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HEGEMONIC MASCULINITY AND HEALTH OUTCOMES IN MEN: A
MEDIATIONAL STUDY ON THE INFLUENCE OF MASCULINITY ON DIET

by

Ryan Cox, M.A.

A Dissertation

Submitted in Partial Fulfillment of the

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Abstract

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Research has demonstrated that men have markedly worse health outcomes than women and have higher rates of death from all 15 leading causes of death except Alzheimer's disease. Little is known about the cause of this discrepancy, except that in evaluations of lifestyle choices and preventive health factors, men engage in far more health-defeating behaviors than women, including consuming diets significantly lower in fruits, vegetables, whole grains, and micronutrients, and higher in fat and cholesterol. One theory proposed to help explain this discrepancy is that of hegemonic masculinity. Hegemonic masculinity is a form of masculine identification associated with cultural dominance and subordination of women and other, less idealized forms of masculinity, such as stoicism, the primacy of work, a presupposition toward violence, and a disdain of homosexuality. This dissertation examined the links between hegemonic masculinity, social physique anxiety, and poor dietary choices in men. Social physique anxiety was defined as the result of self-objectification that creates insecurity and anxiety in men around how others might view their bodies. Specifically, I hypothesized that adherence to hegemonic masculinity would predict higher rates of social physique anxiety among American men that, in turn, would predict worse dietary habits and patterns. The current study examined survey responses from 313 male participants living in the United States. A multiple regression indicated that the total masculinity scale score was not significantly related to food choices, nor to social physique anxiety. Social physique anxiety, however, was found to be highly predictive of dietary choices and beliefs. Specific male

role norms of risk-taking and self-reliance did indirectly predict dietary choices via social physique anxiety. The study sample of men was roughly 76% non-heterosexual-identified (i.e., gay, bisexual, pansexual) although heterosexual and non-heterosexual identified men did not differ on the measures of masculinity or dietary choices. The sample composition limits the generalizability of the findings. These results have implications for how mental health professionals may assist men in making more healthful and conscientious choices, including helping men examine how they have internalized ideas about how to be masculine, and how that, in turn, influences lifestyle choices related to health.

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Chapter 1: Introduction to the Study

Despite the fact that psychological research is dominated by men and men's interests, there is one area where research on women is the standard, and men are woefully underrepresented - health psychology (Gough, 2013). The death rate for men by violent injury, homicide, and suicide is up to four times higher than the rate for women (Courtenay, McCreary, & Merighi, 2002). Half of all men will develop cancer in their lifetime (in contrast to one-third of women), and their death rate from heart disease is twice what it is for women (Courtenay et al., 2002). In every ethnic community represented in the United States, the age-adjusted death rate for men is approximately 1.5 times greater than for women (Courtenay et al., 2002). While there are numerous variables related to men's poorer health, including higher rates of smoking and alcohol use, less willingness to go to the doctor, and more risky physical behaviors, their dietary choices and body weight are two important ones.

Weight, Diet, and Poor Health Among Men

A recent study conducted in the U.K. found that 69% of Scottish men can now be classified as overweight or obese, and that in the next few years, 50% of overall men in the U.K. will be obese (Hunt, McCann, Gray, Mutrie, & Wyke, 2013). In the United States, the obesity rate for men is 59% (Courtenay, 2000a); the rate for both genders tops 33%. Furthermore, overweight prevalence in the United States for individuals under 19 years of age tripled between 1980 and 2002 (Park, 2009). Being overweight increases the risk of many diseases for which men already have significantly higher rates than women: hypertension, type II diabetes, some cancers, and coronary heart disease (Park, 2009). Additionally, being overweight can have effects on other areas of functioning, such as

sleep. Overweight people have a higher incidence of sleep apnea, thus also making them statistically twice as likely to die in an accident of some kind, such as a car accident (Courtenay, 2000a).

The association between dietary patterns and poor health outcomes has received less empirical attention than have the other two major contributors to poor health outcomes, substance abuse and health belief systems. This is due partially to an assumption that men are both ignorant of, and apathetic about, the health benefits of fruits and vegetables (Gough & Conner, 2006). Traditionally, any kind of food-related practice has been feminized in the literature and mass media, and thus marginalized or ignored among men (Gough & Conner, 2006). Often it is presumed that a healthy diet is something men only care about once they fall ill (Gough & Conner, 2006).

An independent U.S. government panel that analyzed thousands of research studies on dietary choices and nutrition in the early 1990s concluded that nearly half of all deaths in the United States could be prevented through proactive changes in personal health habits (Courtenay, 2000a). Healthcare related costs in the United States have more than tripled in the last 30 years, to an average annual expenditure of over \$2.6 trillion, amounting to 18% of the United States' Gross Domestic Product (GDP) (<http://www.kaiseredu.org>). Since the mid-1980s, health scientists have concluded that preventive care in the form of health-promoting behaviors is the most effective way to reduce disease, improve the quality and quantity of individuals' lives, and reduce healthcare costs (Courtenay, 2000a). Following a balanced, nutritious diet is one of those health-promoting behaviors.

Despite a considerable body of evidence linking fruit and vegetable intake to lower blood pressure, healthy weight management, a lower risk of developing diabetes, and reduced coronary disease, most men still fall far short of recommended intakes of these food groups (Bazzano, 2006). Understanding factors that reduce the likelihood of men's healthy eating is crucial to improving individual men's health as well as addressing systemic healthcare costs. This study attempted to identify several such factors and explicate their relationship to poor dietary habits.

In terms of preventive care, men are much more likely than women to be fatalistic about their own health outcomes. Men believe that they are both less likely than women to be at risk for illness and injury than they actually are, and to believe they have less control over their health (Courtenay et al., 2002). Men are less likely to be diligent when caring for a long-term or major health problem, and get check-ups and exams at a rate far below women (Courtenay et al., 2002). Beliefs that things like disease are largely predetermined and that personal actions do not contribute to overall good health are common among men; for this reason, men associate good health more with luck and good fortune than with specific health-promoting behaviors (Courtenay et al., 2002). Recent research has discovered that men place a greater emphasis on "mental discipline" and autonomy when ascertaining their needs for health-related behaviors, and that this emphasis sometimes overrules or prevents them seeking a physical health intervention (Calasanti, Pietila, Ojala, & King, 2013).

Hegemonic Masculinity and Poor Diet Among Men

Studies of men's dietary patterns over the last few years have shown conclusively that men and boys tend to eat far fewer fruits and vegetables than women and girls,

consume more soft drinks and other sugary drinks, eat less high-fiber food, and overall have a diet significantly lower in micronutrients than the diets of women and girls (Baker & Wardle, 2003; Liebman et al., 2003; Wardle et al., 2004).

