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LOMA LINDA UNIVERSITY
School of Behavioral Health
in conjunction with the
Faculty of Graduate Studies

The Effects of Appearance-Based
Reality Shows on Body Image

by

Amanda F. Suplee

A Thesis submitted in partial satisfaction of
the requirements for the degree
Doctor of Philosophy in Clinical Psychology

September 2014

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Each person whose signature appears below certifies that this thesis in his/her opinion is adequate, in scope and quality, as a thesis for the degree Doctor of Philosophy.

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ABBREVIATIONS

BMI	Body Mass Index
EDI-3-BD	Eating Disorder Inventory III – Body Dissatisfaction Subscale
SATAQ-3-I-G	Sociocultural Attitudes Towards Appearance Scale-3- Internalization-General subscale
EDE-Q	Eating Disorder Examination-Questionnaire
GL-TEQ	Godin- Shephard Leisure-Time Physical Activity Questionnaire
PACS	Physical Appearance Comparison Scale
ANOVA	Analysis of Variance

ABSTRACT OF THE THESIS

The Effects of Appearance-Based Reality Shows on Body Image

by

Amanda F. Suplee

Doctor of Philosophy, Graduate Program in Clinical Psychology
Loma Linda University, September 2014
Dr. Sylvia Herbozo, Chairperson

Media seems to play the largest role in transmitting messages regarding societal standards of attractiveness; especially in reinforcing the thin ideal for females. There is strong evidence indicating that females who are more likely to make appearance comparisons with thin images in the media often experience negative outcomes. Research has shown that increased exposure to thin images in the media is associated with higher body dissatisfaction and eating disorder features. A form of media that has been given little research attention is reality television, specifically appearance-based reality television. The current study examined the effects of viewership of appearance-based reality television shows on body image and eating behaviors. Participants were 154 undergraduate females of ages 18-25 at two Southern California universities. Results indicated that although participants reported lower levels of viewership of cosmetic surgery shows and fashion, style, and self-improvement makeover shows, a small positive relationship was found between viewership of fashion, style, self-improvement shows and thin ideal internalization. However, no relationships were found for either type of reality show and body dissatisfaction. There were significant relationships between viewership of cosmetic surgery reality shows and several features of eating disorders, including restrictive dieting, eating concerns, weight concerns, and shape concerns.

Furthermore, social appearance comparisons, thin ideal internalization, and body dissatisfaction were significant predictors of appearance comparisons with reality television. These findings highlight the need to further examine the relationships found between viewership of appearance-based reality television shows, body image, and eating behaviors. It is likely the impact of such media depends on the occurrence of specific cognitive processes, such as appearance comparisons and thin ideal internalization, which can be targeted in future intervention.

CHAPTER ONE

INTRODUCTION

Body Image

Thompson, Heinberg, Altabe, & Tantleff-Dunn (1999) argue that attempts to meet the unrealistic ideals of beauty are increasingly becoming a significant problem. The changing figure of beauty tends to be unattainable and likely contributes to poor body image and disordered eating (Thompson, et al., 1999). Body image is commonly defined as an internal depiction of one's outward appearance and consists of cognitions, emotions and behaviors relative to one's physical appearance (Cash & Henry, 1995). In today's society, many individuals, mostly women, are overly preoccupied with their appearance which often distorts their perception of what they actually look like. Given these distortions of physical appearance, it is not surprising that more than 50% of women surveyed are dissatisfied with their appearance (Cash & Henry, 1995). The prevalence of appearance dissatisfaction has led some researchers to refer to it as a "normative discontent" (Rodin, Silberstein, & Striegel-Moore, 1984). Normative discontent provides a context for understanding the increasing preoccupation with weight and the subsequent dissatisfaction with one's appearance as a result of social and cultural norms, sex roles, and stereotypes (Rodin, Silberstein, & Striegel-Moore, 1984). Within the realm of body image research, body dissatisfaction and internalization of the culturally ideal body have been identified as predictors of body image disturbances.

Body Dissatisfaction

Research has shown that there are high levels of body dissatisfaction, particularly

in adolescent and young adult females. Body dissatisfaction refers to the lack of satisfaction with one's body or one's appearance (Thompson, et al., 1999). Body areas commonly examined in research on body dissatisfaction include the whole body, breast and chest size, facial features, muscle mass, and hair loss (Thompson, et al., 1999). More specifically, the majority of women seem to be most dissatisfied with their torso, weight, and muscle tone (Cash & Henry, 1995). A survey by Garner (1997) found that women were more dissatisfied with their mid-torso, lower torso, upper torso, weight, muscle tone and height in 1996 when compared to levels of dissatisfaction in 1972.

Lawler and Nixon (2011) found that 80.8% of females surveyed were experiencing body dissatisfaction. Additionally, high levels of body dissatisfaction have been found with regards to weight and preoccupation with appearance (Cash & Henry, 1995; Mercurio & Rima, 2011; Mond & Hay, 2011). Given the prevalence of body dissatisfaction among women, it is not surprising that body dissatisfaction is associated with lower self-esteem (Furnham, Badmin, & Sneade, 2002; Webster & Tiggemann, 2003). Furthermore, changes in body dissatisfaction are evident as age increases. Adolescents who placed more importance on their appearance at age 15 showed an increase in body dissatisfaction at the age 17 (Hargreaves & Tiggemann, 2002). Additionally, high levels of body dissatisfaction have been noted in younger females. Clark & Tiggemann (2008) found that nearly 50% of girls aged 9 to 12 years old reported feeling dissatisfied with their body. Similar results have been found in various studies, even among children (Anschutz, Kanters, Van Strien, Vermulst, & Engels, 2009; Clark & Tiggemann, 2007; Thompson, Corwin & Sargent, 1997).

Although little research has examined male body image, there is still evidence to suggest an increase in body dissatisfaction among males. Garner (1997) found that males displayed higher levels of dissatisfaction in their torsos, muscle tone, height, and weight in 1985 when compared to levels in 1972. For instance, Lawler and Nixon (2011) found that 54.8% of boys ages 12 to 18 expressed a desire to alter their body in some way. The findings regarding the type of body (i.e., heavier or thinner) that males prefer remains inconclusive. Thompson et al. (1997) found that only 10% of boys in their study view a heavier figure as ideal and desire this type of body figure. However, Lawler and Nixon (2011) found that about 30% of average weight boys reported a desire for a heavier body size. Additionally, Tiggemann, Martins, and Kirkbride (2007) found that 80% of both heterosexual and gay males surveyed indicated a desire for an ideal figure that was more muscular than their current figure. Certainly more research is needed to better understand the ideal body size for males, but it is clear that males are experiencing increasing levels of body dissatisfaction.

A number of key factors have been shown to contribute to body dissatisfaction. Two factors of particular importance include body mass and appearance schemas. Body mass index (BMI) is commonly used in body image research as a measurement of weight status. This type of measurement is based on a person's height and weight and is a reliable measure of body fat (Center for Disease Control, 2011). Research has generally shown that as BMI increases, body dissatisfaction increases (Sinton & Birch, 2006). Overweight girls are more likely to report higher body dissatisfaction compared to normal weight girls (Vander Wal & Thelen, 2000; Clark & Tiggemann, 2008; Lawler & Nixon, 2001). Additionally, the majority of women dissatisfied with their body indicate a

desire for a smaller body size than their current body size (Lawler & Nixon, 2011). Not only do biological factors predict body dissatisfaction but psychological factors such as appearance schemas can also influence body image. Appearance schemas are a cognitive process of body image that represents a focus on appearance and the belief that appearance is important to one's self-worth (Cash, Melnyk, & Hrabosky, 2004). This has been described as an investment in one's appearance, not merely an evaluation of the satisfaction with one's appearance. Schemas involve using cognitive ideas associated with one's appearance for appraisal of self-worth and relevance (Cash, Melnyk, & Hrabosky, 2004). Studies have shown that girls with high levels of appearance schemas also report high levels of poor body image (Sinton & Birch, 2006; Hargreaves & Tiggeman, 2002). Girls who place significant importance on their appearance seem to have more body dissatisfaction as a result of trying to reach an unattainable ideal of beauty

Thin Ideal

The thin ideal refers to the ideal of beauty as defined by Western society which currently promotes thinness. The society dictates through television, movies or magazines what is considered the standard of beauty. Current societal messages regarding beauty emphasize that being thin is beautiful which is very different from the 1950s or 1960s which idealized fuller, curvier figures as beautiful (Thompson, et al., 1999). Thin ideal internalization occurs when someone has accepted the society's ideal for beauty (i.e., thin body) and engages in behaviors to achieve that ideal (Thompson & Stice, 2001). Despite the emphasis on thinness, a more curvaceous body type similar to the 1920s flapper or

Marilyn Monroe is becoming increasingly present with celebrities and media models such as Kim Kardashian, Beyoncé, and Jennifer Lopez. However, despite the influx of media on fuller, curvier body types, the thin ideal remains salient such that women who feel that they do not meet the societal standards of attractiveness are more likely to be dissatisfied with their body (Thompson, et al., 1999).

Alarming, research suggests that internalization of the thin ideal occurs even before puberty. Sands and Wardle (2003) found that the level to which young girls believe they must follow the society's pressure for thinness is related to their level of awareness of the thin ideal for appearance. More specifically, awareness of the sociocultural ideal of beauty and thinness is an essential key to internalization and body dissatisfaction (Cafri, Yamamiya, Brannick, & Thompson, 2005; Cusumano & Thompson, 1997; Heinberg, Thompson, & Stormer, 1995; Sands & Wardle, 2003). It is likely that most females gain awareness of the thin ideal through messages from the media, parents, and peers.

Of the possible sources, media seems to play the largest role in transmitting messages regarding societal standards of attractiveness, specifically, in reinforcing the thin ideal for young girls. Women are presented with numerous images of unrealistic thin models. Malkin, Wornian, and Chrisler (1999) found as many as 94% of female magazine covers include a picture of a thin model or celebrity. Research shows that increased exposure to thin images in the media is associated with higher body dissatisfaction (Tiggemann & McGill, 2004; Want, Vickers, & Amos, 2008). Furthermore, women who internalize the thin ideal experience more weight-related anxiety when exposed to images of thin models (Brown & Dittmar, 2005; Groesz,

Levine, & Murnen, 2002). Brown and Dittmar (2005) have argued that such exposure likely elicits a “think ‘thin’ and feel bad” schema. Some girls who view images of the thin ideal begin to believe and strive to conform to what society dictates as beautiful, which in turn likely results in body dissatisfaction when unattainable standards are not met.

Tiggemann and Miller (2010) found that magazines, television and the internet are all forms of media that influence the appearance related messages directed at girls. The authors suggest that appearance has become a topic of conversation for females, especially through friends at school and on the internet. Findings indicated that girls who spent more time on social networking sites, such as MySpace and Facebook, displayed higher levels of the drive for thinness, greater thin ideal internalization, and greater weight dissatisfaction (Tiggemann & Miller, 2010). The authors propose that social networking sites increase their exposure to appearance-related conversations and commentary which likely contributes to greater internalization of the ideal.

Additionally, some researchers argue that internalization of the thin ideal occurs through body comparisons not merely exposure and conversations about appearance. Durkin, Paxton, and Sorbello (2007) found that females with higher levels of thin ideal internalization were more likely to compare themselves to the idealized images presented. Furthermore, higher body comparisons were associated with higher body dissatisfaction. Females who emphasize the importance of appearance and compare themselves accordingly are more likely to feel less satisfied with their bodies and are more likely to engage in unhealthy behaviors to meet these idealized goals (Ahern, Bennett, &

Hetherington, 2008; Boone, Soenens, & Braet, 2011; Thompson & Stice, 2001; Tiggemann & Miller, 2010).

Muscular Ideal

The messages received through society and the media for males are inherently different than those for females. Rather than messages of thinness, men are inundated with advertisements about being lean, physically fit, and gaining muscle (Petrie, et al., 1996). These messages emphasizing a muscular ideal seem to be reinforced by other media as a way of dictating the ideal body type for men (Gillen & Lefkowitz, 2009). Gillen and Lefkowitz (2009) found that although no gender differences were experienced when perceiving messages of the muscular ideal body type, male and female students still rated these messages as significantly influenced by the media. This finding suggests that while males and females both experience these messages, the ideal body type for males is becoming increasingly present in mainstream media.

A component of male body image, comparable to thin ideal internalization for females, is that of the drive for muscularity. As a result of the ever present ideal body type for males in the media, some men internalize the belief and importance of being physical fit and consequently engages in behaviors to change their appearance. McCreary and Sasse (2000) found that males who indicate a higher drive for muscularity are more likely to engage in weight lifting and dieting to bulk up their physical appearance. Additionally, men who experience more negative comments regarding their physical appearance are more likely to be dissatisfied with their muscle build and have an increased drive for muscularity (Nowell & Ricciardelli, 2008). However, men who

experience more positive comments about their physical appearance are more likely to engage in behaviors to increase muscularity, suggesting that men use positive comments as a motivator (Nowell & Ricciardelli, 2008). Unfortunately, for a subset of males, the drive for muscularity often influences the use of unhealthy behaviors. Engaging in behaviors to increase muscularity increases the use of restrictive diet and steroid use (McCreary & Sasse, 2000; Mussap, 2008). The use of unhealthy weight loss or maintenance behaviors is commonly associated with body dissatisfaction and can lead to more serious health concerns such as developing eating pathology.

