EFFECT OF MODEL SIZE ON FEMALE ADOLESCENTS’ BODY IMAGE

BY

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by

Kelley M. Gudahl
This document is dedicated to the graduate students of the University of Florida.
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1-1 Social Cognitive Theory Model ..................................................................................13
Over time, the ideal woman that is presented in the media has been continually shrinking. The media encourage this ideal through programming that portrays the beautiful and successful heroine as thin. Many researchers have linked the internalization of the thin ideal found in the media to body dissatisfaction and eating disorder symptomology. This internalization leaves adolescent females constantly pressured to be thin and often leads them to social comparisons.

This thesis contributes to the information on the topic by testing how the differences among advertisements containing average-size models, thin models or no models at all have affected a young woman’s body satisfaction. None of the previous experiments dealing with the effect of advertising on female adolescents have created their own stimuli to test the differences.

The results of this thesis indicate that the body size of models in advertisements targeted to female adolescents is not as influential as once thought. These results suggest
that some other factor besides model size is to blame for levels of body-focused anxiety in female adolescents.
CHAPTER 1
INTRODUCTION

In a society that values thinness, the ideal woman’s body is decreasing at a fast pace. What once was thought of as beautiful and slender only a few decades ago is now seen as loose and flabby (Bordo, 1993). The continually shrinking ideal woman also has unnatural proportions. The makers of WonderBra state that a woman’s proportions should be 36”-24”-36.” By industry standards, this ideal woman would be simultaneously a size four hips, size two waist, and a size 10 bust (Harrison, 2003, p. 255). While the average American woman is 5’4” and weighs in at 145 pounds (Anorexia Nervosa and Related Eating Disorders [ANRED], 2002), the average American model is 5’10” and weighs 107 pounds (Salvatore, 1999). Even Barbie is 6’0,” 101 pounds, has a 39” bust, a 19” waist, and 33” hips, while the average woman is 5’4,” 145 pounds, has a 36-37 inch bust, a 29-31 inch waist, and 40-42 inch hips (ANRED, 2002). Considering that 90% of girls aged 3-11 had a Barbie at some point in their lives (Hymowitz, 1999), most adolescent females could have been influenced by Barbie’s unnatural proportions. Researchers have linked this cultural change to an environment that “may exert intense pressure on some women to diet in spite of possible adverse physical and emotional consequences” (Garner, Garfinkel, Schwartz, & Thompson, 1980, p. 490).

From a very early age, female adolescents are shown that being thin is ideal. The media portray a thin ideal to female adolescents that weighs 23% less than the average American, an ideal that is only naturally attainable by 5% of the population (Maine,
Continually being exposed to this ideal in the media, adolescent females begin to see thinness as the norm and believe it is attainable with enough effort and sacrifice (Kilbourne, 1999).

With continual exposure to this ideal, young girls begin to see their bodies as objects and that their bodies are their only real value to society. Physical beauty is how others judge their values (Martin & Gentry, 1997). Success or failure at weight control has become a symbol for one’s ability to control one’s life in general (Meyers & Biocca, 1992). The attainment of thinness shows society that when women have the power to gain control over their body, they are controlling their social world (Goodman, 2002).

Not only are adolescent girls constantly being pressured to be thin through the thin ideal being normalized in the media, but also they are facing a time of changes in their own bodies. As an adolescent female’s body matures, weight is gained in the lower torso, hips and thighs. Weight in these areas is seen as a deviation from the cultural ideal of thinness (Rudd & Lennon, 1994; Ballentine & Ogle, 2005). Thoughts of not fitting in with the cultural ideal of thinness sometimes may lead to self-alteration attempts in order to be closer to the ideal (Kilbourne, 1999, p 132). In an attempt to become like the ideal, many begin to diet, use laxatives, and vomit (Kilbourne, 1999).

Not fitting the mediated ideal may lead adolescent females to become dissatisfied with their body image (Harrison, 2000). A female adolescent’s body image is more of a mental construct as opposed to an objective evaluation of her body (Meyers & Biocca, 1992). This construct defines how female adolescents think and feel about their own bodies, as well as their reactions to their body in regard to their physical appearance (Muth & Cash, 1997; Morrison, Kalin & Morrison, 2004). Moreover, a female
adolescent’s body image is very unstable and highly responsive to social cues (Meyers & Biocca, 1992, p. 116).

Research indicates that four reference groups are drawn upon in the construction of a young woman’s body image: the socially represented ideal body, her objective body shape, her internalized ideal body, and her present body image. The socially represented body ideal is that ideal that is taken from the media and is increasingly thin. This ideal is taken from the cultural standards of beauty. The objective body image is the perceived body image. The internalized ideal body is composed of a balance between the objective body image and the socially represented body ideal (Meyers & Biocca, 1992). The authors’ research suggests that body image is irregular and can “vary with mood, the context of evaluation, and the presence of social cues” (Meyers & Biocca, 1992, p. 116).

Although advertisers may not think of body image as elastic, they do understand that exposure to this thin ideal creates anxiety in female adolescents; and advertisers usually respond by offering solutions to female adolescents’ problems with the purchase of their products (Kilbourne, 1999). For example, if female adolescents buy Neutrogena face wash that is endorsed by Mischa Barton, advertisers imply they will become more like Mischa Barton. It has been said that the “big success story of our entertainment industry is our ability to export insecurity: We can make any woman anywhere feel perfectly rotten about her shape” (Kilbourne, 1999, p. 135).

Given that the mediated ideal can influence body image and many adolescent girls constantly struggle with their weight and shape in order to meet this mediated ideal (Harrison & Cantor, 1997; Clay, Vignoles, & Dittmar, 2005; Dittmar & Howard, 2004;
Halliwell & Dittmar, 2004), this thesis will build on the existing literature by examining the relationship advertising has on adolescent females.

**Eating Disorders**

During a time of heavy involvement with the media, an adolescent female’s negative body image can lead to the development of eating disorders (Thomsen, Weber & Brown, 2002; Smolak & Striegel-Moore, 1996; Heatherton, Mahamedi, Striepe & Field, 1997; Polivy & Herman, 1987; Levine & Smolak, 1996; Arnett, 1995; Arnett, Larson & Offer, 1995; Steele & Brown, 1995). The development of eating disorders typically happens during early adolescence through early adulthood. During this period female adolescents are susceptible to cultural pressures to be thin, and are heavily involved with and influenced by the media (Thomsen, Weber & Brown, 2002).

Today, the term eating disorders has come to encompass the three most common eating disorders: anorexia nervosa, bulimia nervosa, and binge eating disorder (ANRED, 2002). Research supports that exposure to the thin ideal can bring about the relationship between media exposure and eating disorder symptomology (Meyers & Biocca, 1992; Becker, 2004; Harrison, 1997; Harrison, 2000; Harrison & Cantor, 1997; Stice, Schupak-Neuberg, Shaw & Stein, 1994; Thomsen, Weber & Brown, 2002).

Anorexia nervosa can be detected when an individual weighs at least 15% less than what is expected for her age and height, and is scared of gaining weight and becoming fat (ANRED, 2002), over exercises, and is very secretive around food (Anorexia Nervosa, 2005). Many anorexics count the calories of everything they eat and weigh their food (Eating Disorders, 2006b). Anorexics are generally depressed, irritable, and withdrawn (ANRED, 2002).
Bulimia nervosa can be detected when an individual engages in binge eating sessions, followed by extreme methods of weight control such as vomiting, fasting, abuse of enemas, laxatives or diuretics, and/or excessive exercising (Bulimia Nervosa, 2005). Other symptoms of bulimia are an extreme concern with weight and level of fitness (Bulimia Nervosa, 2002), and having an extreme fear of gaining weight (Eating Disorders, 2006b). Weight may be near normal or normal unless anorexia is also involved (ANRED, 2002).

Binge eating disorder can be detected when the individual frequently engages in excessive or uncontrollable indulgences of food, consumes food quickly and secretly, snacks all day long, feels guilty about their binges, has a past filled with unsuccessful diets, tends to be depressed, and is many times obese. Individuals with binge eating disorder do not usually vomit, excessively exercise or use laxatives. They are, however, genetically inclined to weigh more than the thin ideal portrayed in the media. This leads them to diet to lose weight, causing them to be hungry much of the time. Binge eating sessions then occur to alleviate this hunger. Many times individuals with binge eating disorder eat for comfort, numbing emotional pain (ANRED, 2002).

Aside from the symptoms of each type of eating disorder, those suffering from anorexia nervosa and bulimia nervosa are more likely than normal populations to overestimate their body size (Meyers & Biocca, 1992). Bulimics were found to overestimate their body by 11.31% as compared with anorexics who overestimated by 5.52%. Bulimics also had a higher desire to be thin than did anorexics – 18.11% as opposed to 4.97% (Touyz, Beumont, Collins & Cowie, 1985).
Eating disorders have been on the rise over the last few decades and have begun to penetrate to other groups beside the traditional young, white, upper middle-class female (Harrison & Cantor, 1997, p. 41). Approximately 15% of female high school and college students meet the clinical criteria for having an eating disorder; 4.2% of the respondents had anorexia nervosa and 4 - 5.2% had bulimia (Lemberg & Cohn, 1999, p. 7). Many women are becoming so thin that they die from their disorders, leaving eating disorders as the third most common chronic illness among women (Kilbourne, 1999). Those who do not seek help have a 20% fatality rate. When help is sought out, that number drops to 2-3% (ANRED, 2002).

There are five main influences that contribute to the development of eating disorders: biological, psychological, familial, sociological and socio-cultural (ANRED, 2002). These influences are heightened during adolescence because of female adolescents’ preoccupation with appearance and the development of their own identity (Thomsen, Weber & Brown, 2002). Heredity is the main biological influence. People with a family member that has suffered from an eating disorder are 12 times more likely to develop anorexia nervosa and four times more likely to develop bulimia than those with no family members having a history of an eating disorder. Research shows that once someone begins starving herself, binging, or purging that these behaviors can actually alter brain chemistry and prolong the disorder. It has also been found that some personality types like obsessive-compulsive and sensitive avoidant are more prone to developing an eating disorder (ANRED, 2002).

Psychological influences also play a big role in the development of eating disorders. People with eating disorders are many times perfectionists and set unrealistic
goals and expectations for themselves, as well as expecting them in others. They have accomplished many things but still feel like they have failed. Everything to them is one extreme or the other; they see themselves as fat or thin. These individuals do not have a strong sense of identity and are many times angry. They do not know how to release their anger in proper ways and hurt themselves in the process (ANRED, 2002).

Familial influences are also a factor contributing to eating disorders. Many individuals with eating disorders tend to feel smothered by their overprotective families. Individuals in these families experience high expectations of achievement and success. Daughters of mothers with eating disorders may also be at a higher risk of developing an eating disorder than are those without mothers dealing with eating disorders (ANRED, 2002). Daughters many times will begin to model their eating behaviors after those of their mother’s. Furthermore, Dixon, Gill, & Adair (2003) found that adolescent females who had fathers that believed that physical appearance was important were more likely to have daughters that purged to control their weight. When parents restrict eating, children are at a greater risk to eat when they are not hungry (Birtch, Fisher, & Davidson, 2003).

Social factors are also very influential in the development of eating disorders. If a female adolescent has friends who are obsessed with their appearance, the female adolescent may become obsessed with her appearance as well. These situations can leave the individual feeling pressure to obtain the ideal self. Individuals experiencing relationship problems with friends are generally more vulnerable to eating disorders. On the exterior these individuals seem to have good relationships with their friends, but many times feel as if they do not fit in and that no one truly understands them (ANRED, 2002).
Many researchers also believe socio-cultural influences are a major contributor to the rise of eating disorders (Becker, 2004; Harrison, 1997; Harrison, 2000; Harrison & Cantor, 1997; Stice, et al, 1994; Thomsen, Weber & Brown, 2002). These researchers point to the media and their models as an influence. These models weigh 23% less than the average women and who fall into the weight criteria for anorexia, (Goodman, 2002, p. 712). It has also been suggested that the media are partially to blame for the rise in eating disorders (Goodman, 2002).

Other research suggests that adolescent girls do not use the media as their sole information source about socio-cultural norms, but in conjunction with other socio-cultural messages that help them create their internalized ideal body image. Internalization of this ideal leads adolescent females to attempt to achieve the thin ideal. It is when this goal is not attained that disordered eating begins (Thomsen, Weber & Brown, 2002).

**Mass Media’s Relationship to Eating Disorders**

Researchers recognize the relevance of all of the above influences in contributing to the development of eating disorders. However, many believe socio-cultural influences are the most prominent influences on an adolescent females’ eating pathology (Becker, 2004; Harrison, 1997; Harrison, 2000; Harrison & Cantor, 1997; Stice, et al, 1994; Thomsen, Weber & Brown, 2002). Over the last several decades, the increase in eating disorders has been accompanied by a decrease in the ideal body weight seen in the media (Garner, Garfinkel, Schwartz, Thompson, 1980; Wiseman, Gray, Mosimann & Ahrens, 1992). Research has supported that exposure to the thin ideal found in the media lead to a decrease in self esteem (Irving, 1990), weight satisfaction (Irving, 1990), body image
(Yamamiya, Cash, Melnyk, Posavac, & Posavac, 2005); and an increase in unhappiness, anxiety, and neuroticism (Richins, 1991).

Stice et al. (1994) supported that the internalization of socio-cultural pressures from the media are related to eating habits when they found results suggesting that women directly model their eating behaviors based on what they see in the media (fasting and purging behaviors). Many times women in the media are shown snacking and eating unbalanced meals (Meyers & Biocca, 1992). This ideal body cannot usually be attained with eating practices like these.

More support for this internalization of socio-cultural pressure was found when Anne Becker (2004) studied young women in Fiji before and after the introduction of television into to their culture. Before the introduction of television and Westernized ways of thinking, the Fijian culture preferred women with robust appetites and body shapes because they exemplified hard work and a high social status. After the introduction of television, Fijian adolescent females revealed that they got information on who they should be and where they should be going from television. One respondent was reported saying, “Yes [I do think watching television has affected the way I feel about my body], very much. I have, ah, you know, when I see [people on television] I think that I have to lose weight,” (Becker, 2004, p. 554). Respondents looked to the media for information and tips on how to lose the weight. Respondents also viewed converting to Westernized ways as a method to position themselves competitively with their peers. After the introduction of television, being overweight was seen as a result of being lazy. Reshaping one’s body was done for both peer approval and better employment
opportunities. A dramatic increase in disordered eating in Fijian adolescent females was found (Becker, 2004).