Although evidence strongly supports that men engage in far fewer health-promoting activities than women (especially concerning dietary choices), little is known about why this phenomenon occurs (Courtenay, 2009). Courtenay argued that modern American men define masculinity by embracing risk in order to prove strength, fearlessness, and virility, thus defining their sense of masculinity *against* any positive or pro-health behaviors. The lens through which many researchers and clinicians now conceptualize men's resistance to more health-promoting behaviors such as positive dietary changes is that of hegemonic masculinity (Courtenay, 2009; Gough, 2007; Kivel & Johnson, 2009; Nath, 2010; Sellaeg & Chapman, 2008). Hegemonic masculinity is defined broadly as being whatever the idealized form of masculinity is at any one time and place (Connell, 2005). Connell (2005) puts masculine hegemony in the context of one group (men) claiming and sustaining a leading and powerful position in social life, which presumes the "dominant position of men and the subordination of women" (p. 77). For hegemony to be effective, there must be an implied or explicit agreement between what individuals believe and institutional power to enforce it; in other words, a collective will, even if unspoken (Connell, 2005).

How the individual's adherence to, or belief in, the idea of hegemonic masculinity translates to behavior is not well understood. Courtenay (2009) theorized that in order for men to retain both collective and individual power, they must sublimate their own needs and refuse to concede to any vulnerability or perceived weakness. In acting out

these hegemonic ideals, men convey their perceived lack of vulnerability; the belief that their bodies are more powerful, efficient, and superior to women's bodies; and the idea that needing help or paying attention to one's health is inherently feminine in nature (Courtenay, 2009).

Hegemonic masculinity is a constructionist perspective of gender, meaning gender is something uniquely defined in each culture, and men and women act they way they do based not on biological or psychological traits, but because that is how society has deemed men and women "should" act (Courtenay, 2009). These social dictates or norms include messages about what "real" men and women should eat, and how they should think about food.

Both adults and young children receive these messages about food and gender in a variety of ways. Gough (2007) found that in the UK, representations of men's diets in the major print media consistently implicated male eating habits as being lethal, but also fixed. Men are infantilized when it comes to food, and the message is that women need to take care of men in the kitchen (Gough, 2007). In the rare instances when men are encouraged to take part in dietary procedures (shopping, preparing food, cooking food), the language is rife with military and sporting metaphors, and images of dominance with the meals they prepare described as "hardy" and encouraging a muscular physique (Gough, 2007, p. 332). By exalting dietary practices favoring meat and intentionally risky lifestyles (calorie and fat-heavy meals containing few to no vegetables), the idea of a "woman's diet" is subtly mocked and undermined, thereby still privileging a hegemonic masculinity that subordinates women while it disingenuously pretends to praise them for their health and caretaking abilities (Gough, 2007).

In a 2010 Australian study investigating how young boys construct their knowledge of health in the realm of nutrition, Drummond and Drummond found that boys are able to, and frequently do, make the connection between healthy food and physiological health. Primarily, the boys were able to identify healthy foods as those that helped a man to grow strong and muscular in order to participate in rough sports, a strictly male-dominated realm (Drummond & Drummond, 2010). Perhaps more disturbingly, however, most of the boys interviewed had internalized media- and sports-promoted messages that their bodies are nothing more than machines built for sport, that food is fuel, and that if something goes wrong, if the body breaks down in any way, it can simply be fixed (Drummond & Drummond, 2010). The implication in these statements is a notion of health based on repair, not prevention, and on food as being purely utilitarian (Drummond & Drummond, 2010).

Another influential way the media is perceived to be contributing to poor health outcomes in men is, ironically, through the glorification and increasingly objectified visibility of the male form (Marino Carper, Negy, & Tantleff-Dunn, 2010). To date, little research has been conducted on the media's impact on men, but what is known suggests that an ideal male form is being promulgated in a variety of ways, from print media, to pornography, sports advertisements, and even toys for children (Marino Carper et al., 2010). Research has shown that exposure to print ads featuring muscular men predicts a greater discrepancy between ideal body form and actual body form in men exposed to the ads (Marion Carper et al., 2010). Today's standard for men commonly perpetuated by the media is largely unattainable; a slim, yet muscular figure, with large pectoral muscles, visible abdominals, a slim waist, and round buttocks (Daniel & Bridges, 2012). Failure

to achieve such a figure may lead many men to question their masculinity. To date there has been limited research on how this particularly internalized masculine ideal, or the failure to achieve it, may affect the health habits of men, especially dietary habits.

Social Physique Anxiety and Poor Diet Among Men

Self-objectification, defined as internalizing societal messages that place value only on someone's external factors, leads to heightened body image concerns among both men and women and thus to the enacting of more rigid and socialized gender roles (Schwartz, Grammas, Sutherland, Siffert, & Bush-King, 2010). In fact, for men, a muscular figure is the surest and most unmistakable way to signal a masculine identity using no words or other external cues at all (Schwartz et al., 2010). The literature on self-objectification in men is limited, but past findings for women have found that self-objectification is related to poor self-esteem, restrained and/or disordered eating, excessive exercise, and other psychological distress (Schwartz et al., 2010). Preliminary research has provided evidence that men have many of the same psychological processes (Schwartz et al., 2010). Since individuals who tend to self-objectify define the self in terms of how the body appears to others, having a sense of falling short of the socially defined ideal creates anxiety that could lead to other compensatory behaviors by proving what the body can do, or is physically capable of doing (Aubrey, 2007). This could include engaging in risky or dangerous behaviors or ignoring any suggestion that it was necessary "to take care of oneself" through following a healthy diet because that would not be masculine. Schwartz et al. (2010) suggests that men may develop body image concerns and react impulsively toward those concerns due to the intense pressure to

maintain a hegemonic masculine ideal put forth by the media and society, and, by extension, their family and friends.

Despite evidence suggesting that men comprise up to 15% of all individuals diagnosed with eating disorders in the United States, scant work has been conducted to understand how concern over meeting an objectified physical ideal influences men's disordered eating or poor eating habits (Blashill & Vander Wal, 2009). Similarly, perhaps because it is gay men who engage in more eating disorder symptoms, along with more susceptibility to media images, more social pressure to diet, and more self-consciousness about their bodies than straight men (Kaminski, Chapman, Haynes, & Own, 2005), they have received more research attention related to their eating habits than have heterosexual (straight) men. Up to now, researchers have not devoted much attention to how straight men are similarly affected by a media-saturated society. It is important to understand how both straight and gay men react to messages about hegemonic masculinity, how that hegemonic masculinity leads to anxiety over meeting a societally defined physical ideal, and how that objectification anxiety predicts health-promoting behaviors, and unhealthy dietary choices in particular. Because the concept of gender is socially constructed, and one's own internalization of both gender roles and society's ideals are malleable, psychological differences in health behaviors between genders is a perfect topic for counseling psychologists.

Research Hypotheses

With a link already clearly established in the literature between hegemonic masculinity and unhealthy dietary practices in men, I investigated whether objectification anxiety mediated the relationship between the two.

Hypothesis 1. Higher hegemonic masculinity will predict a diet low in fruits, vegetables, and micronutrients, and high in added sugar, sodium, and fats.