Disordered Eating and Unhealthy Body Change Strategies

Eating disorders are severe conditions in which a person engages in maladaptive eating patterns accompanied by negative views about their physical appearance. Lifetime prevalence rates of eating disorders vary by gender. Prevalence rates are slightly higher for females such that .3% of the population has been diagnosed with anorexia nervosa, 1.3% with bulimia nervosa and 2.3% with binge eating disorder (Swanson et al., 2011). The prevalence of eating disorders among the male population is .3% for anorexia nervosa, .5% for bulimia nervosa, and .8% for binge eating disorder (Swanson et al., 2011). Although females seem to have higher prevalence rates in both binge eating disorder and bulimia nervosa, rates for anorexia nervosa seem to be similar for both genders. This finding is interesting given the limited research on male body image and eating disorder treatment. It is likely that just as many males as females suffer from this disorder but some are not receiving treatment or the research attention needed. It is also likely that more males suffer from muscle dysmorphia, a form of body dysmorphic

disorder (Leone, Sedory, & Gray, 2005). Muscle dysmorphia is a preoccupation with muscularity and dissatisfaction with one's muscularity rather than the whole body. Rates for muscle dysmorphia are limited but estimates of body dysmorphic disorder for males are around 2.2%, suggesting that muscle dysmorphia may be a large concern in the male population (Bjornsson, Didie, & Phillips, 2010).

Several factors can predict development of eating disorders such as gender, ethnicity, and sociocultural and interpersonal factors. Of most interest to the current study, body dissatisfaction has received significant research support as playing a key role in the onset of eating disorders, including anorexia nervosa, bulimia nervosa, and binge eating disorder, as well as body dysmorphic disorder (Thompson, et al., 1999; Kim & Lennon, 2007). Research has shown that women who are dissatisfied with their bodies and have lower self-esteem are more likely to engage in risky eating behaviors (Kim & Lennon, 2007; Algars, Santtila & Sandnabba, 2010; Barker & Galambos, 2006). In fact, Barker and Galambos (2006) found that female students who were more dissatisfied with their body were three times more likely to report binge eating symptoms during a two-week period in their first semester of college. This finding suggests that individuals with high levels of dissatisfaction are more likely to engage in risky behaviors when presented with a stressful situation.

Research on cognitive processes as a predictor of eating disorders has shown that cognitive bias about appearance may influence the onset of disturbed eating (Williamson, Muller, Reas, & Thaw, 1999). Williamson et al. (1999) proposed a model that argues for body schemas, how one focuses on one's body and size, as a predictor of cognitive bias influencing attention and judgment. The model asserts that the biases in attention and

other cognitive processes are a result of disordered thinking not disordered behavior (Gao, et al., 2011; Williamson, et al., 1999). The disordered thought captures all cognitive functions and maintains preoccupation with the person's body, appearance and/or weight. Moreover, attentional biases on weight or appearance, such as body checking, are associated with higher body dissatisfaction (Smeets, et al., 2011). Individuals who have higher levels of body dissatisfaction seem to display greater attention and hypervigilance when presented with information about weight and appearance (Gao, et al., 2011). It is argued that such cognitive biases predict disturbed eating behavior, such as bingeing, purging, exercise, and restrictive behaviors, as a result of the increased attention and other cognitive functions on the disordered body-related thoughts (Williamson, et al., 1999). Individuals who experience cognitive biases about their weight and/or appearance focus more attention on these attributes and are more likely to engage in unhealthy behaviors to improve physical appearance.

Similar to the findings on the body image of males, little research has examined males with eating disorders. As previously noted, some males are experiencing increased body dissatisfaction which has been shown to predict eating disorders. However, men are less likely to receive treatment because it may seem too feminine and less manly to some males (Olivardia, et al., 2004). Consistent with the messages males receive as compared with females, males are more likely to engage in exercise or muscle building behaviors rather than restrictive eating. Men who experience more dissatisfaction with their level of muscularity are more likely to engage in excessive exercise, abuse diuretics and take anabolic steroids (Mussap, 2008). Although there is limited research on males, there is evidence to suggest that eating disorders and unhealthy body change strategies

are an increasing problem in the male population given the increasing rates of body dissatisfaction among males.

Both women and men who experience body dissatisfaction are more likely to engage in unhealthy eating behaviors and body change strategies that can contribute to further pathology and severe health problems. It seems that factors such as body dissatisfaction and internalization of the societal ideal body (i.e., thin body for females and muscular body for males) are a growing concern for the younger population. Eating pathology has the highest levels of morbidity among all psychopathology (Pomeroy, 2004); therefore, it is necessary to understand its development. Although little research has examined males with eating disorders, studies to date suggest that this area is still a significant problem. Given the influx of media messages that adolescents and adults receive on a daily basis, body dissatisfaction and internalization of the societal ideal body may increase, predicting a further increase in unhealthy eating behaviors and body change strategies.

Media Influences

A number of sociocultural influences have been identified as playing key roles in the onset and maintenance of body image and eating disturbance. As noted earlier, the media is recognized as one of the main sources contributing to the excessive concerns about food intake, weight, and physical appearance among normal weight, non-eating disordered women and adolescents (Thompson, et al., 1999). A survey conducted by Psychology Today (Garner, 1997) examined the influence of the media in promoting the cultural ideal of beauty and thinness. Garner (1997) reported that out of almost 3500

women surveyed, 23% said they were influenced by celebrities on television or movies and 22% were influenced by fashion magazines. These findings suggest that media seems to reinforce appearance concerns through advertising and programming.

Magazines

By opening any magazine at a newsstand, it is apparent that advertising cosmetics and fashion are prominent components of magazines. In order to support a 10 to 40 billion dollar cosmetic industry (Time: Healthland, 2010; Chemists Corner, 2010) and a 40 billion dollar dieting and self-help industry (Businessweek, 2008), magazine images and advertisements aim to appeal to a large and impressionable audience. Thus, some magazines consist of thin female models and muscular male models as well as promote the latest cosmetics in order to emphasize the sociocultural ideals. For instance, in the course of 40 years (1959-1999), female models shown in four major magazines including Cosmopolitan, Glamour, Mademoiselle, and Vogue, became increasingly thinner (Sypeck, Gray, & Ahrens, 2003). Full body images have also become more evident in these magazines over the same time period. Combined with increased sales for each magazine, it has been reported that American women have been increasingly exposed to thinner, full-body images since the 1950s (Sypeck, Gray, & Ahrens, 2003). Furthermore, not only are women presented with thinner, full body images, but they are also presented with less clothed models. Comparisons of the models from 1950- 1963 with the models from 1995- 1999 indicated that models are wearing significantly more revealing outfits (Sypeck, Gray, & Ahrens, 2003). The message conveyed through such magazines is that

female beauty is more than just a “pretty face,” given that there are more standards, especially with regards to body types that women are expected to achieve.

Thin ideal images in magazines have been associated with poor body image for women. More specifically, exposure to such ideal images has been shown to increase body dissatisfaction, and weight-related anxiety. Harrison and Cantor (1997) found that reading fashion magazines, not overall magazine exposure, was related to body dissatisfaction among women. In a more recent study, Harper and Tiggemann (2007) found that women who viewed thin ideal images experienced greater anxiety and self-objectification compared to women who viewed product related images. Self-objectification is due to a culture of sexual objectification that socializes women to think of themselves as only bodies, essentially as objects, to be looked at and appraised (Fredrickson & Roberts, 1997). Women who are identified as high self-objectifiers seem to experience greater weight-related anxiety than those classified as low self-objectifiers (Monro & Huon, 2005). Additionally, exposure to thin images has been linked with higher levels of negative mood and self-esteem which are associated with disordered eating (Hawkins, Richards, Granley, & Stein, 2004; Slevec & Tiggemann, 2011).

Interestingly, exposure to thin ideal images is not consistent across cultures. Two primarily African American magazines, *Ebony* and *JET*, were recently analyzed for content on body sizes and acceptance (Dawson-Andoh, et al., 2011; Thompson-Brenner, Boisseau, & St. Paul, 2011). Both studies found that more normal and average body sizes were displayed compared to primarily Caucasian magazines. These studies suggest that presenting less thin models, such as those in magazines geared towards a predominantly Caucasian audience, may promote acceptance of fuller figure body types in African

American females. Secondly, the findings suggest that the African American body ideal is gaining acceptance with its increase in popular media. The authors argue that with the emergence of more fuller figured African American role models, such as Oprah Winfrey and Serena Williams, the African American ideal body is becoming more widely accepted (Dawson-Andoh, et al., 2011). Furthermore, they believe this acceptance is a result of the reciprocal causation, which means the African American body ideal is gaining acceptance and thus influences the portrayal of such a figure more in the media and vice versa (Dawson-Andoh, et al., 2011). Culture seems to influence the types of messages portrayed in magazines.

The messages in male fashion magazines also rely heavily on physical appearance, physical performance, and fitness. Although the ideal male body figure has not changed much since 1960, the message of strength and muscularity has increased (Petrie, et al., 1996). The vast majority of male images published in *Men's Health* and *Men's fitness*, two prominent male magazines, have been shown to display low body fat and high muscularity (Labre, 2005). Likewise, the advertisements found in these magazines are more likely to promote leanness and muscle building than fitness or health as suggested by their titles. Giles and Close (2008) examined the drive for muscularity as a result of reading "lad magazines," such as *Maxim*, *GQ*, and *Esquire*, and found that the relationship was stronger for non-dating men than men in a relationship. The relationship between increased exposure to these magazines and the drive for muscularity was found between men who were not in a stable relationship. This finding suggests a social desirability effect such that men who are not in committed relationships are more likely to subscribe to the socially desirable muscular ideal. These media messages may

influence the use of steroids and over- exercising (Petrie, et al., 1996). Although approached with different stimuli, internalizing the societal ideals for thinness or muscularity through the media can lead to problematic eating behaviors and other unhealthy behaviors such as eating disorders or steroid use.

Television

The average female character on television is much thinner than the average American; in fact, less than 10% of females on television are overweight, and they are mostly used as humor (Thompson, et al., 1999). A study of prime-time comedy television shows found that of the 52 female characters examined, 33% were below average weight which is more than the actual prevalence rate of 25% (Fouts & Burggraf, 1999). Additionally, 7% of female characters were above average weight, falling lower than the actual prevalence rate of 26% (Fouts & Burggraf, 1999). Subsequently, the thinner the female character on the show, the more positive comments she received from male characters. This finding suggests that females must be thin in order to be attractive and gain approval (Fouts & Burggraf, 1999). It is likely that such representation of thin versus overweight and obese figures results in an unrealistic depiction of the ideal female body in society.

Research has also focused on the weight of male characters in comedy shows. Fouts and Vaughan (2002) found that 13% of male characters are above average weight, which is still less than the 30% national average but significantly more than the female statistic. This finding suggests that it is more socially acceptable for men to be overweight than for females. Male characters also received less negative comments about their

weight and they were not reinforced by audience laughter and reaction (Fouts & Vaughan, 2002). This is quite different from female characters who receive more negative comments if they are above average weight and such comments are reinforced by audience laughter (Fouts & Burggraf, 1999). The difference in the portrayal of characters in television sends the message that women will be punished for being overweight, whereas men will not (Fouts & Vaughan, 2002). Therefore, the consequences of not meeting the ideal body type seem to be much more salient for females than males.

Studies of female adolescents show a link between the amount of exposure to these culturally ideal images on television and body dissatisfaction. Tiggemann and Pickering (1996) found that on average, watching more soap operas or movies that depict women in stereotyped sex roles was positively correlated with body dissatisfaction among adolescent females. Watching sports, however, was negatively correlated with body dissatisfaction, which seemed to be attributed to women being presented in less stereotyped, idealized roles. Strikingly, the adolescents in this study described themselves as overweight when they actually had average BMI of 20. Additionally, the participants indicated that they watch between 20 to 25 or more hours of television a week (Tiggemann & Pickering, 1996). Soap Operas, movies, sports and music videos were all correlated with levels of body dissatisfaction; however, only music videos were associated with adolescents' drive for thinness. The results indicate that music video messages of female roles are explicit whereas messages in movies and television series are implicit as females will have other roles (Tiggemann & Pickering, 1996). The more MTV music videos that young girls watch, the more likely they will think of themselves

as sex objects which can lead to negative self-image and appearance (Grabe & Hyde, 2009). These findings are of concern given that MTV videos are widely popular and easily accessible to girls of all ages. Through these videos, they may learn that women are sexual objects for male enjoyment. If adolescents and females compare their bodies to these unrealistic images, they may be more likely to experience body dissatisfaction. Watching particular television programs seems to be associated with body dissatisfaction and sexual objectification.

Reality Shows

One form of media that should be considered when studying the effects on body image is reality television, especially given the numerous shows within this genre that have emerged over the recent years. Reality television is the portrayal of everyday people and in some cases, celebrities, living their lives. A number of categories have emerged within the realm of reality television. These categories include makeover shows (e.g., *Extreme Makeover*, *The Swan*, *What Not to Wear*), competition shows (e.g., *The Biggest Loser*, *Amazing Race*, *Survivor*, *American Idol*), documentary style shows (e.g., *The Osbourne's*, *Keeping Up with the Kardashians*, *True Life*), and dating shows (e.g., *The Bachelor*). Additionally, of most importance to the proposed study are those of appearance-based reality shows. Appearance-based reality shows cover a variety of topics but the main focus of these shows is generally the appearance of the participants and the characters on the show. Examples of appearance-based reality shows are the *Biggest Loser*, *The Swan*, *Sunset Tan*, *Dr. 90210*, and *Shedding for the Wedding*. In many cases, the participants in these types of shows are changing a physical aspect of their

body in order to increase their self-esteem and body image. Reality shows aim to document the changes an individual makes to his/her appearance in order to achieve a goal ranging from being thinner to being more tan.

Reality television has been conceptualized as moderately real, along the fiction-real dimension. Nabi, et al. (2003) examined the phenomenon of reality television as it has emerged over the last two decades, noting that the draw to reality television popularity is comparable to a form of voyeurism. It seems that many people enjoy getting a glimpse into the lives of other people and their interpersonal experiences, consistent with documentary style reality shows. The authors also note that reality television is distinguished from true voyeurism given that the characters are aware they are being viewed on television and broadcast rules restrict the levels of sexual content. Essentially, regular viewers of reality television enjoy its unique conception and unscripted premise which allows them to watch real people in real life situations (Nabi, et al., 2003).