Magazines also promote the thin ideal image. Women buy and read magazines because they feel that they are a representation of today’s culture. They want to be a part of this culture and connect with other women (Maine, 2000). The covers alone tell women that they are not thin enough and need to be thinner in order to be happy. Headlines like “Lose Ten Pounds in Ten Days,” “Look Great Naked: Build a Ready-to-be-Bare Body,” and “From Fat to Firm: Get Real Results in 10 Minutes a Day” tell women they are not good enough the way they are (Maine, 2000).

These messages become even more important given that adolescents may be the heaviest users of magazines. Standard Rate and Data Service (SRDS) circulation figures indicate that more than 6.5 million adolescent females read three of the most popular magazines targeted to this age group, spending approximately 13 minutes each day reading them (Tweens, Teens, and Magazines, 2004). Adolescent girls are told how to be a woman from teen magazines and a substantial part of becoming a woman involves weight and body shape (Duffy & Gotcher 1996). Indeed, adolescents have reported that magazines influence their ideal body image and shape. Heavy adolescent magazine readers are 2 - 3 times more likely to diet than their non-reading counterparts (Field, Chueng, Wolf, Herzog, Gortmaker, & Colditz 1999; Ballentine & Ogle, 2005).

Upon review of the previous research it can be seen that there is a relationship between the media and eating disorder symptomology (Becker, 2004; Harrison, 1997; Harrison, 2000; Harrison & Cantor, 1997; Stice, et al., 1994; Thomsen, Weber & Brown, 2002). This thesis is building on this literature by exploring the link between the
idealized image found in the media and its influence on adolescent body image. This thesis is specifically dealing with the influence of the thin ideal models found in advertisements targeted to the adolescent female.

**Theoretical Perspective**

To study advertising’s influence on body image, two main theories have been used to explain how women begin to develop body image disturbances and will guide hypothesis development: social comparison theory and social cognitive theory.

**Social Comparison Theory**

In the process of evaluating oneself, social comparison theory states that individuals compare themselves to those that they believe hold preferred and desirable social and cultural traits such as physical beauty and perfection. These individuals then participate in behaviors to reach these ideals (Festinger, 1954, Thomsen, Weber & Brown, 2002).

Leon Festinger (1954), who developed social comparison theory, says that in order to evaluate our own abilities and/or opinions we look to others, such as the models found in the media. In Western cultures no one is ever satisfied with the way they are, and end up looking to the media for clues on how they should look. The more important a certain behavior, ability or opinion is to someone, the higher the pressure is to reduce the discrepancies concerning that behavior (Festinger, 1954). Therefore, the more a young adolescent female views images of the thin ideal in the media and wants to be like them, the more she will strive to make herself look like that.

Within social comparison theory, there are two different types of comparison targets: universalistic and particularistic. A universalistic comparison is made when one compares herself to a woman she does not know on a specific attribute. For example, an
adolescent female might compare her body shape to that of a famous model. A particularistic comparison is made when one compares herself to others that are like herself, for example, a friend (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999; Fesinger, 1954).

There are two additional possibilities when choosing comparison targets—upward or downward. Downward comparisons are made when one believes herself superior to the comparison target, while upward comparisons are made when she feels inferior in the comparison attribute. An upward comparison would be made if this same girl compared her body to a model’s and realized that she was bigger than this model. It has been suggested that individuals who make upward comparisons are trying to improve themselves on some level, while those who make downward comparisons are engaging in a mechanism of self-enhancement or coping (Thompson, et al., 1999; Fesinger, 1954). For example, a downward comparison would be when a female adolescent looks at a classmate and sees that she is thinner than her classmate. Social comparisons tend to be upward when relating to physical appearance because female adolescents choose comparison targets to model themselves after from the media (Thompson, et al, 1999; Fesinger, 1954). Given that only 5% of the population can reach the ideal body image (Maine, 2000, p. 43), 95% of the population is making upward comparisons when comparing themselves to the media.
Social Cognitive Theory

The final theory used to guide this thesis is the social cognitive theory. Social cognitive theory says that individuals are not born with all their actions and behaviors intact; they must be learned. Behaviors are learned through personal experiences or observations of the actions and consequences of others (Bandura, 1977). This thesis points to the media as the main source to observe. Through the use of a three-part, interdependent model composed of personal, behavioral and environmental factors, the social cognitive theory examines how behaviors are learned (Bandura, 2001; Bandura, 2002). Personal factors include cognitive, affective, and biological occurrences; behavioral factors are the actual behaviors of someone; and environmental factors are the consequences of the learned behavior (Bandura, 2002). In looking at the media and the thin ideal they portray, people look to the models and learn by observing their behaviors.

Figure 1-1: Social Cognitive Theory Model (Bandura, 2002, p. 122)
Observational learning allows us to experience and expand our skill sets vicariously by watching other people’s actions and consequences for those actions. A lot of our understanding of values and behaviors is taken vicariously through the mass media—what we see, hear and read (Bandura, 1977; Bandura, 2002). People take these images from the mass media and make them their reality. The greater the internalization of these images, the bigger the social impact (Bandura, 2002). However, visual messages tend to be more effective in influencing social learning than do the words found in magazines (Bandura, 1977).

With observational learning we are able to self-regulate and evaluate the reactions in relation to our own behaviors. Self-regulation relies on both discrepancy production and reduction. People motivate themselves by setting goals to be achieved and then they use their resources and knowledge to attain these goals (Bandura, 2002). When dealing with the thin ideal portrayed in the media, adolescent females see the thin ideal portrayed and realize that they do not want to stray from that. They then participate in behaviors to achieve this goal and reduce discrepancies between themselves and the mediated ideal.

When individuals engage in observational learning, they are able to reflect upon these observations. In the process of self-reflection, they are able to “generate ideas, act on them, or predict occurrences from them,” (Bandura, 2002, p. 124). Four different forms of thought verification have been defined: enactive, vicarious, social and logical. Enactive verification is how well one’s thoughts and results of the thoughts fit together. Vicarious verification is how well one’s thoughts align with others. In social verification people check their thoughts with what others believe. Logical verification is when people check the errors in their line of thinking by analyzing knowledge that is known and what
stems from that knowledge (Bandura, 2002). This thesis involves these forms of thought verification by determining that female adolescents observe the ideal models and their behaviors, and then reflect upon their observations. In using the media to verify thoughts, the mediated ideals can create a distorted view of reality (Bandura, 1977).

**Chapter Summary**

This chapter introduced the main topics that this thesis will discuss. It can be seen that internalization of the continually shrinking mediated ideal can lead to body perception disturbances. This dissatisfaction can lead to the development of eating disorders. Moreover, media, as a socio-cultural influence, are thought to be one of the biggest contributors. To help study socio-cultural influences, both the social comparison theory and the social cognitive theory will guide the research investigating the relationship between the mediated ideal and a female adolescent’s body image. This thesis is specifically looking at how a model’s size in advertisements effect adolescents’ body dissatisfaction.
CHAPTER 2
LITERATURE REVIEW

This chapter will review the relevant literature on the thin ideal portrayed in the media and how that ideal influences female adolescents by discussing: the thinning images of these ideals over time, gender differences in thinness-promoting messages, how female adolescents internalize the thin ideal, how they socially compare themselves to these ideals, and how they are affected by the media. This literature review will summarize the material on these subjects in order to situate my study within the relevant discourse on the thin ideal and to expand on its contribution.

Thinning Images of Women over Time

Research shows that the mediated ideal image has thinned over time. Garner et al. (1980) conducted a study analyzing 20 years (1959 – 1978) of body measurements of Playboy centerfold models and Miss America Pageant contestants. A significant decrease in bust and hip measurements was found through time while waist measurements became larger, suggesting that the curvaceous woman is out and a boxier, less shapely woman is in. For the Miss America Pageant only, the data showed a decline of approximately 0.28 pounds per year during the duration of the study for contestants and 0.37 pounds per year for winners. Wiseman et al. (1992) conducted a follow-up study analyzing Playboy magazine centerfolds from 1979 to 1988 and Miss America Pageant contestants from 1979 to 1985. They found that 69% of the centerfolds and 60% of the Miss America contestants weighed at least 15% less than their expected weight for
their age and height, qualifying them as anorexic. Throughout history the winners of the pageant weighed consistently less than the average pageant contestant. During the same period, mean weights for the general population actually increased by several pounds (Garner, et al., 1980).

Silverstein, Perdue, Peterson, and Kelly (1986) also supported the notion that the ideal woman portrayed in the media had been shrinking through time. The researchers compared the bust-to-waist ratios of the models found in *Ladies Home Journal* and *Vogue*. Photos were sampled every four years beginning in 1901 and ending in 1981. At the beginning of the study, bust measurements were nearly double the waist measurements. Twenty-five years later, the mean bust-to-waist ratios were down to 1.1. Although the bust-to-waist ratios have fluctuated since the beginning of the study, they have never again reached the measurements found at the beginning of the analysis. From 1965 until the study’s end in 1981, mean ratios have averaged approximately 1.3 (Silverstein, et al., 1986). Barber (1998) replicated this study and analyzed additional years (1901-1993). Because the results for both publications were highly correlated, only data from *Vogue* was analyzed. His data also supported the continual decline in bust-to-waist ratios from 1901 to 1993 (Barber, 1998).

Additionally, Silverstein et al. (1986) conducted a study measuring the bust-to-waist ratios of the top film actresses from 1932 to 1979 and their results mirrored the trend found by the researchers analyzing the magazines. The mean bust-to-waist ratio for the ‘40s and ‘50s was 1.34, while the mean ratio for the ‘60s and ‘70s was 1.22. These data support that the curvaceous woman is no longer as desired as the boxier, less shapely woman (Silverstein, et al., 1986).
Gender Differences in Thinness-Promoting Messages

Along with the shrinking of the ideal woman in the media, Morrison, Kalin, and Morrison (2004) found that female adolescents were exposed to media that contained the thin ideal representation of the body more often than males. In a study by Silverstein et al. (1986), more than 69% of female characters on television and only 17.5% of male characters on television were notably thin. Not only was thinness portrayed as attractive and virtuous, obesity was viewed as disgusting and worthy of ridicule.

Silverstein, et al. (1986) also compared weight messages in four popular women’s magazines with weight messages in four popular men’s magazines. The results strongly supported that when compared to men’s magazines, women’s magazines contain a greater number of messages telling women that they need to be thin (ratio, 63:1). There were also more advertisements and articles about eating in the women’s magazines than in the men’s (ratio, 1407:25). The only category in which men’s magazine messages outnumbered women’s was “alcoholic beverages” (Silverstein, et al., 1986).

Similarly, Nemeroff, Stein, Diehl, and Smilack (1993) also found that there were many more body-related articles in women’s magazines than in men’s (ratio, 41.85:8.78 per six-month period). For both men and women, fashion magazines contained the most body-related articles (Nemeroff, et al., 1993). Compared to men’s magazines, 10.5% more articles and advertisements in women’s magazines promoted weight loss (Stice, et al., 1994).

Not only are adolescent females presented with more body-related messages than men, but they also react differently to them (Hargreaves & Tiggemann, 2004). When presented with the ideal body condition for each gender, adolescent females experienced significantly greater body dissatisfaction compared to their male counterparts. Both
adolescent males and females engaged in appearance comparisons after exposure to the ideal; however, adolescent females engaged in a much greater comparison. Overall, the media’s effect is much stronger for females than it is for males.

**How Female’s Weight is presented in the Media**

The media encourage this thin ideal through programming that portrays the beautiful and successful heroine as thin (Harrison, 1997). A fit and thin body is symbolic of one’s health and the media portray thinness as a positive characteristic that is due to successful disciplining of the body (Ballentine & Ogle 2005).

But having a thin body is not the only quality or virtue encompassed by thinness. A study analyzing sitcoms (Fouts & Burggraf, 1999) revealed that thinner female characters received more positive comments while heavier female characters received more negative comments; and the thinner the central character was, the more positive comments were made, sending the message to viewers that being thin attracts compliments. Since television’s beginnings, media personalities have continued to grow thinner and now more than half fit the criteria for anorexia nervosa (Harrison, 2000, p. 120).

**Internalization of the Thin Ideal**

Many studies reveal that the internalization of the thin ideal found in the media can be linked to body dissatisfaction and eating disorder symptomology. When adolescent females internalize the thin ideal, they begin to believe that thin is beautiful and that this beauty is both good and goal worthy (Dittmar & Howard, 2004; Kilbourne, 1999, Martin & Gentry 1997).

Adolescent females are constantly being pressured to be thin. During their adolescence they are chastised for being sexual, loud, boisterous, big in any sense of the
word, and as having too big of an appetite (Kilbourne, 1999). The pressure and obsession
to be thin begins at an early age and has a noteworthy effect. Kilbourne (1999) reports
that 40-80% of fourth-grade girls are now dieting, and approximately 30% of 12-13 year-
old girls are trying to lose weight through dieting, vomiting, laxatives, or diet pills.
Researchers found that 57.6% of adolescent girls had dieted for weight loss purposes
during the week prior to the study (Story, Neumark-Sztainer, Sherwood, Stang, &
Murray, 1998). Another study found that dieting 15-year-old girls were eight times more
likely to develop an eating disorder than non-dieting 15-year-old girls (Garner &
Kearney-Cooke, 1996). French, Perry, Leon and Fulkerson (1995) conducted a study of
1,015 high school girls and found that 11.6% of them skipped meals, 5.4% used diet pills,
and 4.4% vomited to control their weight.

Dittmar and Howard (2004) added another dimension to the internalization
research when they tested the effects of model size on the internalization of mediated
images and social comparison. Internalizing the thin ideal was shown to be more of a
predictor of body-focused anxiety than general social comparison. As expected,
exposure to the thin ideal led to a higher level of anxiety than exposure to the average-
size model or the no model condition.

Halliwell and Dittmar (2004) also conducted an experiment testing the effect of
model size on women’s body-focused anxiety and found that advertising’s impact on
body-focused anxiety was dependent on the level of internalization. When ideal models
were shown, levels of internalization were high and body-focused anxiety was highest.
When either average-sized models or no models at all were shown, body-focused anxiety
was no different. A major contributing factor of this study was that it supported the
notion that rather than model attractiveness, model size was the greatest cause for body-focused anxiety. Because weight-related anxiety can lead to unhealthy weight loss practices, the authors thought this to be an important finding (Halliwell & Dittmar, 2004).