Hypothesis 2. Hegemonic masculinity will predict self-objectification anxiety in men.

Hypothesis 3. Higher self-objectification anxiety will predict dangerous and unhealthy eating habits in men and will mediate the relationship between hegemonic masculinity and dietary behaviors among men.

Chapter 2: Literature Review

Male Health Outcomes and Dietary Practices

As outlined briefly in Chapter 1 of this dissertation, men have markedly far worse health outcomes than women in the United States, Western Europe, Canada, and Australia (Courtenay, 2009). They die, on average, more than six years earlier than women from both unintentional injuries, and all other 15 leading causes of death, excepting Alzheimer's disease (Courtenay et al., 2002). This includes heart disease, for which men have a death rate twice that of women (Courtenay et al., 2002). Heart disease is now the number one killer of both men and women, though as a percentage of overall population, men still far outnumber women in heart disease mortality rates (Center for Disease Control, 2013). Cancer will also strike half of all men, as opposed to one-third of all women, and men develop several other severe chronic conditions and fatal diseases at an earlier age than women (Courtenay et al., 2002).

These findings are consistent across most racial and ethnic groups, with an age-adjusted death rate at least 1.5 times higher for men than for women among African Americans, Hispanics, Asian Americans, European Americans, and Native Americans (Courtenay et al., 2002). Historically, socioeconomic status, racism, and lack of healthcare have been cited as reasons why ethnic minorities have much worse health outcomes than European American men, but those reasons do not explain the disparities between men and women among those same ethnicities (Courtenay et al., 2002). This disparity is so great, in fact, that simply being a woman may be the single most important predictor of positive health outcomes (Courtenay et al., 2002). Not only are women more likely than men to engage in health-promoting behaviors and live healthier lifestyles

generally, they are also less likely to engage in risky and risk-taking behaviors, which frequently lead to chronic diseases, injuries, and death among men (Courtenay et al., 2002).

Courtenay et al. (2002) identified three domains in which gender effects on risk-taking behaviors have been examined: substance use, preventive care, and dietary behaviors. In examining a broad range of health risk versus health-promoting behaviors between a male and female undergraduates in California with a mean age of 22 years, Courtenay et al. (2002) assessed health risks on six domains, including a dietary domain. The participants were similar to the gender and ethnic makeup of the California undergraduate population and consisted of 60% women, 37% Asian American, 20% European American, 18% Hispanic, 6% African American, and 12% other (Courtenay et al., 2002).

The diet domain consisted of five questions pertaining to dietary practices; questions such as “I avoid chips and fried foods by choosing foods that are baked, broiled, boiled, poached, or stewed,” and “I limit the amount of salt I eat by not adding salt to my food, avoiding salty food and checking labels for sodium content.” Although the questions all begin with “I avoid-“ or “I limit-,” thereby focusing on behaviors the participants avoid doing, they also include the healthy alternative behavior. An ANOVA revealed main effects for both gender and ethnicity on dietary behaviors (Courtenay et al., 2002). Overall, men engaged in more risky dietary behaviors than women, and European Americans of both genders had the least risky dietary practices of all the race/ethnicity groups, whereas Hispanics had the least variation between men and women, with dietary behaviors not differing significantly (Courtenay et al., 2002).

In one multi-country study, there were differences on five separate risk factors for cardiovascular disease that accounted for over 40% of the gender difference in mortality (Wardle et al., 2004). Food choice behavior was one of the main risk factors. Men consistently rated food choice behaviors as less important than women rate them, and when making food choices, men gave lower priority to health, and higher priority to taste and convenience than women did (Wardle et al., 2004). Across the lifespan, from pre-adolescence to old age, women also put a much greater emphasis on weight than men do, and have a higher frequency of dieting and attempts at weight control (Wardle et al., 2004).

By using the International Health Behaviour Survey, Wardle et al. (2004) assessed gender differences in four specific food choice domains: avoiding fat, eating fiber, eating fruit, and limiting salt. These four areas were chosen specifically because of the scientific consensus regarding their overall health-promoting benefits (Wardle et al., 2004). The survey included over 19,000 university students in 23 countries, representing a 90% participation rate across non-health-related courses (Wardle et al., 2004). No mean age was provided, but participant ages ranged from 17 to 30, and the sample included roughly 8,500 men and 11,000 women (Wardle et al., 2004).

Of the four food choice items assessed in this study, each one contained single-item questions, such as “Do you make a conscious effort to avoid foods that contain fat and cholesterol?” and “How often do you eat fruit?” with optional answers ranging from “daily” to “never” (Wardle et al., 2004). Smoking was included as a control variable in the analysis, due to the fact that smokers tend to have less healthy diets than non-smokers overall, and that men typically smoke more than women (Wardle et al., 2004).

Across the entire sample, it was found that women were 50% more likely to avoid eating high-fat foods and to eat high-fiber foods, 25% more likely to eat fruit at least once a day, and 6% less likely to add salt (Wardle et al., 2004). In terms of avoiding fat and eating fruit daily, gender differences were shown in all 23 countries analyzed, and in 21 countries for eating fiber (Wardle et al., 2004). Gender differences were significant in salt avoidance in only six countries, and those six all showed a female advantage (Wardle et al., 2004). Across the sample, 34% of men smoked compared to 27% of women (Wardle et al., 2004).

One way these dietary choices manifest is in obesity. In Europe, the U.K. has the highest rate of obesity at nearly 50% (Hunt et al., 2013). The rate of obesity in the United States is 59% and growing, thus making the US the heaviest nation in the world by a significant margin (Courtenay, 2000a). Being obese at age 40 can decrease a man's lifespan by an average of six years, and obesity either exacerbates or is indirectly responsible for many other leading causes of death (Hunt et al., 2013). Ninety percent of cases of type II diabetes can be attributed to being overweight, obese individuals are three times more likely than healthy-weight people to have high blood pressure, and obesity is the second most preventable cause of cancer, just after smoking (Hunt et al., 2013).

Despite a 5-10% weight loss producing significant health effects in overweight and obese individuals, weight loss programs and centers in the U.K. (from where this study originated) are rarely used by men, and often overtly advertise to women (Hunt et al., 2013). Women are more likely than men to adhere to a conventional biomedical model of what a healthy weight should be, whereas men are much more likely to challenge the conventional understanding of being both overweight and obese (Hunt et

al., 2013). Many men report they are afraid that if they lose weight they will become *too* thin, or unhealthy looking, and dieting rarely plays a role in weight loss for men, as most men choose to lose weight by exercise alone (Hunt et al., 2013). Dieting is considered “feminine,” and many men are ignorant of the links between dietary choices and overall health (Hunt et al., 2013).