Most of the current research on reality shows and body image focuses on cosmetic surgery shows and the participant's interest in receiving cosmetic surgery. This research interest is not surprising given that the field of cosmetic surgery has grown immensely since the 1990s and current rates of cosmetic surgery are at a high. In the early 90s, the society supported a 300 million dollar cosmetic surgery industry (Thompson, et al., 1999); however, in 2009, the industry earned 10 billion dollars (Time: Healthland, 2010). It has also become apparent that females are 10 times more likely than males to undergo cosmetic procedures (12.1 million versus 1.2 million; American Society of Plastic Surgeons, 2011). Interestingly, cosmetic surgery procedures have increased across all ages in the last year, with 40 to 54 year olds undergoing the most procedures.

Furthermore, breast augmentation, nose reshaping, liposuction and eyelid surgeries were consistently the top four cosmetic procedures from 2008- 2011 (American Society of Plastic Surgeons, 2008, 2009, 2010, 2011).

To my knowledge, initial studies have been conducted in the area of cosmetic surgery and body image but the results are limited. Most research in this area has emphasized the motivations and interests for seeking cosmetic surgery. The media's influence, teasing from peers and weight have been identified as predictors of interest in seeking cosmetic surgery. Women with higher levels of body dissatisfaction appear more likely to show interest in cosmetic surgery (Markey & Markey, 2009). There is also evidence that women who internalize media messages and who experience appearance-based teasing from others are more likely to show interest in changing their body (Markey & Markey, 2009). Interestingly, thinner women seem more likely to show interest in cosmetic surgery than heavier women, a finding that seems to contradict previous thinking (Markey & Markey, 2010; Swami, 2009). It may be assumed that thinner women whose body figure is more similar to the current ideal standard would be less inclined to seek cosmetic surgery compared to heavier women. However, it is possible that these women are driven to maintain their current appearance or continue to improve their looks based on the increasing demand of the culturally ideal body. It seems that how a woman perceives her appearance may be more pervasive than the actual body type, such that women who may be thin but experience significantly more body dissatisfaction may be more likely to engage in cosmetic surgery.

Celebrity worship has also been found to be a strong predictor of seeking cosmetic surgery. Individuals who watch reality shows can potentially become so

engrossed in the everyday lives of the characters that it affects the way they view various aspects of their own life. For example, people may begin to immortalize the characters on these shows into celebrities and idolize them. This seems to become increasingly apparent with the popularity and prevalence of these types of shows. Celebrities from these shows often become the face of social and physical ideals (Swami, Taylor, & Carvalho, 2009). In fact, types of celebrity worship have been identified. They include entertainment-social, intense-personal and borderline-pathological. A person worships a celebrity in an entertainment-social manner when they have an attraction to the celebrity based on their ability to entertain (Swami, Taylor, & Carvalho, 2009). In contrast, an intense-personal type of celebrity worship occurs when an individual has intense or compulsive feelings towards the celebrity, which is known as borderline-pathological celebrity worship if these feelings become addictive (Swami, Taylor, & Carvalho, 2009). Specifically, of the three types of celebrity worship, intense-personal worship seems to be the strongest predictor for seeking cosmetic surgery (Swami, Taylor, & Carvalho, 2009). Those with higher levels of intense-personal worship may view the celebrity as an ideal standard of beauty and appearance for which they strive to achieve; therefore, they are more likely to want to improve themselves physically with cosmetic surgery (Swami, Taylor, & Carvalho, 2009).

However, there have been some mixed findings in this limited research area. Unlike previous research, Nabi (2009) found that there was no relationship between cosmetic reality shows and interests in cosmetic surgery or body dissatisfaction. It is important to note that this study found that factors of social cognitive theory, (i.e., identification with the characters and perceived positive outcomes) accounted for the

most variance in the desire for social enhancement. Social cognitive theory is best explained as learning through observing others behaviors and consequences (Bandura, 1986, as cited in Nabi, 2009). The audience learns what behaviors are desirable through the media's portrayal of subsequent outcomes. The behaviors of the characters on these shows are rewarded by the procedures they do to enhance their appearance. If a positive outcome occurs with the audience's ability to identify with the characters, they may be more inclined to emulate this behavior. Nabi (2009) found that identifying with cosmetic surgery shows was associated with an increased interest in receiving cosmetic surgery. This finding coincides with previous research suggesting that the desire to have cosmetic surgery is reinforced by viewing these shows which seem to encourage change and portray positive outcomes for people's appearance and self-esteem.

Social Comparison Theory

Social comparison theory will be the framework for the proposed study. This theory argues that people feel a need to evaluate themselves and to understand their limitations by directly comparing themselves to physical objects (Wood, 1989). If comparisons occur as a form of self-improvement and motivation for self-enhancement, negative outcomes are not expected. There are two forms of comparisons that can be made when judging physical objects: upward and downward comparisons. Upward comparisons are described as comparing oneself to a person or an object which is believed to have greater value and thus possibly result in feeling down about oneself, jealous, or depressed (Wheeler & Miyake, 1992). Downward comparisons occur when a

person compares oneself to a person or an object which is viewed as having less worth or value and thus increases feelings of self-worth and well-being (Wills, 1981).

In the context of physical appearance, the effects of social comparisons are examined with self-evaluation on the basis of physical appearance. Tiggemann and Polivy (2010) found that appearance-based comparisons with images of thin models decreased mood and body satisfaction among young women. Additionally, they found that comparisons based on intelligence were associated with more positive outcomes, although a slightly lower mood was still present. These findings indicate that although body satisfaction can be preserved when comparing intelligence level against media images, presence of a lower mood suggest that comparisons are inherently based on appearance, regardless of instructions (Tiggemann & Polivy, 2010). As a result of the type of processing that occurs when making these social comparisons, some women may be more likely to make upward comparisons for appearance and downward comparisons for intelligence. Women felt the models were thinner and more beautiful than them, but found themselves to be more educated and intelligent, although to a smaller degree (Tiggemann & Polivy, 2010). Additionally, upward comparisons are likely to be made if the ideal seems attainable and will encourage self-improvement (Knobloch-Westerwick & Romero, 2011).

Women are exposed to many thin media messages in magazines and television programming. Body dissatisfaction and negative mood increase following exposure to thin ideal images from magazines. Tiggemann & McGill (2004) found these effects after brief exposure to these images (i.e., 11 images in ten minutes). Women are likely to be exposed to many more images in one magazine over a longer period of time which

increases the chances of greater body dissatisfaction and negative mood outcomes. Similarly, women who were exposed to a short excerpt of a popular television comedy (i.e., *Friends*) displayed increased body dissatisfaction (Want, Vickers, & Amos, 2008). These women were given no instructions for comparisons; therefore, even when viewing television for entertainment value, they still experienced some level of social comparison. Although this study cannot generalize to all television shows, it is important to note that these comparisons were made with exposure to a 10 minute clip. It is possible that with the incredibly high exposure to television programming, some women are likely to engage in appearance comparison quite often.

Additionally, the type of image presented is important for comparison. Images of specific body parts have been shown to elicit the greatest body dissatisfaction comparisons, suggesting larger social effects of body parts than full body images (Tiggemann & McGill, 2004). Likewise, both full body and body part images seem to elicit the most body dissatisfaction as compared to product related images. These findings suggest that there is less evaluation between a person and a product because there are fewer or no attributes to make comparisons on. Another comparison that elicits less response is that based on age. Older women have been found to be underrepresented in magazines with the majority of models in their 20s being presented to women in their 40s or 50s (Bessenoff & Del Priore, 2007). Women in their 50s are less likely to find a model in her 20s to be a relevant comparison and therefore, there may be less social comparison across age groups. This argues that body dissatisfaction across the lifespan may be a result of comparison with models and images that are more comparative to the perceiver's age (Bessenoff & Del Priore, 2007). Older women may engage in less social

comparison with younger models; however, they are more likely to engage in social comparison and experience negative outcomes when presented with media images more closely related to their age group (Bessenoff & Del Priore, 2007).

Additionally, some women make realistic appearance comparisons based on weight status. Smeesters, Mussweiler, and Mandel (2010) found that women who are of low BMI tend to consider themselves most similar to thin models and most dissimilar to overweight models. In this case, they may be more likely to experience an increase in self-esteem as a result of making appearance comparisons with thin models. Women of high BMI seem to view themselves as more similar to overweight models and more dissimilar to underweight models (Smeesters, Mussweiler, & Mandel, 2010). The women in this study were not given instructions of comparing themselves to the model images, highlighting their tendency to engage in appearance comparisons.

Furthermore, this comparison effect can be generated when comparing two different types of television programs. One would likely not find these results if the show was about home improvement or about minor physical changes such as hair color (Markey & Markey, 2009; Mazzeo, Trace, Mitchell, & Gow, 2007). Mazzeo, et al. (2007) found that when controlling for the type of show watched, that participants exposed to appearance-based shows were more likely to feel a higher pressure to be thin than those exposed to nonappearance-based shows. The participants exposed to an appearance-based show watched an episode of *The Swan*, an extreme physical makeover type show. In contrast, those exposed to a nonappearance-based show watched *Clean Sweep*, a home makeover show (Mazzeo, et al., 2007). The findings indicated that for those exposed to *The Swan*, participants who internalized the ideal to be thin were more

likely to report lower self-esteem after watching this show (Mazzeo, et al., 2007). The type of show presented to participants influenced the comparisons the participants were able to make. There must be some attribute that the participants identify with in order to make appearance comparisons.

Appearance comparisons based on sociocultural factors and culturally ideal body type internalization play a role in body dissatisfaction and the development of possible eating disorders. The current study aimed to extend current knowledge of body image and to explore the fairly new area of appearance-based reality show viewership. The goal of this study was to better understand and further the knowledge of the effect that media has on body image.

Aims

The current study examined the relationships between body image, societal body ideals, appearance comparisons, disordered eating, exercise, and viewership of appearance-based reality shows. Specifically, this study explored the effect of appearance-based reality shows on body image. There were five main goals of the current study. The first aim of the study examined the relationship between body image and viewership of appearance-based reality shows in college students. Based on the findings of Grabe and Hyde (2009) and Tiggemann and Pickering (1996), it was hypothesized that more time spent watching these shows will be associated with more body dissatisfaction.

The second aim examined the relationship between endorsement of the societal ideal body and viewership of appearance-based reality shows. Tiggemann and Miller

(2010) found that girls who invested more time in social media had higher levels of thin ideal internalization. Therefore, although exploratory given the emphasis on appearance-based reality shows, it was hypothesized that greater viewership of appearance-based reality shows will be associated with greater endorsement of the societal ideal (i.e., thin ideal for females and physically fit and muscular ideal for males).

The third aim of the study explored potential gender and race differences in the association between viewership of appearance-based reality shows and body dissatisfaction. It was hypothesized that the association between body dissatisfaction and appearance-based reality shows would be stronger for females than males. However, it was hypothesized that shows that focus on physical health and exercise may influence males' body image more than females' body image. This hypothesis was based on the findings of Petrie, et al. (1996), who argue that men are inundated with messages regarding physical health and fitness as opposed to the messages about thinness received by women. Additionally, consistent with current literature (Dawson-Andoh, et al., 2011; Thompson-Brenner, Boisseau, & St. Paul, 2011), it was hypothesized that the association between body dissatisfaction and viewership of appearance-based reality shows will be greater in Caucasian females and males than other races.

The fourth aim was exploratory given the limited research on reality shows and body image. This aim was to understand the relationship between disordered eating, exercise, and viewership of appearance-based reality shows. It was expected that higher levels of viewership of appearance-based reality shows will be associated with higher levels of eating disorder features and exercise.

The fifth aim of this study was to determine if social comparison factors were associated with appearance-based reality shows. Previous research has shown that females who endorse the societal ideal of thinness are more likely to compare themselves to other females in terms of their appearance (Anderson-Fye & Becker, 2004; Durkin, Paxton and Sorbello, 2007). It was hypothesized that the females with high levels of thin ideal internalization and appearance comparisons will engage in more appearance comparisons with characters on appearance-based reality shows. Similarly, males who endorse the societal ideal of being physically fit and muscular are more likely to compare themselves to other males in this regard (McCabe & Ricciardelli, 2004). It was hypothesized that males with high levels of drive for muscularity and appearance comparisons will engage in more comparisons with characters on appearance-based reality shows.

CHAPTER TWO

METHODS

Participants

Participants were 427 undergraduate students from the human research subject pools at La Sierra University and University of California, Irvine. There were 352 females (82.4%), 74 males (17.3%) and 1 participant who declined to indicate his or her gender. Participants were between the ages of 18 to 30 years old ($M = 20.29$, $SD = 2.09$). Data from one participant was not used because she was older than the age group of interest. The body mass index (BMI) of participants ranged from 15.3 to 44.9, with a mean of 22.9 ($SD = 4.17$). Participants were 47.1% Asian, 25.8% Caucasian, 1.4% American Indian, 1.9% African-American, 1.4% Pacific Islander, and 17.3% of the participants reported *other*. All participants received course credit for a psychology course at their respective universities as compensation for participating in the study.

Measures

Demographic Information

Participants were asked to provide demographic information including age, height, weight, race/ethnicity, and year in school (See Appendix A). The reported height in inches and the weight in pounds were used to calculate the body mass index (BMI) of the participants. Height and weight data was not used for six participants due to insufficient information.

Body Mass Index (BMI)

BMI is a measure of weight for height. For the current study, the English formula was used to calculate BMI: ratio of weight (in pounds) to squared height (in inches) multiplied by 703. BMI is often used as a variable in body image and eating disturbance research to account for the effects of body mass. Higher BMI values represent higher levels of body mass (Garrow & Webster, 1985).

Viewership

Television Viewership Measure (Sperry, Thompson, Sarwer, & Cash, 2009). This measure consists of 19 items that examine the level of viewership of various genres of television including reality television and news programming using a 5-point Likert scale ranging from *never* to *very often* (See Appendix B). Examples of items include “*How often do you watch **reality** shows that involve fashion, style, or self-improvement (i.e. What Not to Wear, Biggest Loser, etc.)?*” and “*How often do you watch **reality** shows that involve plastic/cosmetic surgery make-overs (i.e. Extreme Makeover: Plastic Surgery Edition, Dr. 90210, etc.)?*” This measure had good internal consistency with the current sample (Cronbach’s alpha = .84).