High internalization of the thin ideal can lead to body dissatisfaction (Stice & Bearman, 2001). It has been suggested that during adolescence, when a young woman’s body is facing changes that steer her away from the thin ideal, exposure to the thin ideal is high and their body’s changes lead to dissatisfaction because straying from the ideal is seen as undesirable. Increases in body weight may also lead to pressure from family, peers, and the media to be thin, catalyzing the internalization of the thin ideal and creating a vicious cycle. When Presnell, Bearman, and Stice (2004) tested which risk factors predicted increases in body dissatisfaction, they found that only the perceived pressure from peers to be thin had a main effect whereas the perceived pressure to be thin from family, significant others, and the media did not significantly predict body dissatisfaction. This study also revealed that as a female’s weight increases so does her body dissatisfaction. Girls were found to be the happiest with their bodies when they were underweight.

Social Comparison

Internalization of the thin ideal leads female adolescents to socially compare themselves to others (Thompson, et al., 1999). Morrison, Kalin and Morrison (2004) found that compared to males females were more likely to socially compare themselves when evaluating their own body and had lower body esteem as opposed to males. Interestingly, body dissatisfaction did not differ between males and females. What did differ was that males tended to view their bodies as thinner than the ideal, whereas females viewed their bodies as larger than the ideal.
Beebe, Hombeck, Schober, Lane, and Rosa (1996) conducted a correlational study that asked women to identify what physical traits they first noticed when looking at a series of photographs. They were then asked to read a scenario in which a woman either over-ate or dieted and to evaluate how the women in the photographs felt about these weight fluctuations. Women who put a high emphasis on their own body weight and shape identified those same feelings in others and were also more likely to ascribe fat and thin feelings to the women in the photographs. The study participants expected the women in the scenario to feel negative after over-eating and positively after dieting. Notably, this study implies that when women experience extreme body dissatisfaction the social comparison process normalizes the overemphasis on body and appearance concerns (Thompson, et al., 1999). Furthermore, Thompson (1991) conducted a study suggesting a strong link between eating disturbance levels, dissatisfaction with personal body image, self-esteem levels, and those prone to make social comparisons, and suggested a possible explanation for this link is that the process of comparison produces a threatening situation.

Martin and Gentry (1997) found that the reason for the social comparison also dictated its influence. When self-evaluation was the reason for social comparison to advertising models, personal self-perceptions and self-esteem briefly lowered; when subjects compared themselves for self-enhancement or self-improvement purposes with and that comparison was a downward comparison, self-assessment of one’s own attractiveness briefly rose.

**Media’s Depictions of Thinness and their Effects**

Since it is known that female adolescents with high internalization of media cues and high social comparison tendencies are affected by the thin ideal found in the media
(Yamamiya, et al., 2005), magazines increasingly expose them to this ideal through images and content suggesting that female success and happiness is dependent on thinness, and thinness is the preferred state of beauty (Thomsen, McCoy, Gustofson & Williams, 2000). Recognizing this increase, one study looked at the body-related content of *Seventeen* magazines (1992-2003) and found two main themes: the making of body problems and the unmaking of body problems (Ballentine & Ogle, 2005). To make body problems, *Seventeen* promoted acceptable body characteristics: smooth, trim, toned, tight, long, lean, flat, strong, young, sexy, healthy, clean, odor-free, and hair-free (such as arm and nipple hair). These characteristics were also promoted in content on what not to be such as in advice columns. To unmake body problems, *Seventeen* advised girls to go against the mediated body ideal and be happy with who they were. Thus, the magazine presented them with ways that resisted cultural pressures to be thin. It is no wonder that adolescent females have problems accepting their bodies as they are when a single magazine that reaches 87% of adolescent females aged 12-19 contradicts itself (Ballentine & Ogle 2005).

This thin ideal is amplified in fashion and fitness magazines that heavily emphasize body image (Thomsen, Weber & Brown, 2002). Even five minutes of exposure to the thin ideal in these magazines can lead to a more negative body image than non-exposure to the ideal (Yamamiya, et al., 2005). Researchers found that exposure to thin models in magazines led to lower self-esteem, lower weight satisfaction (Irving, 1990), depression, stress, guilt, shame, insecurity, body dissatisfaction (Harrison, 1997, p. 41), unhappiness, anxiety, neuroticism (Richins, 1991), and overestimation of body size (Thomsen, Weber & Brown, 2002). Researchers also found that adolescent
females showed lower body satisfaction levels immediately after exposure to this thin ideal. The greater the difference between the perceived self-image and the ideal image, the greater the level of body dissatisfaction (Thomsen, Weber & Brown, 2000).

Clay, Vignoles, and Dittmar (2005) conducted a study comparing adolescent females’ exposure to ultra-thin models and average-size models. After exposure to the ultra-thin models, the adolescents had higher body dissatisfaction and lower self-esteem. Contrary to previous studies (Dittmar & Howard, 2004; Halliwell & Dittmar, 2004) supporting the theory that body dissatisfaction and lower self-esteem were temporarily relieved after viewing average-size models, Clay and colleagues found no difference in responses after viewing ultra-thin models or average-size models (Clay, Vignoles & Dittmar, 2005).

Monro and Huon (2005) exposed subjects to the idealized images of women found in magazines and had them complete a visual analog scale (VAS) assessing their own appearance anxiety and body shame. Exposure to this ideal led to an increase in body shame and appearance anxiety. Subjects that highly bought into body objectification showed an increase in appearance anxiety after being exposed to the images of thin, idealized women. Those who only slightly bought into body objectification still showed an increase in appearance anxiety but it was much smaller. Both groups did not show a significant difference in body shame (Monro & Huon, 2005).

Stice et al., (1994) found a direct link between media exposure and eating disorder symptomology. Study participants were found to directly model fasting and purging behaviors on what they had seen in the media. The study’s results supported the notion that the internalization of socio-cultural pressures mediates the relationship
between the media and eating habits. Changes in eating disorder epidemiology have mirrored changes in the media’s representation of women (Harrison & Cantor 1997).

Another longitudinal study of the effect of repeated exposure to Seventeen magazine over a 20-month period found that there was no long-term effect on increased internalization of the thin ideal, body dissatisfaction, dieting, negative affect, or bulimic symptoms (Stice, Spangler & Agras, 2001). However, adolescents with a greater desire to be thin and higher body dissatisfaction before the study were found to have a higher negative affect after exposure to the thin ideal. To explain the results, the authors argued that the adverse effect of exposure to the thin ideal in the media is short lived unless the adolescent female is initially vulnerable, and that these vulnerable adolescents are more likely to compare themselves to the thin ideal presented in the media (Stice, Spangler & Agras, 2001). Such comparisons lead adolescent females to model their behaviors after what they see in the media. A positive correlation was found between viewing the thin ideal on television and the belief of being overweight (McCreary & Sadava, 1999). And Harrison (2003) has suggested that exposure to these ideals as found on television foster beliefs, attitudes, and ideals matching what is found in the media.

**Advertising’s Influence**

As outlined above, the influence of magazines and television has been well studied, but few studies focus specifically on advertising’s effect. In one study about advertisements in popular fashion magazines, one group of participants was exposed to images of thin models and another group was exposed to body-neutral images. Those exposed to the thin models experienced much greater body dissatisfaction as well as a higher overall negative mood than those exposed to body-neutral images (Hawkins, Richards, Granley, & Stein, 2004). In addition, participants exposed to the thin models
reported lower self-esteem than those in the neutral images. The researchers found that subjects without eating disorders had a higher internalization of the thin model than those with eating disorders.

Richins (1991) conducted a series of studies testing the effects of advertising on females. After two focus group interviews, she concluded that women do in fact compare themselves to the models found in advertisements. These comparisons left females generating specific body comparisons and feeling negative after viewing the ads. It was also found that if a female had a specific concern about her body, she focused her comparisons on that area in order to reassure herself that she was “not that bad” (Richins, 1991, p. 75). Richins’ second study assessed the extent of these comparisons and suggested that one interpretation for the negative correlation between the amount of comparisons made and body satisfaction was that comparisons led to body dissatisfaction. Richins’ third study revealed the effects of these comparisons and posited that women exposed to the attractive ideal in the media were less satisfied with their own attractiveness (Richins, 1991). Monro and Huon (2005) found that women exposed to the thin ideal in both body-related and non-body-related product advertisements experienced an increase in body shame and a greater level of appearance anxiety.

Meyers and Biocca (1992) showed that watching as little as 30 minutes of television can change one’s body image. They exposed study participants to body-image commercials and neutral-image commercials aired during three types of programs: prime-time drama/comedy, “Star Search” talent competitions, and music videos. They found that the participants’ body image fluctuated after brief exposures to a combination of television advertising and programming, implying that advertising and television
programming foster new desires, needs, and worries that can be solved with just the right product. The researchers were pleased to find out that body-image advertising led the female adolescents to actually feel thinner than they normally do.

In another study on adolescent body image and advertising, Martin and Gentry (1997) found that both ads and motives for comparisons also affect body image evaluations. When evaluating themselves, participants thought they were less attractive after viewing the thin ideal found in advertisements. When self-improvement or self-enhancement was the main reason for comparison, participants’ saw themselves as more attractive through the use of downward comparisons (Martin & Gentry, 1997).

**Limitations of Previous Studies and What this Thesis Will Contribute**

Many studies have tested how the media affect a woman’s self-evaluation, but only a few studies have focused on advertising’s effect. There also has been a limited amount of work on how model size affects body satisfaction levels and even fewer studies on advertising’s specific effect on body satisfaction levels. Of more importance to this thesis is that there have been no known studies on the effects of model size in advertisements on female adolescents with the same models used for different experimental conditions. This thesis will enter the ongoing conversation on the media’s affect on body image by testing how differences in advertisements with average-size models, thin models, or no models at all affect a young woman’s body satisfaction. None of the previous experiments dealing with the effect of advertising on female adolescents created their own stimuli to test the differences. Using multiple models to represent different body sizes opens the door to the possibility that external factors (like attractiveness level and race) could lead to the outcomes of the results. This thesis will use the exact same model for both the thin model and the plus-size model, therefore
eliminating the problems and alternate explanations associated with the results of the experiment.
CHAPTER 3
METHOD

To look at the relationship between media images and adolescent body image, a quasi-experimental methodology was undertaken. An experiment in its most basic form involves taking some sort of action and observing that action (Babbie, 2002). An experiment is used in an attempt to support a hypothesis (Babbie, 2002).

A quasi-experiment differs from a true experiment mainly because a quasi-experiment does not randomly assign subjects to experimental groups and the control group (Babbie, 2002). A quasi experiment is used when either random assignment is not the most practical assignment method or when a control group is not used. This thesis did use a control group, but lacked randomization (Campbell & Stanley, 1966). This method was chosen most worthy because subjects were already divided into three different classroom periods and this was the most feasible way to divide experimental groups. Since all students were in the same math classes, students were thought to have been somewhat equally distributed between experimental conditions. Campbell & Stanley (1966, p. 47) report that a classroom is a “naturally assembled collective.”

In any experimental design there are two types of variables: an independent and a dependent. Independent variables are those variables that are the experimental stimulus (i.e., the cause) and the researcher manipulates. Dependent variables are the variables the researcher is measuring in terms of the effect. This variable is dependent on changes in the independent variable (Babbie, 2002; Wimmer & Dominick, 1991). With this design,
changes in the dependent variable will be supported by the differences in the independent variables.

To truly test the effects of the independent variable, the researcher must have both experimental and control groups. The experimental group is the group that receives the manipulated stimulus. The control group is the group that does not receive the manipulation (Babbie, 2002).

To help minimize validity threats in a quasi-experiment, one can control for confounding variables that have previously been shown to be a strong influence on experiment results (Mark & Cook, 1984). A confounding variable is a variable that can affect the independent and dependent variables, making it seem that there is a causal relationship between the two when the results are due to the outside variable (Lurking Variable, 2006). By controlling the confounding variables, an experiment can better support or refute a relationship between the independent and dependent variables.

**Hypotheses**

In reviewing the relevant literature, it can be seen that the more one internalizes the thin ideal found in the media, the more body-focused anxiety is present (Dittmar & Howard, 2004). Monro and Huon (2005) revealed that the more someone bought into the ideology that the body is an object, the more body-focused anxiety they had. These studies have led to the development of the first two hypotheses:

**H1:** There will be an interaction effect between the level of internalization and body-focused anxiety. Those with higher initial internalization of the thin ideal portrayed in the media who are in the thin model condition will have more body-focused anxiety than those with high internalization in either the average or no model condition.

**H2:** The more body-focused anxiety one has, the more likely she is to internalize the mediated ideal.
H1 is suggesting that there will be a two by three interaction effect between the internalization level, either high or low, and whether participants were exposed to the control condition, thin model condition or the average size model condition. H2 is suggesting that the more body-focused anxiety a participant has, the more likely she is to internalize the ideal model that is presented in the media.

Many studies (Hargreaves & Tiggemann, 2004; Yamamiya et al., 2005; Harrison, 1997; Thomsen, Weber & Brown, 2002; Clay, Vignoles & Dittmar, 2005; Monro & Huon, 2005) have supported that exposure to this thin, mediated ideal leads to body dissatisfaction. When the effects of different model sizes were compared to body dissatisfaction levels, it was found that those who were exposed to the thin ideal had higher body dissatisfaction than those exposed to average size models. Dittmar & Howard (2004) and Halliwell & Dittmar (2004) supported that exposure to the average model condition acts as a temporary relief effect of body focus anxiety. These studies have led to hypothesis three:

H3: Those exposed to the thin ideal experimental condition will experience greater body focused anxiety than those exposed the average, which will experience more body-focused anxiety than the no model condition.

This hypothesis is suggesting that results will show that those participants in the thin model condition will experience the highest level of body-focused anxiety. The participants in the average size model condition will experience the second highest level of body-focused anxiety and the participants in the control condition will have the lowest level of body-focused anxiety.