Prostate cancer strikes men only, and dietary reductions in meat and fat, and increases in fruits and vegetables have been shown to reduce markers in disease progression after diagnosis (Mroz, Chapman, Oliffe, & Bottorff, 2010). Although dietary changes have been shown to have a significant effect only on low-grade prostate cancer, the evidence is overwhelming enough that many scientists and doctors have begun arguing that dietary factors should be included in all prostate cancer care guidelines, regardless of the stage of disease (Mroz et al., 2010). Not all cancer patients receive these recommendations, but among those who do, there is resistance to making any kind of long-term or significant changes to their dietary patterns, despite the probable increases in survival time such changes would engender (Mroz et al., 2010).

In a qualitative study using grounded theory methods, Mroz et al. (2010) interviewed 14 Anglo-Canadian men who had been living with a diagnosis of prostate cancer for five years or less. They examined how prostate cancer had changed, altered, or influenced their eating habits since diagnosis. All men were heterosexual, lived with female partners, and ranged in age from 48 to 78 (Mroz et al., 2010). Nine of the men were retired, and most were college educated and comfortably middle-class (Mroz et al., 2010). Once the results were analyzed, the participants were grouped along a diet-change continuum representing various rationales for making, or not-making, any dietary

changes (Mroz et al., 2010). Along this continuum, four clusters were created as analyses of why men made the dietary changes they did, and were labeled: “(a) perception of pre-prostate cancer diet, (b) diet and health understandings, (c) orientation towards prostate cancer, and (d) need for ‘doing something’ about their cancer” (Mroz et al., 2010, p. 400). The men who changed their dietary patterns the least typically cited already having a good diet as the main reason for not making too many alterations or improvements, and added that, since a previously healthy diet had not prevented their acquiring prostate cancer in the first place, they perceived little need to change it (Mroz et al., 2010). Among all of the men, there was an espoused fatalism regarding cancer; either that there was not enough evidence to support a radical dietary overhaul, or that if modern medicine was not powerful enough to get rid of their cancer, then eating vegetables certainly was not going to make the difference (Mroz et al., 2010). Despite this, “most participants” (Mroz et al., 2010, p. 401) made minor changes to their diets, typically by adding items such as tomatoes, known for their cancer-fighting lycopene content, and nutritional supplements. Many participants in the group admitted that they could probably eat better for overall health in general, but saw little optimism that changing their diet now could affect their cancer outcome, or that their prostate would even be an organ directly affected by diet, at least not in the same way one’s heart is (Mroz et al., 2010). All but four of the men imposed limits, however, on how far they were willing to go to change their dietary patterns for health reasons (Mroz et al., 2010). Only actions that were “convenient, non-disruptive and affordable,” as well as being mostly consistent with their previous diets, were entertained (Mroz et al., 2010, p. 402). All of the men in this study were self-selected, providing one major caveat for generalizing the diet information here

– they may have already been interested in making or, at the least, talking about and considering, dietary changes. This implies that even with the minor changes made to their dietary choices and the resistance shown by most of them to larger dietary overhauls, they might have been more willing than the average man to examine and improve their diets.

Liebman et al. (2003) studied the dietary habits of rural communities in Wyoming, Montana, and Idaho, and found that, after controlling for age, race, level of education, and BMI, only 38% of men consumed vegetables more than five times per week, contrasted to 48% of women. Only 27% of the men consumed fruit more than five times per week, compared to 42% of women, and overall women consumed more fiber and less sugar than the men (Liebman et al., 2003). Additionally, 62% of men endorsed ordering “super size” portions at fast food restaurants when asked, compared to 40% of the women (Liebman et al., 2003). Overall, the majority of respondents in this study, both male and female, did not come close to meeting the recommended intake for either fruits or vegetables, although female’s reported dietary habits were considerably higher in fruits, vegetables, fiber, micronutrients, phytochemicals, and lower in sugar-sweetened drinks than men’s (Liebman et al., 2003).

Similarly, Baker and Wardle (2003) found that only about 16% of men in the UK eat the recommended amount of five servings a day of fruits and vegetables. Their results stemmed from adults aged 55-64 years attending a population-based cancer screening in the UK at 15 different locations (Baker & Wardle, 2003). Research has shown that the “female advantage” of eating more fruits and vegetables than men seems to be established by adolescence for most people, and females frequently report liking

vegetables more than men, though even most females fall woefully short of the recommended servings (Baker & Wardle, 2003). Awareness of the recommended dietary guidelines of five servings a day did have some impact on how many servings an individual consumed, with 16% of men and 34% of women professing awareness of the recommendation, whereas only 28% of men were aware of a relationship between fruit and vegetable consumption and disease, as opposed to 35% of women who were aware (Baker & Wardle, 2003). Baker and Wardle (2003) offered little explanation as to why these messages penetrate to women but not to men; only that the primary sources of this information are places more women go than men, like supermarkets, which appears to be at best a partial explanation.

In Nath's (2010) grounded theory study, 44 people, 25 of whom were men, participated in semi-structured interviews regarding their personal food practices and eating habits of being vegetarian, and social experiences. The men reported unanimously that they frequently were blamed, criticized, and shown bewilderment, or severe disapproval from other men for abstaining from meat, in addition to sometimes being aggressively pressured to justify their choice and explain their reasoning (Nath, 2010). The participants noted that the barbecue was strongly implicated as a source of particular scorn in masculine relations between the vegetarian men and men who were meat-eaters (Nath, 2010). One participant in the study cited frequent barbecue attendance as being stressful, and that at every barbecue he attended, he was forced to justify, in the face of considerable hostility, his food choices (Nath, 2010). Nevertheless, he would not stop attending barbecues due to the "significant social bonding experience" (Nath, 2010, p. 268). For all the men involved, the kitchen at such events was problematic, in that it is

considered a feminized arena of food preparation distinctly separate from the barbecue where men congregate, leading to an overt understanding that “‘manliness’ and vegetarianism are incompatible” (Nath, 2010, p. 271). In a less overt way, Nath (2010) characterizes hegemonic masculinity’s understanding of vegetarianism as a willful giving up of manly dominance not only over women, but over animals as well.

Many men believe a diet high in animal fats and proteins is necessary to do manual labor and satisfy their ravenous appetites, while questioning whether vegetables are proper food for a man to eat, particularly if one works in any industry requiring physical labor (Nath, 2010). It should be noted, however, that not one of the men in this study expressed any of the sense of marginalization, insecurity, or lack of power that generally comes with deviations from masculine norms for most men; indeed, several of the men talked about deliberately subverting the dominant thinking on food, and were apt to throw their tofu steaks up on the grill right alongside the meat steaks (Nath, 2010). Perhaps in this case, though it is not written, these men were enacting other aspects of hegemonic masculinity, like power, invulnerability, and assertiveness, in an effort to compensate for their perceived lack of masculinity around their diet.