Appearance-Based Reality Television Selection. The participants were asked to indicate which show or shows they have watched at least once in the past year prior to participating in this study. The appearance-based reality shows to choose from include: *The Biggest Loser, Shedding for the Wedding, What Not to Wear, Bridalplasty, Heavy, Celebrity Fit Club, Love Handles: Couples in Crisis, Extreme Makeover: Weight Loss Edition, Losing it with Jillian, America’s Next Top Model, and E! Fashion Police* (See Appendix C).

Body Image

Eating Disorder Inventory III – Body Dissatisfaction Subscale (EDI-3-BD; Garner, 2004). The EDI-III Body Dissatisfaction subscale is a measure that examines one's perception of different body parts. This 10 item measure uses a 6 point Likert scale ranging from *always* to *never*. Example of items include "*I think that my stomach is too big*" and "*I think that my hips are too big.*" (See Appendix E). The EDI-III has shown high internal consistency and good validity (Garner, 2004) in previous samples. It demonstrated a good internal consistency in the current sample (Cronbach's $\alpha = .86$).

Societal Ideal Body Internalization

Sociocultural Attitudes Towards Appearance Scale-3-Internalization-General subscale (SATAQ-3-I-G; Thompson, van den Berg, Roehrig, Guarda, & Heinberg, 2004). This is a 9- item measure examining social comparisons and the desire to look like various media stars using a 5-point Likert scale ranging from *definitely agree* to *definitely disagree*. Example of items include "*I would like my body to look like the people who are on TV*" and "*I compare my appearance to the appearance of people in magazines.*" A higher score on this scale indicates greater internalization of the thin ideal of beauty and comparison with people in the media (See Appendix F). The SATAQ-3-I-G has shown excellent reliability (Cronbach's $\alpha = .96$, Thompson et al., 2004) and good convergent validity with the body dissatisfaction subscale of the EDI-III ($.55, p < .01$; Thompson et al., 2004). The SATAQ-3-I-G had excellent reliability with females in the current sample (Cronbach's $\alpha = .95$).

Drive for Muscularity (DMS; McCreary & Sasse, 2000). The DMS is a 15-item measure that assesses the desire to increase muscle mass. It uses a 6 point Likert scale ranging from *always* to *never*. Items include “*I wish that I were more muscular*” and “*I think I would feel more confident if I had more muscle mass.*” This scale also assesses for anabolic steroid or energy supplement use (See Appendix G). The DMS has shown good internal consistency for males ranging from .85 to .91 and acceptable internal consistency for females as well (Cronbach’s alpha = .80; McCreary, 2007). This scale demonstrated good internal consistency for males within the current sample (Cronbach’s alpha = .87).

Eating Disorder Features

The Eating Disorder Examination-Questionnaire (EDE-Q; Fairburn & Beglin, 1994). The Eating Disorder Examination-Questionnaire is a 28-item measure that assesses for features of eating disorders and behaviors within the past 28 days. The measure includes four subscales: Restraint, Eating Concerns, Weight Concerns, and Shape Concerns. Examples of items include “*Have you had a definite fear of gaining weight?*” or “*How many times have you taken laxatives as a means of controlling your shape or weight?*” (See Appendix G). The EDE-Q has shown good internal reliability (Fairburn & Beglin, 1994). The total EDE-Q had excellent internal consistency with the current sample (Cronbach’s alpha = .94) and good reliability for the subscales (Cronbach’s alpha = .77-.91).

Exercise

Godin-Shephard Leisure-Time Physical Activity Questionnaire (GL-TEQ; Godin,

2011). This scale assesses the self-report physical activity level of participants by calculating engagement in strenuous, moderate or mild activities. Weekly leisure-time activity scores are computed by multiplying the weekly frequencies of strenuous, moderate, and mild activities by nine, five, and three, respectively for a total score. Categories of activity are calculated by combining the weighted scores for strenuous and moderate activities. Participants are categorized as active if their scores are 24 units or more, 14 to 23 units are moderately active and 14 or less units are categorized as insufficiently active (Godin, 2011).

Appearance Comparisons

Physical Appearance Comparison Scale (PACS; Thompson, Heinberg, & Tantleff-Dunn, 1991). The PACS is a 5-item measure that examines comparing oneself to others based on different features of physical appearance using a 5-point Likert scale ranging from *never* to *always* (See Appendix H). The PACS has shown adequate internal reliability and test-retest reliability as well as moderate convergent validity with measures of body dissatisfaction and eating disturbance (Thompson, Heinberg, & Tantleff, 1991). This scale demonstrated adequate reliability with the current sample (Cronbach's alpha = .74).

Appearance Comparison Scale for TV Viewership. This scale was created for the current study in order to assess appearance comparisons with TV characters, specifically within appearance-based reality shows. Based on the measures used in previous research (Tiggemann & McGill, 2004; Tiggemann & Slater, 2004; Herbozo & Thompson, 2010), it measures one's thoughts about appearance and possible appearance comparisons while

watching appearance-based reality shows. Examples of items include “*While watching the previously reviewed reality shows, to what extent did you think about your own appearance?*” and “*While watching the previously reviewed reality shows, to what extent did you compare your overall appearance to that of the characters in the shows?*”

Additionally, items will also measure the participant’s intentions to change their appearance based on the comparisons from the characters in the reality shows (See Appendix I). Tiggemann and McGill (2004) found high reliability for their three item measure of appearance comparisons (Cronbach’s $\alpha = .91$). This measure had excellent reliability within this sample (Cronbach’s $\alpha = .93$).

Procedures

Undergraduate female and male students were recruited from the subject pool at La Sierra University and University of California, Irvine to participate in an online study of television shows, body image, and eating behaviors. Those interested in completing the study were directed to an online survey in which they completed a series of questionnaires. Participants were first presented with an electronic informed consent document. Upon agreeing to participate in the study, participants proceeded to complete the online survey. All participants received credit for a psychology course at their respective universities as compensation for their participation.

Statistical Analyses

Preliminary analyses were conducted to test for normality, skewness, and kurtosis before subsequent analyses were completed. For the following analyses, two variables

were used to measure level of appearance based reality television viewership. One variable specifically examined viewership of cosmetic surgery make-over shows and the other fashion, style, or self-improvement reality shows. Each analysis involving viewership was conducted for each type of show separately. Additionally, all scale or subscale means were used in analyses in order to facilitate interpretation.

Correlational analyses were conducted to examine the relationship between body dissatisfaction and viewership of appearance-based reality shows. Similarly, correlational analyses were run to examine the relationship between viewership of appearance-based reality shows and internalization of the societal ideal. Each of these analyses was conducted separately for each gender. Gender differences were examined using independent samples t-test.

For the subsequent analyses, viewership was categorized into high viewership and low viewership. High viewership was defined as watching appearance based reality shows *often* or *very often* and low viewership was defined as watching *sometimes* or less. This variable was transformed into a new variable in order to perform the two-way ANOVA. Specifically, within the 5 point Likert scale item of viewership, 4 and 5 was coded into a 2 for high viewership and 3 and below was coded into a 1 for low viewership. The influence of gender and viewership on body dissatisfaction was examined using a Two-Way Analysis of Variance (ANOVA). The two independent variables used in the two-way ANOVA were gender (males and females) and viewership and the dependent variable was body dissatisfaction. Additionally, the influence of race and viewership on body dissatisfaction was examined using a two-way ANOVA. The two independent variables used in the two-way ANOVA were race and viewership and

the dependent variable was body dissatisfaction. To determine differences between Caucasians and other races, the race variable was categorized into a dichotomous variable (i.e., 1 = Caucasian, 2 = Non-Caucasian).

Correlational analyses were also used to explore the relationship between viewership of appearance-based reality television and eating disorder features as well as the between viewership of appearance-based reality television and exercise. Exercise was analyzed using level of exercise engagement based on the cut-offs from the GL-TEQ scale (1 = *insufficiently active*, 2 = *moderately active*, 3 = *active*). These analyses were conducted separately for each gender.

A linear regression model was used to examine the effect of the internalization of the societal ideal and social appearance comparisons on appearance comparisons with TV characters. This analysis was conducted separately for each gender. For females, the two independent variables were thin ideal internalization and social appearance comparisons and the dependent variable was appearance comparisons with TV characters. The two independent variables for males were drive for muscularity and social appearance comparisons and the dependent variable was appearance comparisons with TV characters.

CHAPTER THREE

RESULTS

Demographics

Table 1 shows demographic information and descriptive statistics. The sample was predominately Asian women (47.15%). Overall, levels of viewership of appearance-based reality shows was fairly low for both cosmetic surgery shows ($M = 1.7$, $SD = 1.05$) and fashion, style, and self-improvement shows ($M = 2.34$, $SD = 1.22$). There were moderate levels of body dissatisfaction for specific body parts ($M = 3.26$, $SD = .96$). Low levels of eating disorder features ($M = .66$, $SD = .31$) were also found. Furthermore, there were moderate levels of appearance comparisons with reality televisions shows reported ($M = 3.2$, $SD = 1.68$).

Table 1. *Demographics for All Variables*

	N (%)	Mean	Standard Deviation
Sex			
Females	352 (82.4)		
Males	74 (17.3)		
Age	427	20.29	2.09
Race			
Asian	201 (47.1)		
Caucasian	110 (25.8)		
African-American	8 (1.9)		
American Indian	6 (1.4)		
Pacific Islander	6 (1.4)		
Other	74 (17.3)		
BMI	421	22.9	4.17
Viewership			
Cosmetic Surgery Reality Shows	425	1.70	1.05
Fashion, Style, Self-Improvement Reality Shows	426	2.34	1.22
Body Dissatisfaction	410	3.26	.96
Societal Ideal			
Thin Ideal Internalization	349	3.16	1.05
Drive for Muscularity	69	3.11	.94
Eating Disorder Features	393	.66	.31
Dietary Restraint		.49	.29
Eating Concerns		.37	.22
Weight Concerns		.59	.30
Shape Concerns		.41	.20
Level of Exercise Activity	419	2.23	.89
Social Comparisons	422	2.80	.81
Appearance Comparisons for Reality TV	420	3.20	1.68

Viewership and Body Dissatisfaction

In regards to the relationship between viewership of appearance-based reality television shows and body dissatisfaction for the total sample, there was a small, positive relationship between body dissatisfaction and fashion, style, or self-improvement make-over reality shows ($r = .121, p = .01$). Individuals who reported higher levels of viewership were more likely to have higher body dissatisfaction. No significant relationship was found for viewership of cosmetic surgery shows and body dissatisfaction ($r = .08, p = .10$).

Table 2 shows the correlations among viewership of appearance-based reality television shows for women and men separately. For women, no significant relationships were found between viewership and body dissatisfaction for cosmetic surgery reality shows or fashion, style, or self-improvement make-over reality shows (see Table 2). For men, however, there was a significant relationship between viewership of fashion, style, or self-improvement make-over reality shows and body dissatisfaction ($r = .262, p = .03$). Men who reported more viewership had higher levels of body dissatisfaction.

Table 2. *Correlational Analysis between Viewership and Body Dissatisfaction*

	Cosmetic Surgery Reality Shows	Fashion, Style, Self- Improvement Reality Shows	Body Dissatisfaction
Cosmetic Surgery Reality Shows		.635**	.128
Fashion, Style, Self- Improvement Reality Shows	.436**		.262*
Body Dissatisfaction	.059	.064	

Note: Correlations for Women are presented in the lower diagonal. Correlations for Men are presented in upper diagonal. * $p < .05$, ** $p < .01$

Viewership and Societal Ideal Internalization

For women, thin ideal internalization and viewership of appearance-based reality television shows were found to have a small, positive relationship for fashion, style, or self-improvement make-over reality shows such that those who reported watching these types of reality shows were more likely to endorse the thin ideal ($r = .128, p = .02$). However, no significant relationship was found for cosmetic surgery shows ($r = .088, p = .10$). For men, internalization of the muscular ideal was found to have a significant correlation with both types of reality shows. Those who reported higher viewership of fashion, style, or self-improvement make-over reality shows were more likely to endorse a higher drive for muscularity ($r = .276, p = .02$). Likewise, men who reported higher

viewership of cosmetic surgery shows were more likely to endorse a drive for muscularity ($r = .459, p = .00$).

Viewership, Disordered Eating Behaviors, and Exercise

For the total sample, there were small positive relationships between features of eating disorders and cosmetic surgery reality shows and fashion, style, or self-improvement make-over reality shows. More specifically, both women and men who reported higher viewership of fashion, style, or self-improvement make-over reality shows were more likely to endorse eating concerns ($r = .182, p = .00$). For women, there were significant relationships between features of eating disorders and viewership of appearance-based reality shows; however, they were slightly smaller than for the entire sample (See Table 3). For example, women who reported watching more fashion, style, or self-improvement make-over reality shows were more likely to report eating concerns ($r = .136, p = .01$). For men, however, there were strong relationships between viewership of appearance-based reality shows and features of eating disorders (See Table 3). For instance, men who reported more viewership of fashion, style, or self-improvement make-over reality shows were more likely to report eating concerns ($r = .40, p = .00$) and weight concerns ($r = .52, p = .00$).

There were no significant relationships for viewership of cosmetic surgery reality shows and level of exercise engagement ($r = -.029, p = .56$) and viewership of fashion, style, or self-improvement make-over reality shows and level of exercise engagement ($r = -.07, p = .16$) for the entire sample. Among women, no significant relationships were found for either type of reality show and exercise engagement (see Table 3). However, a

significant positive relationship was found between viewership of cosmetic surgery reality shows and exercise engagement for men ($r = .267, p = .02$). Men who reported higher viewership of cosmetic surgery shows were more likely to engage in more active exercise.