Richins (1991) reported that those exposed to highly attractive models experienced less satisfaction with their own bodies. This researcher concluded that their
actual state of attractiveness is farther away from the ideal presented in the media when viewing highly attractive models. Thomsen, Weber and Brown (2000) report that the greater the difference between the perceived self-image and the ideal image, the greater the level of body dissatisfaction. Therefore the following hypotheses were made:

H4: Higher body focused anxiety will be experienced the greater the difference between the internalized ideal and the actual state.

H5: Those in the thin model condition will have a greater difference between the internalized ideal and the actual state than those in the average or no model condition.

H4 is suggesting that greater the difference between the internalized ideal model and the participant’s actual state, the higher the level of body-focused anxiety. H5 is suggesting that participants in the thin model condition will have the highest difference between the ideal and actual state. Being exposed to the thin ideal creates a situation where the actual state is very different from the idealized model.

**Operational Definitions**

**Independent Variable**

This thesis had two independent variables. The main independent variable that was manipulated was the body size of models in the advertisements. The second independent variable that was accounted for was internalization.

The variable being manipulated is the body size of the models presented in the advertisements. Each advertisement presented to the adolescent female participants contained the same models. The only difference in the advertisements was that model size was manipulated in each advertisement. Advertisements either featured thin models, average-size models, or no models. In the control group, advertisements did not contain
any models but instead contained pictures of products typically advertised in adolescent female consumer magazines.

All models for the advertisements were found in *Figure, the New Shape of Fashion*, a plus size\(^1\) magazine. All models were facing the camera, with long, loose hair. All photographs had at least three quarters of the body showing. Models were manipulated using Adobe Photoshop to create both the thin model conditions and the average model conditions.

The models in the series containing plus-size models were not altered at all. Models for the series containing the thin models were altered using the design software. Individual body parts were isolated and individually made thinner so as to make the models appear thin and not just digitally altered. Thighs, hips and waists were generally altered slightly more than other body parts to make the models less curvy and more like the typical thin models found in print advertisements. Manipulation of models in this fashion was able to control for model’s attractiveness, race, posture, clothing, and the type of shot.

Following the research of Cusumano and Thompson (1997), who analyzed the body size of models found in popular magazines, the Contour Drawing Rating Scale (Thompson & Gray, 1995) was used to measure the body size of the models to make sure the manipulation created the desired differences. The scale is a visual rating scale, one representing the thinnest body size and nine representing the largest body size.

Cusumano and Thompson found that body size of models in their study ranged from 1.86-4.00 on a nine-point scale. For magazines targeted to the female adolescent

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\(^{1}\) A plus-size magazine is a magazine featuring plus-size models who wear a dress size 12 or higher (Plus-size Model, 2006)
population, body sizes ranged from 1.86-3.19. Using this research as a guideline, the researcher tested each model to ensure each was within the 1.86-3.19 range (see Table 1).

Table 3-1: Coder ratings for model size

<table>
<thead>
<tr>
<th>Model Type</th>
<th>Coder A</th>
<th>Coder B</th>
<th>Mean Rating</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thin Model 1</td>
<td>2.5</td>
<td>2</td>
<td>2.25</td>
<td>0.35</td>
</tr>
<tr>
<td>Thin Model 2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>0.00</td>
</tr>
<tr>
<td>Thin Model 3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>0.00</td>
</tr>
<tr>
<td>Plus-size Model 1</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>0.00</td>
</tr>
<tr>
<td>Plus-size Model 2</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>0.00</td>
</tr>
<tr>
<td>Plus-size Model 3</td>
<td>6</td>
<td>5</td>
<td>5.5</td>
<td>0.71</td>
</tr>
</tbody>
</table>

Coders from the University of Florida were recruited and trained to use the Contour Drawing Rating Scale accurately. Coders were instructed to give each model the rating that most resembled the figure in the Contour Drawing Rating Scale. A rating of one represented the thinnest figure, where a rating of nine represented the largest. Half point increments were used if the models were thought to lie between figure sizes. Intercoder reliability (Cronbach’s alpha) was found to be 0.982.

The Ideal Body Internalization Scale was used to assess internalization of the mediated ideal. This scale contains 10 questions measuring agreement with the socio-cultural ideal endorsed by the media. The measure used a five-point Likert scale with one representing strongly agree and five representing strongly disagree. Internal consistency has been found to be 0.88, while test-retest reliability was found to be 0.59 (one year) (Thompson, et al., 1999; Stice, Ziemba, Margolis & Flick, 1996). The author of this thesis found internal consistency to be 0.859.

**Experimental Stimulus**

Model photographs were first scanned into the computer. Using the digital imaging software Adobe Photoshop, models were isolated from the magazine pages in
which they were found, and were placed in new advertisements designed to resemble advertisements found in typical adolescent magazines (*Teen*, *Seventeen*, etc.). Research supports that 32% of the content in popular teen magazines is dedicated to clothing and fashion (Teens, Tweens, and Magazines, 2004). In reviewing five copies of different top adolescent female magazines, it was observed that many of the ads dealt with fashion clothing, shoes and accessories. Magazines were evaluated on advertisement content. Following the research and observations, the ads created for this thesis featured fashion products. For each series, the advertisements that featured models were for department stores. Two of the ads featuring products were for shoes and one was for a purse. Each ad’s main focus was the photograph. The ads also contained a headline, copy, and a logo (see Appendix A). Advertisements followed a basic picture-window layout to keep the main focus on the image. Copy was written to fit each ad series. The first ad series did not use a separate headline but instead used a large Macy’s logo for the headline. Copy for the first ad series read:

First impressions are important. At Macy’s we want to help you make a good one. Our clothing, shoes and accessories allow you to express yourself and make the first impression that you want to make.

Headline and copy for the second ad series read:

Express Yourself

At Fashion Bug we have all the essentials for you to be who you are. We carry girls, juniors, misses, plus-sizes, maternity wear, shoes and accessories. Whoever, whatever the occasion, we have you covered at The Bug.
Headline and copy for the third ad series read:

Put Your Best Foot Forward

At TJ Maxx we offer more than quality, we offer value. We are all about offering you incredibly good deals on high-quality products. Visit one of our 930 locations for pure shopping bliss.

**Why Photographs Were Used**

There are several reasons the researcher chose to manipulate printed photographs for this experiment. Past research supports that print photographs were the desired choice for experimentation and worthy of study (Clay, Vignoles & Dittmar, 2005; Cusumano & Thompson, 1997; Dittmar & Howard, 2004; Evans, Rutberg, Sather & Turner, 1991; Halliwell & Dittmar, 2004; Harrison & Cantor, 1997; Hawkins, et al, 2004; Irving, 1990; Martin & Gentry, 1997). SRDS circulation figures also reveal that more than 6.5 million adolescent females read three of the most popular magazines targeted to this age group, and spend approximately 13 minutes each day reading them (Tweens, Teens, and Magazines, 2004). Another reason is that pictures are open to interpretation. With words alone you are told exactly what to think, but when viewing an image, you can draw your own conclusions. Bandura (1977) has reported that visual messages are more influential in a social learning situation as opposed to words alone.

**Questionnaires**

Two questionnaires were administered—one before the experimental stimulus and one after. The questionnaire used in this thesis before the experiment tested for internalization of the mediated thin ideal. In order to determine how much each participant internalized the thin ideal, the Ideal Body Internalization Scale was used.

After exposure to the experimental stimulus, a second questionnaire was distributed. The post-test questionnaire measured dependent variables, confounding
variables, and demographic questions. Questions included those in the Body-Image Ideals Questionnaire, the Sociocultural Attitudes Towards Appearance Questionnaire, the Physical Appearance Trait Anxiety Scale, and the Eating Attitudes Test. The questionnaire also covered age, race, height, and weight questions in order to determine each participant’s body mass index (BMI).

**Dependent Variables**

A questionnaire was used to operationalize the dependent variables. This thesis looked at three dependent measures—body image, socio-cultural attitudes and comparison tendencies, and physical state and trait anxiety.

The Body-Image Ideals Questionnaire was used to assess each individual’s personal ideal and actual assessment of her own body (Cash & Szymanski, 1995; Thompson, et al., 1999). It rated 10 attributes related to weight, appearance, strength, and the importance of each attribute. Internal consistency for discrepancy was 0.75 and internal consistency was 0.82 for importance (Thompson, et al., 1999; Cash & Szymanski, 1995). The ideal scale measured how much each participant differed from the mediated ideal and was measured on a 0-3 Likert scale, zero representing “exactly as I am” and three representing “very unlike me.” The importance scale measured how important certain qualities were to participants and was measured on a 0-3 Likert scale, zero representing “not important” and three representing “very important.” Example questions on the ideal scale are “My ideal height is” and “My ideal weight is.” Example questions of the actual assessment scale are “How important is your ideal height?” and “How important is your ideal weight?” The discrepancy portion of the Body-Image Ideals Questionnaire is calculated by receiving a -1 for “Exactly as I am,” +1 for “Almost as I am,” +2 for “Fairly Unlike Me,” and +3 for “Very Unlike Me.” The importance portion
is calculated by receiving a zero for “Not Important,” a one for “Somewhat Important,” a two for “Moderately Important,” and a three for “Very Important.” To determine the weighted Body Image Ideals score the mean discrepancy score was multiplied by the mean importance score.

The Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ) for females was used to assess the awareness and tendency to try to achieve the social standards of beauty. The updated scale by Cusumano and Thompson (1997) was used rather than the original because this version added questions to the original scale to better measure sociocultural attitudes. This version used 21 questions and was broken into an awareness section and an internalization section. The awareness section measures how conscious the female adolescents are of the ideal represented in the media. The internalization section measures how much the female adolescents see the thin ideal woman portrayed in the media and accept it as the norm. The scale was measured on a five-point Likert scale, one representing completely disagree and five representing completely agree. Example questions were “I would like my body to look like the women who appear in TV shows and movies,” “I believe that clothes look better on women that are in good physical shape,” “I often read magazines and compare my appearance to the female models,” and “In our society, fat people are regarded as attractive.” The authors found the internal consistency for the awareness portion of the scale to be 0.83 and 0.89 for the internalization scale (Thompson, et al., 1999; Cusumano & Thompson, 1997).

The Physical Appearance Trait Anxiety Scale (PATAS) was used to assess the anxiety related to 16 body parts (Reed, Thompson, Brannick & Sacco, 1991; Thompson,
et al., 1999). Previous researchers reported that eight questions were weight related and eight were non-weight related. In this thesis, factor analysis replicated previous findings factoring questions into two groups, questions that are weight related and questions that are non-weight related (See Appendix C). Questions were measured on a five-point Likert scale, one representing “Never” and five representing “Always.” Sample questions are: “In general I feel *anxious, tense, or nervous* about my thighs,” “In general I feel *anxious, tense, or nervous* about my waist,” and “In general I feel *anxious, tense, or nervous* about my buttocks.” Internal consistency for the trait scale was between .88 and .82. Test-retest reliability was .87 for two weeks. (Thompson, et al., 1999).

**Reliability and Validity**

Reliability deals with the consistency of a measure. If a measure keeps yielding the same results, it is reliable. There are three types of reliability: test-retest reliability, internal consistency, and inter-coder reliability. Test-retest reliability measures the stability of a measure. Internal consistency is how correlated the measure is, and inter-coder reliability is whether a measurement system yields the same results. For this thesis, the Body-Image Ideals Questionnaire found internal consistency for discrepancy to be 0.82 and 0.87 for importance. Cronbach’s alpha was used to test internal consistency in this thesis. The SATAQ was found to have internal consistency of .67 for awareness and .634 for internalization. The Physical Appearance Trait Anxiety Scale was found to have an internal consistency of 0.89.

Validity is whether or not something is actually measuring what it is supposed to measure. This is important to make sure that an extraneous variable is not accounting for changes in the dependent variable (Wimmer & Dominick, 1991). There are many sources that could cause an experiment to lack internal validity: history, maturation,
testing, instrumentation, selection, mortality, and diffusion of treatments. History accounts for changes in the environment between the experimental treatment and the observation. Maturation deals with the changes in the subjects during the course of the experiment. This is a problem when dealing with long-term experiments and a bigger problem when dealing with children. Testing deals with the effects of the pretest on the end results. Instrumentation accounts for changes in the measurement instrument during the course of the experiment. Selection deals with how the sample was selected for use in the study. Mortality deals with when people withdraw from the study. Finally, diffusion of treatment deals with when subjects talk with each other and figure out the purpose of the study (Cho, 2005). This thesis did not have to deal with the effects history, maturation, testing, instrumentation, or mortality because the experiment was held in one day and a pretest was not used. Diffusion of treatment might have had a small effect on validity if subjects who participated in the experiment in the morning talked to the participants who were going to participate in the afternoon. This thesis’ main threat to validity was in its selection process. Since randomization was not used in this experiment, its results have less internal validity.

External validity is how well results of an experiment can be generalized to a larger population (Cho, 2005). If a study lacks external validity, results cannot be used to project future situations. There are three factors to consider to ensure external validity: random sampling, heterogeneous samples so that the experiment can be repeated many times, and choosing samples that are representative of the actual population to which results are being generalized to. Because a quasi-experiment lacks randomization of the
sample, it has less validity, making it more difficult to draw strong conclusions (Mark & Cook, 1984).

**Control for Confounding Variables**

In an attempt to help strengthen the results of this quasi-experiment, three main confounding variables are being controlled. Confounding variables in this thesis are those variables that have previously been shown to be a strong influence on experiment results (Mark & Cook, 1984). When accounted for, these outside sources can be ruled out as a cause of experiment results. In this thesis the confounding variables being accounted for are race, BMI and eating disorder symptomology.

Race is an important variable to control. Different races view their bodies and internalize the ideal portrayed in the media differently. For example, Goodman (2002) reported that Latina women are more accepting of their curvy figures and realize that their shapes limit them from attaining the thin ideal. In comparing Anglo women to Latina women, both groups’ ideal body resembled the ideal found in the media. How the races differed was in how much they internalized the ideal. Durham (1999) also supported that race impacted how much adolescent females internalized the thin ideal portrayed in the media. Durham found that the culture in which one was raised in influenced how individuals internalized the mediated ideal.

