

Reality Television and the Muscular Male Ideal

by

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Abstract

Body image dissatisfaction, a common experience among women in the United States, has also become increasingly common among men (McCabe & Ricciardelli, 2001). Whereas women generally strive to achieve the thin-ideal, men tend to prefer a body shape that is more muscular than their own (Olivardia, Pope, Borowiecki, & Cohane, 2004). Sociocultural theory posits that the media play a critical role in the development of body image dissatisfaction among both men and women in the U.S. (Levine & Harrison, 2004). Although a great deal of research has focused on the media's effects on women's body image dissatisfaction, there has been little investigation related to men. More specifically, although research has begun to examine the negative effects of viewing reality television on women's body image, this research has not yet been extended to men. Before such investigations can take place, however, researchers must first explore the extent to which men embodying the muscular-ideal are depicted on reality television programming. Therefore, this dissertation used a quantitative content analysis to examine the contents of reality television programming. Results revealed that primary male cast members portrayed on reality television programming premiering during the fall 2009 broadcast season were more muscular and exhibited lower levels of body fat than "average" U.S. men. Additionally, the present study explored the extent to which there were differences in the levels of muscularity and body fat seen as a function of focus of the reality television program (i.e., reality drama, endurance contest, or romance/dating). Results revealed that there were no significant differences between levels of muscularity or body fat across program types.

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I. Introduction

It is widely accepted among researchers that body image dissatisfaction has become more prevalent among men in the United States in recent years (e.g., McCabe & Ricciardelli, 2001; Neumark-Sztainer, Story, Falkner, Beuhring, & Resnick, 1999; Pope, Phillips, & Olivardia, 2000). In 1972, 18% of men disliked their chest and 25% were dissatisfied with their muscularity (Berscheid, Walster, & Bohrnstedt, 1973). In 1997, 25 years later, 38% of men were unhappy with their chest and 45% were dissatisfied with their level of muscularity (Garner, 1997). Additional research has demonstrated that approximately 91% of college-age men desire a more muscular build (Jacobi & Cash, 1994) and that 39% of college-age men “frequently” or “always” attempt to increase their level of muscularity (McCaulay, Mintz, & Glenn, 1988). The apparent increase of body image dissatisfaction among men in the United States has sparked what is sure to be a lengthy quest to discover the primary causes and factors contributing to its prevalence.

Supporting Theoretical Framework

Although numerous theoretical models have been proposed to account for body image dissatisfaction, research has demonstrated that societal factors exert a powerful influence on the development and maintenance of such dissatisfaction (Heinberg, 1996; Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999). The sociocultural model views the mass media, as well as other sources of sociocultural pressure (e.g., familial influences), as powerful transmitters and reinforcers of sociocultural body ideals (Levine & Harrison, 2004). The sociocultural model emphasizes that current societal standards for attractiveness inordinately stress the importance of

muscularity for men (Gray & Ginsberg, 2007) and further contends that these current societal standards are omnipresent and often out of reach for the average U.S. man (Thompson et al).

The sociocultural model proposes that the media's omnipresent portrayal of muscular male figures may influence men's body image in a number of ways. Such influence occurs through a variety of processes, including social comparison, internalization of the muscular-ideal, and investment in appearance for self-evaluation (Tiggemann, 2002). Men are exposed to multiple media sources that depict the male body as far more muscular than that of the average U.S. man (Pope, Phillips, et al., 2000). The result of such exposure to muscular male figures is a desire among some men to be as muscular as those portrayed. Repeated exposure to muscular figures may lead to internalization of the muscular-ideal such that it becomes a reference point against which some men judge themselves (Tiggemann). Furthermore, the muscular-ideal links muscularity and attractiveness with happiness, desirability, power, masculinity, and status (Levine & Harrison, 2004). Acceptance of the muscular-ideal may mean that self-worth becomes equated with a man's self-perceived attractiveness. Thus, for some men, appearance becomes part of the core basis of self-evaluation, with self-worth contingent on meeting the societal ideals.

The sociocultural model asserts that increasing pressure to exemplify the muscular-ideal portrayed by the media is influencing some men to develop greater body image dissatisfaction (Peterson, 2007). The muscular-ideal is unattainable for the majority of U.S. men, and media images are frequently edited or airbrushed to achieve perfection (Thompson et al., 1999). Unfortunately, many men are unaware of these editing techniques and may perceive the images as "realistic representations of physical attractiveness and as appropriate comparisons for appearance" (Agliata & Tantleff-Dunn, 2004, p. 9). The media also provide information on how

to attain the muscular-ideal through diet, exercise, and supplement use, which sends the false message that it is attainable if one works hard and uses the proper techniques (Gray & Ginsberg, 2007). Consequently, some men may falsely believe that the muscular-ideal depicted by media images is realistic and easily achievable. The sociocultural model proposes that failure to attain the muscular-ideal is associated with a variety of consequences for body image (Tiggemann, 2002). Therefore, living in a society that supports a largely unrealistic body ideal is thought to be an important context in which body image dissatisfaction develops.

In addition to the sociocultural model, two theories may help explain the mechanism through which the media could encourage muscularity concerns and behaviors among some men: cultivation theory and categorization. Cultivation theory addresses the relationship between television content and viewers' beliefs about social reality (Gerbner, 1969). Specifically, cultivation theory specifies that common conceptions of reality are cultivated by the overall pattern of television programming to which individuals are regularly exposed over long periods of time (Gerbner; Gerbner, Gross, Morgan, & Signorielli, 2002). In other words, cultivation theory suggests that exposure to television subtly influences viewers' perceptions of reality. Therefore, according to cultivation theory, those individuals who spend more time watching television are more likely to perceive the real world in ways that reflect the most common and recurrent messages of the television world (Gerbner & Gross, 1976). For example, the most studied issue in the cultivation theory literature is the prevalence of violence on television and its effects on perceptions of real-world incidence of crime and victimization (see review in Potter, 1993). Numerous content analyses of network television programs have demonstrated that the number of violent acts on U.S. television greatly exceeds the amount of real-world violence (Gerbner & Gross). In turn, research has shown that heavy television viewers: (a) overestimate

the incidence of serious crime in our society and (b) are more likely to believe that the world is a dangerous place where people cannot be trusted (Gerbner, Gross, et al.).

Although application of cultivation theory to body image dissatisfaction is a new way to conceptualize television and body image issues, one can speculate about the media's effects on men's body image. One particular genre form of media, reality television, may be particularly influential. While portraying male figures that embody the muscular-ideal, the media may be cultivating unrealistic beliefs of what the "typical" or "average" male body should look like. Although literature on the use of content analyses to examine reality television and the types of male bodies portrayed is lacking, one may hypothesize that cultivation theory extends to body image dissatisfaction in that heavy reality television viewers: (a) strongly believe that the muscular-ideal is typical of the average U.S. man and (b) that such an ideal is easily attainable.

In addition to sociocultural and cultivation theories, cognitive psychology offers an explanation of processes through which television images may lead to the development of the idea that men should be muscular. The comparison process present in both sociocultural and cultivation theories resembles the cognitive phenomenon of categorization. Categorization involves the cognitive processes of identifying exemplars and prototypes, which are used as symbolic representations of the category (Medin, 1989; Ross & Makin, 1999). In the area of body image dissatisfaction, categorization is critical as it relates to physical appearance comparison. It is highly likely that men who are dissatisfied with their bodies have determined that their bodies do not "belong" in the ideal category (i.e., the muscular-ideal). In the evaluation of category membership, it is possible that some men use a categorization approach and compare their bodies to an "unrealistic" ideal (a prototype or rare exemplar) that is nearly impossible to achieve (i.e., the muscular-ideal), which would increase the likelihood that the individual would

not perceive himself as meeting category membership. Because some men may associate success, attractiveness, masculinity, and power with the muscular-ideal (Tiggemann, 2002), they may be motivated to try to obtain category membership.

The sociocultural model asserts that living in a society that supports a largely unrealistic body ideal is an important context in which body image dissatisfaction develops. Cultivation theory would suggest that the proportion of muscular men portrayed in the media can influence how common, realistic, and attainable men believe the muscular-ideal to be, while categorization offers a mechanism through which media images can influence men's body image. More specifically, categorization helps explain how men cognitively organize the visual media images of muscular men they see. This cognitive representation provides an avenue through which men can compare muscular media images (that sociocultural theory suggests can negatively influence body image) with their own bodies.

Reality Television: A Cultural Phenomenon

Reality television is a phenomenon that has greatly changed television programming (Ebersole & Woods, 2007). Few trends have been as far-reaching and widely embraced as the genre that purports to showcase ordinary people "improvising around the theme of being themselves in carefully constructed, 'artificial' situations" (Ebersole & Woods). According to Nielsen Media Research, the 25 top-rated television programs for the 2002-2003 seasons included seven reality television titles. For teen viewers, nine of the top 25 programs were from this genre. Although reality television is the fastest growing and most popular form of television programming to date, it has received little scholarly attention. The bulk of research involving this cultural phenomenon includes examinations of particular reality-based shows (Schapiro, 2000) or the genre as a whole (Kilborn, 1994), the effects of viewing certain reality shows as

entertainment (Oliver & Armstrong, 1994), analyses of ethical and social problems of reality shows (Miller, 2000), and other forms of qualitative analysis (Glynn, 1995).

Although the topic has not been addressed in the literature, reality television may play a unique role in influencing body image dissatisfaction among men. In one of the few studies examining the influence of reality television on body image, researchers (Mazzeo, Trace, Mitchell, & Gow, 2007) found that women who internalized the thin-ideal reported decreased self-esteem after viewing such programs. The researchers further concluded that viewing reality television may be a factor in disordered eating behaviors and attitudes among women. Unfortunately, at present, research has not focused on the impact of reality television on male viewers' body image dissatisfaction. However, it is possible that reality television plays a similar role in the development of body image dissatisfaction among men.

Various forms of media, television included, have been criticized for their (over)portrayal of muscular male images (Gray & Ginsberg, 2007). Building upon such statements, it is possible that the same criticisms would extend to reality television. For example, it is possible that reality television may primarily depict male cast members with a certain body type, particularly the muscular mesomorphic body type. Additionally, if reality television implicitly suggests that the muscular body type is common, easily attainable, and linked to one's body image and life satisfaction, the criticisms of the media with regard to the negative effect on body image dissatisfaction could be extended to reality television for men. If male viewers adopt these viewpoints, it is possible that reality television's depiction of muscular male bodies would lead some viewers to attempt to achieve the muscular-ideal through a number of unhealthy and potentially dangerous behaviors such as extreme dieting, binge eating, overexercise, and/or steroid use. Although no research has tested these assertions, such speculative arguments are

consistent with psychological theories such as sociocultural and cultivation theories. In other words, sociocultural and cultivation theories, which have been used to understand the general effects of media content on body image dissatisfaction, provide one way to understand the mechanism through which reality television might impact the perceptions and behaviors of viewers (Mazzeo et al., 2007).

Purpose of Study

Because a substantial number of health concerns in the U.S. are currently associated with obesity, the muscular-ideal portrayed by the media may be viewed as having the positive effect of promoting physical activity among men (Gray & Ginsberg, 2007; Thompson & Cafri, 2007). However, the muscular-ideal featured in some media, characterized by large muscles, chiseled abdominals, and low body fat, is extreme in that it is nearly impossible to achieve and is not always healthy (Labre, 2002). In fact, pursuit of this ideal may lead to problems such as body image dissatisfaction, steroid use, disordered eating, overexercise, and the development of muscle dysmorphia (Gray & Ginsberg; Labre; Olivardia, 2007; Thompson & Cafri).

While research has begun to examine the negative effects of viewing reality television programming on women, this research has not yet been extended to men. However, before such research can take place, researchers must first understand the extent to which men embodying the muscular-ideal are depicted on reality television programming. Therefore, this dissertation used a quantitative content analysis to examine the contents (images of primary male cast members) of various reality television programs. Additionally, the present study explored the extent to which there were differences in the levels of muscularity and body fat of reality television male cast members as a function of focus of the reality television program (i.e., reality drama, endurance contest, or romance/dating).

Significance to Counseling

To the researcher's knowledge, this was the first study to categorize the contents—images of primary male cast members – of various reality television programs. As a result, this dissertation was designed to contribute to a better understanding of the male body types disseminated via reality television, as well as their potential effects on viewers. More specifically, it can inform those individuals who work with men about the extent to which men's television viewing experience may be saturated with images that promote muscularity and leanness for the typical male. This study can also inform future research efforts on media influences of men's body image dissatisfaction. For example, knowing that reality television is among the many types of media that emphasize muscularity among men provides justification for the inclusion of reality television in research endeavors aimed at understanding sources of men's body image dissatisfaction. The present study also provides data from which counselors and psychologists interested in creating social change for men can draw upon to support advocating for change in television programming.

II. Literature Review

Body Image and Body Image Dissatisfaction

Body image is a construct defined by an individual's perceptions of and attitudes about his or her body (Cash & Brown, 1989). Once considered unidimensional, body image is now conceived of as a multidimensional construct including emotional and cognitive perceptions and attitudes (Cash & Brown; Keeton, Cash, & Brown, 1990; Muth & Cash, 1997). The attitudinal component of body image includes evaluation, affect, and investment. Body image evaluation refers to a continuum of satisfaction and dissatisfaction with one's physical appearance, including evaluative thoughts and beliefs about one's physical attributes. Body image affect refers to "discrete emotional experiences that these self-evaluations may elicit in specific situational contexts" (Muth & Cash, p. 1438). Body image investment refers to the cognitive emphasis one places on appearance, the importance of appearance to one's sense of self, and the behaviors involved in enhancing one's appearance.

Body image dissatisfaction is a widely used phrase in the field of body image research and typically denotes a satisfaction-dissatisfaction continuum of disturbance (Thompson et al., 1999). Assuming that body image dissatisfaction is best conceptualized as a continuum, the majority of individuals in the United States experience mild to moderate levels of dissatisfaction. At the highest end of the continuum is an extreme level of body image dissatisfaction, frequently characterized by eating disorders and body dysmorphic disorder (Thompson et al.). Body image dissatisfaction is often considered the most important component of body image disturbance because it captures the essence of one's subjective evaluation (Thompson et al.).