Table 3. *Correlational Analysis between Viewership, Eating Disorder Features, and Exercise*

	Cosmetic Surgery Reality Shows	Fashion, Style, Self- Improvement Reality Shows	Dietary Restraint	Eating Concerns	Weight Concerns	Shape Concerns	Exercise Activity
Cosmetic Surgery Reality Shows		.635**	.453**	.245*	.445**	.40**	.267*
Fashion, Style, Self- Improvement Reality Shows	.436**		.415**	.40**	.518**	.44**	.058
Dietary Restraint	.112*	.048		.643**	.773**	.69**	.29*
Eating Concerns	.131*	.136*	.534**		.764**	.662**	.147
Weight Concerns	.108*	.063	.593**	.744**		.885**	.204
Shape Concerns	.119*	.109*	.599**	.726**	.901**		.179
Exercise Activity	-.069	-.069	.243**	-.025	.07	.01	

Note. Correlations for Women are presented in the lower diagonal. Correlations for Men are presented in the upper diagonal. * $p < .05$, ** $p < .01$

Viewership Differences by Gender

T-tests indicated significant differences between men and women on viewership of cosmetic surgery reality shows, $t(422) = -1.96, p = .05$, and fashion, style, or self-improvement make-over reality shows, $t(423) = -5.63, p = .00$. Women were more likely to report watching fashion, style, or self-improvement make-over reality shows ($M = 2.48, SD = 1.22$) than men ($M = 1.64, SD = .96$). A similar pattern was found for cosmetic surgery shows among women ($M = 1.75, SD = 1.08$) and men ($M = 1.49, SD = .88$).

In regards to the effects of gender and viewership of appearance-based reality shows on body dissatisfaction, a factorial ANOVA found no main effect of gender, $F(1, 407) = .03, p = .87$, and viewership of fashion, style, or self-improvement make-over reality shows, $F(1, 407) = 2.74, p = .10$, and no interaction effect between gender and viewership, $F(1, 407) = 2.37, p = .13$, on body dissatisfaction. Additionally, a factorial ANOVA indicated no main effects of gender, $F(1, 406) = 1.12, p = .27$, and viewership of cosmetic surgery reality shows, $F(1, 406) = .266, p = .61$, and no interaction effect between gender and viewership on body dissatisfaction, $F(1, 406) = .188, p = .67$.

Viewership Differences by Race

In examining race and viewership of appearance-based reality shows, a *t-test* found no significant group differences were found between racial groups on viewership for fashion, style, or self-improvement make-over reality shows, $t(424) = .051, p = .96$. There were also significant group differences between racial group, $t(423) = -2.27, p = .023$, for cosmetic surgery reality shows.

In regards to the effects of race and level of viewership of appearance-based reality shows on body dissatisfaction, a factorial ANOVA found no main effect of race, $F(1, 408) = .114, p = .74$, no main effect of viewership of fashion, style, or self-improvement make-over reality shows, $F(1, 408) = .47, p = .49$, and no interaction effect of race and viewership on body dissatisfaction, $F(1, 408) = .07, p = .80$. Additionally, there was no main effect of race, $F(1, 407) = 1.18, p = .28$, no main effect of viewership of cosmetic surgery shows, $F(1, 407) = 1.53, p = .22$, and no interaction effect of race and viewership, $F(1, 407) = 1.50, p = .20$, on body dissatisfaction.

Societal Ideal and Appearance Comparisons

Linear regressions were conducted to evaluate if internalization of the societal ideal and social appearance comparisons predict appearance comparisons with appearance-based reality television characters for women and men. Before the regression analysis was conducted, the assumption of linearity was tested using a correlation matrix with each predictor variable (societal ideal internalization and social appearance comparisons) and the dependent variable (appearance comparisons with reality television). All of the predictors had significant relationships with the dependent variable (See Table 4).

Table 4. *Correlational Analysis between Societal Ideal, Social Appearance Comparison, and Appearance Comparisons with Reality TV*

	Societal Ideal Internalization	Social Appearance Comparison	Appearance Comparison for Reality TV Viewership
Societal Ideal Internalization		.457**	.648**
Social Appearance Comparison	.562**		.639**
Appearance Comparison for Reality TV Viewership	.648**	.607**	

Note. Correlations for Women are presented below the in the lower diagonal. Correlations for Men are presented in the upper diagonal. * $p < .05$, ** $p < .01$

For women, thin ideal internalization was used as the societal ideal predictor variable. The model for women was found to be significant, $F(2, 339) = 174.52, p = .00$. Thin ideal internalization and social appearance comparisons accounted for 50.9% of the variance in appearance comparisons with reality television characters, $R^2 = .509$. Furthermore, thin ideal internalization, $\beta = .45, t = 9.74, p = .00$, and social appearance comparisons, $\beta = .36, t = 7.81, p = .00$, were significant predictors of appearance comparisons with reality television.

For men, drive for muscularity was used as the societal ideal predictor variable. The model for men was found to be significant, $F(2, 65) = 42.08, p = .00$. Drive for muscularity and social appearance comparisons accounted for 56.4% of the variance in appearance comparisons with reality television characters, $R^2 = .564$. Drive for muscularity, $\beta = .452, t = 4.91, p = .00$, and social appearance comparisons, $\beta = .428, t =$

4.64, $p = .00$, were significant predictors of appearance comparisons with reality television.

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DISCUSSION

The current study examined the effects of viewership of appearance-based reality television on body dissatisfaction, disordered eating behaviors, and exercise. Given the limited research on appearance-based reality television, societal ideal and social comparisons were also studied in relation to appearance-based reality television. Overall, there were small positive relationships found between body dissatisfaction and viewership of appearance-based reality shows. There was some evidence indicating that viewership of appearance-based reality shows is also positively related to features of eating disorders and exercise. Additionally, there is support for a social comparison theory such that individuals who were more likely to compare their appearance to those around them and endorse the societal ideal were more likely to compare their appearance to the characters on appearance-based reality shows.

There were five aims for the current study. The first aim of the study was to examine the relationship between viewership of appearance-based reality shows and body dissatisfaction in women and men. The hypothesis that individuals who reported higher viewership of appearance-based reality shows would be more likely to report higher levels of body dissatisfaction, was partially supported. This relationship was only found for fashion, style, or self-improvement reality shows, not cosmetic surgery shows in men, not women. Additionally, although the association was significant, it was small in strength. These findings are not in line with previous research by Grabe and Hyde (2009) and Tiggemann and Pickering (1996) which indicated that certain types of television programs were associated with female body dissatisfaction. Interestingly, this relationship between viewership and male body dissatisfaction was only found for

fashion, style, or self-improvement reality shows but not for cosmetic surgery shows.

There have been mixed findings on the association of cosmetic surgery shows and body dissatisfaction (Nabi, 2009); therefore, the current findings only partially support past research.

Although there was a relationship between viewership of fashion, style, or self-improvement reality shows and body dissatisfaction, it is important to discuss the level of viewership among the overall sample and each gender separately. In general, the current sample reported low levels of viewership of fashion, style, or self-improvement reality shows or cosmetic surgery shows. In fact, the majority of the current sample reported *rarely* or *never* watching these types of shows. Similar patterns were found for women and men when examined separately. It is hypothesized that the low levels of viewership for appearance-based reality shows may be due to two reasons. First, as this population is a college-aged sample, their access to cable programming might be limited and consequently, they have less access to appearance-based reality shows beyond those on basic channels. Second, many of these appearance-based reality shows are not currently broadcast which may affect their access to such shows. Prior to the study, effort was made to ensure that these types of programs were available through television programming and streaming resources, such as Netflix, within the last year. However, if less are currently being broadcast, this would affect availability of the appearance-based reality shows and the participant's ability to engage in higher levels of viewership.

The relationship between viewership and body dissatisfaction may also be due to the lack of high levels of body dissatisfaction. Low to moderate levels of body dissatisfaction were generally reported by the current sample which is inconsistent with

prior research indicating high levels of body dissatisfaction for females aged 18 to 25 (Lawler and Nixon, 2011; Cash & Henry, 1995; Mercurio & Rima, 2011; Mond & Hay, 2011). It is possible that the lower levels of body dissatisfaction can be attributed, in part, to the sample consisting of nearly 50% of Asian Americans. Previous research has shown that high levels of body dissatisfaction are relatively common among college-age Caucasian females (Lawler and Nixon, 2011; Thompson, et al., 1999), with very little research on Asian Americans. The limited research, to date, suggests that Asian Americans report higher levels of general appearance dissatisfaction than dissatisfaction with specific body parts in comparison to other races (Forbes & Frederick, 2008). In the current study, body dissatisfaction was only assessed with regards to specific body parts which may not be as relevant to Asian Americans given initial evidence that they have greater general appearance dissatisfaction compared to body dissatisfaction. It is possible that assessing general appearance dissatisfaction in the current sample would have allowed for more sensitivity to the current sample and a more accurate representation of the body dissatisfaction that this sample may be experiencing.

The second aim of the study was to examine the relationship between viewership of appearance-based reality shows and societal ideal for both each gender. Consistent with previous research, the hypothesis that women who report higher viewership of appearance-based reality shows would be more likely to report higher levels of thin ideal internalization was mostly supported (Thompson, et al., 1999; Tiggemann & McGill, 2004; Want, Vickers, & Amos, 2008). There was a small positive relationship such that women who reported higher levels of viewership of fashion, style, or self-improvement reality shows were more likely to report higher levels of thin ideal internalization;

however, a similar relationship was not found for cosmetic surgery shows. As with viewership and body dissatisfaction, the absence of a relationship between viewership and thin ideal internalization is likely due to the limited availability of cosmetic surgery shows compared to the availability of fashion, style, or self-improvement reality shows. Furthermore, the hypothesis that men who report higher viewership of appearance-based reality shows would be more likely to report higher levels of the drive for muscularity was supported with moderate positive relationships. These findings with men are in line with prior studies which have demonstrated that men are inundated with messages about being physically fit and some men internalize this ideal of muscularity (Gillen & Lefkowitz, 2009; McCreary & Sasse, 2000).

The third aim of this study was to examine potential gender differences for viewership of appearance-based reality shows. The hypothesis that there would be gender differences in levels of viewership was supported such that women were more likely to report watching fashion, style, or self-improvement reality shows and cosmetic surgery shows than men. The levels of viewership for both women and men were very low as indicated by the majority of the sample having reporting *rarely* or *never* watching these shows. Additional analyses indicated that women were more likely to have watched the reality shows *sometimes*, *often* or *very often* compared to men but the sample sizes in each of these categories were very small. The hypothesis that these factors would influence body dissatisfaction was not supported. As discussed previously, levels of body dissatisfaction were low within this sample. Thus, although there are significant relationships between body dissatisfaction and viewership for both males and females,

these small relationships do not fully account for the body dissatisfaction being experienced.

The fourth aim of this study was to examine possible racial differences. The hypothesis that Caucasians would report more viewership of appearance-based reality shows was partially supported. There were significant group differences between Caucasians and other races such that Caucasians reported watching more cosmetic surgery shows. However, there were no group differences between Caucasians and other races on viewership of fashion, style, and self-improvement make over shows. Additionally, the hypothesis that the relationship between body dissatisfaction and viewership of appearance-based reality shows would be strongest for Caucasians was not supported. There were no interactions between race and viewership on body dissatisfaction. This finding is particularly interesting given that prior research indicates high levels of body dissatisfaction for Caucasian females (Lawler & Nixon, 2011; Thompson, et al., 1999). This is likely due to the low levels of body dissatisfaction reported by this sample as well as the sample consisting of primarily non-Caucasian women.

The fifth aim was to explore the relationship of viewership of appearance-based reality shows and eating disorder features and exercise. Overall, the current sample reported very low levels of eating disorder features. In fact, the means of the current sample were comparable to non-eating disordered community sample norms (Fairburn & Beglin, 1994). The hypothesis that individuals who report more viewership of appearance-based reality shows would be more likely to report greater eating disorder features was only partially supported. This relationship was only found for men, not

women. Interestingly, males had stronger relationships among certain eating disorder features and viewership of appearance-based reality shows compared to females. This finding may be due the small sample size of males, although these relationships do warrant further attention. Additionally, the hypothesis that individuals who report more viewership of appearance-based reality shows would be more likely to report increased levels of exercise was also only found for men and not women. With regards to exercise, it is likely that the relationship between viewership and exercise in men is related to the male societal ideal which emphasizes muscularity and physical fitness (Petrie, et al., 1996; McCreary & Sasse, 2000).

The final aim of this study was to explore the social comparison theory in the context of appearance-based reality television by examining the internalization of the societal ideal and social appearance comparison on appearance comparisons with reality television. Consistent with previous research (Anderson-Fye & Becker, 2004; Durkin, Paxton & Sorbello, 2007; McCabe & Ricciardelli, 2004), internalizing the thin ideal and the muscular ideal was related to social appearance comparisons among women and men, respectively. Furthermore, for both women and men, the societal ideals and social appearance comparisons were significant predictors of appearance comparisons with reality television. Individuals who reported greater endorsement of the societal ideal and social appearance comparisons were more likely to engage in appearance comparisons with reality television characters. This is a particularly interesting finding that supports the social comparison theory of body image disturbance which argues that messages portrayed in the media influence the appearance comparisons made by individuals and ultimately the evaluation of themselves.

Limitations

Several limitations of the current study should be noted. First, the sample consisted primarily of Asian American women and only a small number of men compared to women. The results of the study are not generalizable to women of other races nor to men. Future research on appearance-based reality television effects with more diverse samples is needed. Second, only participants aged 18 to 30 were used in this sample. This age range was selected based on the vast amount of research indicating high levels of body dissatisfaction among young adults (Lawler & Nixon, 2011; Tiggeman, Martins, & Kirkbride, 2007). Research examining appearance-based reality television in different age groups is warranted. Finally, viewership of the appearance based-reality television shows was very limited in the current sample. Although significant relationships were found, they were quite small and the majority of the sample indicated low levels of viewership. These low levels of viewership of appearance-based reality shows are likely due to limited availability of these shows in current broadcasting and access to these shows by the current sample. As such, specific examples of the types of shows were not used in the analyses due to low response levels. Future research should focus on more accessible appearance-based reality shows which may provide a better assessment of these types of programs.