BMI is one way of measuring whether or not an individual is overweight. It is dependent solely upon an individual’s height and weight, and does not account for muscle mass. It is calculated by multiplying the weight in pounds by 705. That number is then divided by the height in inches. Stormer and Thompson (1996) suggested that BMI accounts for a lot of the variance that is typically accompanied with body dissatisfaction.
The Eating Attitudes Test (EAT) was used to assess the symptoms of eating disorders. It is an objective and self-reported measure used to detect cases of the disease in high-risk populations. The EAT has 26 questions and an internal consistency of 0.90. The EAT is one of the most widely used measures to screen for eating disorders. It was developed to measure the symptoms and concerns usually associated with eating disorders. Garner, Olmsted, Bohr & Garfinkel (1982) extracted three main factors that the EAT accounted for were dieting, bulimia and food preoccupation, and oral control. The scale is measured on a six-point Likert Scale, ranging from 1 representing “Always” and six representing “Never.” Sample questions are “I am terrified about being overweight,” “I cut my food into small pieces,” and “I feel extremely guilty after eating” (Garner, et al., 1982). To score the EAT all questions except “I enjoy trying new rich foods” get three points for “Always”, two points for “Usually”, and one point for “Often.” For the question “I enjoy trying new rich foods,” an answer of “Never” earns three points, “Rarely” earns two points, and “Sometimes” earns one point.

**Experimental Design**

This thesis used a posttest only, between-subject quasi-experimental design. This thesis used a single-factor manipulation with three levels, accounting for the different experimental conditions.

**Subjects**

Ninety-three female students from a Florida high school were recruited for participation in this study. Students’ ages ranged from 14-15 and were in the ninth grade. The students’ self-reported ethnicity was 22.45% white, 8.16% black, 47.96% Hispanic, and 13.27% other. Students voluntarily agreed to partake in the study and did not receive any form of compensation for their participation. All subjects were in a naturally
assembled collective and an similarity between subjects was assumed because all subjects were in the same grade, in the same class and assumed to be of the same intelligence levels (Campbell & Stanley, 1966).

**The Experiment**

Research was performed at a Florida high school. The head teacher gave approval for the experiment to be conducted. Each participant signed an informed consent form, as well as turned in a signed parental consent form. Both informed consents were approved by the University of Florida’s Internal Review Board. The informed consent and parental consent outlined the purpose of the research study, what was asked of each participant, time required to complete the study, the risks and benefits associated with the study, compensation, confidentiality, voluntary participation, right to withdraw, how to obtain results of the study, and contact information.

The study was conducted on December 8, 2005. Upon arrival, female students were separated from the male students and told by the head teacher that they were going to participate in a girls-only survey. Since the experiment only pertained to females, the male students were taken to another classroom during the course of the experiment. Each classroom period was a different experimental condition. The first period was the control condition, the second period was the thin model condition, and the third period was the average model condition. Participants were then given the internalization test and told to complete it. Participants were told not to discuss their answers to prevent their peers from influencing their answers. After everyone completed their surveys, they were collected.

Participants were then exposed to their experimental condition. Each period was a different experimental condition. Since classrooms are seen as naturally assembled
collectives (Campbell & Stanley, 1966, p. 47) this method of subject assignment was chosen to be the most appropriate for this study. Participants were shown three different print advertisements for their experimental condition. Each condition varied on whether they contained average-size models, thin models or no models at all. Model series were shown in the same order to each class period. The only instructions they received when being shown the advertisements was to look at the series of advertisements. Ads were projected onto a screen for 60 seconds each. After exposure to the second questionnaire, the experimental survey was passed out. Each student was told not to discuss any of their questionnaire with their peers or discuss any portion of the survey while it was out. Students were only allowed to ask questions to the researcher. Questionnaires were completed at the students’ own pace.

**Analysis**

SPSS 12.0 was used to analyze the data. ANOVA was deemed most appropriate in this analysis because it is used to test the changes in the dependent variables. An ANOVA analysis “breaks down the total variability in a set of data into its different sources of variation” (Wimmer & Dominick, 1991, pg 241). ANOVA accounts for two types of variance that can occur during an experiment: systematic and error. Systematic variance is variance that is accounted for by a known factor, where error variance is caused by an unknown factor that is most likely not controlled by the experimenter (Wimmer & Dominick, 1991).

ANCOVA is similar to an ANOVA but it “controls” for the effects of confounding variables. Once the effects of the covariates have on the dependent variables are held constant, then their effects will not alter the main effects of the independent variables. With ANCOVA the difference in the dependent variables is
because of changes in the independent variable and not because any confounding variables (Cho, 2005).

Accuracy of reported statistics are reported in confidence levels and intervals. The confidence level is the percentage of how certain you are in the statistical projection. The most used confidence levels are 95% and 99% confident. (Babbie, 2002; Cho, 2005). The confidence interval is the “range of values within which a population parameter is estimated to lie” (Babbie, 2002, p.441). For example, at a 95% significance level the researcher is 95% sure that a group means will fit in the given range. A 95% significance level was used in this thesis.

When testing any hypothesis, a null hypothesis is also being tested. A null hypothesis “asserts that the statistical differences or relationships being analyzed are due to chance or random error” (Wimmer & Dominick, 1991, p. 224). If you fail to reject the null hypothesis means accepting that there are no significant differences in the means for the different groups (Cho, 2005).
Ninety-three female adolescent students were used in this experiment. All students were in the ninth grade and taking Algebra 1A. Their average age was 14.2 years and their average BMI was 22.71. The National Heart, Lung, and Blood Institute (2006) report that a normal BMI ranges from 18.5 to 24.9. The student’s self reported ethnicity was 22% White, 8% Black, 47% Hispanic, and 13% other. The control experimental condition had 30 female adolescents assigned to it. The thin model condition had 31 female adolescents assigned to it, and the average-sized model condition had 37 female adolescents assigned to it. The average EAT score for the sample was 7.2, and the average BMI score was 22.71.

Table 4-1: Covariate break down of subjects by experimental condition

<table>
<thead>
<tr>
<th>Condition</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other</th>
<th>Average BMI</th>
<th>Average EAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Experimental Condition</td>
<td>7</td>
<td>1</td>
<td>17</td>
<td>5</td>
<td>21.24</td>
<td>8.97</td>
</tr>
<tr>
<td>Thin Model Experimental Condition</td>
<td>6</td>
<td>3</td>
<td>12</td>
<td>10</td>
<td>23.67</td>
<td>6.87</td>
</tr>
<tr>
<td>Average Model Experimental Condition</td>
<td>9</td>
<td>4</td>
<td>18</td>
<td>5</td>
<td>23.18</td>
<td>6.05</td>
</tr>
</tbody>
</table>

Covariates

A correlational analysis of the original three projected covariates revealed that BMI was the only effective covariate. BMI was not correlated with the independent variable (model size) and was moderately correlated with body-focused anxiety, leaving
it as an effective covariate. BMI was statistically significant ($r = -.267; p < .05$) and body focus anxiety and BMI was statistically significant ($r = .288; p < .01$). Analysis revealed that no statistically significant difference between group means of BMI and EAT scores and the experimental condition groups were found (BMI: $F = 0.77$, df = 2, $p = n.s.$; EAT: $F = 1.92$, df = 2, $p = n.s.$). Analysis revealed that groups were different based on race ($x^2 = 41.38$, $p < .05$).

**Hypothesis Testing**

In order to test the hypotheses of this thesis, the Statistical Package for Social Sciences (SPSS) 11.5 was used for analyzing the data. In review, this thesis’ hypotheses are:

H1: There will be an interaction effect between the level of internalization and body-focused anxiety. Those with higher initial internalization of the thin ideal portrayed in the media who are in the thin model condition will have more body-focused anxiety than those with high internalization in either the average or no model condition.

H2: The more body focused anxiety one has, the more likely she is to internalize the mediated ideal.

H3: Those exposed to the thin ideal experimental condition will experience greater body focused anxiety than those exposed the average, which will experience more body-focused anxiety than the no model condition.

H4: Higher body focused anxiety will be experienced the greater the difference between the internalized ideal and the actual state

H5: Those in the thin model condition will have a greater difference between the internalized ideal and the actual state than those in the average or no model condition

H1, H3, H4 and H5 were all tested using ANOVA and ANCOVA analyses. Correlations were run on H2 to see if variables were correlated and at what level.
Hypothesis One Results

After finding the mean score of the internalization measure ($M = 2.62$), nearly 50% of participants were considered high internalizers of the thin ideal and 50% as low internalizers of the thin ideal when compared to the rest of the sample. The mean of those in the low internalization category is 2.84, while the mean in the high internalization category is 2.39. Nearly half (49%) of low internalizers were in the thin model experimental condition, while 28% were in the control condition and 23% were in the average size model condition. Of the high internalizers 50% were in the average size model condition, 33% were in the control group and 17% were in the thin model condition.

Table 4-2: Descriptive statistics of body-focused anxiety given internalization tendencies and experimental conditions

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean of Body-Focused Anxiety</th>
<th>Std. Deviation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Internalization</td>
<td>N 2.49</td>
<td>1.05</td>
<td>82</td>
</tr>
<tr>
<td>Control Group</td>
<td>13</td>
<td>2.49</td>
<td>1.05</td>
</tr>
<tr>
<td>Thin Group</td>
<td>23</td>
<td>2.97</td>
<td>1.07</td>
</tr>
<tr>
<td>Average Group</td>
<td>11</td>
<td>2.99</td>
<td>0.88</td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>2.84</td>
<td>1.03</td>
</tr>
<tr>
<td>High Internalization</td>
<td>N 2.39</td>
<td>0.94</td>
<td>50</td>
</tr>
<tr>
<td>Control Group</td>
<td>15</td>
<td>2.46</td>
<td>1.02</td>
</tr>
<tr>
<td>Thin Group</td>
<td>8</td>
<td>2.15</td>
<td>0.96</td>
</tr>
<tr>
<td>Average Group</td>
<td>23</td>
<td>2.43</td>
<td>0.92</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>2.39</td>
<td>0.94</td>
</tr>
<tr>
<td>Total</td>
<td>N 2.62</td>
<td>1.01</td>
<td>37</td>
</tr>
<tr>
<td>Control Group</td>
<td>28</td>
<td>2.47</td>
<td>1.02</td>
</tr>
<tr>
<td>Thin Group</td>
<td>31</td>
<td>2.76</td>
<td>1.09</td>
</tr>
<tr>
<td>Average Group</td>
<td>34</td>
<td>2.61</td>
<td>0.93</td>
</tr>
<tr>
<td>Total</td>
<td>93</td>
<td>2.62</td>
<td>1.01</td>
</tr>
</tbody>
</table>

Overall, subjects reported lower body-focused anxiety in the high internalization group. The lowest reported body-focused anxiety in the low internalization group occurred in the control group ($M = 2.49$). By contrast, higher means were found in the thin model condition ($M = 2.97$) and in the average size model condition (2.99). The lowest body focused anxiety in the high internalization group was in the thin model condition.
Higher means were found in the average size model condition (M = 2.43) and in the control group (M = 2.46). Two-way ANOVA revealed that a significant effect of internalization was found (F = 4.51, df = 1, p < .05).

An ANCOVA analysis accounted for the effect of BMI as well as the different experimental conditions. Means followed the same pattern as in the ANOVA analysis. The differences in the means are believed to be caused by missing data when computing the BMI for participants. Lowest body-focused anxiety in the low internalization group was still found in the control group (M = 2.40). Higher means were once again found in the thin model condition (M = 2.98) and the average size model condition (M = 3.01). In the high internalization group, lowest body-focused anxiety was found in the thin model condition (M = 2.32). By contrast, higher means were found again in the average size model condition (M = 2.47) and the control condition (M = 2.50). A significant effect of internalization was not found (F = 2.42, df = 1, p = n.s.).

Given the reported results, H1 was not supported.

Table 4-3: Descriptive statistics of body-focused anxiety given internalization tendencies and experimental conditions when BMI is used as a covariable

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean of Body-Focused Anxiety</th>
<th>Std. Deviation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low Internalization</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Group</td>
<td>12</td>
<td>2.4</td>
<td>1.04</td>
<td>30.77</td>
</tr>
<tr>
<td>Thin Group</td>
<td>18</td>
<td>2.98</td>
<td>0.98</td>
<td>46.15</td>
</tr>
<tr>
<td>Average Group</td>
<td>9</td>
<td>3.01</td>
<td>0.97</td>
<td>23.08</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>39</td>
<td><strong>2.81</strong></td>
<td><strong>1.01</strong></td>
<td></td>
</tr>
<tr>
<td><strong>High Internalization</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Group</td>
<td>13</td>
<td>2.5</td>
<td>1.06</td>
<td>31.71</td>
</tr>
<tr>
<td>Thin Group</td>
<td>7</td>
<td>2.32</td>
<td>0.91</td>
<td>17.07</td>
</tr>
<tr>
<td>Average Group</td>
<td>21</td>
<td>2.47</td>
<td>0.9</td>
<td>51.22</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>41</td>
<td><strong>2.45</strong></td>
<td><strong>2.45</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Group</td>
<td>25</td>
<td>2.45</td>
<td>1.03</td>
<td>31.25</td>
</tr>
<tr>
<td>Thin Group</td>
<td>25</td>
<td>2.79</td>
<td>0.99</td>
<td>31.25</td>
</tr>
<tr>
<td>Average Group</td>
<td>30</td>
<td>2.64</td>
<td>0.94</td>
<td>37.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>80</td>
<td><strong>2.63</strong></td>
<td><strong>0.98</strong></td>
<td>100</td>
</tr>
</tbody>
</table>
Hypothesis Two Results

A Pearson Correlation test revealed that body focused anxiety is statistically significant, but moderately and negatively correlated to social comparison tendencies (r = -0.47, p < .05). Given these results, H2 was not supported.

Hypothesis Three Results

Means showed that the lowest body focused anxiety was found in the control group (M = 2.47). By contrast, higher body focused anxiety was found in the average-size model condition (M = 2.61) and the highest body focused anxiety in the thin model condition (M = 2.76). ANOVA results revealed no significant effect of the experimental conditions (thin model, average size model or control group) (F = 0.58, df = p-value > .05).

ANOVA analysis also revealed that no significant effect of the experimental conditions (thin model, average model or control group) (F = 0.45, df = 2, p = > n.s.). Results from the ANOVA analysis were replicated.

Given the results reported, H4 was not supported.