High levels of body image dissatisfaction are present in both men and women in the United States (Gray & Ginsberg, 2007; Labre, 2002). In their review of three national surveys conducted by *Psychology Today* in 1972 (Berscheid et al., 1973), 1986 (Cash, Winstead, & Janda), and 1997 (Garner), researchers observed that both men and women are becoming increasingly dissatisfied with their physical appearance. In 1972, 25% of women and 15% of men were dissatisfied with their bodies. By 1985, 38% of women and 34% of men reported being dissatisfied with their bodies. By 1997, the number of individuals dissatisfied with their bodies had risen to 56% of women and 43% of men, suggesting that close to half of the men residing in the United States experience body image dissatisfaction to some extent.

Although both men and women experience body image dissatisfaction, they differ in the type of body considered ideal. Whereas women generally strive to achieve the thin-ideal, men generally prefer a body shape that is more muscular than their own (Jacobi & Cash, 1994; Olivardia et al., 2004; Pope, Phillips, et al., 2000). According to the articles included in *Psychology Today*, in 1972, 18% of men disliked their chest and 25% were dissatisfied with their muscularity (Berscheid et al., 1973). By 1997, however, 38% of men were unhappy with their chest and 45% were dissatisfied with their muscle size (Garner). Additional research has demonstrated that approximately 91% of college-age men desire a more muscular build (Jacobi & Cash) and that 39% of college-age men “frequently” or “always” attempt to increase their muscle mass (McCaulay et al., 1988). Pope and colleagues highlighted the importance some men place upon achieving the muscular-ideal, reporting that 17% of their male sample would give up three years of their lives and 11% would give up five years of their lives to achieve the muscular-ideal. Each of these studies is consistent with the claim that body image dissatisfaction appears to

be increasing among men in the U.S. and that some men seem willing to go to extreme lengths in attempting to achieve the ideal.

Presently, men most frequently endorse the muscular mesomorphic body type (well proportioned, average build) as ideal rather than ectomorphic (thin) or endomorphic (fat) types (Labre, 2005; Mishkind, Rodin, Silberstein, & Striegel-Moore, 1986; Olivardia, 2007). The mesomorphic body type is characterized by a well developed chest, well-developed arm muscles, and wide shoulders tapering down to a narrow waist (Mishkind et al., p. 547). Men report higher levels of body image satisfaction when their body shape closely matches the muscular mesomorphic ideal (Keeton et al., 1990; Mishkind et al.; Tantleff-Dunn & Thompson, 2000).

Although men most frequently endorse the mesomorphic body type as ideal, such a body type is not characteristic of the average U.S. man. According to the U.S. National Health and Nutrition Examination Surveys (NHANES) 2001 to 2004, approximately 68.3 million men ages 20 and older are overweight or obese. Thus, if over 70% of U.S. adult males are overweight or obese, the majority cannot embody the ideal muscular mesomorphic body type. Furthermore, current guidelines from the National Institute of Health define adult individuals of normal weight at $18.5 < \text{BMI} < 24.9$, overweight at $25 < \text{BMI} < 29.9$, and clinically obese at $\text{BMI} \geq 30$ (Heyward & Stolarczyk, 1996). The average 21-year-old male defined in earlier NHANES surveys was within the normal weight range, while the average present-day 21-year-old male has now exceeded the BMI guideline and is now considered overweight (Huh & Bolch, 2003). In other words, if the average 21-year-old U.S. male is now considered overweight, the mesomorphic body type cannot be characteristic of the “typical” U.S. college-age male.

Additional statistics regarding level of physical activity from NHANES 2001 to 2004 provide further support for the assertion that the average U.S. male does not embody the

mesomorphic body type. Only 26% of U.S. adult males engage in vigorous leisure-time physical activity three or more times per week (defined as periods of vigorous physical activity lasting 10 minutes or more). Approximately 59% of adult males participate in no vigorous physical activity at all in their leisure time. Thus, males cannot achieve the chiseled abs, rock hard pectorals, and muscular arms characteristic of the muscular mesomorphic ideal without sustained physical effort even if they use substances known to increase muscle mass (Bahrke, 2007).

In addition to the statistics provided by NHANES 2001 to 2004, statistics from the SizeUSA survey (Textile/Clothing Technology Corporation [TC]², 2004) appear to support the contention that the average U.S. male does not embody the mesomorphic body type. The survey measured more than 10,000 men and women in the United States, and its findings challenge what has long been considered the average body type and shape of U.S. men. Although the full report has not been released (K. Davis, personal communication, March 4, 2010), the general finding is that “the U.S. adult population is getting heavier and taller and changing shape ([TC]²).” The survey found that 19% of men are "portly," meaning that they needed extra room in the front half of a jacket, shirt, or sweater. Another 19% were found to have "lower front waists," meaning, the researchers said, that they had to look under a belly to find the waist. Although the full report is not currently available, initial findings appear to provide support for the claim that the average U.S. male does not embody the mesomorphic body type (e.g., chiseled rock hard abdominals).

Body Investment Strategies

The aforementioned statistics indicate that the average U.S. man does not embody the muscular mesomorphic body type. Therefore, in an attempt to more closely approximate the muscular-ideal, some men may attempt to increase their muscularity (and to decrease the

discrepancy between their ideal and actual body size) through a number of harmful body image investment strategies (Bahrke, 2007). A review of the literature reveals that some men may be at greater risk for developing body image dissatisfaction, as well as engaging in a number of harmful body investment strategies, including overexercise, dieting, and supplement use to achieve the muscular-ideal (Thompson & Cafri, 2007). For example, homosexual men may be at greater risk for developing eating disorders (Andersen, 2002; Carlat, Camargo, & Herzog 1997; French, Story, Remafedi, Resnick, & Blum, 1996), and male athletes, particularly bodybuilders, gymnasts, football players, wrestlers, and runners, may be at greater risk for engaging in harmful weight-control and muscle-building behaviors (Powers & Johnson, 1999). Although male athletes may be at higher risk for engaging in the aforementioned harmful body investment strategies, their reasons for engaging in these behaviors likely vary. For example, wrestlers may be concerned with achieving a particular weight in order to compete within that weight class. Other athletes, such as football players, may use performance-enhancing substances to increase their muscularity (thereby becoming more competitive within their respective sporting event). Bodybuilders, on the other hand, are likely primarily interested in achieving a muscular appearance.

Exercise

Exercise is a body investment strategy that has been the focus of much research in the area of body image. Exercise is positively correlated with body satisfaction (Davis, Elliott, Dionne, & Mitchell, 1991; Hausenblas & Fallon, 2002), and exercising for health and fitness is positively related to self-esteem (McDonald & Thompson, 1992). Adolescent boys identify exercise as the most frequently used body investment strategy to change their body size and shape, whether in an attempt to increase or decrease size (McCabe & Ricciardelli, 2001;

Neumark-Sztainer et al., 1999). For example, Moore (1990) found that 16% of underweight adolescent males were involved in a personal exercise program and that 25% participated in sports. O’Dea and Rawstorne (2001) found that 28% of adolescent boys used exercise as a strategy to increase their size, and as many as 63% of college males reported using exercise to gain weight (Rosen & Gross, 1987).

Attempts to increase muscle mass may be associated with the increased accessibility to health and fitness centers. One study demonstrated that there has been a 50-fold increase in these facilities from 1960 to 1990 while the city population had only doubled during that time frame (Petrie et al., 1996). The increased accessibility of health and fitness centers may be reflective of an increase in body image investment across time in society as a whole.

Dieting

Several studies have examined the dietary practices of adolescent boys and men as a body investment strategy (Moore, 1990; O’Dea & Rawstorne, 2001; Ricciardelli & McCabe, 2002). Although adolescents in one study were aware of healthy dietary and exercise practices used to increase body mass or gain weight, many self-reported that they still engaged in unhealthy eating behaviors (O’Dea & Rawstorne). These behaviors included eating more and exercising less; eating fatty, fried, and junk foods; eating butter or chocolate; and drinking beer or other alcoholic beverages (O’Dea & Rawstorne). In addition, research indicates that 30% of adolescent boys attempting to gain weight engage in binge eating and 22% engage in binge drinking (Moore). Ricciardelli and McCabe determined that adolescent boys ingest large amounts of food, increase their caloric intake, and eat special foods as strategies to increase size.

Adolescent boys may use other methods of body change strategies as well, concurrently or alternating, to both increase their muscle size and decrease their weight (Ricciardelli &

McCabe, 2002). Two-phase diets, for example, allow individuals to rotate between attempts at minimizing body fat percentage and increasing muscle size. Accordingly, this type of behavior may involve both dieting and exercise. Also, research has demonstrated that approximately 7% of adolescent boys engage in bingeing and purging behavior in an attempt to increase leanness (Neumark-Sztainer & Hannan, 2000). In addition to bingeing and vomiting, Moore (1990) also found that adolescent boys desiring weight loss engage in unhealthy practices such as fasting and skipping meals. These findings are consistent with the idea that the focus of body image dissatisfaction among men includes both increasing mass, particularly muscle mass, and leanness.

Supplement Use

Anabolic steroids. The use of anabolic steroids is a body investment strategy employed by some adolescent boys and men to increase muscle mass (Peterson, 2007). Anabolic steroids are synthetic derivatives of testosterone, which is the natural male hormone responsible for masculinizing and tissue-building effects during male adolescence and adulthood (Bahrke, 2007, p. 143). Use of anabolic steroids allows adolescent boys and men to achieve the muscular mesomorphic ideal with greater speed. Steroid users report significantly less body size dissatisfaction when compared to men who do not use steroids (Brower, Blow, & Hill, 1994).

Positive reinforcement, obtaining the desired results from steroid use, may serve as a strong motivator among adolescent boys and/or men to begin or continue use of the substance. In fact, data from the *Monitoring the Future* study indicate that while use of most illegal drugs is leveling off or decreasing, anabolic steroid use among adolescent males is increasing (Johnston, O'Malley, & Bachman, 2003). This survey of illegal drug use among adolescents in the 8th, 10th, and 12th grades indicated that from 1998 to 1999, steroid use among adolescent boys increased

approximately 50%. The prevalence rates for subsequent years continue to show an upward trend, with estimates of 2.5% in 8th grade, 3.0% in 10th grade, and 3.5% in 12th grade (Johnston et al.). From 2000 to 2001, disapproval of steroid use among male students in the 12th grade experienced a significant decrease. Data from this study also suggest that the perceived availability of steroids is high, particularly in the upper grades.

Serious physical and psychological side effects are associated with extended use of anabolic steroids (Blouin & Goldfield, 1995; Brower et al., 1994). Physical side effects of steroid use include stretch marks, acne, breast enlargement, sterility, heart disease, and early onset diabetes (Blouin & Goldfield; Evans, 1997), while psychological effects include depression, mania, suicidal ideation, aggression, psychosis, addiction, and homicidal violence (Brower et al.).

Testosterone prohormones. Prohormones, synthetic hormones with a chemical structure similar to anabolic steroids, are another substance frequently used by men in attempt to increase muscle mass (Bahrke, 2007). Prohormones, unlike steroids, are not illegal and are readily available for purchase in the United States. Research suggests that the use of prohormones among college men is 7% (Kanayama, Gruber, Pope, Borowiecki, & Hudson, 2001) and may be as high as 18% among men in the general population (Williams, Andersen, & Winett, 2004). Thus, a significant percentage of men appear to use prohormones. As with steroid use, prohormone intake can result in heightened risk of liver, kidney, and heart disease (Kraemer, Rubin, French, & McGuigan, 2002).

Ephedrine. Ephedrine, a central nervous system stimulant and beta-receptor agonist, has been included in products such as Animal Cuts and Ripped Fuel (Bahrke, 2007, p. 148). Ephedrine is used to enhance muscle contractility, increase blood output of the heart, and

increase blood sugar levels. Ephedrine is also often used alone or in combination with caffeine/aspirin to suppress appetite and assist in weight loss (Dullo, 1993; Rawson & Clarkson, 2002), and many products containing ephedrine also contain caffeine (Bahrke). Physical and psychological difficulties associated with ephedrine use include irritability, sleeplessness, headache, nausea, tachycardia, vomiting, motor restlessness, and urinary disorders (Bahrke). More serious problems associated with use include psychosis, seizure, stroke, myocardial infarction, and death (Rawson & Clarkson).

Between 1993 and 1997, over 800 negative events and 34 deaths attributed to ephedrine ingestions were reported to the U.S. Food and Drug Administration (U.S. Food and Drug Administration [FDA]; 1997). Hydroxycut, a weight loss supplement that previously contained the ingredient ephedrine, was removed from the market in 2009 by the FDA. The supplement was linked to serious health problems including liver injury, cardiovascular disorders, rhabdomyolysis, and one death (FDA, 2009).

Creatine. Creatine is one of the most popular dietary supplements in the world and is used to increase body mass (Branch & Williams, 2002). Commercial products containing creatine include Animal Max, ATP Advantage, and Create (Bahrke, 2007). Creatine is an amino acid derivative that is both endogenously synthesized and consumed as part of a carnivorous diet (Bahrke, p. 152). Because it is a component of animal products, creatine use is not banned by governing sport bodies. Thus, part of creatine's appeal is the perception that it is safe compared to other supplements such as anabolic steroids. Men who have consumed creatine have reported experiencing cramping, dehydration, and muscle strains (Bahrke). Additionally, concerns about renal dysfunction have been cited (Branch & Williams).

The 2008 *Monitoring the Future* study, funded by the National Institute on Drug Abuse, revealed prevalence of creatine use to be very high among adolescent boys. The 2008 annual prevalence use of creatine was 3.2%, 11.5%, and 15.7% among males in the 8th, 10th, and 12th grades. In other words, one in every six 12th grade boy had used creatine in the prior year. In a separate study of creatine use among men, 48% of participants reported having used creatine at some point to increase size (Williams et al., 2004). Those individuals using creatine were also found to be more likely to use other performance enhancing supplements, such as protein and ephedrine. Kanayama and colleagues (2001) examined the three-year prevalence rates of substance use in 334 men utilizing commercial fitness facilities and also found that 47% of these men had used creatine within that time frame.

