure     Some pressure     No pressure

7. Please rate the amount of pressure you feel from celebrities to be thin.
   A lot of pressure     Some pressure     No pressure

8. Please rate the amount of pressure you feel from the media to be thin. (Media means television, magazines, newspapers.)
   A lot of pressure     Some pressure     No pressure

Section Three: Respondent Attitudes
The following questions refer to your attitudes about weight.

1. How often do you think about your weight?
   Every day     Several times a week     Several times a month     Several times a year
   Once a year     Never

2. How often do you TALK about the importance of being thin?
   Every day     Several times a week     Several times a month     Several times a year
   Once a year     Never

3. How often do you THINK about being thinner?
   Every day     Several times a week     Several times a month     Several times a year
   Once a year     Never

4. How often do you TALK about wanting to be thinner?
   Every day     Several times a week     Several times a month     Several times a year
   Once a year     Never
5. How often do you THINK about wanting to lose weight?
Every day     Several times a week    Several times a month    Several times a year
Once a year   Never

6. How often do you TALK about wanting to lose weight?
Every day     Several times a week    Several times a month    Several times a year
Once a year   Never

7. How often do you THINK negative things about your weight? (Such as “I am so fat/big/heavy.” Or “I need to lose weight.”)
Every day     Several times a week    Several times a month    Several times a year
Once a year   Never

8. How often do you MAKE negative comments about your weight? (Such as “I am so fat/big/heavy.” Or “I need to lose weight.”)
Every day     Several times a week    Several times a month    Several times a year
Once a year   Never

Section Four: Respondent Attitudes
Please rate the degree to which you agree or disagree with the following statements.

1. I am comfortable with my current weight.
Strongly Agree     Agree     Neutral     Disagree     Strongly Disagree

2. I am happy with my life.
Strongly Agree     Agree     Neutral     Disagree     Strongly Disagree

3. I am confident with my current weight.
Strongly Agree     Agree     Neutral     Disagree     Strongly Disagree

4. I am happy with my current weight.
Strongly Agree     Agree     Neutral     Disagree     Strongly Disagree

5. I am embarrassed by my current weight.
Strongly Agree     Agree     Neutral     Disagree     Strongly Disagree

6. I wish my body was larger.
Strongly Agree     Agree     Neutral     Disagree     Strongly Disagree

7. I wish my body was smaller.
Strongly Agree     Agree     Neutral     Disagree     Strongly Disagree

8. I want to lose weight.
Strongly Agree     Agree     Neutral     Disagree     Strongly Disagree
9. I am generally happy.  
  Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree  

10. I am attractive.  
  Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree  

11. I am confident in my abilities.  
  Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree  

12. I could be more attractive if I lost weight.  
  Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree  

13. My weight influences the clothes I wear.  
  Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree  

14. My weight influences my day-to-day activities.  
  Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree  

15. I think that I will be successful in what I do.  
  Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree  

Section Five: Respondent Behaviors

The following questions refer to your behaviors in the past 6 months.  
In the last 6 months, which of the following have you done to lose weight?  

1. Avoided certain foods.  
   Yes  No  

2. Counted calories.  
   Yes  No  

3. Exercised.  
   Yes  No  

4. Fasted.  
   Yes  No  

5. Lifted weights.  
   Yes  No  

6. Purged (removing all food from the body).  
   Yes  No  

7. Restricted food.
In the last 6 months, which of the following have you done to prevent weight gain?

1. Avoided certain foods.
   Yes   No

2. Counted calories.
   Yes   No

3. Exercised.
   Yes   No

4. Fasted.
   Yes   No

5. Lifted weights.
   Yes   No

6. Purged (removing all food from the body).
   Yes   No

7. Restricted food.
   Yes   No

8. Took diet pills.
   Yes   No

9. Used meal replacements.
   Yes   No

10. Vomited.
    Yes   No
11. Other (please specify).

Section Six: Qualifier
The question refers to a female who acted as an influential person in your upbringing.
For the purposes of this survey, the person will be called “female guardian.”

1. Did you grow up with an older female who had significant influence on your upbringing? (Female guardian.)
   Yes  No

Section Seven: Female Guardian Relationship
1. Please identify the type of female guardian you had growing up.
   Biological mother  Step-mother  Adoptive mother  Foster mother  Grandmother
   Aunt  Other (please specify)

Section Eight: Female Guardian’s Attitudes
The following questions refer to the respondent’s female guardian.
When answering the following questions, please use this definition of diet: a specific selection or limitation in the amount of food a person eats to reduce weight.