Table 4-4: Descriptive statistics for body-focused anxiety levels

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no</td>
<td>28</td>
<td>2.47</td>
<td>1.02</td>
<td>0.19</td>
<td>2.08</td>
<td>1</td>
<td>4.63</td>
</tr>
<tr>
<td>thin</td>
<td>31</td>
<td>2.76</td>
<td>1.09</td>
<td>0.2</td>
<td>2.36</td>
<td>1</td>
<td>4.88</td>
</tr>
<tr>
<td>large</td>
<td>34</td>
<td>2.61</td>
<td>0.93</td>
<td>0.16</td>
<td>2.28</td>
<td>1</td>
<td>4.25</td>
</tr>
<tr>
<td>Total</td>
<td>93</td>
<td>2.62</td>
<td>1.01</td>
<td>0.1</td>
<td>2.41</td>
<td>1</td>
<td>4.88</td>
</tr>
</tbody>
</table>
Hypothesis Four Results

Using the weighted discrepancy score to account for the differences in ideal and actual state, means revealed that body-focused anxiety continually increased as the difference between the ideal and actual states increased. Those participants with negative scores had the lowest body-focused anxiety (M = 1.81), followed by those with a 0 – 0.5-point difference (M = 2.40), 0.5 – 1-point difference (M = 2.55), and 1 – 1.5-point difference (M = 2.88). By contrast, higher body-focused anxiety was found with a 1.5 – 2-point difference (M = 3.26), and a 2 – 3-point difference (M = 2.44). Highest body-focused anxiety was found in those who had a 3-point or higher difference between the ideal and actual state (M = 3.34). ANOVA results revealed a statistically significant effect of body-focused anxiety and the difference between ideal and actual state (F = 7.24, df = 6, p < .05).

Table 4-4: Descriptive statistics for body-focused anxiety given the differences between ideal and actual state

<table>
<thead>
<tr>
<th>Difference</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>lowest-0</td>
<td>23</td>
<td>1.81</td>
<td>0.86</td>
<td>0.18</td>
<td>1.44 - 2.18</td>
<td>1</td>
<td>4.63</td>
</tr>
<tr>
<td>0-0.5</td>
<td>14</td>
<td>2.4</td>
<td>0.96</td>
<td>0.26</td>
<td>1.85 - 2.96</td>
<td>1.25</td>
<td>4.25</td>
</tr>
<tr>
<td>0.5-1</td>
<td>18</td>
<td>2.55</td>
<td>0.7</td>
<td>0.16</td>
<td>2.2 - 2.89</td>
<td>1.38</td>
<td>3.88</td>
</tr>
<tr>
<td>1-1.5</td>
<td>11</td>
<td>2.88</td>
<td>0.75</td>
<td>0.22</td>
<td>2.38 - 3.38</td>
<td>1.88</td>
<td>4.25</td>
</tr>
<tr>
<td>1.5-2</td>
<td>9</td>
<td>3.26</td>
<td>1</td>
<td>0.33</td>
<td>2.49 - 4.03</td>
<td>1.38</td>
<td>4.13</td>
</tr>
<tr>
<td>2.0-3.0</td>
<td>11</td>
<td>3.44</td>
<td>1.01</td>
<td>0.3</td>
<td>2.76 - 4.12</td>
<td>1</td>
<td>4.88</td>
</tr>
<tr>
<td>3+</td>
<td>7</td>
<td>3.34</td>
<td>0.56</td>
<td>0.21</td>
<td>2.82 - 3.86</td>
<td>2.63</td>
<td>4.13</td>
</tr>
<tr>
<td>Total</td>
<td>93</td>
<td>2.62</td>
<td>1.01</td>
<td>0.1</td>
<td>2.41 - 2.82</td>
<td>1</td>
<td>4.88</td>
</tr>
</tbody>
</table>

ANOVA analysis revealed a significant effect of the difference between ideal and actual state and body-focused anxiety when BMI was accounted for in the analysis (F = 5.81, df = 6, p < .05). Means followed the same general pattern as in the ANOVA.
The only difference was that those with a 2 – 3-point difference had the highest body-focused anxiety (M = 3.64) as opposed to those with more than a 3-point difference (M = 3.27). The differences in the means are believed to be caused by missing data when computing the BMI for participants. Lowest body-focused anxiety was found in those who had a negative score (M = 1.85), followed by those with a 0 – 0.5-point difference (M = 2.35), 0.5 – 1-point difference (M = 2.53), and 1 – 1.5-point difference (M = 2.85). By contrast, higher body-focused anxiety was found with a 1.5 – 2-point difference (M = 3.26) and those with more than a 3-point difference (M = 2.26). Highest body-focused anxiety was found in those who had a 2 – 3-point or higher difference between the ideal and actual state (M = 3.64).

Given the results reported, H4 was supported.

Table 4-5: Descriptive statistics for body-focused anxiety given the differences between ideal and actual state when BMI is accounted for

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>lowest-0</td>
<td>19</td>
<td>1.85</td>
<td>0.9</td>
</tr>
<tr>
<td>0-0.5</td>
<td>13</td>
<td>2.35</td>
<td>0.98</td>
</tr>
<tr>
<td>0.5-1</td>
<td>15</td>
<td>2.53</td>
<td>0.65</td>
</tr>
<tr>
<td>1-1.5</td>
<td>10</td>
<td>2.85</td>
<td>0.78</td>
</tr>
<tr>
<td>1.5-2</td>
<td>9</td>
<td>3.26</td>
<td>1</td>
</tr>
<tr>
<td>2.0-3.0</td>
<td>8</td>
<td>3.64</td>
<td>0.47</td>
</tr>
<tr>
<td>3+</td>
<td>6</td>
<td>3.27</td>
<td>0.58</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>2.63</td>
<td>0.98</td>
</tr>
</tbody>
</table>


**Hypothesis Five Results**

Means reveal that those in the thin model condition do in fact have a greater difference between the ideal and actual state. Those in the thin model condition have the highest difference (M = 1.41) followed by those in the control condition (M = 0.85) and those in the average model condition (M = 0.70). However, these results are not statistically significant (F = 2.62, df = 2, p = n.s.).

Table 4-6: Descriptive statistics between ideal and actual state and the different model conditions

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Upper Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no</td>
<td>29</td>
<td>0.85</td>
<td>1.25</td>
<td>0.23</td>
<td>0.38</td>
<td>-2.08</td>
<td>3.7</td>
</tr>
<tr>
<td>thin</td>
<td>31</td>
<td>1.41</td>
<td>1.6</td>
<td>0.29</td>
<td>0.83</td>
<td>-0.33</td>
<td>6.48</td>
</tr>
<tr>
<td>large</td>
<td>35</td>
<td>0.7</td>
<td>1.05</td>
<td>0.18</td>
<td>0.34</td>
<td>-1.09</td>
<td>3.14</td>
</tr>
<tr>
<td>Total</td>
<td>95</td>
<td>0.98</td>
<td>1.33</td>
<td>0.14</td>
<td>0.71</td>
<td>-2.08</td>
<td>6.48</td>
</tr>
</tbody>
</table>

ANCOVA analysis revealed no statistically significant result for the difference between ideal and actual state and the different experiment conditions (F = 1.51, df = 2, p = n.s.). Means continued to show that those in the thin model condition had the highest difference between ideal and actual state (M = 2.84) followed by those in the control condition (M = 2.19). Means for the average-size model condition had the lowest difference between ideal and actual state (M = 2.94). The differences in the means are believed to be of caused by missing data when computing the BMI for participants.

Given results reported, hypothesis six cannot be supported.
Table 4-7: Descriptive statistics for the difference between ideal and actual state and the different model conditions when BMI is accounted for

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>no</td>
<td>26</td>
<td>3.19</td>
<td>1.83</td>
</tr>
<tr>
<td>thin</td>
<td>25</td>
<td>3.84</td>
<td>2.13</td>
</tr>
<tr>
<td>large</td>
<td>31</td>
<td>2.94</td>
<td>1.79</td>
</tr>
<tr>
<td>Total</td>
<td>82</td>
<td>3.29</td>
<td>1.93</td>
</tr>
</tbody>
</table>
CHAPTER 5
DISCUSSION AND CONCLUSIONS

Summary of Results

This thesis presents an attempt to explain the relationship between different models’ body size in print advertisements and female adolescents’ body images. This thesis set out to uncover effects that advertisers might not have been fully aware of in the selection of the models used in their advertisements. Overall results of this quasi-experiment suggested that any results that were significant were not caused by model size.

H1 proposed that there would be an interaction effect between the internalization level and body-focused anxiety. Those with higher initial internalization of the thin ideal portrayed in the media who are in the thin model condition were predicted to have more body-focused anxiety than those in either the average or no model condition. ANOVA results revealed that there was a significant relationship between the mean differences in internalization, the different model conditions, and levels of body-focused anxiety. However, H1 was not supported because those subjects in the high internalization group actually had lower body focused anxiety than did those in the low internalization group for all experimental conditions. This goes against the findings of Monro and Huon (2005) and Dittmar and Howard (2004) who reported that the more that one buys into the body-as-an-object ideology or internalizes the mediated ideal, the more body focused anxiety one has. These results could have been found for many different reasons. A noteworthy reason that results were not replicated could be that randomization of subjects
was not used. Another possible explanation for the results is that adolescents may be resisting the cultural norms and are less affected by the mediated ideals, therefore internalizing them less. As a whole, group means for internalization may have been low contributing to results not being statistically significant.

ANCOVA analysis revealed that the significance of the first analysis of H1 was not due to the differences between internalization and the model conditions, but instead due to the subjects BMI. Researchers (Stormer & Thompson, 1996) have supported that BMI is a main contributor to issues with one’s body, especially body focused anxiety. This finding mirrors what Stormer and Thompson (1996) have reported.

H2 states that the more body-focused anxiety one has, the more likely she is to internalize the mediated ideal. Correlations from H2 revealed that there was a statistically significant, moderate relationship between the tendency for one to socially compare herself and the level of body-focused anxiety they have. However, hypothesis three was not supported because results revealed that the more one socially compares herself to the ideal that is presented in the media, the lower the level of body focused anxiety she will have. These results are not in line with what past research has found. Dittmar and Howard (2004), Richins (1991), Yamamiya et al. (2005), and Thompson (1991) have all reported data analysis that have supported that the more one socially compares herself to the mediated ideal, the more body-focused anxiety one has. Again, randomization was not used, and if used, could have yielded different results. One possible explanation of this finding is that the study population was largely Hispanic (47.96%) and better able to resist the effects of the mediated ideal. Another possible explanation for this finding could be that female adolescent’s reasons for social
comparison are changing. They might not be socially comparing for self-improvement reasons as much anymore, which yielded an increase in body-focused anxiety (Martin & Gentry, 1997).

H3 states that those exposed to the thin ideal experimental condition will experience greater body focused anxiety than those exposed the average, which will experience more body-focused anxiety than the no model condition. Results did not find a statistically significant difference between the means of body focused anxiety levels given the different experimental conditions. Analysis revealed that those subjects exposed to the thin model condition reported the highest body-focused anxiety of all the experimental conditions. However, because the analysis is not significant, H4 cannot be supported. Results also did not support that those subjects in the average model condition would have the lowest body focused anxiety as suggested by Dittmar & Howard (2004) and Halliwell & Dittmar (2004). When BMI was controlled, results proved to be the same as with ANOVA analysis. These results are not in line with past research. Many studies have supported that exposure to the thin ideal leads to body dissatisfaction (Hargreaves & Tiggemann, 2004; Yamamiya et al., 2005; Harrison, 1997; Thomsen, Weber & Brown, 2002; Clay, Vignoles & Dittmar, 2005; Monro & Huon, 2005) and that the exposure to the average model condition can act as a temporary relief to body-focused anxiety (Dittmar & Howard, 2004; Halliwell & Dittmar 2004). These results could be possibly explained by the fact that Americans as a whole are getting fatter (F as in Fat, 2005) and adolescents are more exposed to these body images than the mediated ideals. Again, female adolescents could be resisting mediated ideals and accepting that not everyone is made to be shaped similar to the mediated ideals.
H4 predicted that the greater the differences between the ideal state and the actual state, the more body focused anxiety a female adolescent would have given her experimental condition. Results of this analysis were statistically significant. Those subjects with the greater difference between the ideal and actual state had the highest body-focused anxiety. Body-focused anxiety consistently decreased as the gap between the ideal and actual state decreased. These findings are in line with past research stating that the greater the difference between the perceived self-image and the ideal image, the greater the level of body dissatisfaction (Thomsen, Weber & Brown, 2002). Once BMI was accounted for overall results were duplicated from ANOVA analysis finding statistical significance between the differences in ideal and actual state and body focused anxiety. These findings replicate previous research has reported that satisfaction with one’s body (their actual state) is lowered when viewing the attractive ideal (ideal state) (Richins, 1991). The greater the difference between the actual and ideal states, the more body-focused anxiety one was thought to have.

H5 predicted that those in the thin model condition would have a greater difference between ideal and actual states than those in the average model condition and the control group. Means did reveal that those in the thin model condition had the greatest difference between the ideal and actual state, but results were not statistically significant. Therefore, H5 was not supported. Results were replicated in an ANCOVA analysis accounting for the effect of BMI. Possible explanations for the lack of statistical significance to support the means could be the lack of randomization and the relatively small sample size.
Implications

These results imply that body size is not as influential to body-focused anxiety as first hypothesized. These results suggest that some other factor besides model size is to blame for levels of body-focused anxiety in female adolescents.

The findings of this thesis imply that adolescent females are less affected by the thin mediated ideal to which they are constantly exposed. When adolescent females are going through a time of change where their bodies are straying away from this ideal, it is beneficial to know that these ideals are having less negative effects than in the past. These results suggest that female adolescent are socially comparing less often and possibly choosing role models based more on appearance. If the focus is less on the body and more on substantial issues, society as a whole will benefit.

In general, society tends to put the blame on the media and criticize them for all our problems and imperfections. In particular, the media have been criticized for showcasing models that are substantially below the average weight based on their heights and often fit the weight criteria for anorexia. These criticisms were made because these models were thought to be so influential in the shaping of one’s body image. This thesis’ results, however, reveal that the ideals used in advertisements may not be as influential as once thought and are unlikely to be a major influence on one’s goal-directed behaviors to achieve thinness.