Brendan Gough (2007) performed a qualitative analysis of contemporary UK newspaper articles dealing with both men and dietary patterns to examine mass-media representations of diet-related phenomena. After analyzing 44 features pertaining to the topic, he categorized the articles into five separate topics: health problems, cooking, dietary change, food and drink, and shopping (Gough, 2007). He discovered that male eating habits were repeatedly linked to serious illnesses, particularly cancer, and that this held true across all classes or ethnicities (Gough, 2007). Ironically, however, alongside

the message that men's diets were killing them and that they should change, there was a corresponding, but subtle, message that men were somehow incapable of changing their dietary patterns. These messages treated men as naïve, childlike, and as though they could only survive with the help of women (Gough, 2007). Articles disproportionately focused on extreme cases of men's diets: men who were morbidly obese and could not stop eating, or successful businessmen who had no time to eat anything besides store-bought meals, as well as satirical and mocking articles about men focusing on their abdominals, or worrying about going bald (Gough, 2007). Conversely, Gough (2007) found many alarmist articles about men's delusions regarding their weight, health, and vulnerability to disease, implicating all men in a culture of junk food, lack of self-control, narcissism, and a nearly pathological antagonism toward help-seeking. When articles were less hysterical or accusatory about men and diet, food and cooking were only presented in a "masculine" way, with a correlation between men who care about food, and being overly concerned with appearance, particularly his body (i.e., muscularity, flat abs, etc.) (Gough, 2007). Among these articles, the preparation and eating of food was often presented using sports or military metaphors, with a focus on meat, alcohol, foods that were best for weight training and maximizing muscularity, and the sublimating of feminine diets as extreme and unmanly (Gough, 2007). In some articles, the mere fact of men preparing food at all was treated as something so unusual as to warrant a news story (Gough, 2007). Akin to the Drummond and Drummond (2010) study with Australian boys, food was treated merely as fuel - a pragmatic means to fulfill the more important activities of sport or work (Gough, 2007). The enjoyment of food is presented as a very

limited realm, useful only for women, the wooing of women, or to men whose profession it is to be interested in food, like chefs (Gough, 2007).

In their qualitative study on the dietary habits of men who live alone, Sellaeg and Chapman (2008) found evidence to suggest that specific food choices men make are related not only to their values and ideals, but also to their general food environment, their economic standing, and their peer influences (which in turn can shape the food environment). Sellaeg and Chapman referred to these influences as macro social structures, and they play an integral role in determining the more intimate and personal choices one makes, particularly about health practices. Since, historically, women have been responsible for the bulk of food care and preparation in heterosexual households, men who live alone tend to spend more money eating out, more money per person on food, and have overall less healthy dietary patterns (e.g., lower in fruits and vegetables, and higher in fat and salt content) than men who live with a woman (Sellaeg & Chapman, 2008).

Although the 12 male participants in Sellaeg and Chapman's (2008) study agreed they could eat healthier than they did, they all eschewed typically hegemonic ideals around food in favor of more "conscious" eating consisting of more fruits, vegetables, and less meat. Thus, this study is somewhat of an anomaly in the literature (p. 125). All of the men were well-educated beyond high school; had steady employment; resided in Vancouver, British Columbia, a famously liberal, youthful, and health-conscious city on the Northwestern Coast of North America; and most importantly, their results contrasted sharply with the results of another study conducted in a Canadian city on the East Coast (Sellaeg & Chapman, 2008).

Newcombe, McCarthy, Cronin, and McCarthy (2012) echoed Connell's (2005) social constructionist assertions that gender is performative, that gender roles are determined collectively by social norms, and that the true meaning of gender in Western culture resides in social interactions. They found that many men are calculating about what they will eat around certain people and in certain social settings, implying social meaning embedded within each context (Newcombe et al., 2012). Enjoyment of food is akin to temptation, a taboo within hegemonic masculinity, and only indulged in occasionally, typically as the head of the table, with meat products and alcohol, and with large portions (Newcombe et al., 2012). Having a female partner and children impacted how the men ate, but most men in the study still described food as being practical, as fuel for mechanistic work, and not something to be enjoyed or fussed over. Having wives or female partners is the one social transaction in which men would cede control of their dietary choices, and some viewed this as a maturation process, and it gave them permission to enjoy food, as well as to be cared for by someone else (Newcombe et al., 2012).

The next section elaborates the concept of hegemonic masculinity, an idea coined by R.W. Connell in her 1995 book, *Masculinities*. Connell expounded upon the societal messages about masculinity that are both implicitly and explicitly reinforced through social institutions, media, behaviors, and even belief systems. This dissertation examines the idea that hegemonic masculinity, rather than the simple fact of being male, strongly predicts many of these poor dietary outcomes outlined above.

Hegemonic Masculinity

It is clear that men's relationship with food is less than ideal, both psychologically and physically. But why is this so? Simply putting the responsibility on advertising and the media is not an adequate explanation; something deeper is happening in the lives of men and their attitudes toward their dietary patterns that puts them in real danger.

Although studies have described this phenomenon, little research has been conducted that examines reasons or causes for men's poor dietary patterns. One idea that is beginning to receive some empirical attention is the concept of hegemonic masculinity (Connell, 2005; Courtenay, 2000b; Gough, 2007; Gough & Conner, 2006; Kivel & Johnson, 2009; Nath, 2010; Sellaeg & Chapman, 2008).

It has long been argued in the literature that there is such a thing as a "nativist" view of sex roles, the notion that there is an inherent masculine essence that is "historically invariant" (Levant, 1992, p. 380). According to this argument, the extent to which this inborn need is met depends on how strongly a man adheres to traditional gender roles and achieves a strong masculine identity, which Levant describes as being a "failure-prone process" (Levant, 1992, p. 380). More recently though, this thinking has been replaced by a more constructionist viewpoint, that gender roles are contradictory, and can never be consistent, and that nearly everyone violates culturally-dictated gender norms on a regular basis (Levant, 1992). According to constructionist literature, there are seven common traditional male role norms that comprise the ideal of culturally-sanctioned masculinity: restrictive emotionality, status and achievement-seeking, avoiding femininity, aggression, self-reliance, homophobia, and non-relational sexual attitudes (Levant, 1992). Even as far back as 1978, Harrison espoused the idea that

socially-constructed sexual and gender norms accounted for most of the variance in the shorter life expectancies of men, with the greatest factors being men's greater susceptibility to stress-related disorders, and a reluctance to seek medical attention (Harrison, 1978).

In her groundbreaking book *Masculinities* (2005), Connell took this idea further by popularizing the term hegemonic masculinity, deriving it from the concept of hegemony, referring to “a cultural dynamic by which a group claims and sustains a leading position in social life” (p. 77). Connell went on to define hegemonic masculinity as a gender practice in which the guarantee of the dominance of men over women is a given within the culture, requiring “some correspondence between cultural ideal and institutional power, collective if not individual” (Connell, 2005, p. 77). In this way, although some resistance to the standard order may exist within a culture either among individuals or entire groups of people, all members of the dominant party (in this case, men) still benefit in many direct and indirect ways (Connell, 2005).