Future Research Directions

Additional research is needed in order to further address the potential associations between viewership of appearance-based reality shows, body dissatisfaction, eating disorder features, and exercise. More specifically, future research may benefit

from the development of a more sensitive measure of TV viewership. For example, a measure that indicates the amount of hours a participant has watched each type of television program. This measure might allow for more variability and sensitivity in response pattern rather than fixed categories. Currently, there are few measures for TV and even less for appearance-based reality shows specifically. Furthermore, more research is needed with males to more adequately examine viewership of appearance-based reality shows, body dissatisfaction, and drive for muscularity. Compared to women, men often reported the strongest relationships between viewership and body dissatisfaction, eating disorder features and exercise. Although the sample size was small for men, these trends warrant greater research attention on both television viewing and body image among men. Additionally, some of the most novel findings of the current study support the social comparison theory and therefore lend itself to further exploration. More research with the Appearance Comparison for Television Viewership Scale is indicated.

Conclusions and Clinical Implications

The current study found limited support that viewership of appearance-based reality television shows effect body dissatisfaction, eating disorders features, and exercise. Despite the few significant findings, there was evidence indicating that appearance-based reality television shows warrant greater attention in body image and eating disorders research. Previous research has shown high levels of body dissatisfaction among college-age women (Lawler & Nixon, 2011; Thompson, et al., 1999) and the impact of particular television shows, such as appearance-based reality shows; on body

dissatisfaction has not been adequately examined. It is also likely that investigating the role of appearance-based reality shows on body dissatisfaction and eating disorder features in a sample reporting higher levels of body dissatisfaction would result in different findings. Furthermore, the current findings have potential clinical implications which are important to note. Fashion, style, or self-improvement appearance-based reality shows were associated with higher levels of internalization of the societal ideal for women and men, suggesting that such shows may be reinforcing messages about the societal ideals of beauty and can possibly influence body image and eating behaviors. Additionally, given that viewership of appearance-based reality television shows was associated with appearance comparisons for both women and men, the impact of such media on appearance comparisons is likely an important issue to address in body image and eating disorder treatments. Further research is necessary to better understand the potential effects of appearance-based reality shows on body image, eating behaviors, and exercise in women and men.

REFERENCES

- Ahern, A. L., Bennett, K. M., & Hetherington, M. M. (2008). Internalization of the ultra-thin ideal: Positive implicit associations with underweight fashion models are associated with drive for thinness in young women. *Eating Disorders: The Journal Of Treatment & Prevention*, 16(4), 294-307.
doi:10.1080/10640260802115852
- Ålgars, M., Santtila, P., & Sandnabba, N. (2010). Conflicted gender identity, body dissatisfaction, and disordered eating in adult men and women. *Sex Roles*, 63(1-2), 118-125. doi:10.1007/s11199-010-9758-6
- American Society of Plastic Surgeons. (2008). 2008 plastic surgery procedural statistics. Retrieved April 28, 2012 from <http://www.plasticsurgery.org/News-and-Resources/2008-Statistics.html>
- American Society of Plastic Surgeons. (2009). 2009 plastic surgery procedural statistics. Retrieved April 28, 2012 from <http://www.plasticsurgery.org/News-and-Resources/2009-Statistics.html>
- American Society of Plastic Surgeons. (2010). 2010 plastic surgery procedural statistics. Retrieved April 28, 2012 from <http://www.plasticsurgery.org/News-and-Resources/2010-Statistics.html>
- American Society of Plastic Surgeons. (2011). 2011 plastic surgery procedural statistics. Retrieved April 28, 2012 from <http://www.plasticsurgery.org/News-and-Resources/2011-Statistics.html>
- Anderson-Fye, E. P., & Becker, A. E. (2004). Sociocultural Aspects of Eating Disorders. In J. Thompson (Ed.) , *Handbook of eating disorders and obesity* (pp. 565-589). Hoboken, NJ US: John Wiley & Sons Inc.
- Anschutz, D. J., Kanters, L. A., Van Strien, T., Vermulst, A. A., & Engels, R. E. (2009). Maternal behaviors and restrained eating and body dissatisfaction in young children. *International Journal Of Eating Disorders*, 42(1), 54-61.
doi:10.1002/eat.20569
- Barker, E., & Galambos, N. (2007). Body dissatisfaction, living away from parents, and poor social adjustment predict binge eating symptoms in young women making the transition to university. *Journal of Youth and Adolescence*, 36(7), 904-911.
doi: 10.1007/s10964-006-9134-6
- Bessenoff, G. R., & Del Priore, R. E. (2007). Women, weight, and age: Social comparison to magazine images across the lifespan. *Sex Roles*, 56(3-4), 215-222.
doi:10.1007/s11199-006-9164-2

- Bjornsson, A. S., Didie, E. R., & Phillips, K. A. (2010). Body dysmorphic disorder. *Dialogues in Clinical Neuroscience*, 12(2), 221-232.
- Boone, L., Soenens, B., & Braet, C. (2011). Perfectionism, body dissatisfaction, and bulimic symptoms: The intervening role of perceived pressure to be thin and thin ideal internalization. *Journal Of Social And Clinical Psychology*, 30(10), 1043-1068. doi:10.1521/jscp.2011.30.10.1043
- Brown, T. A., Cash, T. F., & Mikulka, P. J. (1990). Attitudinal body-image assessment: Factor analysis of the Body-Self Relations Questionnaire. *Journal of Personality Assessment*, 55(1-2), 135-144. doi: 10.1207/s15327752jpa5501&2_13
- Brown, A., & Dittmar, H. (2005). Think 'thin' and feel bad: The role of appearance schema activation, attention level, and thin-ideal internalization for young women's responses to ultra-thin media ideals. *Journal Of Social And Clinical Psychology*, 24(8), 1088-1113. doi:10.1521/jscp.2005.24.8.1088
- Business Week. (2008). The diet industry: A big fat lie. Retrieved April 28, 2012 from http://www.businessweek.com/debateroom/archives/2008/01/the_diet_indust.html
- Cafri, G., Yamamiya, Y., Brannick, M., & Thompson, J. (2005). The influence of sociocultural factors on body image: A meta-analysis. *Clinical Psychology: Science And Practice*, 12(4), 421-433. doi:10.1093/clipsy/bpi053
- Cash, T. F., & Henry, P. E. (1995). Women's body images: The results of a national survey in the U.S.A. *Sex Roles*, 33(1-2), 19-28. doi:10.1007/BF01547933
- Cash, T. F., Melnyk, S. E., & Hrabosky, J. I. (2004). The Assessment of Body Image Investment: An Extensive Revision of the Appearance Schemas Inventory. *International Journal Of Eating Disorders*, 35(3), 305-316. doi:10.1002/eat.10264
- Chemists Corner. (2010). A cosmetic industry overview for cosmetic chemists. Retrieved April 28, 2012 from <http://chemistscorner.com/a-cosmetic-market-overview-for-cosmetic-chemists/>
- Clark, L., & Tiggemann, M. (2007). Sociocultural Influences and Body Image in 9- to 12-Year-Old Girls: The Role of Appearance Schemas. *Journal Of Clinical Child And Adolescent Psychology*, 36(1), 76-86. doi:10.1207/s15374424jccp3601_8
- Clark, L., & Tiggemann, M. (2008). Sociocultural and individual psychological predictors of body image in young girls: A prospective study. *Developmental Psychology*, 44(4), 1124-1134. doi:10.1037/0012-1649.44.4.1124
- Center for Disease Control. (2011). Body mass index. Retrieved April 28, 2012, from <http://www.cdc.gov/healthyweight/assessing/bmi/>

- Cusumano, D. L., & Thompson, J. (1997). Body image and body shape ideals in magazines: Exposure, awareness, and internalization. *Sex Roles*, 37(9-10), 701-721. doi:10.1007/BF02936336
- Dawson-Andoh, N. A., Gray, J. J., Soto, J. A., & Parker, S. (2011). Body shape and size depictions of African American women in JET magazine, 1953–2006. *Body Image*, 8(1), 86-89. doi:10.1016/j.bodyim.2010.09.006
- Durkin, S. J., Paxton, S. J., & Sorbello, M. (2007). An integrative model of the impact of exposure to idealized female images on adolescent girls' body satisfaction. *Journal Of Applied Social Psychology*, 37(5), 1092-1117. doi:10.1111/j.1559-1816.2007.00201.x
- Entertainment Weekly. (2011). Ratings alert: What you're watching if you're 11, 50 or 34 years old (the results may surprise!). Retrieved March 17, 2012, from <http://insidetv.ew.com/2011/03/15/ratings-by-age/>
- Fairburn, C.G. & Beglin, S.J. (1994). Assessment of eating disorders: Interview or self-report questionnaire? *International Journal of Eating Disorders*, 16(4), 363-370.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41, 1149-1160
- Forbes, G.B. & Frederick, D.A. (2008). The UCLA body project II: Breast and body dissatisfaction among African, Asian, European, and Hispanic American college women. *Sex Roles*, 58, 449-457.
- Fouts, G., & Burggraf, K. (1999). Television situation comedies: Female body images and verbal reinforcements. *Sex Roles*, 40(5-6), 473-481. doi:10.1023/A:1018875711082
- Fouts, G., & Vaughan, K. (2002). Television situation comedies: Male weight, negative references, and audience reactions. *Sex Roles*, 46(11-12), 439-442. doi:10.1023/A:1020469715532
- Fredrickson, B. L., & Roberts, T. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology Of Women Quarterly*, 21(2), 173-206. doi:10.1111/j.1471-6402.1997.tb00108.x
- Furnham, A., Badmin, N., & Sneade, I. (2002). Body image dissatisfaction: Gender differences in eating attitudes, self-esteem, and reasons for exercise. *Journal Of Psychology: Interdisciplinary And Applied*, 136(6), 581-596. doi:10.1080/00223980209604820
- Gao, X., Wang, Q., Jackson, T., Zhao, G., Liang, Y., & Chen, H. (2011). Biases in orienting and maintenance of attention among weight dissatisfied women: An

- eye-movement study. *Behaviour Research And Therapy*, 49(4), 252-259.
doi:10.1016/j.brat.2011.01.009
- Garner, D. M. (1997). The 1997 body image survey results. *Psychology Today*, 30(2), 30-47.
- Garner, D. M. (2004). *Eating Disorder Inventory-3. Professional Manual*. Lutz, FL: Psychological Assessment Resources, Inc.
- Garrow, J. S., Webster, J. (1985) Quetelet's index (W/H^2) as a measure of fatness. *International Journal of Obesity*, 9, 147-153.
- Giles, D. C., & Close, J. (2008). Exposure to 'lad magazines' and drive for muscularity in dating and non-dating young men. *Personality And Individual Differences*, 44(7), 1610-1616. doi:10.1016/j.paid.2008.01.023
- Gillen, M. M., & Lefkowitz, E. S. (2009). Emerging adults' perceptions of messages about physical appearance. *Body Image*, 6(3), 178-185.
doi:10.1016/j.bodyim.2009.02.002
- Godin, G. (2011). The godin-shephard leisure-time physical activity questionnaire. *Health & Fitness Journal*, 4(1), 18-22.
- Grabe, S., & Hyde, J. S. (2009). Body objectification, MTV, and psychological outcomes among female adolescents. *Journal of Applied Social Psychology*, 39(12), 2840-2858. doi: 10.1111/j.1559-1816.2009.00552.x
- Groesz, L. M., Levine, M. P., & Murnen, S. K. (2002). The effect of experimental presentation of thin media images on body satisfaction: A meta-analytic review. *International Journal Of Eating Disorders*, 31(1), 1-16.
doi:10.1002/eat.10005
- Hargreaves, D., & Tiggemann, M. (2002). The role of appearance schematicity in the development of adolescent body dissatisfaction. *Cognitive Therapy And Research*, 26(6), 691-700. doi:10.1023/A:1021248214548
- Hargreaves, D. A., & Tiggemann, M. (2009). Muscular ideal media images and men's body image: Social comparison processing and individual vulnerability. *Psychology Of Men & Masculinity*, 10(2), 109-119. doi:10.1037/a0014691
- Harper, B., & Tiggemann, M. (2008). The effect of thin ideal media images on women's self-objectification, mood, and body image. *Sex Roles*, 58(9-10), 649-657.
doi:10.1007/s11199-007-9379-x
- Harrison, K., & Cantor, J. (1997). The relationship between media consumption and eating disorders. *Journal Of Communication*, 47(1), 40-67. doi:10.1111/j.1460-2466.1997.tb02692.x