Contributions to Mass Communication Literature

The results of this thesis contribute to the literature by providing evidence that body size of models in advertisements is not as influential as previously thought. Even when the same models are used for both thin model conditions and average model conditions, eliminating many factors that could contribute to the results (such as
attractiveness level, body position, etc.) indicate that body size alone is not a significant factor in body-focused anxiety. Most research that has tested the effects of model body size on body focused anxiety has used different models for each condition introducing confounding variables into their studies. Because this study uses the same models for experimental conditions, this research is of use to future researchers in the field of mass communications who wish to expand on this topic.

This thesis also contributes to the literature by being one of the few studies that was designed to involve the effects of model size in advertisements. Since most research on body size has been conducted on the models found in magazines and television as a whole, this study narrows in on a more specific influence. Advertisements are viewed differently than the regular content and programming of magazines and television. This difference is important and contributes information to the field of mass communications.

Furthermore, most studies exploring the topics of body image and body dissatisfaction have dealt with populations other than adolescent females. By choosing a study population that has been less explored than others, the contributions of this study increase. This study presents a better understanding of how adolescent female’s body image is affected by the mediated ideal.

Finally, the small number of studies that have dealt with the differences in body size have either tested the effects on adolescents or the effects of models in advertisements but not both (Clay, Vignoles, & Dittmar, 2005; Dittmar & Howard, 2004; Halliwell & Dittmar, 2004). The fact that this thesis presents a first attempt known to this researcher explaining the relationship between the two is a big contribution to the body of literature.
Limitations

There are many limitations associated with the design and results of this thesis. One of the main and most important limitations is that this thesis did not use randomization of subjects. Without randomization, we cannot conclude that results obtained from the experimental conditions were in fact because of the manipulation. They could be from other outside sources that are not accounted for by this study.

Another potential limitation of this thesis is the use of a posttest only design. Because of this, a true equivalency between subjects could not be established before the course of the experiment.

This thesis’s population was heavily Hispanic, which could be another potential limitation. Research has supported that Hispanics are better able to resist the effects of the thin ideal portrayed in the media (Goodman, 2002). This fact also could have led to the findings of this thesis.

The subjects’ limited intellectual abilities could also have affected the outcome of the study. During the study, subjects often had to ask the researcher meanings of certain words because the words were not in their everyday vocabulary. Not being able to fully understand what questions were asking may have hindered their ability to truly answer the questions.

The fact that all models used in the experimental stimuli were not of the same race could have played an important role in how female adolescents internalized the models. Certain races could have been seen as larger than others in a general sense. By having models of different races, potential confounding variables are introduced. In using a study population that is largely minority, these adolescent females might be more or less accepting of advertisements containing models of different races. In a general
sense, study participants might not pay as close attention to advertisements that contain models of a different race than their own.

The artificiality of the situation could also have limited the effects of the experimental stimuli. Female adolescents do not, under normal circumstances, view advertisements on a projected screen for 60 seconds at a time.

The sample size of study subjects in each experimental condition may have produced insignificant results. When the sample is too small, statistical power is lowered. Increasing the sample size is one of the most frequent and accepted ways to increase statistical power (Statistical Power, 2006). The fact that a small sample size was used means that any small effects were statistically undetectable. With a population that has been exposed to a lifetime of thin ideal images, it is likely that experiment results would only have a small effect and this study’s sample size was too small to pick them up.

**Future Research**

This thesis was one of the few studies that has tested the differences in model size on the effects of body-focused anxiety and the first known to this researcher on an adolescent population. In order to obtain statistically significant results, a true experimental design should be undertaken. This way, results can be projected to the population.

In order to explore this topic in more depth, a simpler version of the questionnaire should be designed using vocabulary that is more familiar to the 14 to 15-year-old population. The questionnaire should be pre-tested on the population that it is going to be used on in order to make sure it is properly understood. The questionnaire should also
add additional questions that are not relevant to the study in order to help make sure that subjects do not figure out the purpose of the study.

Another major benefit to this area of research would take into account the differences in the racial make-up of the study sample. By accurately representing multiple races, researchers would be able to get a better picture on what effects the formation of an adolescent female’s body image and how big that effect might be.

Models used in any future applications of this study should be tested for their recognizability factor. If models are well known to subjects, they will know their true body size and recognize when their body size has been manipulated.

The layouts used in the current study for the different conditions were similar, but not the same. In the future, layouts for the control condition should be the same as the layouts for the different model conditions. Additionally, models and the products should all be the same size.

The manipulation check of model size should also be done by someone the same age as the study population. It is possible that women of different ages view body size differently and this would control for this.

**Conclusions**

In conclusion, from the results found in this thesis, it can be suggested that the body size of models in advertisements targeted to female adolescents is not as influential as past research has suggested. In order to conclude that results were because of the manipulations, a true experimental design should be undertaken. With a true experimental design, subjects would be randomly placed in experimental groups and results would have more validity.
The findings of this thesis are beneficial to advertisers who are constantly criticized for the harm their advertisements do and to the mass media researchers who support that the effects of the media are negative.
First impressions are important. At Macy’s we want to help you make a good one. Our clothing, shoes and accessories allow you to express yourself and make the first impression that you want to make.
Express Yourself

At Fashion Bug we have all the essentials for you to be who you are. We carry girls, juniors, misses, plus-sizes, maternity wear, shoes, and accessories. Whoever, whatever the occasion, we have you covered at The Bug.
Put Your Best Foot Forward

A TJ Maxx we offer more than quality, we offer value. We are all about offering you incredibly good deals on high-quality products. Visit one of our 930 for pure shopping bliss.
Thin Model Condition
First impressions are important. At Macy’s we want to help you make a good one. Our clothing, shoes and accessories allow you to express yourself and make the first impression that you want to make.
Express Yourself

At Fashion Bug we have all the essentials for you to be who you are. We carry girls, juniors, misses, plus-sizes, maternity wear, shoes, and accessories. Whoever, whatever the occasion, we have you covered at The Bug.
Put Your Best Foot Forward

A TJ Maxx we offer more than quality, we offer value. We are all about offering you incredibly good deals on high-quality products. Visit one of our 930 for pure shopping bliss.
Average-Size Condition
First impressions are important. At Macy's we want to help you make a good one. Our clothing, shoes and accessories allow you to express yourself and make the first impression that you want to make.
Express Yourself

At Fashion Bug we have all the essentials for you to be who you are. We carry girls, juniors, misses, plus-sizes, maternity wear, shoes, and accessories. Whoever, whatever the occasion, we have you covered at The Bug.
Put Your
Best
Foot
Forward

A TJ Maxx we offer more than quality, we offer value. We are all about offering you incredibly good deals on high-quality products. Visit one of our 930 for pure shopping bliss.
APPENDIX B
QUESTIONNAIRES

Internalization Questionnaire

I want to know what you think attractive women look like. How much do you agree with these statements? 1=strongly agree, 2=somewhat agree, 3=neither agree or disagree, 4=somewhat disagree, 5=strongly disagree

1. Thin women are more attractive   1  2  3  4  5
2. Tall women are more attractive   1  2  3  4  5
3. Women with toned bodies are more attractive  1  2  3  4  5
4. Slim women are more attractive   1  2  3  4  5
5. Women who are in shape are more attractive  1  2  3  4  5
6. Slender women are more attractive   1  2  3  4  5
7. Women with long legs are more attractive  1  2  3  4  5
8. Curvy women are more attractive   1  2  3  4  5
9. Shapely women are more attractive   1  2  3  4  5
10. Women who are taller are more attractive  1  2  3  4  5
Experiment Questionnaire

Each item on this questionnaire deals with a different physical characteristic. For each characteristic, think about how you would describe yourself as you actually are. Then think about how you wish you were. The difference between the two reveals how close you come to your personal ideal. In some instances, your looks may closely match your ideal. In other instances, they may differ considerably. On part A of each item, rate how much you resemble your personal physical ideal by circling a number on the 1-4 scale. On part B of each item, rate how important your ideal is to you by circling a number on the 1-4 scale.

1A. My ideal height is
1=exactly as I am  2=Almost as I am  3=Fairly unlike me  4=Very unlike me

B. How important to you is your ideal height?
1=Not important  2=somewhat important  3=Moderately important  4=Very important

2A. My ideal skin complexion is
1=exactly as I am  2=Almost as I am  3=Fairly unlike me  4=Very unlike me

B. How important to you is your ideal skin complexion?
1=Not important  2=somewhat important  3=Moderately important  4=Very important

3A. My ideal hair texture and thickness are
1=exactly as I am  2=Almost as I am  3=Fairly unlike me  4=Very unlike me

B. How important to you is your ideal hair texture and thickness?
1=Not important  2=somewhat important  3=Moderately important  4=Very important

4A. My ideal facial features (eyes, nose, ears, facial shape) are
1=exactly as I am  2=Almost as I am  3=Fairly unlike me  4=Very unlike me

B. How important to you is your ideal facial features?
1=Not important  2=somewhat important  3=Moderately important  4=Very important

5A. My ideal muscle tone and definition is
1=exactly as I am  2=Almost as I am  3=Fairly unlike me  4=Very unlike me

B. How important to you is your ideal muscle tone and definition?
1=Not important  2=somewhat important  3=Moderately important  4=Very important
6A. My ideal body proportions are
1 = exactly as I am  2 = Almost as I am  3 = Fairly unlike me  4 = Very unlike me

B. How important to you is your ideal body proportions?
1 = Not important  2 = somewhat important  3 = Moderately important  4 = Very important

7A. My ideal weight is
1 = exactly as I am  2 = Almost as I am  3 = Fairly unlike me  4 = Very unlike me

B. How important to you is your ideal weight?
1 = Not important  2 = somewhat important  3 = Moderately important  4 = Very important

8A. My ideal chest size is
1 = exactly as I am  2 = Almost as I am  3 = Fairly unlike me  4 = Very unlike me

B. How important to you is your ideal chest size?
1 = Not important  2 = somewhat important  3 = Moderately important  4 = Very important

9A. My ideal physical strength is
1 = exactly as I am  2 = Almost as I am  3 = Fairly unlike me  4 = Very unlike me

B. How important to you is your ideal physical strength?
1 = Not important  2 = somewhat important  3 = Moderately important  4 = Very important

10A. My ideal physical coordination is
1 = exactly as I am  2 = Almost as I am  3 = Fairly unlike me  4 = Very unlike me

B. How important to you is your ideal physical coordination?
1 = Not important  2 = somewhat important  3 = Moderately important  4 = Very important

11A. My ideal overall physical appearance is
1 = exactly as I am  2 = Almost as I am  3 = Fairly unlike me  4 = Very unlike me

B. How important to you is your overall ideal physical appearance?
1 = Not important  2 = somewhat important  3 = Moderately important  4 = Very important

Circle the number that best reflects your agreement with the statement. 1 = strongly agree, 2 = somewhat agree, 3 = neither agree or disagree, 4 = somewhat disagree, 5 = strongly disagree
12. I would like my body to look like the women who appear in TV shows and movies
   1  2  3  4  5

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

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

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

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

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

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

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

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

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

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

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

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

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

26. People with well-proportioned bodies look better in clothes
    1  2  3  4  5
27. A physically fit woman is admired for her looks more than someone who is not fit and toned 1 2 3 4 5

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

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

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

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

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

The statements listed below are to be used to describe how anxious, tense, or nervous you feel in general (i.e. usually) about your body or specific parts of your body. Please read each statement and circle the number that best indicates the extent to which each statement holds true in general. 1=never, 2=seldom, 3=sometimes, 4=often, 5=always

In general I feel anxious, tense or nervous about

33. The extent to which I look overweight 1 2 3 4 5
34. My thighs 1 2 3 4 5
35. My buttocks 1 2 3 4 5
36. My hips 1 2 3 4 5
37. My stomach 1 2 3 4 5
38. My legs 1 2 3 4 5
39. My waist 1 2 3 4 5
40. My muscle tone 1 2 3 4 5
41. My ears 1 2 3 4 5
42. My lips 1 2 3 4 5
43. My wrists 1 2 3 4 5
44. My hands 1 2 3 4 5
45. My forehead 1 2 3 4 5
46. My neck 1 2 3 4 5
47. My chin 1 2 3 4 5
48. My feet 1 2 3 4 5
<table>
<thead>
<tr>
<th>49. I engage in dieting behavior.</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Usually</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>50. I eat diet foods.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51. I feel uncomfortable after eating sweets.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>52. I enjoy trying new rich foods.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>53. I avoid foods with sugar in them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54. I particularly avoid foods with carbohydrate content (e.g., bread, rice, potatoes, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55. I like my stomach to be empty.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>56. I think about burning up calories when I exercise.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>57. I feel extremely guilty after eating.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>58. I am terrified about being overweight</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59. I am preoccupied with the thought of having fat on my body.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60. I am aware of the calorie content of foods that I eat.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61. I have the impulse to vomit after meals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62. I vomit after I have eaten.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63. I have gone on eating binges where I feel that I may not be able to stop.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64. I give too much time and thought to food.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65. I find myself preoccupied with food.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>66. I feel that food controls my life.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>67. I cut my food into small pieces.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68. I take longer than others to eat meals.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>Never</td>
<td>Rarely</td>
<td>Sometimes</td>
<td>Often</td>
<td>Usually</td>
<td>Always</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-------</td>
<td>--------</td>
<td>-----------</td>
<td>-------</td>
<td>---------</td>
<td>--------</td>
</tr>
<tr>
<td>69. Other people think that I am too thin.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>70. I feel that others would prefer if I ate more.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>71. I feel that others pressure me to eat.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>72. I avoid eating when I am hungry.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>73. I display self-control around food.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

Age_____________________________
Race_____________________________
Height__________________________
Weight__________________________

THANK YOU FOR YOUR TIME
The extent to which I feel anxious, tense, or nervous about:

<table>
<thead>
<tr>
<th>Component</th>
<th>Component 1</th>
<th>Component 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>my stomach</td>
<td>0.83</td>
<td>0.00</td>
</tr>
<tr>
<td>waist</td>
<td>0.82</td>
<td>0.09</td>
</tr>
<tr>
<td>my thighs</td>
<td>0.77</td>
<td>0.05</td>
</tr>
<tr>
<td>the extent that I look overweight</td>
<td>0.74</td>
<td>0.18</td>
</tr>
<tr>
<td>my hips</td>
<td>0.73</td>
<td>0.21</td>
</tr>
<tr>
<td>my legs</td>
<td>0.7</td>
<td>0.36</td>
</tr>
<tr>
<td>my muscle tone</td>
<td>0.58</td>
<td>0.27</td>
</tr>
<tr>
<td>my buttocks</td>
<td>0.47</td>
<td>0.2</td>
</tr>
<tr>
<td>my hands</td>
<td>0.18</td>
<td>0.82</td>
</tr>
<tr>
<td>my wrists</td>
<td>0.13</td>
<td>0.81</td>
</tr>
<tr>
<td>my neck</td>
<td>0.35</td>
<td>0.74</td>
</tr>
<tr>
<td>my lips</td>
<td>0.25</td>
<td>0.72</td>
</tr>
<tr>
<td>my chin</td>
<td>0.18</td>
<td>0.7</td>
</tr>
<tr>
<td>my ears</td>
<td>0.07</td>
<td>0.61</td>
</tr>
<tr>
<td>my forehead</td>
<td>0.06</td>
<td>0.56</td>
</tr>
<tr>
<td>my feet</td>
<td>0.11</td>
<td>0.54</td>
</tr>
</tbody>
</table>
Tests of Between-Subjects Effects (MANOVA) for Differences between Covariates and Experimental Conditions.