Connell (2005) conceptualized masculinity as a big umbrella, with many smaller and often competing masculinities existing underneath it, with hegemonic masculinity attaining cultural dominance over all the others. Therefore all the other masculinities exist in relation to whatever hegemonic form is prominent at the time (Connell, 2005). Complicity still exists among these other masculinities, whether it is conscious or not, such as gay subcultures that fetishize hypermasculine norms and reject effeminate gay men (Connell, 2005). Gay men, in fact, are the perfect embodiment of a masculinity in direct opposition to the hegemonic ideal, but still existing within the privileged structure of masculine norms and benefits (Connell, 2005). Furthermore, Connell (2005) writes

that masculinity (and by extension, gender in general) is a performance, something a person enacts through behavior, not an inherent aspect of who that person is as an individual. When referring to men, that behavior manifests as physical prowess, a toughness and virility that negates any vulnerability or marginalized sexual practice (i.e., homosexuality), and exists as a direct contrast to anything deemed feminine (Connell, 2005). Defining an ideal as normative allows some flexibility among individuals who may not live up to what is being espoused as the ideal (Connell, 2005). From a constructionist viewpoint of gender, personality is abandoned in favor of a systemic representation, and a “symbolic difference in which masculine and feminine places are contrasted. Masculinity is, in effect, defined as not-femininity” (Connell, 2005, p. 70).

Kivel and Johnson (2009) helped elucidate Connell’s (1995, 2005) ideas further, by expounding on the physicality associated with hegemonic masculinity, most commonly in the form of sport and heterosexual sex. There is a strong correlation between hegemonic masculinity and the physical body, especially for younger men. Kivel and Johnson (2009) termed this relationship “body performance” and argued it is considered a marker for “true manhood” (p. 111). For many men and boys, playing in team sports is where they actually learn to *be men* (italics added for emphasis), through socialization processes and male camaraderie epitomized by normalizing a violent masculinity and aggression (Kivel & Johnson, 2009). By its very nature, this type of masculinity claims a social authority that is difficult to challenge and consists not only of rough sport and lack of emotion, but is unabashedly heterosexual in nature, leading to rigid gender binaries enforced by steep consequences for deviating from or breaking these norms (Kivel & Johnson, 2009). Kivel and Johnson (2009) proceeded to dissect

how “cultural texts” such as our leisure entertainment (i.e., books, films, video games, sport, the internet) tend to strongly inform a culture’s gender identities through reinforcing social norms. Many young people, even those with strong real-life role models, learn how to behave within these structures. Due to the sheer amount of consumption, media is often one of the biggest influences on young people’s lives, especially in adolescence (Kivel & Johnson, 2009). Statistically, boys consume more media than do girls, much of it violent and aggressive, but there is little research on how this influences boys’ perceptions of their masculinity or identity (Kivel & Johnson, 2009). Research has focused extensively on the media’s impact on women’s satisfaction with their body, and how they “should” behave, but to date, little research has examined these phenomena in men (Marino Carper et al., 2010).

Objectified Male Physique

In contemporary media portrayals of men in everything from romantic comedies to G.I. Joe figures for children, the ideal male body is becoming ever harder to attain (Marino Carper et al., 2010). Whereas the ideal body type for women is thin, for men it is a lean but muscular build – well-developed pectoral muscles, arms, and shoulders, a thin waist, a flat stomach with visible abdominals, and round buttocks (Daniel & Bridges, 2012). Many of today’s Hollywood celebrities, and idealized action figures, have bodies impossible for the average person to attain without a trainer, hours of daily working out, and potentially anabolic steroid use (Schwartz et al., 2010).

Since 2002, several studies have highlighted a clear link between men’s exposure to print advertisements featuring men with idealized and difficult to achieve body types and body dissatisfaction (Marino Carper et al., 2010). The more exposure men have to

these types of advertisements, the greater is their discrepancy between their ideal body types and their actual bodies, and the lower their feelings of physical attractiveness (Marino Carper et al., 2010). Research has shown that, when asked to choose an ideal body type from a selection of pictures, on average, men pick a body type with 25 pounds more muscle than they have, and about eight pounds less body fat (Schwartz et al., 2010). Muscle dissatisfaction is associated with depression and a loss of self-esteem. When surveyed, about 25% of college athletes admitted to using steroids to improve appearance, but not necessarily performance (and admission may underestimate actual usage) (Schwartz et al., 2010). Among all college students surveyed, body builders had the lowest reported self-esteem and body satisfaction, and “similar psychological factors have been found among body builders and women with eating disorders, which lead them to a greater predisposition to engage in destructive behaviors” (Schwartz et al., 2010, p. 209).

It seems apparent that messages about the ideal male form are being internalized and that this results in negative affective outcomes for some men. Less clear is how anxiety around meeting an internalized physical ideal based on self-objectification is influenced by hegemonic masculinity, and in turn, influences worse health and dietary outcomes.

Self-objectification is defined as an internalization of societal messages that determine an individual’s value based on external factors and appearance, rather than internal characteristics (Schwartz et al., 2010). Failure to meet the societal ideal or concern over doing so results in anxiety. Since masculinities and the idealized male form arise from the social context, it is worthwhile to assess how anxiety about an objectified

body image is associated with an adherence to rigid masculine gender norms. For many men, a muscular build is the most obvious and effective way to signal an adherence to masculine norms, and a perceived lack of muscle implies a more feminine nature that does not meet Western norms of a traditional man (Schwartz et al., 2010). The more one adheres to a traditional masculinity, the more one might be anxious over failing to meet the ideal male form because of the fear of femininity. Gay men have historically been more susceptible to media images of masculinity than heterosexual men, to the extent that simply being a gay man is considered a risk factor for a negative body image and disordered eating (Marino Carper et al., 2010). Muscular dissatisfaction combined with a drive for thinness increase the likelihood of bulimic tendencies, dieting behaviors, and other pathological eating patterns in gay men to such an extent that nearly all the literature about men with disordered eating focuses on gay men exclusively (Marino Carper et al., 2010). Recently, though, the need to examine dietary practices in heterosexual men has become more evident, with both gay and straight men increasingly reporting similar levels of muscle dissatisfaction and choosing similarly slim body ideals (although results are mixed) (Marino Carper et al., 2010).

In a meta-analysis of 26 research studies examining eating pathology, muscle dissatisfaction, and gender roles among men, Blashill (2011) concluded that characteristics of hegemonic masculinity, such as competitiveness, restrictive emotions, violence, domination over women, and the pursuit of power and status correlated strongly with muscular dissatisfaction. Blashill proceeded to write that feelings about one's muscularity are an inherent part of one's feelings about his masculinity. Considering it is estimated that 43% of men are unhappy with their physicality (Blashill, 2011), it is

important to examine the relation between adherence to a traditional masculinity, anxiety over one's physical appearance, and subsequent dietary behaviors.