- Hawkins, N., Richards, P., Granley, H., & Stein, D. M. (2004). The Impact of Exposure to the Thin-Ideal Media Image on Women. *Eating Disorders: The Journal Of Treatment & Prevention*, 12(1), 35-50. doi:10.1080/10640260490267751
- Heinberg, L. J., Thompson, J., & Stormer, S. (1995). Development and validation of the sociocultural attitudes towards appearance questionnaire. *International Journal Of Eating Disorders*, 17(1), 81-89. doi:10.1002/1098-108X(199501)17:1<81::AID-EAT2260170111>3.0.CO;2-Y
- Kim, J., & Lennon, S. J. (2007). Mass media and self-esteem, body image, and eating disorder tendencies. *Clothing & Textiles Research Journal*, 25(1), 3-23. doi:10.1177/0887302X06296873
- Knobloch-Westerwick, S., & Romero, J. P. (2011). Body ideals in the media: Perceived attainability and social comparison choices. *Media Psychology*, 14(1), 27-48. doi:10.1080/15213269.2010.547833
- Labre, M. (2005). Burn fat, build muscle: A content analysis of Men's Health and Men's Fitness. *International Journal Of Men's Health*, 4(2), 187-200. doi:10.3149/jmh.0402.187
- Lawler, M., & Nixon, E. (2011). Body dissatisfaction among adolescent boys and girls: The effects of body mass, peer appearance culture and internalization of appearance ideals. *Journal Of Youth And Adolescence*, 40(1), 59-71. doi:10.1007/s10964-009-9500-2
- Leone, J. E., Sedory, E. J., & Gray, K. A. (2005). Recognition and Treatment of Muscle Dysmorphia and Related Body Image Disorders. *Journal Of Athletic Training*, 40(4), 352-359.
- Malkin, A. R., Wornian, K., & Chrisler, J. C. (1999). Women and weight: Gendered messages on magazine covers. *Sex Roles*, 40(7-8), 647-655. doi:10.1023/A:1018848332464
- Markey, C. N., & Markey, P. M. (2009). Correlates of young women's interest in obtaining cosmetic surgery. *Sex Roles*, 61(3-4), 158-166. doi:10.1007/s11199-009-9625-5
- Markey, C. N., & Markey, P. M. (2010). A correlational and experimental examination of reality television viewing and interest in cosmetic surgery. *Body Image*, 7(2), 165-171. doi:10.1016/j.bodyim.2009.10.006
- Mazzeo, S. E., Trace, S. E., Mitchell, K. S., & Gow, R. (2007). Effects of a reality TV cosmetic surgery makeover program on eating disordered attitudes and behaviors. *Eating Behaviors*, 8(3), 390-397. doi:10.1016/j.eatbeh.2006.11.016

- McCabe, M. P., & Ricciardelli, L. A. (2004). Weight and Shape Concerns of Boys and Men. In J. Thompson (Ed.) , *Handbook of eating disorders and obesity* (pp. 606-634). Hoboken, NJ US: John Wiley & Sons Inc.
- McCreary, D.R. (2007). The Drive for Muscularity Scale: Description, psychometrics, and research findings. In J.K. Thompson & G. Cafri (Eds.), *The muscular ideal: Psychological, social, and medical perspectives* (pp. 87-106). Washington, DC: American Psychological Association
- McCreary, D. R., & Sasse, D. K. (2000). An exploration of the drive for muscularity in adolescent boys and girls. *Journal Of American College Health*, 48(6), 297-304. doi:10.1080/07448480009596271
- Mercurio, A. and B. Rima (2011). Watching my weight: Self-weighing, body surveillance, and body dissatisfaction. *Sex Roles*, 65(1), 47-55.
- Mussap, A. J. (2008). Motivational processes associated with unhealthy body change attitudes and behaviours. *Eating Behaviors*, 8(3), 423-428. doi: 10.1016/j.eatbeh.2006.12.001
- Mond, J. M., & Hay, P. J. (2011). Dissatisfaction versus over-evaluation in a general population sample of women. *International Journal Of Eating Disorders*, 44(8), 721-726.
- Monro, F., & Huon, G. (2005). Media-Portrayed Idealized Images, Body Shame, and Appearance Anxiety. *International Journal Of Eating Disorders*, 38(1), 85-90. doi:10.1002/eat.20153
- Nabi, R. L. (2009). Cosmetic surgery makeover programs and intentions to undergo cosmetic enhancements: A consideration of three models of media effects. *Human Communication Research*, 35(1), 1-27. doi: 10.1111/j.1468-2958.2008.01336.x
- Nabi, R. L., Biely, E. N., Morgan, S. J., & Stitt, C. R. (2003). Reality-Based Television Programming and the Psychology of Its Appeal. *Media Psychology*, 5(4), 303-330. doi:10.1207/S1532785XMEP0504_01
- Nowell, C., & Ricciardelli, L. A. (2008). Appearance-based comments, body dissatisfaction and drive for muscularity in males. *Body Image*, 5(4), 337-345. doi:10.1016/j.bodyim.2008.06.002
- Olivardia, R., Pope, H. r., Borowiecki, J., & Cohane, G. H. (2004). Biceps and Body Image: The Relationship Between Muscularity and Self-Esteem, Depression, and Eating Disorder Symptoms. *Psychology Of Men & Masculinity*, 5(2), 112-120. doi:10.1037/1524-9220.5.2.112

- Petrie, T. A., Austin, L. J., Cowley, B. J., & Helmcamp, A. (1996). Sociocultural expectations of attractiveness for males. *Sex Roles*, 35(9-10), 581-602. doi:10.1007/BF01548254
- Pomeroy, C. (2004). Assessment of Medical Status and Physical Factors. In J. Thompson (Ed.), *Handbook of eating disorders and obesity* (pp. 81-111). Hoboken, NJ US: John Wiley & Sons Inc.
- Rodin, J., Silberstein, L., Striegel-Moore, R. (1984). Women and weight: A normative discontent. *Nebraska Symposium on Motivation*, 32, 267-307.
- Sands, E. R., & Wardle, J. (2003). Internalization of ideal body shapes in 9-12-year-old girls. *International Journal Of Eating Disorders*, 33(2), 193-204. doi:10.1002/eat.10121
- Sinton, M. M., & Birch, L. L. (2006). Individual and Sociocultural Influences on Pre-Adolescent Girls' Appearance Schemas and Body Dissatisfaction. *Journal Of Youth And Adolescence*, 35(2), 165-175. doi:10.1007/s10964-005-9007-4
- Slevec, J., & Tiggemann, M. (2011). Media exposure, body dissatisfaction, and disordered eating in middle-aged women: A test of the sociocultural model of disordered eating. *Psychology Of Women Quarterly*, 35(4), 617-627. doi:10.1177/0361684311420249
- Smeesters, D., Mussweiler, T., & Mandel, N. (2010). The effects of thin and heavy media images on overweight and underweight consumers: Social comparison processes and behavioral implications. *Journal Of Consumer Research*, 36(6), 930-949. doi:10.1086/648688
- Smeets, E., Tiggemann, M., Kemps, E., Mills, J. S., Hollitt, S., Roefs, A., & Jansen, A. (2011). Body checking induces an attentional bias for body-related cues. *International Journal Of Eating Disorders*, 44(1), 50-57. doi:10.1002/eat.20776
- Sperry, S., Thompson, J.K., Sarwer, D.B., & Cash, T.F. (2009). Cosmetic surgery reality TV viewership: Relations with cosmetic surgery attitudes, body image, and disordered eating. *Annals of Plastic Surgery*, 62(1), 7-11.
- Swami, V. (2009). Body appreciation, media influence, and weight status predict consideration of cosmetic surgery among female undergraduates. *Body Image*, 6(4), 315-317. doi:10.1016/j.bodyim.2009.07.001
- Swami, V., Taylor, R., & Carvalho, C. (2009). Acceptance of cosmetic surgery and celebrity worship: Evidence of associations among female undergraduates. *Personality and Individual Differences*, 47(8), 869-872. doi: 10.1016/j.paid.2009.07.006

- Swanson, S. A., Crow, S. J., Le Grange, D., Swendsen, J., & Merikangas, K. R. (2011). Prevalence and correlates of eating disorders in adolescents: Results from the national comorbidity survey replication adolescent supplement. *Archives Of General Psychiatry*, 68(7), 714-723. doi:10.1001/archgenpsychiatry.2011.22
- Sypeck, M., Gray, J. J., & Ahrens, A. H. (2004). No Longer Just a Pretty Face: Fashion Magazines' Depictions of Ideal Female Beauty from 1959 to 1999. *International Journal Of Eating Disorders*, 36(3), 342-347. doi:10.1002/eat.20039
- Thompson, S. H., Corwin, S. J., & Sargent, R. G. (1997). Ideal body size beliefs and weight concerns of fourth-grade children. *International Journal Of Eating Disorders*, 21(3), 279-284. doi:10.1002/(SICI)1098-108X(199704)21:3<279::AID-EAT8>3.0.CO;2-H
- Thompson, J. K., Heinberg, L. J., Altabe, M., & Tantleff-Dunn, S. (1999). *Exacting beauty: Theory, assessment, and treatment of body image disturbance*. Washington, DC US: American Psychological Association.
- Thompson, J. K., Heinberg, L. J., Tantleff –Dunn, S. (1991). The physical appearance comparison scale (PACS). *Behavior Therapy*, 14, 174
- Thompson, J., & Stice, E. (2001). Thin-ideal internalization: Mounting evidence for a new risk factor for body-image disturbance and eating pathology. *Current Directions In Psychological Science*, 10(5), 181-183. doi:10.1111/1467-8721.00144
- Thompson, J. K., van den Berg, P., Roehrig, M., Guarda, A. S., & Heinberg, L. J. (2004). The Sociocultural Attitudes Towards Appearance Scale-3 (SATAQ-3): Development and Validation. *International Journal of Eating Disorders*, 35(3), 293-304. doi: 10.1002/eat.10257
- Thompson-Brenner, H., Boisseau, C. L., & St. Paul, M. S. (2011). Representation of ideal figure size in Ebony magazine: A content analysis. *Body Image*, 8(4), 373-378. doi:10.1016/j.bodyim.2011.05.005
- Tiggemann, M. (2005). Television and Adolescent Body Image: The Role of Program Content and Viewing Motivation. *Journal Of Social And Clinical Psychology*, 24(3), 361-381. doi:10.1521/jscp.24.3.361.65623
- Tiggemann, M., Martins, Y., & Kirkbride, A. (2007). Oh to be lean and muscular: Body image ideals in gay and heterosexual men. *Psychology Of Men & Masculinity*, 8(1), 15-24. doi:10.1037/1524-9220.8.1.15
- Tiggemann, M., & McGill, B. (2004). The role of social comparison in the effect of magazine advertisements on women's mood and body dissatisfaction. *Journal Of Social And Clinical Psychology*, 23(1), 23-44. doi:10.1521/jscp.23.1.23.26991

- Tiggemann, M., & Miller, J. (2010). The Internet and adolescent girls' weight satisfaction and drive for thinness. *Sex Roles*, 63(1-2), 79-90. doi:10.1007/s11199-010-9789-z
- Tiggemann, M., & Pickering, A. S. (1996). Role of television in adolescent women's body dissatisfaction and drive for thinness. *International Journal Of Eating Disorders*, 20(2), 199-203. doi:10.1002/(SICI)1098-108X(199609)20:2<199::AID-EAT11>3.0.CO;2-Z
- Tiggemann, M., Polivy, J., & Hargreaves, D. (2009). The processing of thin ideals in fashion magazines: A source of social comparison or fantasy?. *Journal Of Social And Clinical Psychology*, 28(1), 73-93. doi:10.1521/jscp.2009.28.1.73
- Tiggemann, M., & Polivy, J. (2010). Upward and downward: Social comparison processing of thin idealized media images. *Psychology Of Women Quarterly*, 34(3), 356-364. doi:10.1111/j.1471-6402.2010.01581.x
- Tiggemann, M., & Slater, A. (2004). Thin Ideals in Music Television: A Source of Social Comparison and Body Dissatisfaction. *International Journal Of Eating Disorders*, 35(1), 48-58. doi:10.1002/eat.10214
- Time: Healthland. (2010). Slight drop, but plastic surgery still \$10 billion industry. Retrieved April 28, 2012 from <http://healthland.time.com/2010/04/27/slight-drop-but-plastic-surgery-still-a-10-billion-industry/>
- Vander Wal, J. S., & Thelen, M. H. (2000). Eating and body image concerns among obese and average-weight children. *Addictive Behaviors*, 25(5), 775-778. doi:10.1016/S0306-4603(00)00061-7
- Want, S. C., Vickers, K., & Amos, J. (2009). The influence of television programs on appearance satisfaction: Making and mitigating social comparisons to "Friends.". *Sex Roles*, 60(9-10), 642-655. doi:10.1007/s11199-008-9563-7
- Webster, J., & Tiggemann, M. (2003). The relationship between women's body satisfaction and self-image across the life span: The role of cognitive control. *The Journal Of Genetic Psychology: Research And Theory On Human Development*, 164(2), 241-252. doi:10.1080/00221320309597980
- Wheeler, L., & Miyake, K. (1992). Social comparison in everyday life. *Journal Of Personality And Social Psychology*, 62(5), 760-773. doi:10.1037/0022-3514.62.5.760
- Wheeler, D. L., Vassar, M., & Hale, W. D. (2011). A gender-based measurement invariance study of the Sociocultural Attitudes Toward Appearance Questionnaire-3. *Body Image*, 8(2), 168-172. doi:10.1016/j.bodyim.2010.12.004

- Williamson, D. A., Muller, S. L., Reas, D. L., & Thaw, J. M. (1999). Cognitive bias in eating disorders: Implications for theory and treatment. *Behavior Modification*, 23(4), 556-577. doi:10.1177/0145445599234003
- Wills, T. A. (1981). Downward comparison principles in social psychology. *Psychological Bulletin*, 90(2), 245-271. doi:10.1037/0033-2909.90.2.245
- Wood, J. V. (1989). Theory and research concerning social comparisons of personal attributes. *Psychological Bulletin*, 106(2), 231-248. doi:10.1037/0033-2909.106.2.231

APPENDIX A
DEMOGRAPHICS FORM

Demographics

Sex: Male

Female

Age: _____

Ethnicity: Hispanic or Latino

Not Hispanic or Latino

Race: American Indian or Alaska Native

African-American or Black

Asian

Native Hawaiian or Other Pacific Islander

White

Other (please specify): _____

Year in School: _____

Height (in inches): _____

Weight (in pounds): _____

APPENDIX B

TELEVISION VIEWERSHIP MEASURE

Please answer the following questions regarding the programs you typically watch on T.V.