1. Has your female guardian ever been on a diet (a specific selection or limitation in the amount of food a person eats to reduce weight)?
   Yes  No  Don’t know

2. How often do you currently have contact with your female guardian?
   Every day  Several times a week  Several times a month  Several times a year
   Once a year  Never

Section Nine: Female Guardian’s Attitudes

1. How often does your female guardian talk about HER OWN weight?
   Every day  Several times a week  Several times a month  Several times a year
   Once a year  Never

2. How often does your female guardian talk about wanting to go on a diet (a specific selection or limitation in the amount of food a person eats to reduce weight)?
   Every day  Several times a week  Several times a month  Several times a year
   Once a year  Never

3. How often does your female guardian talk about YOUR weight?
   Every day  Several times a week  Several times a month  Several times a year
   Once a year  Never

4. How often does your female guardian make negative comments about YOUR weight?
   (Such as “You are so fat/big/heavy.” or “You need to lose weight.”)
Every day    Several times a week    Several times a month    Several times a year    Once a year    Never

5. How often does your female guardian make negative comments about HER OWN weight? (Such as “I am so fat/big/heavy.” or “I need to lose weight.”)
Every day    Several times a week    Several times a month    Several times a year    Once a year    Never

6. How often does your female guardian talk about the importance of being thin?
Every day    Several times a week    Several times a month    Several times a year    Once a year    Never

7. How often does your female guardian talk about wanting to be thinner?
Every day    Several times a week    Several times a month    Several times a year    Once a year    Never

8. How often does your female guardian talk about wanting to lose weight?
Every day    Several times a week    Several times a month    Several times a year    Once a year    Never

9. How often does your female guardian tell you that YOU should lose weight?
Every day    Several times a week    Several times a month    Several times a year    Once a year    Never

10. How often does your female guardian tell you that YOU should eat less?
Every day    Several times a week    Several times a month    Several times a year    Once a year    Never

11. How often does your female guardian tell you that YOU should eat healthier?
Every day    Several times a week    Several times a month    Several times a year    Once a year    Never

12. How often does your female guardian tell you that YOU should go on a diet?
Every day    Several times a week    Several times a month    Several times a year    Once a year    Never

Section Ten: Female Guardian Behaviors
Which of the following have you witnessed your female guardian doing to lose weight while growing up?

1. Avoided certain foods.
Yes    No

2. Counted calories.
Yes    No
3. Exercised.  
Yes ☐  No ☑

4. Fasted.  
Yes ☐  No ☑

5. Lifted weights.  
Yes ☐  No ☑

6. Purged.  
Yes ☐  No ☑

7. Restricted food.  
Yes ☐  No ☑

8. Took diet pills.  
Yes ☐  No ☑

9. Used meal replacements.  
Yes ☐  No ☑

10. Vomitted.  
Yes ☐  No ☑

*Which of the following have you witnessed your female guardian doing to prevent gaining weight while growing up?*

1. Avoided certain foods.  
Yes ☐  No ☑

2. Counted calories.  
Yes ☐  No ☑

3. Exercised.  
Yes ☐  No ☑

4. Fasted.  
Yes ☐  No ☑

5. Lifted weights.  
Yes ☐  No ☑

6. Purged (removing all food from the body).  
Yes ☐  No ☑
7. Restricted food.
Yes  No

8. Took diet pills.
Yes  No

9. Used meal replacements.
Yes  No

10. Vomitted.
Yes  No

Section Eleven: Respondent Diet Patterns
*The following questions refer to the respondent’s dieting patterns.*

1. Please describe your definition of a diet. What does the word “diet” mean to you?

2. Have you even been on a diet (a specific selection or limitation in the amount of food a person eats to reduce weight)?
Yes  No

Section Twelve: Dieting Frequency
*When answering the following questions, please use this definition of diet: a specific selection or limitation in the amount of food a person eats to reduce weight.*

1. When did you go on your first diet?
Under age 10  Age 11-14  Age 15-18  Age 19-22  Over age 22

2. How many diets have you been on?
1-3 diets  4-6 diets  7-9 diets  More than 9 diets

Section Thirteen: Diet Definition
*What does your definition of diet include?*

1. Avoiding certain foods.
Yes  No

2. Counting calories.
Yes  No

3. Exercising.
Yes  No

4. Fasting.
5. Lifting weights.
Yes  No

6. Purging.
Yes  No

7. Restricting food.
Yes  No

8. Taking diet pills.
Yes  No

Yes  No

10. Vomiting.
Yes  No

11. Other (please specify).

12. Have you ever used any diet supplements to aid in weight loss? (Such as pills or shakes.)
Yes  No

*Section Fourteen: Supplements*

1. Please identify what kind of supplements you have used in weight loss.

*Section Fifteen: General Information*

1. What is your age?
18  19  20  21  22  23  24  25  26+

2. Are you currently enrolled in college?
Yes  No

3. What is your current class standing?
Freshman  Sophomore  Junior  Senior  Graduate Student

4. What best describes your ethnicity?
Asian  African American  Caucasian  Native American  Other (please specify)

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Section Sixteen: Completion

You have finished the Female Body Image and Weight Concerns Survey! Thank you for your time.

If any of the information in this survey has made you uncomfortable, or if you would like to speak with someone further about these topics, please contact:

Ball State Counseling Center
765-285-1736

If you have any further comments or suggestions pertaining to the survey, please add them here.