Supporting Theoretical Framework

Sociocultural Theory

Although numerous theoretical models have been proposed to account for body image dissatisfaction, research has demonstrated that of these theoretical models, societal factors exert a powerful influence on the development and maintenance of such dissatisfaction (Heinberg, 1996; Thompson et al., 1999). The sociocultural model views the mass media, as well as other sources of sociocultural pressure, as powerful transmitters and reinforcers of sociocultural body ideals (Levine & Harrison, 2004). The sociocultural model emphasizes that current societal standards for attractiveness inordinately stress the importance of muscularity for men (Gray & Ginsberg, 2007) and further contends that these current societal standards are omnipresent and often out of reach for the average U.S. man (Thompson et al.).

The sociocultural model purports that the media's omnipresent portrayal of muscular male figures may influence men's body image in a number of ways. The processes through

which the media influences men's body image include social comparison, internalization of the muscular-ideal, and investment in appearance for self-evaluation (Tiggemann, 2002). Men are exposed to multiple media sources that depict the male body as far more muscular than that of the average man (Pope, Phillips, et al., 2000). The result of such exposure to muscular male images is a desire among some men to be as muscular as the models presented. In fact, in countries where men are increasingly exposed to the muscular-ideal, a simultaneous increase in the pursuit of muscularity has been found (Pope, Olivardia, Borowiecki, & Cohane, 2001). Not surprisingly then, in countries where the media does not promote the muscular-ideal, men generally experience lower levels of body image dissatisfaction (Yang, Gray, & Pope, 2005). Repeated exposure to such images may lead to internalization of the muscular-ideal such that, for some men, it becomes a reference point against which they judge themselves. Furthermore, the muscular-ideal links muscularity and attractiveness with happiness, desirability, power, masculinity, and status (Levine & Harrison, 2004). Acceptance of the muscular-ideal may mean that self-worth can become equated with some men's self-perceived attractiveness. Thus, appearance becomes a core basis of self-evaluation, with self-worth contingent on meeting the societal ideals.

The sociocultural model asserts that increasing pressure to exemplify the muscular-ideal portrayed by the media may be influencing some men to develop greater body image dissatisfaction (Peterson, 2007). The muscular-ideal is unattainable for the majority of U.S. men, and media images are frequently edited or airbrushed to achieve perfection (Thompson et al., 1999). Unfortunately, many men are unaware of these editing techniques and may perceive the images as "realistic representations of physical attractiveness and as appropriate comparisons for appearance" (Agliata & Tantleff-Dunn, 2004, p. 9). The media also provides information on how

to attain the muscular-ideal through diet, exercise, and supplement use, sending the message that it is attainable if one works hard and uses the proper techniques (Gray & Ginsberg, 2007).

Consequently, some men may falsely believe that the muscular-ideal depicted by media images is realistic and easily achievable. The sociocultural model proposes that failure to attain the muscular-ideal is associated with a variety of consequences in addition to body image concerns (e.g., depression, decreased self-esteem; Tiggemann, 2002, p. 92). Therefore, living in a society that supports a largely unrealistic body ideal is thought to be an important context in which body image dissatisfaction develops.

Cultivation Theory

In addition to sociocultural theory, extant theories of media effects provide further support for the assertion that the media may strongly influence some men's body image dissatisfaction. Most notable is cultivation theory, which addresses the relationship between television content and viewers' beliefs about social reality (Gerbner, 1969). Specifically, cultivation theory specifies that common conceptions of reality are cultivated by the overall pattern of television programming to which individuals are regularly exposed over long periods of time (Gerbner; Gerbner, Gross, Morgan, & Signorielli, 2002). In other words, cultivation theory suggests that exposure to television subtly influences viewers' perceptions of reality. Therefore, according to cultivation theory, those individuals who spend more time watching television are more likely to perceive the real world in ways that reflect the most common and recurrent messages of the television world (Gerbner & Gross, 1976). For example, the most studied issue in the cultivation literature is the prevalence of violence on television and its effects on perceptions of real-world incidence of crime and victimization (see review in Potter, 1993). Numerous content analyses of network television programs have demonstrated that the number

of violent acts on U.S. television greatly exceeds the amount of real-world violence (Gerbner & Gross). In turn, research has shown that heavy television viewers: (a) overestimate the incidence of serious crime in our society and (b) are more likely to believe that the world is a dangerous place where people cannot be trusted (Gerbner, Gross, et al.).

Although no known research has specifically applied cultivation theory to body image dissatisfaction, one can speculate about the media's effects on men's body image. One particular genre form of media, reality television, may be particularly influential. Reality television is predicated on the notion that its participants are not acting. Participants are either non-actors who have volunteered to be cast on a reality program or are celebrities who have allowed themselves to be documented, either as they "live out the mundane details of their existence or as they temporarily reside in some contrived, unfamiliar setting" (Kosovski, 2007, p. 3). By portraying male cast members who embody the muscular-ideal, the media, specifically reality television, may be cultivating unrealistic beliefs of what "real" men should look like. Although there are no content analyses of reality television programming in regards to types of male bodies portrayed, one may hypothesize that cultivation theory extends to body image dissatisfaction. If cultivation theory does, in fact, extend to body image dissatisfaction, it may be possible that heavy reality television viewers: (a) strongly believe that the male muscular-ideal is typical of the "average" male and (b) that such an ideal is, or should be, easily attainable.

Categorization

Cognitive psychology offers an explanation of processes through which television images may lead to the development of the idea that men should be muscular. The comparison process present in both sociocultural and cultivation theories resembles the cognitive phenomenon of categorization. Categorization involves the cognitive processes of identifying prototypes and

exemplars, which are used as symbolic representations of the category (Lee & Vanpaemel, 2008). The prototype contains the “essential features” of the object (Ross & Makin, 1999), while exemplars are specific examples of something in the category (Medin, 1989; Ross & Makin). For example, the prototype of a bird may be defined as an animal possessing the following essential features: feathers, a beak, and the ability to fly. However, an exemplar of a bird would be the identification of a specific bird, such as a robin or a cardinal.

In the case of the muscular-ideal, an exemplar would be a particular individual. Prototypes are merged exemplars, such that the individual (at a subconscious level) pieces together multiple exemplars to form one symbolic representation that is not based upon any single (or observed) object (Medin, 1989; Ross & Makin, 1999). With regard to the muscular-ideal, this would involve media viewers creating an image of what constitutes the muscular-ideal based upon a combination of multiple images. In this case, an individual develops a symbolic representation that is based upon combining multiple images of men who are members of the muscular-ideal category. Ultimately, the prototype or exemplar is used as a symbolic representation that the individual accesses when he *thinks* of a category (i.e., the muscular-ideal).

Just as individual differences exist in the extent to which individuals engage in comparison behaviors, individuals differ in how they categorize a specific phenomenon (Gibbons & Buunk, 1999; Thompson, Heinberg, & Tantleff, 1991), which in this case might be the ideal man. For example, some men may perceive extreme muscularity to be an essential feature of the ideal man, while another may focus upon financial assets. These differences may account for differences in level of body image dissatisfaction as group membership (in this case, being a man requires being a member of the ideal mesomorphic body type group) may carry real or imagined

rewards that influence satisfaction with self-determined membership classification (for a discussion of rewards in social groups see Turner, Brown, & Tajfel, 1979).

In the area of body image dissatisfaction, categorization is critical as it relates to physical appearance comparison. It is highly likely that men who are dissatisfied with their bodies have determined that their bodies do not “belong” in the ideal category (i.e., the muscular-ideal). In the evaluation of category membership, it is possible that men use a categorization approach and compare their bodies to an unrealistic ideal (a prototype or rare exemplar) that is nearly impossible to achieve, which would increase the likelihood that the individual would not perceive himself as meeting category membership. Because some men may associate success, attractiveness, masculinity, and power with the muscular-ideal (Tiggemann, 2002), they may be motivated to try to obtain category membership.

Sociocultural theory asserts that living in a society that supports a largely unrealistic body ideal is an important context in which body image dissatisfaction develops. Cultivation theory would suggest that the proportion of muscular men portrayed in the media can influence how common, realistic, and attainable men believe the mesomorphic body type to be, while categorization offers a mechanism through which media images can influence men’s body image. More specifically, categorization helps explain how men cognitively organize the visual media images of muscular men they see. This cognitive representation provides an avenue through which men can compare muscular media images (that sociocultural theory suggests can negatively influence body image) with their own bodies.

Reality Television and the Muscular-Ideal

Reality television is a phenomenon that has dramatically changed the face of television programming (Ebersole & Woods, 2007). Some consider it to be the most significant

development in recent American television history (Glynn, 1995). Few trends have been as far-reaching and widely embraced as the genre that purports to showcase ordinary people “improvising around the theme of being themselves in carefully constructed, ‘artificial’ situations” (Ebersole & Woods). The popular emergence of this genre in prime time network television was made evident in the 2000-2001 season of *Survivor*, which became the most watched show of the season with over 51 million viewers watching the final episode (Caristi, 2001). In 2003, the second season of Fox’s *American Idol* debuted with approximately 30 million viewers; making it Fox’s best showing ever, excluding Super Bowl or World Series broadcasts (Rudolph, 2003). In 2002, *The Osbournes* became MTV’s most watched series with more than four million viewers. According to Nielsen Media Research, the 25 top-rated television programs for the 2002-2003 seasons included seven reality television titles. For teen viewers, nine of the top 25 programs were from this genre.

Television has increasingly promoted the muscular-ideal, and male television characters exhibiting increasingly muscular bodies can be found on virtually every type of television program including soap operas, professional sporting events, and reality television (Gray & Ginsberg, 2007). Reality television in particular, may play a unique role in influencing body image dissatisfaction among men. In one of the few studies examining the influence of reality television on body image, Mazzeo et al. (2007) found that women who internalized the thin-ideal reported decreased self-esteem after viewing such programs. The researchers further concluded that viewing reality television may be a factor in disordered eating behaviors and attitudes among women. Unfortunately, at present, there have been no investigations on the impact of reality television on male viewers’ body image dissatisfaction. However, it is possible that reality

television plays a similar role in the development of body image dissatisfaction and/or drive for muscularity in men.

Various forms of television programming have been criticized for their (over)portrayal of muscular male images (Gray & Ginsberg, 2007). Building upon such criticisms on the effects of television's depiction of ideal body types, it is possible that the same criticisms would extend to reality television. For example, it is possible that reality television may primarily depict male cast members with a certain body type, particularly muscular body types. Additionally, if reality television implicitly suggests to viewers that the muscular body type is common, easily attainable, and linked to one's body image and life satisfaction, we could begin to extend the criticisms of the media with regard to the negative effect on body image dissatisfaction to reality television for men. If male viewers adopt these viewpoints, it is possible that reality television's depiction of muscular male bodies would lead some viewers to attempt to achieve the muscular-ideal through a number of unhealthy and potentially dangerous behaviors such as extreme dieting, binge eating, overexercise, and/or steroid use. Although no research has tested these assertions, such speculative arguments are consistent with psychological theory. In other words, sociocultural and cultivation theories, which have been used to understand the general effects of media content on body image dissatisfaction, provide one way to understand the mechanism through which reality television might impact the perceptions and behaviors of viewers (Mazzeo et al., 2007).

General Media and Body Image Dissatisfaction

Body image researchers have implicated the media as one source of social influence on body image dissatisfaction. More specifically, several researchers have employed sociocultural theory, using the media as one source of information about cultural norms, to study men's body

image (Cashel, Cunningham, Landeros, Cokley, & Muhammad, 2003; Morry & Staska, 2001; Vartanian, Gian, & Passino, 2001). As would be expected, multiple studies support the notion that the media may play a role in body image dissatisfaction in men. Exposure to media such as fitness magazines and general mass media (e.g., magazine articles and advertisements) has been linked to body image dissatisfaction for some men (Morry & Staska; Vartanian et al.). Beyond the direct effects of exposure to media, internalization (accepting the media standards or ideal) is associated with higher levels of body shape dissatisfaction, muscle dissatisfaction, and self-objectification (the tendency to evaluate oneself based on physical appearance) in college men (Cashel et al., 2003; Morry & Staska; Vartanian et al.). Research examining media influence on body image dissatisfaction has also linked media exposure to the muscular-ideal with eating disorder symptomatology and depression (Agliata & Tantleff-Dunn, 2004; Morry & Staska).

Experimental studies offer additional support for the sociocultural model in which the media influences body image dissatisfaction among men (Agliata & Tantleff-Dunn, 2004; Baird & Grieve, 2006; Barlett, Harris, Smith, & Bonds-Raacke, 2005; Grogan, Williams, & Conner, 1996; Hargreaves & Tiggemann, 2009; Leit, Gray, & Pope, 2002; Lorenzen, Grieve, & Thomas, 2004). More specifically, studies of exposure to television commercials and other advertisements that depict muscular men have led to increased muscle dissatisfaction and greater discrepancy between current and ideal physiques among men when compared to control groups exposed to neutral media (Agliata & Tantleff-Dunn; Leit et al.). A recent experimental study (Hargreaves & Tiggemann) confirmed that exposure to televised muscular images led to increased body image dissatisfaction in a sample of men, particularly among men high in appearance orientation (investment in one's physical appearance). Furthermore, engaging in upward social comparison predicted change in body image satisfaction. Such a finding provides evidence for the role of

comparison processing in men's body image. The experimental studies also support previous findings suggesting that men's body dissatisfaction is primarily related to level of muscularity rather than body fat (Pope, Gruber, et al., 2000).

In addition to experimental studies regarding television media, a recent experimental study (Hobza & Rochlen, 2009) examined the effects of exposure to print-based images of the muscular-ideal on men's body esteem, self-esteem, and drive for muscularity. The authors found that men who viewed muscular images reported significantly lower body esteem than men in the neutral (control) group. This finding is consistent with related research. For example, Hobza, Walker, Yakushko, and Peugh (2007) found that men who viewed images of muscular males reported lower body-esteem than those men in a control group. Findings from both studies suggest that some men feel worse about their bodies after viewing ideal images portrayed in the media.

Experimental studies using other stimuli also provide support for the sociocultural influence model on the development of body image dissatisfaction (e.g., Grogan et al., 1996; Lorenzen et al., 2004). For example, experimental exposure to pictures of same-sex models and muscular images of men was associated with poorer body-esteem (Grogan et al.; Lorenzen et al.) compared to pre-exposure levels and men in the control group. These results suggest that even brief exposure to muscular images has the potential to affect men's body dissatisfaction and negative feelings about their bodies (Baird & Grieve, 2006).