<table>
<thead>
<tr>
<th>Source</th>
<th>Dependent Variable</th>
<th>Type III Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>group</td>
<td>EAT</td>
<td>4.52</td>
<td>2.26</td>
<td>1.63</td>
<td>0.20</td>
</tr>
<tr>
<td></td>
<td>BMI</td>
<td>1.05</td>
<td>0.53</td>
<td>1.41</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td>race</td>
<td>1.53</td>
<td>0.76</td>
<td>0.74</td>
<td>0.48</td>
</tr>
<tr>
<td>Error</td>
<td>EAT</td>
<td>119.30</td>
<td>86</td>
<td>1.39</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BMI</td>
<td>32.18</td>
<td>86</td>
<td>0.37</td>
<td></td>
</tr>
<tr>
<td></td>
<td>race</td>
<td>88.50</td>
<td>86</td>
<td>1.03</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>EAT</td>
<td>464.00</td>
<td>89</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BMI</td>
<td>206.00</td>
<td>89</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>race</td>
<td>669.00</td>
<td>89</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected</td>
<td>EAT</td>
<td>123.82</td>
<td>88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>BMI</td>
<td>33.24</td>
<td>88</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>race</td>
<td>90.02</td>
<td>88</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*R Squared = .036 (Adjusted R Squared = .014)

*R Squared = .032 (Adjusted R Squared = .009)

Tests of Between-Subjects Effects (ANOVA) for Body Focused

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>highlowi</td>
<td>4.46</td>
<td>1</td>
<td>4.46</td>
<td>4.51</td>
</tr>
<tr>
<td>group</td>
<td>0.8</td>
<td>2</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>highlowi * g</td>
<td>2.1</td>
<td>2</td>
<td>1.05</td>
<td>1.07</td>
</tr>
<tr>
<td>Error</td>
<td>85.91</td>
<td>87</td>
<td>0.99</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>730.31</td>
<td>93</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected</td>
<td>93.41</td>
<td>92</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*R Squared = .080 (Adjusted R Squared = .027)

Tests of Between-Subjects Effects (ANCOVA) for Body-Focused Anxiety when BMI is accounted for

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMI</td>
<td>5.63</td>
<td>1</td>
<td>5.63</td>
<td>6.34</td>
</tr>
<tr>
<td>group</td>
<td>0.63</td>
<td>2</td>
<td>0.31</td>
<td>0.35</td>
</tr>
<tr>
<td>highlowi</td>
<td>2.15</td>
<td>1</td>
<td>2.15</td>
<td>2.42</td>
</tr>
<tr>
<td>group * high</td>
<td>2.16</td>
<td>2</td>
<td>1.08</td>
<td>1.22</td>
</tr>
<tr>
<td>Total</td>
<td>628.1</td>
<td>80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected</td>
<td>76.1</td>
<td>79</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*R Squared = .148 (Adjusted R Squared = .078)
### Tests of Between-Subject Effects (ANOVA) for Body-Focused Anxiety and the Difference between Ideal and Actual State

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMI</td>
<td>1.56</td>
<td>1</td>
<td>1.56</td>
<td>2.39</td>
<td>0.13</td>
</tr>
<tr>
<td>BIQRECOD</td>
<td>22.75</td>
<td>6</td>
<td>3.79</td>
<td>5.81</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>628.1</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Corrected To 76.1 79**

\[ R^2 = .382 \text{ (Adjusted R Squared = .322)} \]

### Tests of Between-Subjects Effects (ANCOVA) for the Difference between Ideal and Acutal State and the Different Model

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Sq</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMI</td>
<td>15.56</td>
<td>1</td>
<td>15.56</td>
<td>4.43</td>
<td>0.04</td>
</tr>
<tr>
<td>GROUP</td>
<td>10.6</td>
<td>2</td>
<td>5.3</td>
<td>1.51</td>
<td>0.23</td>
</tr>
<tr>
<td>Total</td>
<td>1190</td>
<td>82</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Corrected To 300.98 81**

\[ R^2 = .091 \text{ (Adjusted R Squared = .056)} \]
APPENDIX D
IRB PROTOCOL AND CONSENT FORMS

UNIVERSITY OF FLORIDA INSTITUTIONAL REVIEW BOARD

1. **TITLE OF PROTOCOL:** Thin Media Ideals Influence on Adolescent Females

2. **PRINCIPAL INVESTIGATOR:** Kelley Gudahl; Masters of Advertising student; Department of Advertising; College of Journalism and Communications; University of Florida; 321-624-5891; kgudahl@hotmail.com

3. **SUPERVISOR:** J Robyn Goodman, Ph.D.; Assistant Professor; Department of Advertising; University of Florida; 2076 Weimer; 352-392-2704; rgoodman@jou.ufl.edu

4. **DATES OF PROPOSED PROTOCOL:** September 15, 2005 – May 1, 2006

5. **SOURCE OF FUNDING FOR THE PROTOCOL:** not funded.

6. **SCIENTIFIC PURPOSE OF THE INVESTIGATION:** The purpose of this study is to investigate how advertisements with images of thin, average, large or no models influence adolescent females self image.

7. **RESEARCH METHODOLOGY:** Participants will be recruited for this experiment from a high school in the Orlando Metro area. Participants will be placed in three different groups, each receiving a different experimental condition—advertisements with no models, thin models, or plus-size models. Participants will each be exposed to a series of three ads. Each ad will be advertising a beauty product to adolescent female consumers. Ads will be viewed from a computer screen. After exposure to the experimental condition, they will be asked to answer a set of questions regarding their body image ideals, socio-cultural attitudes towards appearance, and physical appearance state and trait anxiety levels.

8. **POTENTIAL BENEFITS AND ANTICIPATED RISK:** There is no anticipated risk for physical harm from participating in this study that is greater than is experienced in daily life. Psychological risk is also not anticipated to be greater than is experienced in daily life. No direct benefit to participants is expected. Confidentiality will be protected by assigning numbers to all participants that link them to their survey answers. Only the experimenter will have access to these numbers. After the experiment is complete, the list linking numbers to names will be destroyed.
9. **RECRUITMENT:** Approximately 90 female participants will be recruited from Orlando metro area high school classrooms. This study is only applicable to females, so no male participants will or can be used. Participants will be at least 14 years old, with the majority being 14-18 years old. There is no compensation for participation in this study. Your identity will be kept confidential to the extent provided by the law. Your information will be assigned a code number. When the study is completed and the data have been analyzed, the list connecting your name to the study will be destroyed. Your name will not be used in any report.

9. **INFORMED CONSENT:** Participants will each receive the attached informed consent document, which must be signed by them before participation in the study. Since adolescents will be used in this study, a parental consent document, also attached, must be signed by the parents/guardians before participation. When reviewing the informed consent with participants certain areas of importance will be emphasized such as: confidentiality, ability to withdraw at any time during the study, and the fact that participants do not have to answer any questions that they do not wish to answer. Considering the area demographics, both an English and Spanish version will be distributed.

---

Principal Investigator | Date
--- | ---

 Supervisor | Date

I approve this protocol for submission to the UFIRB

Department Chair | Date
Informed Consent

Protocol Title: The effects of the media on adolescent consumers

Please read this consent document carefully before you decide to participate in this study.

Purpose of this research study:

The purpose of this research study is to examine the effects of the media on adolescent consumers.

What you will be asked to do in this study:

Participants will be randomly assigned to one of three groups. Each group will be given three different advertisements to look at. Ads will be selling beauty/fashion products that are important to adolescent consumers. After studying the ads, participants will be asked to answer a series of questions about your attitudes about physical appearance, and about your own sense of physical and mental well-being. Participants do not have to answer any questions that they do not wish to answer.

Time required:

30 minutes

Risks and benefits:

There are no perceived risks from participating in this study. There are no direct benefits from participation in this study. These results may not directly benefit you today but may benefit future adolescents by informing them of the risks of exposure to magazine advertisements.

Compensation:

No compensation will be given for participation in this study.

Confidentiality:

Your identity will be kept confidential to the extent provided by the law. Your information will be assigned a code number. There will not be a way to link your name to any of your responses, so the analysis will be anonymous. Your name will not be used in any report.

Voluntary participation:

Your participation in this study is completely voluntary. There is no penalty for not participating.
Right to withdraw:

You and/or your legal guardian have the right to withdraw from this study at anytime without consequence.

Results

Individual results will only be viewed by the researcher and the faculty supervisor. Group results will be available upon request.

Whom to contact if you have any questions about this study:

Kelley Gudahl
Experiment Administrator
Graduate Studies
Department of Advertising
College of Journalism and Communications
University of Florida
kgudahl@hotmail.com
321-624-5891

J Robyn Goodman, Ph.D.
Assistant Professor
Department of Advertising
University of Florida
rgoodman@jou.ufl.edu

Whom to contact about your rights as a research participant in this study:

UFIRB Office
Box 112250
University of Florida
Gainesville, FL 32611-2250
352-392-0433

Agreement:

I have read the procedure described above. I voluntarily agree to participate in the procedure and I have received a copy of this description.

Participant___________________________________________Date________________

Principal Investigator___________________________________Date_______________
Dear Parent/Guardian,

I am a graduate student in the Department of Advertising at the University of Florida, conducting research on the media’s effect on adolescent consumers under the supervision of Dr. Robyn Goodman. The purpose of this study is to measure the effect of advertisements on female adolescents by having them answer a series of questions after viewing the ads. The results of this study will help consumers better understand the effects that advertising actually has on adolescent consumers. These results may not directly help your child today but may benefit future children. With your permission, I would like to ask your child to volunteer for this research.

Participants will be randomly assigned to one of three groups. Each group of participants will be asked to answer a series of questions about attitudes about physical appearance, and about your own sense of physical and mental well-being after viewing three advertisements. These advertisements will be selling products that are important to female adolescent consumers. Any questions you do not wish to answer do not need to be answered. The experiment will take approximately 30 minutes. No compensation will be provided for participating in this study. Names will be replaced with code numbers for their use in the study.

You and your child have the right to withdraw consent for your child’s participation at any time without consequence. There are no known risks or immediate benefits from participation in this study. Group results of this study will be available in May upon request. If you have any questions about this research protocol, please contact me at kgudahl@hotmail.com, or my supervisor, Dr. Goodman, at rgoodman@jou.ufl.edu. Questions or concerns about your child’s rights as a research participant may be directed to the UFIRB office, University of Florida, Box 112250, Gainesville, FL 32611, (352) 392-0433.

Kelley Gudahl

I have read the procedure described above. I voluntarily give my consent for my child, __________________________, to participate in Kelley Gudahl’s study of the media’s effect on adolescent consumers. I have received a copy of this description.

Parent/Guardian_______________________________________Date________________

2nd Parent/Guardian_______________________________________Date________________
Queridas Padres,

Soy estudiante graduada en el departamento del anuncio de la Universidad de Florida. Estoy conduciendo una investigación del efecto de los medios de comunicación en los consumidores adolescentes debajo de la dirección de Doctora Robyn Goodman. El propósito del estudio es para medir el efecto del anuncios en chicas jóvenes. Vamos a preguntarles una serie de preguntas después de mirar los anuncios. Los resultados del estudio van a ayudar a los consumidores comprender mejor los efectos de anuncios en los consumidores adolescentes. Esos resultados pueden ser que no ayuden a sus hijos hoy pero pueden ser que ayuden los niños en el futuro. Con su permiso, quisiera preguntarles a sus hijos que sean voluntarios para este estudio.

Los participantes van a ser asignados al azar a uno de tres grupos. Cada grupo de participantes le vamos a pedir que contesten una serie de preguntas después de mirar tres anuncios. Esos anuncios van a vender productos que son importantes a chicas jóvenes que son consumidores. Algúna pregunta que los participantes no se sientan cómodos para contestar no tienen que contestarla. El experimento será treinta minutos aproximadamente. Compensación no va a ser dado para participación. Nombres van a cambiar por códigos para su uso en el estudio.

Usted y tu hijo tienen el derecho de retirar su consentimiento de la participación al cualquier tiempo sin consecuencias. No hay riesgos o ventajas de participación en el estudio. Resultados de los grupos del estudio van a estar disponibles en Mayo sobre su requestas. Preguntas sobre el protocolo de la investigación, por favor ponerse en contacto con mi correo electrónico, kgudahl@hotmail.com, o mi supervisor Dr.Goodman, rgoodman@jou.ufl.edu. Preguntas o preocupaciones sobre los derechos de sus hijos como un participante de la investigación pueden ser directadas a la oficina de UFIRB, La Universidad de Florida, Caja 112250, Gainesville, Florida 32611, (352) 392-0433.

Kelley Gudahl

Yo he leído el procedimiento que es descrito en las líneas anteriores. Yo doy voluntariamente mi permiso para mi hijo,_________________________, para participar en el estudio de Kelley Gudahl sobre el efecto de los medios de comunicación en los consumidores adolescentes. Yo he recibido una copia de la descripción.

Padre/Guardián________________________Fecha________________________

Segundo Padre/Guardián________________________Fecha________________________
LIST OF REFERENCES


BIOGRAPHICAL SKETCH

Kelley Gudahl has lived in Florida her whole life. She was born in Orlando, Florida, and raised in Kissimmee, Florida. She earned her Bachelor of Science in advertising in August 2004. After earning her Master of Advertising degree she plans on working professionally in the advertising field.