The literature is quite clear in identifying a link between internalized norms and “ideals” of masculine behavior, and poor health outcomes. While it may feel counterintuitive to suggest that not taking adequate care of one's physical body is the apogee result of ingrained traditions about “being a man,” the literature in this area is suggestive of such a relationship. Paying attention to one's weight, unless it is to gain muscle, or being conscientious about one's appearance or physical health, are considered both feminine and vain, proclivities a “real man” would never stoop to. Thus, internalized anxieties over being masculine enough are externalized in the form of obsessive weightlifting or muscle gain, or avoidance of “feminine” health behaviors.

Research examining self-objectification in men is a relatively new addition to the field (Daniel & Bridges, 2012; Schwartz et al., 2010). Therefore, this study examined the relationships among masculinity, self-objectification indicated by anxiety over presenting the societally defined ideal male form, and dietary patterns. Results of the study could suggest topics for counselors to address that would help men make more informed and better choices about their health.

Chapter 3: Research Method

Participants

Participants were 313 adult males between the ages of 18 and 66 who resided in the United States. The average age was $M = 28.62$ years ($SD = 10.15$). The majority of the sample identified as White/Caucasian ($n = 270$, 86.3%), with 5.1% ($n = 16$) identifying as Asian, 4.8% ($n = 15$) as Hispanic, .9% ($n = 3$) as African American, Native American, and Pacific Islander, and 2.9% ($n = 9$) identifying as Other. As for highest level of educational attainment, 38.3% ($n = 120$) endorsed having a 4-year college degree, 23% ($n = 72$) endorsed “some college,” while 7% ($n = 22$) had a 2-year college degree, 16.6% ($n = 52$) had a Master’s degree, 4.8% ($n = 15$) a professional degree, 2.9% ($n = 9$) had a doctoral/PhD degree, 6.7% ($n = 21$) a high school diploma or GED, and .6% ($n = 2$) had less than a high school degree. In terms of sexual orientation, 61.7% ($n = 193$) of the respondents identified as gay, another 9.9% ($n = 31$) as bisexual, and .6% ($n = 2$) as pansexual (equaling a total of 72% of the respondents), while only 27.1% ($n = 84$) identified as straight (3, 1%, endorsed Other).

All regions of the country were represented in the sample with 23% ($n = 72$) from the Midwest, 20.1% ($n = 63$) from the South, 18.2% ($n = 57$) from the Northeast, 15% ($n = 47$) from the West Coast, 8.6% ($n = 27$) from the Pacific Northwest, and the remaining participants from the Southwest, Mid-Atlantic, and Plains states. The majority (55.3%, $n = 173$) of the men reported being single, while 17.3% ($n = 54$) reported being married, 13.7% ($n = 43$) endorsed having a romantic partner but not living together, while 9.2% ($n = 29$) reported living with a significant other. The remaining 14 participants endorsed a domestic partner, separated/divorced or widower, or Other as the relationship option.

Only 20.1% ($n = 63$) endorsed having a specialized diet of any kind due to personal choice or health reasons.

Based on a post-hoc power analysis (www.danielsoper.com, n.d.), the observed statistical power to determine the observed effect sizes at a probability level of .01 with a sample of 313 participants was .99. Thus, the sample size was more than adequate to detect the statistical effects.

Instruments

Demographics. Demographic information was anonymously collected for each participant, per an author-created questionnaire. Participants accessed the surveys through Qualtrics, the University of Memphis's survey software. Each participant was presented with a consent form and was asked to continue with the study if they agreed to the conditions listed on the form, before being guided through the demographics information. The first two demographic questions were Race and Gender. If a participant selected anything other than Male as their identified gender, they were immediately taken to the end of the survey and thanked for participating.

Contained within this questionnaire was information about age; gender identity; sexual orientation; level of education achieved; height, weight, and waist size; socioeconomic status; marital or partnered status; any adherence to a specialized diet; race or ethnicity; region of the country in which they live; and questions about physical attributes and medical conditions (see Appendix A). After completion of demographic information, the participants filled out information on the dietary patterns questionnaire, the CMNI, and the SPAS. Once the participants completed the surveys, they were directed to a separate page that thanked them for their participation. The participants were

not asked to provide their names or contact information while taking the surveys, in order to maintain confidentiality.

Masculinity. The Conformity to Masculine Norms Inventory-46 (CMNI-46; Parent & Moradi, 2009) is a scale that assesses conformity to nine separate masculine norms: Emotional Control, Winning, Playboy, Violence, Self-Reliance, Risk Taking, Power Over Women, Dominance, Primacy of Work, Pursuit of Status, and Heterosexual Self-Presentation (Parent & Moradi, 2009). The original CMNI consisted of 94 items. Unlike measures of gender role conflict, the CMNI does not measure any kind of conflict or stress that this adherence might engender; rather, it simply measures the agreement with the constructs (Parent & Moradi, 2009). It was developed by Mahalik and his colleagues after reviewing past literature to identify “dominant cultural masculinity norms” that are communicated to all individuals in a given society or context, all of whom are implicitly expected to uphold those standards (Parent & Moradi, 2009, p. 176).

Participants complete the measure by responding how much they agree with each item on a 4-point scale ranging from 0 (*Strongly Disagree*) to 3 (*Strongly Agree*). Some representative items include “It is best to keep your emotions hidden,” “I love it when men are in charge of women,” and “I try to avoid being perceived as gay.” Each subscale is given a score, with higher scores indicating more agreement with masculine norms, and then a total summed score. Parent and Moradi (2009) found low to moderate correlations among the subscales, indicating multidimensionality of the CMNI. For the subscales, Cronbach’s alphas ranged from .72 to .91, with an average of .91 for all items when assessed on 229 undergraduate men in Canada (Parent & Moradi, 2009). In two- to

three-week test-retest reliability coefficients on a White college sample, the subscales ranged from .51 to .96, with a median of .80 (Parent & Moradi, 2009).

The CMNI-94 has been used extensively in research the past seven years, with each subscale yielding low to moderate correlations with multiple issues like psychological distress, alcohol consumption, relationship functioning, and coping styles (Owen, 2011). However, its length decreased its utility in research so shorter versions, like the CMNI-46, were developed. It is possible to get a global masculine norms scale by calculating the mean across all scales, or only those scales a researcher chooses to use (Miller, 2008).

Self-Objectification. The Social Physique Anxiety Scale (SPAS; Hart, Leary, & Rejeski, 1989) is a 12-item scale measuring the degree to which individuals feel anxiety regarding their physique and bodily presentation in social situations. Items are rated on a Likert scale ranging from 1 (*Not at all*) to 5 (*Extremely*) indicating how much the individual agrees with each statement. Sample items include such statements as “I am comfortable with the appearance of my physique or figure,” “I wish I wasn’t so uptight about my physique or figure,” and “Unattractive features of my physique or figure make me nervous in certain social situations.” A score is obtained by taking the sum of all the individual’s responses; question 5 is reverse-scored. The higher one’s score, the more social physique anxiety one is presumed to be experiencing.