Although previous research has explored the media's influence on men's body image dissatisfaction, few studies have examined sociocultural influences on the drive for muscularity. Drive for muscularity may be defined as the "desire to achieve an idealized, muscular body type" (Morrison, Morrison, & Hopkins, 2003). McCreary and Sasse (2000), as well as Morrison and

colleagues, assert that this construct does not reflect a drive in the classic sense (i.e., a physical or instinctual need); therefore, it may be more appropriate to consider this drive as a desire or wish to be muscular. Based on this premise, researchers have examined media exposure and the drive for muscularity in college-age men and found that media exposure was positively correlated with the desire to be muscular (Morrison et al.). Additionally, men who reported never having read male-oriented magazines experienced significantly lower levels of the desire to be muscular than men who sometimes or often read the magazines (Morrison et al.). Similarly, Hatoum and Belle (2004) found that total time spent consuming certain types of media (e.g., magazines, television, movies, and music videos) was associated with increased levels of desire to be muscular for men. Moreover, men who skimmed through more male-oriented magazines (as opposed to magazines in other genres such as news or business) in the previous month reported elevated levels of concern about every aspect of muscularity compared to other men. As such, certain types of media and certain genres may be more problematic than others.

Print Media and Television Portrayal of the Muscular-Ideal

The substantial number of studies that have linked media exposure to increased muscle dissatisfaction and drive for muscularity, coupled with the increase in men's muscle dissatisfaction over time, have led some researchers to examine the content of men's media. Research suggests that the muscular-ideal depicted in popular magazines has become more lean and muscular over the past two decades (Labre, 2005). Images of muscular men are portrayed on the covers of numerous health, fitness, and bodybuilding magazines for men. Although magazines targeted towards male bodybuilders have been in circulation since the 1930s, they have typically been oriented towards professional bodybuilders (Labre; Gray & Ginsberg, 2007). Only in the late 1980s, when *Men's Fitness* and *Men's Health* were created, did men's

magazines begin to portray the desirability of “six-pack abs” and “perfect pectoral muscles” to average men (Labre, p. 188). *Men’s Fitness* and *Men’s Health* both have circulation rates over 600,000 and 1,000,000, respectively (Gray & Ginsberg; Labre). The high circulation rates of these and many other muscle and fitness magazines indicate that muscular media images are widespread and that men are exposed to these images, which subsequently may negatively impact many men.

Although relatively few studies have examined the role of print media in promoting body image dissatisfaction and drive for muscularity among men compared to the body of research on women, there is evidence that the ideal body propagated by the media is becoming increasingly muscular and that body image dissatisfaction and related problems are increasing among men (Labre, 2002). Research has demonstrated that images of the muscular-ideal are not only prominent in the media but that they are presented to men and women disproportionately (Frederick, Fessler, & Hazelton, 2005). For example, the level of muscularity of male models on the covers of women’s magazines (e.g., *Cosmopolitan*) was significantly less muscular than male models in men’s magazines (e.g., *Men’s Health*, *Men’s Fitness*, and *Muscle & Fitness*) between 2001 and 2004 (Frederick et al., 2005). Pope, Gruber, et al. (2000) suggest that these results may partially explain why men tend to overestimate the level of muscularity that they believe women consider attractive in men.

In addition to print media images, magazine advertisements directed towards men have also changed over time. A content analysis of magazine advertisements and articles across a 32-year time frame, in which the magazine content was coded according to four categories: 1) weight loss, 2) beauty, 3) fitness, or 4) health (Nemeroff, Stein, Diehl, and Smilack, 1994) revealed that the number of weight loss and beauty messages for men did not change, while

magazine content that provided information about increasing muscularity increased (Petrie et al. 1996). Research has also revealed an increase in the number of articles on men's weight and health concerns in men's fashion magazines between 1980 and 1991 (Nemeroff et al.).

Several researchers have examined the content of magazines most frequently read by 18 to 24-year-old males and females. One content analysis identified that men's magazines published significantly more advertisements and articles about altering body shape than about losing weight (Andersen & DiDomenico, 1992). In another study, the 10 magazines most popular among individuals 18 to 24 years old revealed that "men's magazines" were more likely to feature advertisements and articles on shape, while women's magazines were more likely to focus on diet (Harrison & Cantor, 1997). These results have lead researchers to conclude that men are primarily concerned with overall physique. It may be that the media creates and reinforces different ideals for men and women by persuading men to become more concerned with shape (Andersen & DiDomenico). Andersen and DiDomenico suggest that media advertising and the content of the articles may play an important role in influencing men to be primarily concerned with shape when it comes to their physical appearance.

In addition to general content, some researchers have examined specific components of magazines. For example, images containing male models with muscular physiques dominated the advertisements in magazines commonly read by men (i.e., *Business Week*, *Esquire*, *GQ*, *Playboy*, *Rolling Stone*, and *Sports Illustrated*) with between 79% and 94.6% of models in 1158 advertisements having a muscular physique while underweight and overweight models were highly under-represented (Kolbe & Albanese, 1996). In other words, body types other than the mesomorphic ideal are not included as frequently in male-oriented magazine advertisements.

The focus of bodybuilding magazines specifically concerns muscularity. As such, researchers have examined the content of this genre in isolation. In one study examining the content of a popular bodybuilding magazine, researchers identified three main themes among the advertisements (White & Gillett, 1994). The first theme was the portrayal of readers as lacking power and control unless they embody the muscular-ideal (White & Gillett). This theme seems to be used as a strategy to promote a product or service. The second theme involves the promise of transformation from a weak self to a strong and powerful self (White & Gillett). The advertisements suggest to the reader that he would achieve a muscular body and a more powerful self-identity by utilizing their services and products. The third theme associated masculinity with muscularity (White & Gillett). By obtaining a muscular body, the advertisements suggested that the reader would achieve greater power in the social world and dominance over women and other men. In light of the fact that reading health and fitness magazines is related to an increased commitment to becoming muscular among adolescent boys (Botta, 2003) who, as a group, report that health and fitness magazines are an important source of information for muscle building behaviors (O’Dea & Rawstorne, 2001), the content (i.e., portrayal of lack of muscularity as unacceptable) of health and fitness magazines has the potential to negatively affect adolescent men’s health related behaviors.

Although research indicates that that the muscular-ideal plays a central role in men’s magazines, the depiction of the muscular-ideal extends from men’s magazines into women’s magazines. Over the past 40 years, researchers have observed greater use of young male bodies in fashion magazines and in marketing a variety of products (Davis, Shapiro, Elliot, & Dionne, 1993). For example, the proportion of undressed men included in women’s magazines has skyrocketed, jumping from only 3% of ads containing men in the 1950s to 35% in one year

during the 1990s (Pope, Olivardia, et al. 2001). Moreover, the Body Mass Index (BMI), an estimation of body fat, increased sharply among the male models in *Playgirl*, a women's magazine featuring nude muscular male models between 1986 and 1996 (Spitzer, Henderson, & Zivian, 1999). Although an increasing BMI may sound counterintuitive to an increase in muscularity; very muscular men will, in fact, have a higher BMI. Additionally, if one examines the content of *Playgirl* models over a longer period of time (i.e., from 1973 to 1997) the BMI and the Fat Free Mass Indices (FFMIs), indices of muscularity, increased while body fat percentage decreased (Leit, Pope, & Gray, 2001). These results indicate that the models became leaner between 1973 and 1997, while also becoming more muscular. Perhaps even more troubling, eight (7%) of the models in *Playgirl* had FFMIs greater than 25, which represents a level of muscularity and size that is thought to be virtually impossible to attain without the use of steroids (Pope, Phillips, et al., 2000).

Although a trend of increasing muscularity is evident in print media, this same trend has not been observed among men in the general population (Spitzer et al., 1999). This discrepancy between media images and the general population likely leads to or reinforces a number of erroneous beliefs held by some men (e.g. that they should be very muscular in order to attract women) and encourages men to engage in behaviors that may reduce the discrepancy (e.g. use of dietary supplements and/or steroids to achieve the muscular-ideal; Peterson, 2007).

As in print media, television has also increasingly promoted the muscular mesomorphic ideal. Male television characters exhibiting increasingly more muscular bodies can be found on virtually every type of television program and advertisement, including soap operas, reality television, and professional sporting events (Gray & Ginsberg, 2007). The increased muscularity of television stars can be seen in extreme examples such as Arnold Schwarzenegger, Sylvester

Stallone, and Jean-Claude Van Damme. The most muscular stars from the 1940s and 1950s, such as Humphrey Bogart and Marlon Brando, were far less muscular than many contemporary stars (Gray & Ginsberg). This increase in muscularity as seen in male television stars seems to parallel the increase in the muscular-ideal seen in other aspects of culture, such as print media. In addition, men that appear in television commercials are twice as likely to have the mesomorphic body type over both endomorphic and mesomorphic combined (Lin, 1998). Just as print media and television have increasingly promoted the muscular mesomorphic ideal, so have motion pictures. In a recent content analysis of top-grossing action films from 1980 to 2006 (Morrison & Halton, 2009), researchers found that that actors in this genre have become increasing lean and muscular over the last several decades. If, in fact, images included in print media, television, and motion pictures reflect societal ideals, these results may suggest that society is placing increased value on male bodies that reflects the muscular physique.

Research Questions and Operational Definitions

Q1: To what extent are primary male cast members on various reality television programs not muscular, somewhat muscular, very muscular, or unnaturally muscular?

Primary Male Cast Member: Those individuals (who self-identified as male) who appeared either at the start of the season as part of the cast and/or those individuals who were given substantial amounts of camera time (including participation in private interviews during filming of the show). Individuals initially designated as primary male cast members were then cross-referenced with those individuals listed on the “Cast Bios” section of each reality television program website (through their respective channel websites).

Reality Television: Films real people as they live out events (contrived or otherwise)... as these events occur. Such programming is characterized by several elements: (a) people portraying themselves... (b) filmed at least in part in their living or working environment rather than on a set, (c) without a script, (d) with events placed in a narrative context, (e) primarily for the purpose of viewer entertainment (Nabi, Biely, Morgan, & Stitt, 2003).

Not muscular: No signs of muscle definition (Labre, 2005). Images included in rows one and two of the Bodybuilder Image Grid-Original (BIG-O; Hildebrandt, Langenbacher, & Schlundt, 2004).

Somewhat muscular: Some muscle definition (Labre, 2005). Images included in row three of the BIG-O (Hildebrandt et al., 2004).

Very muscular: A lot of muscle definition is visible (e.g. ripped abdominals; Labre, 2005). Images included in row four of the BIG-O (Hildebrandt et al., 2004).

Unnaturally muscular: The look of a professional bodybuilder; a hypermale look only achievable through the steroid use (Labre, 2005). Images included in row five of the BIG-O (Hildebrandt et al., 2004).

Q2: To what extent do primary male cast members on various reality television programs exhibit low body fat, medium body fat, or high body fat?

Low body fat: Very lean; no signs of body fat visible (Labre, 2005). Images included in columns one and two of the BIG-O (Hildebrandt et al., 2004).

Medium body fat: Some body fat visible (e.g., love handles, stomach not flat; Labre, 2005). Images included in columns three and four of the BIG-O (Hildebrandt et al., 2004).

High body fat: Obese; a large amount of body fat visible (e.g., large stomach; Labre, 2005). Images included in columns five and six of the BIG-O (Hildebrandt et al., 2004).

Q3: Does level of body fat/muscularity of primary male cast members on various reality television programs reflect the levels of body fat/muscularity of the “average” U.S. man?

Average U.S. man: Current guidelines from the National Institute of Health define adult individuals of normal weight at $18.5 < \text{BMI} < 24.9$, overweight at $25 < \text{BMI} < 29.9$, and clinically obese at $\text{BMI} \geq 30$ (Heyward & Stolarczyk, 1996). The average present-day 21-year-old male has exceeded the BMI guideline and is considered overweight (Huh & Bolch, 2003). For the purpose of the present study, 26% of U.S. men were considered muscular and 70% were considered overweight (NHANES, 2001-2004).

Q4: To what extent are differences in the level of body fat/muscularity of primary male cast members seen as a function of the type of reality television show (i.e., reality drama, endurance contest, or romance/dating)?

Reality drama: Offer an insider’s perspective into the “real” lives of celebrity participants (Kosovski, 2007).

Endurance contest: Similar to reality dramas in their focus on individual cast members and the stories told about them. During reality endurance contests, games are played and prizes are awarded (Kosovski, 2007).

Dating/romance show: Center on finding a match for one or more individuals, with successful coupling as the conclusion or goal (Kosovski, 2007).

III. Methods

As discussed in the previous chapter, this dissertation addressed the following research questions:

Q1: To what extent are primary male cast members on various reality television programs not muscular, somewhat muscular, very muscular, or unnaturally muscular?

Q2: To what extent do primary male cast members on various reality television programs exhibit low body fat, medium body fat, or high body fat?

Q3: Does level of body fat/muscularity of primary male cast members on various reality television programs reflect the levels of body fat/muscularity of the “average” U.S. man?

Q4: To what extent are differences in the level of body fat/muscularity of primary male cast members seen as a function of the type of reality television show (i.e., reality drama, endurance contest, or romance/dating)?

One way to address these questions would be to analyze the contents of reality television programming and draw inferences regarding how these programs may promote concerns among men related to attaining the muscular mesomorphic ideal. During the present study, a quantitative, rather than qualitative content analysis was conducted for several reasons. First, quantitative content analysis is a well-established method for categorizing the content of media texts (Neuendorf, 2002; Riffe, Lacy, & Fico, 1998). Second, existing studies that have examined print media targeting men (Labre, 2002; Labre, 2005) provided the coding categories that could be measured quantitatively in this study. Finally, existing research based on sociocultural theory

allowed for the development of research questions regarding the content of reality television programming (Mazzeo et al., 2007).

Perhaps more importantly, a quantitative content analysis allowed for each of the images included in the present study to be coded by three independent coders who were blind to the research questions being tested, thereby contributing to greater objectivity. As suggested by naturalistic researchers, no research is value-free (Lincoln & Guba, 1985). This applies to both quantitative and qualitative studies. In developing research questions, selecting measurement instruments, constructing coding protocols, and even in interpreting statistical results, the researcher makes decisions that are reflective of his or her background, experience, education, knowledge, and ideology. However, in a qualitative content analysis, the researcher's involvement is even more substantial. In effect, the themes or categories that are identified via a qualitative analysis emerge from the interaction between the researcher and the data. The researcher's personal views, gender, race, age, and academic background on the topic of this dissertation could shape her interpretation of these data, which may be different from the interpretations made by male viewers of reality television programming. Therefore, a quantitative analysis was deemed more appropriate.