For each question, first estimate how often you watch each type of television programming and then choose the number that you feel is true for you

1) How often do you watch **reality** shows about people *wanting to be famous in the entertainment industry* (i.e. American Idol, America's Next Top Model, Sports Illustrated Swimsuit Model Search, etc.)?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

2) How often do you watch **reality** shows that involve a *competition* for a prize (i.e. Amazing Race, Fear Factor, Big Brother, Survivor, Real World Road Rules Challenge, etc.)?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

3) How often do you watch *voyeuristic reality* shows that allow the viewing audience to watch the lives of certain individuals (i.e. the Real World, the Osbournes, the Ashley Simpson Show, Simple Life, etc.)?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

4) How often do you watch **reality dating** shows (i.e. the Bachelor, the Bachelorette, Blind Date, a Dating Story, Average Joe, etc.)?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

5) How often do you watch **reality** shows that involve *making-over houses* (i.e. Trading Spaces, Extreme Makeover: Home Edition, While You Were Out, Clean Sweep, etc.)?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

6) How often do you watch **reality** shows that involve *making-over cars* (i.e. Pimp my Ride, Overhaulin, Rides, etc.)?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

7) How often do you watch **reality** shows that involve *plastic/cosmetic surgery makeovers* (i.e. Extreme Makeover: Plastic Surgery Edition, I Want a Famous Face, the Swan, Dr. 90210, Plastic Surgery: Before and After, Body Work, Miami Slice, etc.)?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

8) How often do you watch **reality** shows that involve *fashion, style, or self-improvement* (i.e. What Not to Wear, A Makeover Story, Biggest Loser, 10 Years Younger, Queer Eye for the Straight Guy, Made, etc.)?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

9) How often do you watch *morning talk shows* (i.e. the Today Show, Good Morning America, Live with Regis and Kelly, etc.)?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

10) How often do you watch *afternoon talk shows* (i.e. Oprah, the Ellen Show, Dr. Phil, etc.)?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

11) How often do you watch *late-night talk shows* (i.e. Tonight Show with Jay Leno, Late Show with David Letterman, Late Night with Conan O'Brien, etc.)?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

12) How often do you watch television *comedies* (i.e. Jackass, South Park, Scrubs, Saturday Night Live, etc.)?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

13) How often do you watch *game shows* (i.e. Wheel of Fortune, the Price is Right, Jeopardy, etc.)?

1	2	3	4	5
---	---	---	---	---

Never	Rarely	Sometimes	Often	Very Often
-------	--------	-----------	-------	------------

14) How often do you watch *Entertainment News Shows* (i.e. Entertainment Tonight, E! News Live, Extra, etc.)?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

15) How often do you watch *sitcoms* (i.e. Everybody Loves Raymond, Joey, Will and Grace, Friends, etc.)?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

16) How often do you watch *News Magazine programs* (i.e. Dateline NBC, 60 minutes, etc.)?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

17) How often do you watch television *dramas* (i.e. Nip Tuck, Desperate Housewives, West Wing, Alias, CSI, etc.)?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

18) How often do you watch sports programming (i.e. football, basketball, tennis, figure skating, etc.)?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

19) How often do you watch *soap operas* (i.e. Days of our Lives, All my Children, As the World Turns, etc.)?

1	2	3	4	5
Never	Rarely	Sometimes	Often	Very Often

APPENDIX C

VIEWERSHIP

Please indicate which reality show you have watched at least once in the past year

The Biggest Loser

Shedding for the Wedding

What Not to Wear

Bridalplasty

Heavy

Celebrity Fit Club

Love Handles: Couples in Crisis

Extreme Makeover: Weight Loss Edition

Losing it with Jillian

America's Next Top Model

E! Fashion Police

APPENDIX D

EDI-3-BD

For the items below, please indicate to what extent each statement is true of you.

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

		Always				Never	
1.	I think that my stomach is too big.	1	2	3	4	5	6
2.	I think that my thighs are too large.	1	2	3	4	5	6
3.	I think that my stomach is just the right size.	1	2	3	4	5	6
4.	I feel satisfied with the shape of my body.	1	2	3	4	5	6
5.	I like the shape of my buttocks.	1	2	3	4	5	6
6.	I think my hips are too big.	1	2	3	4	5	6
7.	I feel bloated after eating a normal meal.	1	2	3	4	5	6
8.	I think that my thighs are just the right size.	1	2	3	4	5	6
9.	I think my buttocks are too large.	1	2	3	4	5	6
10.	I think that my hips are just the right size.	1	2	3	4	5	6

APPENDIX E

SOCIOCULTURAL ATTITUDES TOWARDS APPEARANCE SCALE-3-

INTERNALIZATION-GENERAL SUBSCALE

Using the scale below, please write the number that best matches your agreement with the following statements.

Definitely disagree	Mostly disagree	Neither agree nor disagree	Mostly agree	Definitely agree
1	2	3	4	5

1. _____ I would like my body to look like the people who are on TV.
2. _____ I compare my body to the bodies of TV and movie stars.
3. _____ I would like my body to look like the models who appear in magazines.
4. _____ I compare my appearance to the appearance of TV and movie stars.
5. _____ I would like my body to look like the people who are in movies.
6. _____ I compare my body to the bodies of people who appear in magazines.
7. _____ I wish I looked like the models in music videos.
8. _____ I compare my appearance to the appearance of people in magazines.
9. _____ I try to look like the people on TV.

APPENDIX F

DRIVE FOR MUSCULARITY

1	2	3	4	5	6	
Always	Very Often	Often	Sometimes	Rarely	Never	
1. I wish that I were more muscular.	1	2	3	4	5	6
2. I lift weights to build up muscle.	1	2	3	4	5	6
3. I use protein or energy supplements.	1	2	3	4	5	6
4. I drink weight gain or protein shakes.	1	2	3	4	5	6
5. I try to consume as many calories as I can in a day.	1	2	3	4	5	6
6. I feel guilty if I miss a weight training session.	1	2	3	4	5	6
7. I think I would feel more confident if I had more muscle mass.	1	2	3	4	5	6
8. Other people think I work out with weights too often.	1	2	3	4	5	6
9. I think that I would look better if I gained 10 pounds in bulk.	1	2	3	4	5	6
10. I think about taking anabolic steroids.	1	2	3	4	5	6
11. I think that I would feel stronger if I gained a little more muscle mass.	1	2	3	4	5	6
12. I think that my weight training schedule interferes with other aspects of my life.	1	2	3	4	5	6
13. I think that my arms are not muscular enough.	1	2	3	4	5	6
14. I think that my chest is not muscular enough.	1	2	3	4	5	6
15. I think that my legs are not muscular enough.	1	2	3	4	5	6

APPENDIX G

EDE–Q

Instructions: The following questions are concerned with the past four weeks (28 days) only. Please read each questions carefully. Please answer all of the questions.

Questions 1 to 12: Please circle the appropriate number on the right. Remember that the questions only refer to the past four weeks (28 days) only.

On how many of the past 28 days...	No days	1-5 days	6-12 days	13-15 days	16-22 days	23-27 days	Every day
1. Have you been deliberately <i>trying</i> to limit the amount of food you eat to influence your shape or weight (whether or not you have succeeded)?	0	1	2	3	4	5	6
2. Have you gone for long periods of time (8 waking hours or more) without eating anything at all in order to influence your shape or weight?	0	1	2	3	4	5	6
3. Have you <i>tried</i> to exclude from your diet any foods that you like in order to influence your shape or weight (whether or not you have succeeded)?	0	1	2	3	4	5	6
4. Have you <i>tried</i> to follow definite rules regarding your eating (e.g., a calorie limit) in order to influence your shape or weight (whether or not you have succeeded)?	0	1	2	3	4	5	6
5. Have you had a definite desire to have an <i>empty</i> stomach with the aim of influencing your shape or weight?	0	1	2	3	4	5	6
6. Have you had a definite desire to have a <i>totally flat</i> stomach?	0	1	2	3	4	5	6
7. Has thinking about <i>food, eating, or calories</i> made it very difficult to concentrate on things you are interested in (e.g., working, following a conversation, or reading)?	0	1	2	3	4	5	6
8. Has thinking about <i>shape or weight</i> made it very difficult to concentrate on things you are interested in (e.g., working, following a conversation, or reading)?	0	1	2	3	4	5	6
9. Have you had a definite fear of losing control over eating?	0	1	2	3	4	5	6
10. Have you had a definite fear that you might gain weight?	0	1	2	3	4	5	6
11. Have you felt fat?	0	1	2	3	4	5	6
12. Have you had a strong desire to lose weight?	0	1	2	3	4	5	6

Questions 13 – 18: Please fill in the appropriate number in the boxes on the right. Remember that the questions only refer to the past four weeks (28 days).

Over the past four weeks (28 days)...

13. How many *times* have you eaten what other people would regard as an unusually large amount of food (given the circumstances)?

14. On how many of these times did you have a sense of having lost control over your eating (at the time you were eating)? _____
15. How many DAYS have such episodes of overeating occurred (i.e., you have eaten an unusually large amount of food *and* have had a sense of loss of control at the time)? _____
16. How many *times* have you made yourself sick (vomit) as a means of controlling your shape or weight? _____
17. How many *times* have you taken laxatives as a means of controlling your shape or weight? _____
18. How many *times* have you exercised in a “driven” or “compulsive” way as a means of controlling your weight, shape or amount of fat, or to burn off calories? _____

Questions 19 – 21: Please circle the appropriate number. *Please note that for these questions, the term “binge eating” means eating what others would regard as an unusually large amount of food for the circumstances, accompanied by a sense of having lost control over eating.*

- | | | | | | | | | |
|-----|---|--------------------------|---------------------------|-----------------------|--------------------------|-----------------------|--------------------------|-------------------|
| 19. | Over the past 28 days, on how many days have you eaten in secret (i.e., furtively)? | No days | 1-5 days | 6-12 days | 13-15 days | 16-22 days | 23-27 days | Every day |
| | ...Do not count episodes of binge eating. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 20. | On what proportion of the times that you have eaten have you felt guilty (felt that you’ve done wrong) because of its effect on your shape or weight? | None of the times | A few of the times | Less than half | Half of the times | More than half | Most of the times | Every time |
| | ...Do not count episodes of binge eating. | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 21. | Over the past 28 days, how concerned have you been about other people seeing you eat? | Not at all | Slightly | Moderately | Markedly | | | |
| | ...Do not count episodes of binge eating. | 0 | 1 | 2 | 3 | 4 | 5 | |

Questions 22 – 28: Please circle the appropriate number on the right. Remember that the questions only refer to the past four weeks (28 days).

- | Over the past 28 days... | Not at all | Slightly | Moderately | Markedly | | | |
|---|------------|----------|------------|----------|---|---|---|
| 22. Has your weight influence how you think about (judge) yourself as a person? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 23. Has your shape influenced how you think about (judge) yourself as a person? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 24. How much would it have upset you if you had been asked to weigh yourself once a week (no more, or less, often) for the next four weeks? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 25. How dissatisfied have you been with your weight? | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

26.	How dissatisfied have you been with your shape?	0	1	2	3	4	5	6
27.	How uncomfortable have you felt seeing your body (e.g., seeing your shape in the mirror, in a shop window reflection, while undressing or taking a bath or shower)?	0	1	2	3	4	5	6
28.	How uncomfortable have you felt about others seeing your shape or figure (e.g., in communal changing rooms, when swimming, or wearing tight clothes)?	0	1	2	3	4	5	6

What is your weight at present? (Please give your best estimate)

What is your height? (Please give your best estimate)

If female: Over the past three to four months, have you missed any menstrual periods?

- If so, how many?

- Have you been taking the “pill”?

APPENDIX H

GODIN LEISURE-TIME EXERCISE QUESTIONNAIRE

1. Considering a 7-day period (a week), how many times on average do you do the following kinds of exercise for more than 15 minutes during your **free time** (write on each line the appropriate number)?

**Times Per
Week**

a) STRENUOUS EXERCISE

(HEART BEATS RAPIDLY)

(i.e., running, jogging, hockey, football, soccer,
squash, basketball, cross country skiing, judo,
roller skating, vigorous swimming,
vigorous long distance bicycling)

b) MODERATE EXERCISE

(NOT EXHAUSTING)

(i.e., fast walking, baseball, tennis, easy bicycling,
volleyball, badminton, easy swimming, alpine skiing,
popular and folk dancing)

c) MILD EXERCISE

(MINIMAL EFFORT)

(i.e., yoga, archery, fishing from river bank, bowling,
horseshoes, golf, snow-mobiling, easy walking)

2. Considering a 7-day period (a week), during your leisure-time, how often do you engage in any regular activity long enough to work up a sweat (heart beats rapidly)?

OFTEN

1. ☐

SOMETIMES

2. ☐

NEVER/RARELY

3. ☐

3. Are you currently dieting to lose weight? (circle)

Yes ☐

No ☐

APPENDIX I

PACS

Use the following scale:

Never	Seldom	Sometimes	Often	Always
1	2	3	4	5

- | | | | | | |
|--|---|---|---|---|---|
| 1. At parties or other social events, I compare my physical appearance to the physical appearance of others. | 1 | 2 | 3 | 4 | 5 |
| 2. The best way for a person to know if they are overweight or underweight is to compare their figure to the figure of others. | 1 | 2 | 3 | 4 | 5 |
| 3. At parties or other social events, I compare how I am dressed to how other people are dressed | 1 | 2 | 3 | 4 | 5 |
| 4. Comparing your “looks” to the “looks” of others is a bad way to determine if you are attractive or unattractive. | 1 | 2 | 3 | 4 | 5 |
| 5. In social situations, I sometimes compare my figure to the figures of other people. | 1 | 2 | 3 | 4 | 5 |

APPENDIX J

APPEARANCE COMPARISON SCALE FOR TV VIEWERSHIP

While watching the previously selected reality shows, to what extent did you...

1. Think about your own appearance?

No thought about my appearance.....A lot of thought about my appearance
1 2 3 4 5 6 7

2. Compare your overall appearance to that of the characters in the shows?

No comparison.....A lot of comparison
1 2 3 4 5 6 7

3. Compare your specific body parts to those of the characters in the shows?

No comparison.....A lot of comparison
1 2 3 4 5 6 7

4. Intend to change your appearance to match those of the characters on the shows?

No Intention to ChangeSignificant Intention to Change
1 2 3 4 5 6 7