An additional advantage of conducting a quantitative content analysis is that the study can be easily replicated by other researchers. In order to ensure that an adequate level of interrater reliability would be attained, detailed coding instruments were used (Appendix), which may be of use to other researchers.

Design

Content analysis has been defined as a systematic, replicable technique for condensing many words of text into fewer content categories based on explicit rules of coding (U.S. General

Accounting Office [GAO], 1996; Krippendorff, 1980; Weber, 1990). Holsti (1969), however, offers a broader definition of content analysis as, "any technique for making inferences by objectively and systematically identifying specified characteristics of messages" (p. 14). Holsti's definition does not restrict the design of content analysis to the realm of textual analysis; rather, it allows the design to be applied to other areas such as the coding of body weights among male characters on prime-time television situation comedies (e.g., Alexander, 2003) and the coding of muscular male images in print media (e.g., Spitzer et al., 1999) and motion pictures (Morrison & Halton, 2009).

Content analysis enables researchers to sort through large amounts of data in a systematic fashion (GAO, 1996). It further allows researchers to discover and describe the focus of individual, group, institutional, or social attention (Weber, 1990). Content analysis may be used to "describe the communication, draw inferences about its meaning, or infer from the communication to its context, both of production and consumption" (Riffe et al., 1998, p. 20). In this study, a content analysis was used to categorize the contents, images of primary male cast members, from various reality television programs and draw inferences about their meaning.

At least three issues can occur when data are being assembled for content analysis. First, when a substantial number of documents from the "population" are missing, the content analysis should be abandoned. Second, inappropriate records (e.g., ones that do not match the definition of the document required for analysis) should be discarded; however, a record should be maintained regarding the reason. Finally, some documents may meet the requirements for analysis but may be "uncodable" due to ambiguous content (GAO, 1996). During this study, the researcher encountered issues regarding inappropriate records, as well as uncodable data. When these issues occurred, a description of the steps taken to address the concerns was included.

Criteria for Evaluating Quantitative Content Analyses

Quantitative content analysis shares many characteristics with other quantitative methods, including a concern with objectivity, an *a priori* design, reliability, validity, and replicability (Neuendorf, 2002). These criteria, as well as the methods used to address them, are summarized next.

Objectivity. As previously stated, no research is value-free (Lincoln & Guba, 1985). While developing research questions, selecting measurement instruments, constructing coding sheets and protocols, and interpreting statistical results, the researcher makes decisions that are reflective of his or her background, gender, experience, education, knowledge, and ideology. Therefore, objectivity, or freedom from researcher bias, is crucial in research design. Its achievement in this study was supported by the use of three independent coders unfamiliar with the research questions, who coded 100% of the contents included in the sample.

A Priori Design. Two approaches exist to code data during a content analysis, emergent coding and *a priori* coding. During emergent coding, categories are established following some preliminary examination of the data. However, in an *a priori* design, the categories are established prior to the analysis based upon theory. Researchers have agreed upon the designated categories, and the coding is then applied to the data. Revisions are made as necessary, and the categories are established up to the point that maximizes mutual exclusivity and exhaustiveness (Weber, 1990). An *a priori* design was used in the present study - the research questions and coding sheets for this content analysis were all developed prior to data collection.

Reliability. Reliability addresses the extent to which a measure or procedure yields the same results on repeated trials (Babbie, 2001). Weber (1990) notes, "To make valid inferences from the text, it is important that the classification procedure be reliable in the sense of being

consistent: Different people should code the same text in the same way" (p. 12). Therefore, reliability was addressed in this content analysis via the calculation of interrater reliability, which measured the level of agreement between the three coders on 100% of the coded materials.

Choosing an index of interrater reliability was complicated by the number of indexes available. Popping (1988) identified 43 measures for nominal data, primarily applicable to data generated by only two observers. After reviewing a number of these reliability indexes, Krippendorff's alpha was determined to be best suited for use in the present study for a number of reasons (as discussed in Hayes & Krippendorff, 2007). First, it generalizes across all scales of measurement. This was critical in the present study as data was analyzed using both ordinal and nominal scales. Second, Krippendorff's alpha can be used with any number of coders. This was important in the present study as three independent coders were used to code 100% of the materials. Third, it can be used with or without missing data. This was critical in the present study because some images were "uncodable" and therefore had to be entered as "missing" data. Finally, Krippendorff's alpha satisfies all of the important criteria for a good measure of reliability (see Hayes & Krippendorff for a review of criteria). Despite its many advantages, Krippendorff's alpha is not among the default statistical commands available in SPSS Statistical Package 18.0. However, individuals familiar with concerns of interrater reliability and media content analysis have developed a macro that computes the Krippendorff's alpha. The macro creates the commands using the syntax function in SPSS, and this macro was used for the present study to determine interrater reliability among the three independent coders (described in Hayes & Krippendorff).

Validity. Validity refers to the extent to which the content analysis measured what the researcher wanted to measure. As described by Stacks and Hocking (1992), "To the extent that

the scales or questions measure what they are thought to measure, they are valid. To the extent that the scales or questions measure something else or nothing at all, they are not valid” (p. 127). In determining the validity of the measurement techniques used in a content analysis, several types of validity may be considered. The most basic, though least scientific, is face validity, or the extent to which a measurement technique is valid “on its face” (Babbie, 2001, p. 143). In this study, face validity was supported through a careful review of all content analysis variables and categories by the researcher.

Content validity refers to the extent to which a measure reflects the full range of aspects or meanings of the concept being measured (Babbie, 2001). Achievement of content validity was supported by a thorough review of the existing literature on men’s body image, reality television programming, as well as content analyses to identify existing measures that could be adopted for use in this study (e.g., Labre, 2005).

Construct validity assesses the extent to which a measure used in the content analysis is related to other measures (or constructs) in a way consistent with hypotheses derived from theory (Neuendorf, 2002). Both convergent and discriminant validity are considered subcategories of construct validity. Convergent validity refers to the degree to which a measure (or construct) is similar to other measures (or constructs) that it should theoretically be similar to (Neuendorf). Discriminant validity, on the other hand, describes the degree to which the measure (or construct) is not similar to other measures (or constructs) that it should not theoretically be similar to (Neuendorf). The BIG-O (Hildebrandt et al., 2004), one measure utilized in the coding portion of the present study, demonstrated good convergent and discriminant validity.

Replicability. Replicability, or the ability to repeat the study with different reality television programs or with a different media genre, was addressed in the present study through

the development of detailed coding sheets (Appendix). These coding sheets can be used by other researchers wishing to replicate this study.

Procedures

The present study examined primary male cast members from three types of reality television programming, 1) reality dramas, 2) endurance contests, and 3) dating/romance shows. Reality dramas offer an insider's perspective into the "real" lives of celebrity participants (Kosovski, 2007). Endurance contests are similar to reality dramas in their focus on individual cast members and the stories told about them. During reality endurance contests, however, games are played and prizes are awarded – elements not present in all reality programming (Kosovski). Finally, reality dating/romance shows center on finding a match for one or more individuals, with successful coupling as the conclusion or goal (Kosovski).

Selection of Reality Television Programs

During the present study, the aforementioned types of reality television programming (reality dramas, endurance contests, and dating/romance shows) were examined in an effort to obtain an understanding of the male body types portrayed on reality television. The most popular television channels (those with the highest percentage of viewership) among men ages 18 to 24 were identified through Nielsen Television Ratings (data from the 2007-2008 broadcast seasons). This age group was selected due to research findings demonstrating that college-age men are heavily invested in achievement of the muscular-ideal (e.g., Jacobi & Cash, 1994; McCaulay et al., 1988). The top 15 channels among men ages 18 to 24 were initially identified by the primary researcher and included Adult Swim, ESPN, Comedy, NAN, TBS, FX, Discovery Channel, MTV, USA, TNT, Toon, Spike, History, VH1, and BET. Of these 15 channels, the following

aired reality television programming and were therefore included in the present study: Discovery Channel, MTV, Spike, VH1, and BET.

After determining which channels aired reality television programming (Discovery Channel, MTV, Spike, VH1, and BET), the researcher determined what reality television programs were *premiering* on each of these channels during the Fall 2009 broadcast season (August-December 2009; Table 1). The following reality television programs premiered on the Discovery Channel and were included in the present study: Dirty Jobs, Ghost Lab, and Man vs. Wild. The following reality television programs premiered on MTV and were included in the present study: Jersey Shore, Nitro Circus, Real World/Road Rules Challenge: The Ruins, Styl'd, The City, and The Hills. The following reality television program premiered on Spike and was included in the present study: The Ultimate Fighter Heavyweights. The following reality television programs premiered on VH1 and were included in the present study: Eddie Griffin: Going for Broke, For the Love of Ray J 2, I Want to Work for Diddy 2, My Antonio, Real Chance of Love: Back in the Saddle, Sex Rehab with Dr. Drew, The T.O. Show, Tool Academy 2, and Tough Love 2. The reality television program, Monica, premiered on BET; however, there were no primary male characters in the program. Because this “record” did not match the definition of the contents required for analysis, the program Monica was not included in the content analysis.

Identifying Primary Male Cast Members

After determining which reality television programs would be included in the present study (Table 1), the researcher recorded all episodes of each program using a Digital Video Recorder (DVR). Once the reality television programs were recorded by the DVR, the researcher identified the primary male cast members present on each show. Primary male cast members

were designated as those individuals (who self-identified as male) who appeared either at the start of the season as part of the cast and/or those individuals who were given substantial amounts of camera time (including participation in private interviews during filming of the show). Those individuals initially designated as primary male cast members were then cross-referenced with those individuals listed on the “Cast Bios” section of each reality television program website (through their respective channel websites).

A total of 85 primary male cast members were identified through the aforementioned process (Tables 2, 3, 4, and 5); however, 15 of those primary male cast members were not included in the *measurement* component of the present study due to their not meeting inclusion criteria. The following inclusion criteria were used in the *measurement* component of the present study: measurements could only be taken when the cast members were at no greater than a 45 degree angle with their arms hanging at less than 45 degree angles from their torso, following the methodology of Silverstein, Peterson, and Perdue (1986) and Petrie et al. (1996). To avoid measurement errors that may have occurred as a result of bulky clothing, images of cast members were only measured when the cast members were shirtless or wearing a tight-fitting, collarless t-shirt. Additionally, all measurements were completed as soon as possible after the cast member’s first appearance to avoid incidentally coding any changes in body shape that might have been a function of the type of show (e.g., gaining or losing weight).

Eleven of the 85 primary male cast members were not included in the *coding* component of the present study due to their not meeting inclusion criteria. In other words, some “records” or primary male cast members did not meet the requirements for analysis and were “uncodable” due to ambiguous content (GAO, 1996). To be included in the *coding* component of the present study, primary male cast members needed only to be portrayed as shirtless or in a tight-fitting T-shirt;

they did not have to adhere to the angle requirements outlined in the measurement component of the study.

Measurement Procedures

As previously indicated, the first phase of the present study involved 1) identifying the most popular channels among U.S. men ages 18 to 24, 2) determining which of these channels aired reality television programming, 3) identifying the reality television programs *premiering* on each of these channels during the Fall 2009 broadcast season, 4) identifying the primary male cast members on each of these programs, and 5) obtaining images of each primary male cast member from these programs. During the second phase of the present study, the *measurement* component, the researcher obtained body measurements of the 70 primary male cast members whose images met inclusion criteria.

The researcher assessed shoulder-to-waist and chest-to-waist ratios of the 70 primary male cast members (who met inclusion criteria) using a millimeter ruler. These ratios were chosen because the ideal male body has been described as V-shaped (with broad shoulders tapering to the waist) and because this approach is consistent with the bust-to-waist and hip-to-waist ratios used in studies on female sociocultural ideals of attractiveness (Silverstein et al., 1986). An image of a primary male cast member was measured *only* if two raters (the researcher and one additional rater) agreed that it met all inclusion criteria. In other words, the two raters first determined whether or not the cast member's image met inclusion criteria.

Body measurements of the 70 primary male cast members (who met inclusion criteria) were obtained in the following manner. The researcher initially viewed each episode of each reality television program included in the present study. She then recorded "clips" of each episode where a primary male cast member was portrayed shirtless or wearing a tight-fitting T-

shirt using a Digital Video Disc (DVD) recorder. Those “clips” were then burned to Digital Video Discs (DVDs). After recording “clips” of all 70 primary male cast members meeting the aforementioned criteria (e.g., shirtless), the researcher used the Larcaman program, a video editing program, to “capture” images of the male cast members to a digital file. More specifically, the Larcaman program allowed the researcher to preview the recorded “clips” from the DVD and then "record" or “capture” a still image from the video frame displayed. Those images were then saved to digital files, which were used by the researcher to measure the primary male cast members’ shoulder-to-waist and chest-to-waist ratios. These images were also later used by three additional doctoral level coders assisting with the present study.

Coding Procedures

The third phase of the present study involved additional coding of the “captured” digital images (of primary male cast members – shirtless or in a tight-fitting T-shirt). To be included in the coding component of the present study, primary male cast members needed only to be portrayed as shirtless or in a tight-fitting T-shirt (they did not have to adhere to the angle requirements outlined in the measurement component of the study). After the researcher obtained shoulder-to-waist and chest-to-waist measurements of the 70 primary male cast members who met the *measurement* inclusion criteria, three independent doctoral students (two females and one male; the researcher did not participate in this coding) served as coders for the 74 primary male cast members who met inclusion criteria for the *coding* procedures (mentioned hereafter).

The three coders first determined whether or not each primary male cast member had a stomach or “belly” that “hung” over his waist. Additionally, the level of body fat and muscularity of each primary male cast member was coded by the three independent coders using two separate scales from an existing instrument, the male scale (Law & Labre, 2002). Unlike the

male scale, which combines levels of body fat and muscularity into eight categories, the scales used in the present study allowed coders to code level of body fat and muscularity separately. Concerning body fat, primary male cast members were coded into four possible categories: 1) low body fat, 2) medium body fat, 3) high body fat, or 4) can't tell – a category used for cases in which the coder could not determine a cast member's level of fat. The scale used to code the muscularity of male cast members included five categories: 1) not muscular, 2) somewhat muscular, 3) very muscular, 4) unnaturally muscular, and 5) can't tell.

To aid in the classification of body size, the coders also compared the images of the 74 primary male cast members with the 30 images from the Bodybuilder Image Grid-Original (BIG-O; Hildebrandt et al., 2004). The BIG-O has two scales analogous to the measurement of longitude (body fat columns) and latitude (muscle mass rows). The top left figure represents the column with the least body fat and row with the least muscle mass. From left to right the columns increase in body fat, and from top to bottom the figures increase in muscle mass.

The BIG-O (Hildebrandt et al., 2004) does not provide a muscularity or body fat descriptor for each image (no set of images is designated as not muscular, somewhat muscular, very muscular, unnaturally muscular, low body fat, medium body fat, or high body fat). As such, the researcher and her dissertation chair collectively determined which images presented on the BIG-O (based on rows for muscularity and columns for body fat) were most consistent with those levels of muscularity and body fat used in Labre's (2005) muscularity scale. It was ultimately determined that rows one and two of the BIG-O consisted of images that were not muscular; row three consisted of images that were somewhat muscular; row four consisted of images that were very muscular; and row five consisted of images that were unnaturally muscular. It was further determined that columns one and two of the BIG-O consisted of images

with low body fat; columns three and four consisted of images with medium body fat; and columns five and six consisted of images with high body fat.

To establish adequate interrater reliability (a minimum reliability estimate of .90 was used in the present study), the three coders first participated in a training session (led by the researcher) before initiating the actual coding of data for the present study. During the training session, the researcher initially explained Labre's (2005) body fat and muscularity scales, the images included in the BIG-O (Hildebrandt et al., 2007), as well as instructions for coding images on the coding sheets (see Appendix for a sample coding sheet).

Subsequent to the introduction of the measurement instruments and coding sheets, the researcher and the three coders coded an image (of a supporting male cast member from a reality television program) together using the body fat/muscularity scales and the BIG-O (they additionally indicated whether or not the man in the image had a stomach that "hung" over his waist). The three coders then coded ten additional images of supporting male cast members from reality television programming. Upon completion of the initial coding of training images, data from the coding sheets were entered into SPSS. A reliability estimate (using the macro provided by Hayes & Krippendorff, 2007) for the body fat/muscularity scales and the BIG-O (combined) was obtained using Krippendorff's alpha. The initial Krippendorff alpha value obtained was .84, which did not satisfy the minimum interrater reliability estimate of .90 required in the present study. Therefore, the researcher and three coders coded an additional image together and discussed their designations as a group. After coding this additional image, the coders re-coded the ten training images of supporting male cast members. Data from the second round of coding was entered into SPSS, and a Krippendorff alpha value of .94 was obtained; therefore, the coders

then moved forward with the coding of images of primary male cast members included in the present study. Findings are presented in Chapter 4.

Table 1
Reality Television Programming Premiering in Fall 2009

Channel	Reality television programs
Discovery	Dirty Jobs
	Ghost Lab
	Man vs. Wild
MTV	Jersey Shore
	Nitro Circus
	Real World/Road Rules Challenge: The Ruins
	Styl'd
	The City
	The Hills
Spike	The Ultimate Fighter: Heavyweights
VH1	Eddie Griffin: Going for Broke
	For the Love of Ray J 2
	I Want to Work for Diddy 2
	My Antonio
	Real Chance of Love: Back in the Saddle
	Sex Rehab with Dr. Drew
	The T.O. Show
	Tool Academy 2

Table 2

Primary Male Cast Members on MTV Reality Television Programs

Reality television program	Primary male cast members
Jersey Shore	Mike
	Pauly
	Ronnie
	Vinny
Nitro Circus	Andy
	Erik
	Greg
	Jim
	Tommy
	Travis
Styl'd	Brett
	Cody
	Eric
	Gary
The City	Adam
	Jay
The Hills	Brody
	Justin
	Spencer

Note. Neither Adam nor Jay from The City were included in the analysis.

Table 2 continued

Primary Male Cast Members on MTV Reality Television Programs

Reality television program	Primary male cast members
Real World/Road Rules Challenge: The Ruins	Brad Chet Cohutta Cyrus Danny Darrell Derrick Dunbar Evan Johnny Kenny Nick TJ Wes

Note. Chet was not included in the analysis.

Table 3

Primary Male Cast Members on Discovery Channel Reality Television Programs

Reality television program	Primary male cast members
Dirty Jobs	Mike
Ghost Lab	Barry Brad
Man vs. Wild	Bear

Table 4

Primary Male Cast Members on VH1 Reality Television Programs

Reality television program	Primary male cast members
Eddie Griffin: Going for Broke	Eddie
For the Love of Ray J 2	Ray J
I Want to Work for Diddy 2	Dalen
	Daniel
	John
	Kennis
	Sean
My Antonio	Antonio
Real Chance of Love: Back in the Saddle	Real
	Chance
Sex Rehab with Dr. Drew	Dr. Drew
	Duncan
	James
	Phil
The T.O. Show	Pablo
	Terrell

Note. None of the cast members from Sex Rehab with Dr. Drew were included in the analysis (Dr. Drew, Duncan, James, or Phil).

Table 4 continued

Primary Male Cast Members on VH1 Reality Television Programs

Reality television program	Primary male cast members
Tool Academy 2	Charm Dan Dre P. Frank Jon S. John L. Josh Justin Mike Stew Terry Tyler
Tough Love 2	Steven

Note. Josh from Tool Academy 2 was not included in the analysis.

Table 5

Primary Male Cast Members on Spike TV Reality Television Programs

Reality television program	Primary male cast members
The Ultimate Fighter: Heavyweights	Abe Brendan Darrill Demico James Justin Jon Kimbo Marcus Matt Mike Rampage Roy Scott Wes Sims Wes Shivers Zak

Note. Demico, Rampage, and Wes Shivers were not included in the analysis.

IV. Results

This chapter presents the results of the data analysis conducted for this dissertation. The implications of these findings are addressed in Chapter 5.

Content Analysis of Reality Television Programs

A total of 74 images of primary male cast members were analyzed in this dissertation (see Tables 2, 3, 4, and 5 for a listing of the primary male cast members who were included). The Krippendorff alpha value for the 74 coded images was .90, suggesting a high degree of interrater reliability among the coders. Regarding the images, 31 (41.9%) were from reality television programs premiering on MTV, 24 (32.4%) were from reality television programs premiering on VH1, 15 (20.3%) were from reality television programs premiering on Spike TV, and 4 (5.4%) were from reality television programs premiering on the Discovery Channel (Table 6).

Muscularity of Male Cast Members on Reality Television Shows

To examine the extent to which male cast members of reality television programs are muscular, the ratings of three independent coders were examined using Labre's (2005) muscularity scale. Of the 74 images included in the *coding* portion of the content analysis, coder one was unable to determine level of muscularity using Labre's (2005) muscularity scale for six of the images. Coder two was able to code level of muscularity for all 74 images. Coder three was unable to code level of muscularity for five images (three of the images overlapped as uncodable between coders one and three). When level of muscularity was unable to be determined, the coders selected the category "cannot tell" for level of muscularity (Labre). This

only occurred during the current study when the male cast member was wearing clothing (i.e., a shirt).

To summarize the ratings of the three independent coders (which resulted in three separate ratings), the researcher used the “majority muscularity designation” from the three coders. For example, if coders one and two rated an image as somewhat muscular and coder three rated the image as very muscular, the designation of somewhat muscular was used during data analysis. These procedures resulted in the following descriptive statistics: 55 out of 74 primary male cast members (74.3%) were designated as somewhat muscular; 10 (13.5%) were designated as very muscular; and 9 (12.2%) were designated as not muscular (Figure 1).

In addition to using Labre’s (2005) muscularity scale to evaluate the degree to which male cast members of reality television were muscular, the BIG-O (Hildebrandt et al., 2004) was also used in the categorization of images according to their level of muscularity. As was done with the ratings from the three coders for muscularity using Labre’s (2005) muscularity scale, the researcher used the “majority muscularity designation” from the three coders to create a summary value for each image. For example, if coders one and two made the same BIG-O (Hildebrandt et al., 2004) image designation, while coder three made a different designation, the primary researcher used the majority muscularity designation (the image selected by coders one and two) during data analysis. This procedure resulted in 48 (64.9%) out of 74 primary male cast members being designated as somewhat muscular; 23 (31.1%) designated as not muscular; and 3 (4.1%) designated as very muscular (Figure 1).

To better understand the frequency of muscularity determinations made by the three coders, ratings using the muscularity scales from the two measures were correlated. The Labre (2005) and BIG-O (Hildebrandt et al., 2004) muscularity scales were moderately correlated, $r =$

.42, $p < .001$, such that as muscularity ratings for images made with Labre's scale increased in size, so did the ratings for muscularity made with the BIG-O. When comparing the descriptive statistics from Labre's muscularity scale and the BIG-O, it is clear that a larger number of primary male cast members included in the analysis were somewhat muscular.

Body Fat of Male Cast Members on Reality Television Shows

To examine the degree of body fat for male cast members on reality TV shows, the researcher had the three independent coders rate each image using Labre's (2005) body fat scale. Of the 74 images included in the *coding* portion of the content analysis, each coder was unable to determine level of body fat for one image (none of these images overlapped between coders). Regarding these three images, the coders selected the category "cannot tell" for level of body fat (Labre, 2005). This only occurred when the primary male cast members were wearing clothing items (i.e., a shirt). As previously described, the "majority body fat designation" was used to summarize the three ratings obtained for each image from three independent coders (one rating per coder per image). For example, if coders one and two rated an image as exhibiting low body fat and coder three rated the image as exhibiting medium body fat, the designation of low body fat was used during data analysis. The majority body fat designation procedure resulted in 43 (58.1%) out of 74 primary male cast members being coded as having medium body fat; 24 (32.4%) coded as having low body fat; and 7 (9.5%) coded as having high body fat (Figure 2).

In addition to using Labre's (2005) body fat scale to evaluate the amount of body fat among male cast members of reality television shows, the coders were asked to use the BIG-O (Hildebrandt et al., 2004) to categorize the primary male cast members according to their level of body fat. Using the "majority body fat designation," the three ratings obtained for each image (from three independent coders) were summarized by a single category designation. For

example, if coders one and two made the same BIG-O image designation while coder three made a different designation, the primary researcher used the majority body fat designation (the image selected by coders one and two) during data analysis. The use of this procedure to examine the ratings for body fat on the BIG-O resulted in 35 (47.3%) out of 74 primary male cast members being designated as having medium body fat; 35 (47.3%) designated as having low body fat; and 4 (5.4%) designated as having high body fat (Figure 2).

To better understand the frequency of body fat determinations made by the three raters, ratings using the muscularity scales from the two measures were correlated. The Labre (2005) and BIG-O (Hildebrandt et al., 2004) body fat scales had a moderately strong correlation coefficient, $r = .67, p < .001$, such that as body fat ratings for images made with Labre's scale increased in size, so did the ratings for body fat made with the BIG-O. When comparing the descriptive statistics from Labre's body fat scale and the BIG-O, it is clear that the majority of primary male cast members included in the analysis exhibited low to medium levels of body fat.

Body Fat and Muscularity as a Reflection of "Average" U.S. Men

To examine whether or not the level of body fat and muscularity exhibited by primary male cast members accurately reflected average U.S. men, two chi-square binomial tests were performed on the images *coded* using Labre's (2005) muscularity scale and the muscularity scale of the BIG-O (Hildebrandt et al., 2004). Using SPSS, those primary male cast members designated as somewhat muscular or very muscular were then categorized as "overall muscular." Those cast members designated as not muscular retained their overall designation of "not muscular." As discussed in Chapter 2, only 26% of the male U.S. population engages in rigorous physical activity necessary to build muscle (NHANES 2001-2004); therefore, a test proportion of .74 was used in the binomial test. The binomial test using the Labre muscularity scale revealed

that the proportion of muscular cast members included in the analysis (the obtained proportion) [$\chi^2 = .88, p = .003$] significantly differed from the proportion of muscular U.S. men (the expected proportion) [$\chi^2 = .74, p = .003$]. More specifically, the following statistics were obtained: 65 (88%) out of 74 primary male cast members were designated as either somewhat muscular or very muscular, while only 9 (12%) primary male cast members were designated as not muscular (Table 7). The chi-square binomial test with the BIG-O ratings revealed that the proportion of muscular cast members included in the analysis (the obtained proportion) [$\chi^2 = .69, p = .192$] also significantly differed from the proportion of muscular U.S. men (the expected proportion) [$\chi^2 = .74, p = .192$] using the BIG-O. More specifically, 51 (69%) out of 74 primary male cast members were designated as somewhat or very muscular and 23 (31%) of primary male cast members were designated as not muscular (Table 7). When comparing the descriptive statistics from Labre's muscularity scale and the BIG-O, it is clear that the majority of primary male cast members included in the analysis were muscular.

To evaluate the extent to which level of body fat for male cast members on reality television reflected that of the average U.S. man, two chi-square binomial tests using SPSS were conducted, one for the ratings done with Labre's (2005) body fat scale and the other for ratings made using the BIG-O (Hildebrandt et al., 2004). Using SPSS, those primary male cast members designated as exhibiting low or medium levels of body were then categorized overall as "not overweight." Those cast members designated as exhibiting high levels of body fat were designated as "overweight." As discussed in Chapter 2, approximately 70% of the U.S. male population between the ages of 18 and 24 is overweight; therefore, a test proportion of .30 was used in the binomial test. The binomial test revealed that the proportion of overweight cast members included in the analysis (the obtained proportion) [$\chi^2 = .1, p = .000$] significantly

differed from the proportion of overweight U.S. men (the expected proportion) [$\chi^2 = .3, p = .000$]. More specifically, the following statistics were obtained for the ratings made with Labre's body fat scale: 67 (90%) out of 74 primary male cast members were designated as having either low or medium body fat, while only 7 (10%) primary male cast members were designated as having high body fat (Table 7). The chi-square binomial test with the BIG-O ratings revealed that the proportion of cast members designated as having either low or medium body fat (the obtained proportion) [$\chi^2 = .96, p = .192$] also significantly differed from the proportion of U.S. men exhibiting high body fat (the expected proportion) [$\chi^2 = .4, p = .192$]. More specifically, the chi-square binomial test for the body fat ratings using the BIG-O revealed that 71 (96%) out of 74 primary male cast members were designated as having either low or medium body fat and only 3 (4%) primary male cast members were designated as having high body fat (Table 7). When comparing the descriptive statistics from Labre's body fat scale and the BIG-O, it is clear that the majority of primary male cast members included in the analysis were not overweight despite the tendency for the majority of men in the U.S. population to be overweight.

Differences in the Level of Body Fat and Muscularity as a Function of the Type of Reality Television Show

To determine whether or not there were differences in the level of body fat and/or muscularity in primary male cast members as a function of the type of reality television program, a chi-square crosstabs analysis was performed on data collected during the *coding* portion of the study (see Tables 8 and 9). No significant differences were found in the level of body fat [$\chi^2 (4, N=74) = 2.24, p = .61$] or level of muscularity [$\chi^2 (4, N=74) = 2.24, p = .69$] among primary male cast members as a function of the type of reality television show when using Labre's (2005) measures. Similarly no significant differences were found in level of body fat [$\chi^2 (4, N=74) =$

3.42, $p = .49$] or level of muscularity [$\chi^2 (4, N=74) = 8.57, p = .07$] using the BIG-O (Hildebrandt et al., 2004).

To further address the question of whether body fat and/or muscularity of primary male cast members differed as a function of show type, two one-way analyses of variance (ANOVA) were conducted on the data collected during the *measurement* portion of the study. The shoulder-to-waist [$F(2,65) = 1.232, p = .298, ns$] and chest-to-waist ratios [$F(2,67) = 1.721, p = .187, ns$] of the primary male cast members included in the analysis did not differ as a function of the type of reality television program (Table 10).

Table 6

Proportions of the 74 Coded Images by Channel

Channel	Cast Members (n)	Coded Images (n)	Proportion Coded	Proportion of Shows
MTV	34	31	94	41.9
VH1	30	25	83	32.4
Spike TV	18	15	83	20.3
Discovery	4	4	100	5.4

Table 7

Expected to Observed Frequency Comparisons for Labre's and BIG-O Level of Muscularity and Level of Body Fat Proportions

Scale	Expected Proportion	Obtained Proportion
Labre's level of muscularity**		
Muscular	.26	.88
Not Muscular	.74	.12
BIG-O level of muscularity**		
Muscular	.26	.69
Not Muscular	.74	.31
Labre's level of body fat**		
Not overweight	.30	.90
Overweight	.70	.10
BIG-O level of body fat**		
Not overweight	.30	.96
Overweight	.30	.04

** $p < 0.05$

Note. Significance is only denoted for each category description, as both “muscular” and “not muscular,” “overweight” and “not overweight” must add up to a proportion of 100. Therefore, if one category is significant, the opposite is also significant.

Table 8

Frequencies of Labre's Levels of Muscularity as a Function of the Type of Reality Television Program

			Show			Total
			Reality	Endurance	Romance	
Muscularity	Not	Frequency (n)	3	6	0	9
	Muscular	% within Show	15.0%	12.2%	.0%	12.2%
	Somewhat	Frequency (n)	13	38	4	55
	Muscular	% within Show	65.0%	77.6%	80.0%	74.3%
	Very	Frequency (n)	4	5	1	10
	Muscular	% within Show	20.0%	10.2%	20.0%	13.5%
Total		Frequency (n)	20	49	5	74
		% within Show	100.0%	100.0%	100.0%	100.0 %

Table 9

Frequencies of Labre's Levels of Body Fat as a Function of the Type of Reality Television Program

			Show			Total
			Reality	Endurance	Romance	
Body Fat	Low	Frequency (n)	8	14	2	24
	Body Fat	% within Show	40.0%	28.6%	40.0%	32.4%
	Medium	Frequency (n)	9	31	3	43
	Body Fat	% within Show	45.0%	63.3%	60.0%	58.1%
	High	Frequency (n)	3	4	0	7
	Body Fat	% within Show	15.0%	8.2%	.0%	9.5%
Total		Frequency (n)	20	49	5	74
		% within Show	100.0%	100.0%	100.0%	100.0%

Table 10

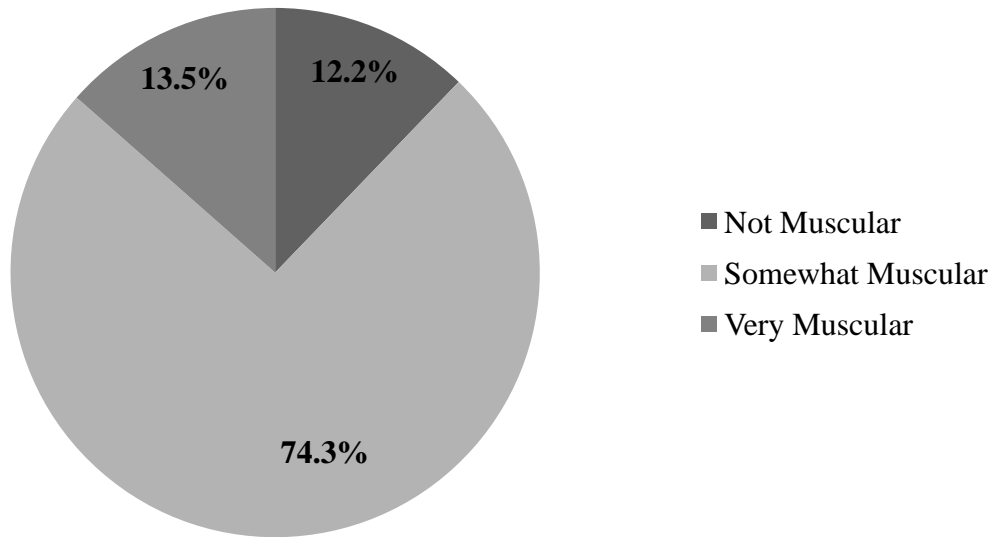
Mean Differences in Shoulder-to-Waist and Chest-To-Waist Ratios as a Function of the Type of Reality Television Program

Measurement	Reality	Endurance	Romance	F
Shoulder-to-waist ratio	1.428 (.167)	1.561 (.363)	1.534 (.100)	1.232
Chest-to-waist ratio	1.084 (.078)	1.117 (.110)	1.172 (.081)	1.721

Note. There are no significant differences within or between types of reality television programs.

Figure 1. Percentage of men designated as muscular using the Labre and BIG-O muscularity scales.

Labre's muscularity scale



BIG-O muscularity scale

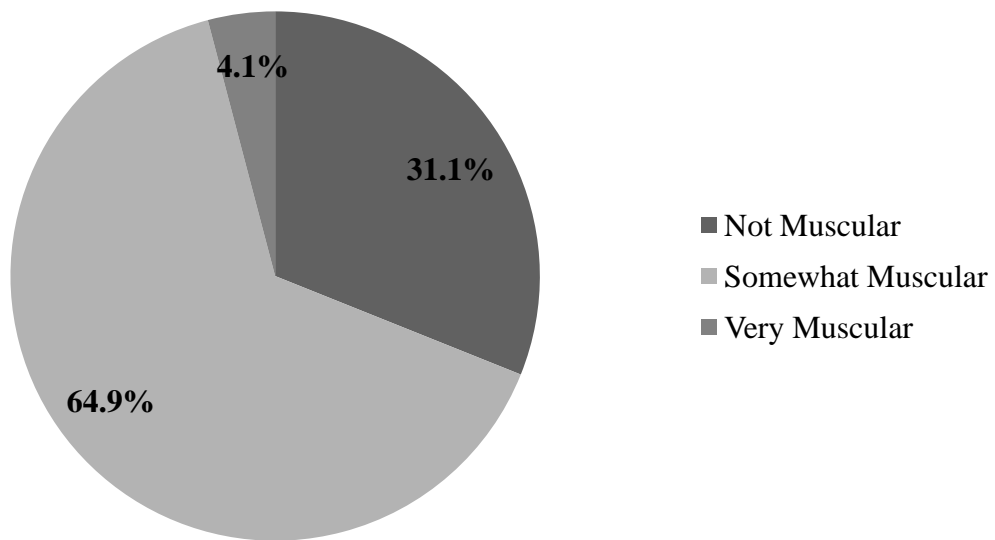
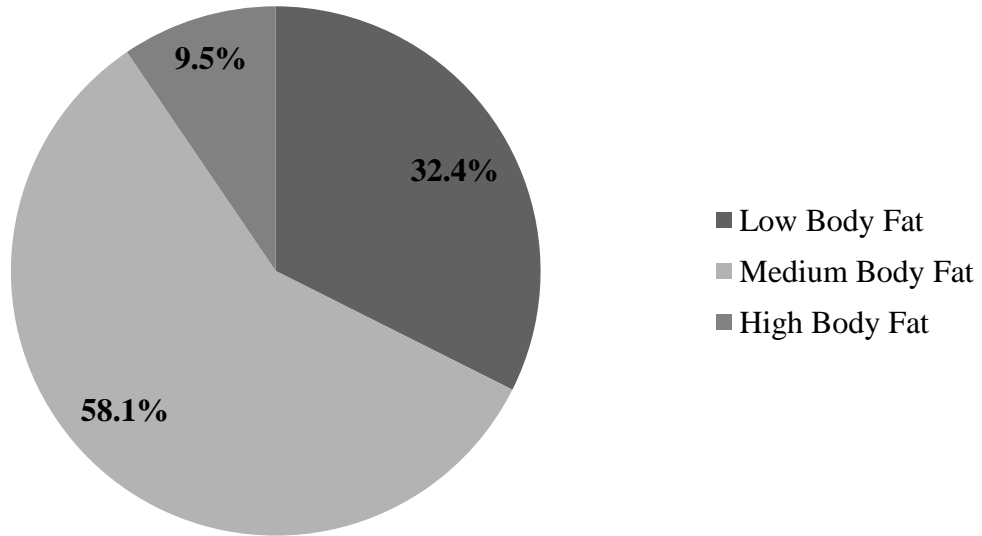
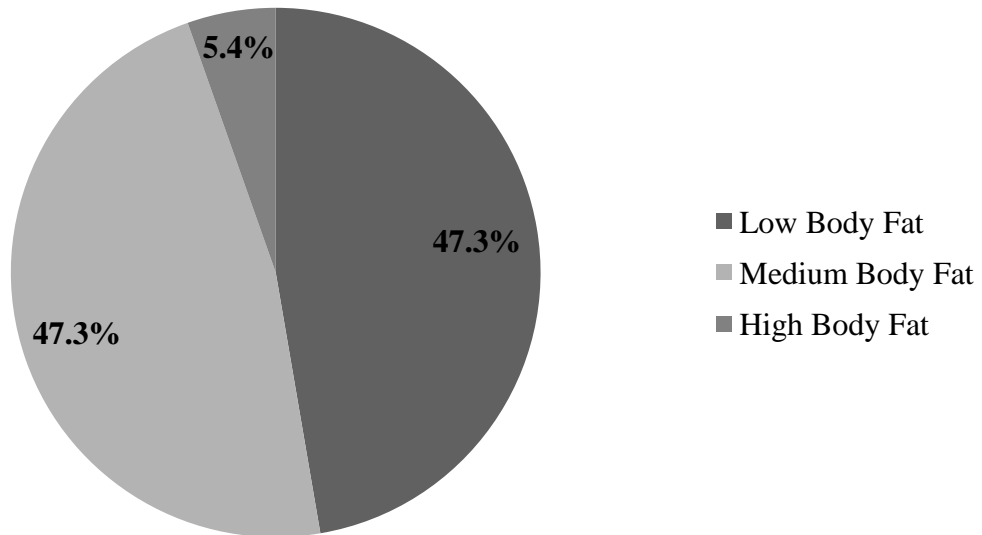


Figure 2. Percentage of men by level of body fat using the Labre and BIG-O body fat scales.

Labre's body fat scale



BIG-O body fat scale



V. Discussion

This chapter discusses the implications of the findings described in Chapter 4. It also addresses the limitations of this study and suggests areas for future research.

The purpose of this dissertation was to explore the extent to which men embodying the muscular-ideal are depicted on reality television programming. Therefore, a quantitative content analysis was used to examine the contents (images of primary male cast members) of the most popular reality television programs among U.S. men ages 18 to 24 premiering during the fall 2009 broadcast season. The content analysis further allowed the researcher to infer how the contents of reality television programming may promote concerns among some men regarding leanness and muscularity.

Implications of Findings

Reality Television Portrays Men Embodying the Muscular-Ideal

As noted in Chapter 4, approximately 70 to 88% of primary male cast members analyzed in the present study were categorized as either somewhat or very muscular (according to Labre's [2005] muscularity scale and the BIG-O [Hildebrandt et al., 2004]), and approximately 91 to 95% of primary male cast members were categorized as exhibiting low or medium levels of body fat (according to Labre's [2005] body fat scale and the BIG-O). Therefore, viewers of the reality television programs used for analysis in the present study would have been overwhelmingly exposed to a level of muscularity and level of body fat that differs from that found for average U.S. men. As previously noted, the exercise habits of the average U.S. man are extremely unlikely to produce the chiseled abs, rock-hard pectorals, and muscular arms characteristic of the

muscular mesomorphic ideal. In fact, only 26% of adult U.S. men engage in vigorous leisure-time physical activity three or more times per week, and 59% of adult men participate in no vigorous physical activity at all in their leisure time (NHANES, 2001-2004). As such, most men would not be expected to have a muscular structure that is visible and very few would be expected to have the well-defined muscles that research has shown to be the muscular-ideal (Thompson & Cafri, 2007).

At the societal level, reality television programming popular among U.S. men ages 18 to 24 may contribute to the perception that there is only one male body type that is healthy and attractive – the muscular mesomorphic type. As demonstrated in the present study, the vast majority of primary male cast members included in the reality television programs exhibited low to medium levels of body fat and presented as somewhat muscular. These results are consistent with a number of content analyses examining muscular male images included in print media (e.g., Kolbe & Albanese, 1996; Labre, 2005), television (e.g., Lin, 1998), and motion pictures (e.g., Morrison & Halton, 2009). Because similar results have been obtained across various media genres, it is likely that men are being “saturated” with muscular male images on a daily basis (e.g., while reading magazines and viewing television). With reality television purporting to cast “real” people in “real” situations, such programming may help contribute to the perception among male viewers that the muscular-ideal is what healthy men should look like.

Sociocultural theory, as well as the cognitive psychology phenomenon of categorization, suggests that men interested in improving their appearance may engage in upward comparisons with individuals or media images representing the ideal male body. If a discrepancy is perceived, the individual making the comparison may attempt to eliminate it by engaging in behaviors designed to help them approximate the ideal. Based on the finding that the muscular

mesomorphic body type is most frequently featured in reality television programming popular among U.S. men ages 18 to 24, it can be inferred that exposure to this type of media occurs and that exposure can potentially increase the desire for leanness and muscularity among this population. Research has, in fact, found that exposure to images of muscular male models increases muscularity concerns among college-age men (Leit et al., 2002); however, additional research is needed to test whether, how, and among which groups of men (if any) exposure to reality television programming depicting the muscular-ideal among “real” men may increase body image dissatisfaction.

As previously stated, the majority of the primary male cast members included in the present study reflect one body type – the muscular mesomorphic type. Due to genetic limitations (as well as current exercise and dietary practices engaged in by a large proportion of U.S. men), very few men can achieve the muscular mesomorphic ideal. Moreover, although exercising to build muscle mass and reduce body fat is healthy; the types of activities required to attain the extreme muscular-ideal are not necessarily healthy. There is no question that an excessive amount of body fat is associated with serious health problems (Willett, 2001). However, the muscular-ideal characterized by many of the male cast members included in the present study are not just low in body fat – some tended to be extremely low in body fat. This type of physique does not result from following a balanced diet and exercising in moderation; rather, it is a constructed look that requires a strict fitness and nutrition regimen designed to build muscle and keep body fat at minimum levels for most men. The pursuit of this extreme ideal could lead to body image dissatisfaction as men struggle or are unable to achieve the ideal without the use of extreme behaviors such as disordered eating, the use of steroids and performance-enhancing supplements, and overexercise.

This dissertation was designed to contribute to a better understanding of the male body types disseminated via reality television, as well as their potential effects on viewers. As previously stated, some U.S. men may engage in harmful or extreme behaviors in an attempt to achieve the muscular-ideal. Mental health professionals may be sought-out to treat such men for body image dissatisfaction, as well as extreme behaviors such as disordered eating, overexercise, or supplement use. Therefore, this dissertation can inform those individuals who work with men about the extent to which men's television viewing experience may be saturated with images that promote muscularity and leanness for the typical male. In a treatment setting, male clients struggling with body image dissatisfaction may wish to discuss reality television as a source of unrealistic appearance expectations. Just as refusal to purchase magazines promoting physical weight loss is sometimes used in the treatment of women with body image dissatisfaction and/or eating disorders, mental health professionals may encourage male clients to avoid triggering material such as media that portray men engaging in extreme behaviors such as overexercise or supplement use. The present study also provides data from which mental health professionals interested in creating social change for men can draw upon to support advocating for change in television programming.

Differences in Level of Muscularity and Body Fat According to Show Type

Although the majority of primary male cast members included in the present study were found to embody the muscular mesomorphic ideal; no significant differences were found in the level of muscularity or level of body fat among cast members as a function of the type of reality television program. Although no formal hypotheses were made during the present study, the researcher thought it reasonable to informally hypothesize that romance and/or endurance reality television programs would include more primary male cast members embodying the muscular

mesomorphic ideal. Such an informal hypothesis was constructed due to the importance that many men place on physical appearance in the attraction of a mate, as well as the importance of physical strength and endurance (e.g., muscularity and low body fat levels) in a large number of the endurance reality television challenges (e.g., such as those required on *Real World/Road Rules Challenge: The Ruins* and *The Ultimate Fighter: Heavyweights*).

The expectation that romance and/or endurance programs would include more muscular male cast members is particularly supported because one such endurance program, *The Ultimate Fighter: Heavyweights*, portrays men seeking to establish their careers as professional mixed martial arts fighters (in other words, they are seeking to become professional athletes). However, findings from the present study do not support the idea that individuals watching romance and/or endurance reality television programming are exposed to more muscular individuals than those watching reality television dramas.

As noted in the literature review, cultivation theory suggests that heavy television viewers tend to believe that reality more closely approximates television than is accurate (Gerbner & Gross, 1976). Therefore, in the context of cultivation theory, the aforementioned finding (should it reflect a true lack of difference in body types across types of reality television programs for primary male cast members) supports the notion that reality television viewers have the potential to develop a belief that “real” men are muscular and lean regardless of the type of reality television programming they watch. Additionally, when placed in the context of the cognitive psychology phenomenon of categorization, this finding may fit well with the development of prototypes. If there are, in fact, few differences in the male body types portrayed on reality television programs, little context would be available to lead viewers to distinguish

between types of ideal men when developing prototypes or accommodating existing prototypes that reflect their viewership experiences.

For example, when one thinks about the construct of a chair, a particular prototype (e.g., a four legged chair with no arm rests, no wheels, and a straight back) may come to mind (such as the type of chair commonly found at a dining room table). However, individuals are also capable of creating prototypes for other types of chairs including, recliners, office desk chairs, and stools. Even if an individual chooses one of these other types of chairs as the prototype, it is unlikely that features of each would be reflected in a single prototype beyond the essential features (such as a place to sit and four legs). As such, individuals can have multiple prototypes that are situation specific (e.g., office desk chairs, living room chairs), and the prototypes (chairs) common to each situation tend to have some features that are more specific to that type of situation. However, regarding the present study's finding, if there are not large differences in the body types of male cast members across reality television programming (such that the failure to find significant results reflects a true lack of difference), there would be less need to develop multiple prototypes of the ideal male body as a result of viewing such programs. Should a single prototype of the muscular male ideal exist, men may find it more difficult to approximate the one available prototype given the existence of genetic differences in body shape and type (e.g., some individuals have a tendency to be thin regardless of dietary and exercise practices) than if there were multiple prototypes available for social comparison. For men who place a heavy emphasis on appearance, there is a potential for body image dissatisfaction to develop when they cannot approximate (or do not believe they approximate) the prototype.

Limitations

Several limitations to the present study warrant acknowledgement. First, despite procedures designed to increase its rigor, content analysis remains a fairly subjective technique. One or more individuals operating within a specific sociocultural context may view certain images as disseminating a positive message about muscularity. Others, examining the same material, may perceive them in an entirely different manner. However, the present study attempted to address this issue by computing interrater reliability for the reality television programming included.

Secondly, as the majority of primary male cast members included in the present study were Caucasian and heterosexual, an additional limitation of this dissertation is its limited ability to generalize across sexual orientation and/or race and ethnicity. Similarly, only men who were able bodied appeared in the television programs. It is difficult to determine the extent to which the results generalize to men with disabilities. Additionally, the purpose of this dissertation was exploratory in nature - it sought to examine the extent to which men embodying the muscular-ideal are depicted on reality television programming. It did not seek to prove that the viewing of reality television programming causes body image dissatisfaction among men or vice-versa. Other methods, such as experimental designs, would be more appropriate in this regard. In addition, other factors beyond muscularity may influence men's body image dissatisfaction. For example, it is difficult to know how men with physical disabilities are affected by muscularity of cast members. It may be that lack of men with similar abilities and limitations is a more powerful source of influence on body dissatisfaction in such cases.

As described in Chapter 3, the primary researcher recorded reality television content using a DVR and then used the Larcaman video editing program to "capture" still images from the

recorded television content. The use of still images during the coding portion of the present study, although consistent with procedures utilized in previous content analyses, could be viewed as an additional limitation. It is possible that using still images did not provide the clearest image of each primary male cast member included in the present study. While attempting to capture a still image using the Larcaman program, some images became slightly blurred and did not provide the clearest image for the raters to code. For example, one coder made the following comment, “I’ve watched all of *The Ruins* episodes, and I know that Dunbar is very muscular. But in the image we’re coding, he’s kind of blurry, which makes him look a bit softer – more somewhat muscular.” Furthermore, some cast members were captured while at angles that sometimes made categorization of body fat and muscularity difficult. Because of these difficulties, it is possible that more primary male cast members would have been designated as very muscular if the coders could have viewed video clips rather than still images. Additionally, the impact of viewing images that are in motion may be different than what is obtained from viewing a single image such that it is possible that the present analysis does not directly relate to the stimuli that actually affect male viewers’ experiences. In other words, the same physical body may be more or less influential in shaping body image dissatisfaction in motion than it is in still image, and the data for the present study do not capture male television cast members in a way that relates to the stimuli that affect men’s body image (should reality television cast members have an effect on men’s body image at all). Future content analyses examining television content should therefore consider using video clips of each cast member during the coding portion of the study. This allows the coders a clearer, more accurate image of the cast member and more closely approximates the actual viewership experience.

Areas for Future Research

The present study used a quantitative content analysis to explore the extent to which men embodying the muscular-ideal are depicted on reality television programming. Although the study provided researchers with information regarding the extent to which men embodying the muscular-ideal are portrayed on reality television, it did not examine viewers' perspectives of the reality television content. Therefore, future research could explore viewers' perspectives regarding these programs, as well as their contents. To do so, researchers could utilize a triangulation of research methods – the combination of a quantitative content analysis with qualitative in-depth interviews of college-age men. Such an approach would allow researchers to explore the contents of these programs and their relationship with college-age men's leanness and muscularity concerns. The triangulation of research methods will allow researchers to explore two interrelated aspects regarding reality television—content and audience—contributing to a fuller understanding of the phenomenon being explored.

Because reality television relies on advertising dollars, future content analyses could examine the types of products advertised during commercial breaks of such programming (in addition to examining the contents of reality television). These investigations will allow researchers to determine whether or not such advertisements emphasize products that will assist men in the attainment of the muscular-ideal (e.g., exercise equipment, dietary regimens, nutrition supplements, etc.) and determine the extent to which such products reflect a potential danger to men's health. As an example, in advertisements occurring during episodes of MTV's *Jersey Shore* in the spring 2010-2011 season, cast members are used to support the use of supplement products to achieve a particular physical appearance. Additionally, researchers could compare how the advertisements depicted during reality television programming are similar to or different

from the advertisements for other types of shows that men frequently watch. Should future research find that such advertisements emphasize products related to attainment of the muscular-ideal; media literacy would likely play a large role in encouraging the shift of advertisement focus from appearance to health. Such a transition, however, would require an increased demand for health-related (rather than appearance-related) products from consumers who are knowledgeable about and refuse to accept media presentations that rely upon inducing dissatisfaction with their appearance. Similarly, to determine which reality television programs may encourage men to engage in health-related (rather than appearance-related) behaviors, research may also examine whether or not exposure to reality television programs such as *The Biggest Loser* relate to positive changes in health behaviors among its participants, given that some level of dissatisfaction could be related to an increase in health-related behaviors.

Conclusions

Findings from this study suggest that reality television programming (popular among men ages 18 to 24 and premiering during the fall 2009 broadcast season) primarily included primary male cast members embodying the muscular mesomorphic ideal. Promotion of the muscular-ideal may have the positive effect of promoting involvement in healthy activities such as exercise and healthy eating habits. However, the ideal is an extreme, unrealistic representation, unachievable for the average U.S. man, which may contribute to body image dissatisfaction and engagement in a number of unhealthy body investment strategies among men (Thompson et al., 1999). Although reality television purports to cast “real” people in their programming, few “real” U.S. men can achieve the muscular-ideal without engaging in such unhealthy strategies, and most U.S. men do not look like the cast members in the reality television programs included in the present study.

College-age men's preoccupation with muscularity and leanness takes place within a sociocultural environment that places a premium on appearance above health, an environment characterized by extreme dietary practices and highly successful "extreme makeover" reality television programs. As suggested by Sarah Grogan (1999), who conducted a thorough review of body image among men and women, there is a need for society to move away from a focus on extreme, appearance-centered body ideals:

Based on what we know about men's and women's body image, we can conclude that the way forward in terms of developing positive body images must be a reduction in the objectification of the body (both male and female) and the development of body ideals based on function as well as aesthetics. In particular, the cultural acceptance of the wide variety of body shapes and sizes that represent the normal range, and the de-stigmatization of overweight, may help to reduce dissatisfaction (p. 189).

Instead of emphasizing appearance, reality television could address other topics, such as achieving a healthy and functional body and eating for optimum health (rather than for fat-loss and/or muscle development). Instead of casting primary male cast members representing one extreme body type; such programs could present diverse representations of healthy men. Such an approach may promote a greater emphasis on health instead of a focus on appearance. As noted by Labre (2005), "if you exercise in order to be physically fit and healthy, appearance will follow. However, if you place appearance first, you may engage in very harmful activities in order to achieve the perfect look" (p. 165). Engagement in harmful or extreme behaviors essentially means that pursuit of an attractive appearance through exercise and nutrition can lead to ill health if not performed correctly.

Should men's physical appearance continue to grow in importance (e.g., as a mate characteristic, as a requirement for career success), college-age men may perceive increased pressures to transform their bodies to fit the sociocultural ideal. This could contribute to an increase in body dissatisfaction among men, combined with attempts to achieve the sociocultural

ideal via overexercise, dieting, cosmetic surgery, and other means. However, it also is possible that men may continue to place other priorities ahead of achieving appearance goals. If that is the case, the mechanisms by which these men are able to resist internalizing the ideal would be important to study as they might be useful in helping men who do develop strong appearance-related concerns. Moreover, an understanding of these mechanisms might also contribute to a better understanding of why women, in general, seem to be more vulnerable to appearance concerns than are men.

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Appendix

Sample coding sheet

IMAGE 2

Does the man in the image have a stomach (belly) that “hangs” over his waist?

Yes

No

Body fat category	Description
Low body fat	Very lean, no signs of body fat visible.
Medium body fat	Some body fat visible (e.g., love handles, stomach not flat).
High body fat	Obese. A large amount of body fat visible (e.g., large stomach).
Can't tell	Can't tell level of body fat or can't distinguish between two levels.

Muscularity category	Description
Not muscular	No signs of muscle definition.
Somewhat muscular	Some muscle definition.
Very muscular	A lot of muscle definition (e.g., ripped abdominals).
Unnaturally muscular	The look of a professional bodybuilder, a hypermale look achievable only through steroid use.
Can't tell	Can't tell level of muscularity or can't distinguish between two levels.

Bodybuilder Image Grid-Original Number: _____