The scale was normed on 46 female and 43 male undergraduates, with all items correlating at least .50 with the sum of all other items (Hart et al., 1989). Cronbach’s reliability was .90, and an 8-week test-retest reliability was .82 (Hart et al., 1989). A

second round of testing with 56 more undergraduates “virtually replicated” this pattern (Hart et al., 1989, p. 97).

Dietary Patterns. The Eating Behavior and Attitude Scale (Hong, 2013) uses nine questions to assess participants’ attitudes and behaviors regarding dietary habits. The measure is a combination of two previous measures by Adam and Mowen (2005), and Joireman, Shaffer, Balliet, and Strathman (2012), measuring healthy eating behaviors and healthy eating attitudes, respectively. On the Hong (2013) scale, the healthy eating behavior questions are on a scale from 1 to 5, with 1 representing *never*, and 5 representing *almost always* (applicable to a specific eating behavior, such as “I have 5 or more servings of fruits and vegetables a day”). The questions assessing attitudes toward healthy eating are similar, except that 1 represents *not at all*, while 5 represents *very much* (representative of their eating attitudes). An example of a healthy eating attitude is “I feel great personal satisfaction when I eat healthy.” To achieve a score on the Eating Behavior and Attitude Scale, the numbers chosen for each response are summed, and can range from 9 to 45, with a higher number indicating more conscientiousness regarding their dietary behaviors and attitudes.

The Adams and Mowen (2005) study from which Hong drew his first six questions regarding eating behaviors arose from a larger study assessing the role of various personality characteristics on healthy eating and exercise behavior based on the Five-Factor Model. They define healthy eating primarily as low fat consumption and high fruit and vegetable intake. The study examined associations between healthy eating and behavioral traits such as introversion and extroversion, instability, creativity, agreeableness, and conscientiousness (Adams & Mowen, 2005). As predicted, the

authors found a negative relationship between healthy eating and emotional stability, and a positive relationship between healthy eating and openness to experience (Adams & Mowen, 2005).

The last three questions from Joiremen et al. (2012) represent the findings of a positive relationship between healthy eating attitudes and future intentions. These findings correlate with the expected directions for a future orientation toward health.

Procedure

After receiving approval from the Institutional Review Board (IRB), I began participant recruitment. The survey was online (hosted by Qualtrics) and could be accessed via a unique URL. The participant pool consisted entirely of men, age 18 or older, who were U.S. citizens and currently residing in the United States. Potential participants were informed about the study via emails to personal contacts, posting on Facebook (on which a purchased advertisement ran for one week), emails to a list of male college students at the University of Memphis, contacts with professors at other universities around the country, and posts to the web site Reddit, on multiple “sub-Reddit” forums dedicated to particular themes, such as Science and Gay Men. Since individuals were asked to send the information about the study to others (snowball sampling), there is no way to determine a response rate for the survey. Every effort was made to contact as diverse a sample as possible, particularly in relation to age and geography. Because many of the participants were recruited through social networks and through the web site Reddit dedicated to specific populations (i.e., Gay Men), the participants ended up being more homogenous than is ideal. Efforts were made to reach out to different population groups, through emailing the survey to various public and

private universities in different areas of the United States, and through snowball sampling in different areas of the country (i.e, social networks in the South, the Northwest, and the Northeast) among different generations of men.

Chapter 4: Results

Planned Statistical Analysis

One uses a mediator in a study to explain how an independent variable affects a dependent variable through a potential intervening variable (the mediator) (Frazier, Tix, & Barron, 2004). Mediation involving only one mediator is referred to as *simple mediation*, and must express how the independent variable's indirect effects on the dependent variable can be apportioned through its direct effects on the mediator (Preacher & Hayes, 2008). Using multiple regression analysis, I examined the relationship between internalized hegemonic masculinity and poor dietary habits among men in the United States, with self-objectification (operationally defined as the Social Physique Anxiety Scale) as a mediator. I hypothesized that self-objectification would mediate the effect of hegemonic masculinity (the predictor) on poor dietary choices in men (the outcome variable).

Baron and Kenny (1986) specified that four conditions need to be met for mediation: (1) the independent (X), or predictor, variable has to significantly predict the dependent (Y), or criterion, variable; (2) the hypothesized mediator (M) must predict the dependent variable; (3) the association between the dependent and independent variables must be significantly reduced when you factor in the mediator; and (4) the independent variable must predict the mediator (Miller, 2008). Their approach is termed the causal steps strategy, and is no longer recommended as it actually does not test the significance of the mediating pathway (i.e., the compound pathway between the X and M and between M and Y). A preferred approach calculates the indirect effect and tests it for significance. Because the sampling distribution of this compound pathway tends to be asymptotic, tests

that assume normality of distribution (e.g., the Sobel test) are not as powerful. In order to test for indirect effects, I utilized the bias-correcting bootstrapping method.

According to Mallinckrodt et al. (2006) bootstrapping is a statistical test used to conduct multiple random samples from one “population reservoir,” i.e., the N . It is useful in cases where a researcher is not able to obtain the necessary number of participants specified in the a priori analysis, or simply with small and medium-sized samples (Shrout & Bolger, 2002). By not assuming normality of the sampling distribution, bootstrapping can be performed thousands of times to create an approximation of the sampling distribution of the predictor variable to the outcome variable (Preacher & Hayes, 2008). This can also help reduce type II error (Preacher & Hayes, 2008). I used the Statistical Package for the Social Sciences (SPSS) software package version 20 for data analysis with the addition of the INDIRECT macro for the SPSS developed by Preacher and Hayes (2008). The INDIRECT macro calculates the indirect effect and performs the bootstrap analysis to test the significance of the indirect effect.

Preliminary Analyses

Because the sample of respondents was so heavily skewed toward non-heterosexually identified men, ANOVAs were calculated to test for possible sample differences between the heterosexual and non-heterosexual men. There were no significant differences between the two groups on the masculinity total score ($F(1, 311) = 1.60, p > .05$) or the food scores total ($F(1, 311) = .142, p > .05$). As expected based on previous literature, there was a significant difference on Social Physique Anxiety ($F(1, 311) = 16.626, p < .01$). An additional MANCOVA (controlling for age and educational level) on the masculinity subscales indicated that there was a significant difference

between the two groups on only one of the subscales (Heterosexual Self-presentation). Age was not a significant covariate and was not included in subsequent analyses. However, educational level was a significant covariate on some, but not all, of the gender role subscales. Thus, it was included in the regression analyses. Although there was a difference on the proposed mediating variable, the lack of differences on the independent and dependent variables suggested the data from the two groups could be combined.

Descriptive statistics were calculated for the study variables. Table 1 shows the means, standard deviations, and intercorrelations among the study variables of the total masculinity score, two subscales of the conformity to masculinity norms measure, social physique anxiety, and food habits and beliefs. For the masculinity scale and Social Physique Anxiety scale, data is skewed slightly to the right, while for the Food questionnaire, data is skewed slightly left; .113, .068, and -.545 respectively. For kurtosis, the number .941 on the Masculinity scale suggests that more variability is due to a sharper than normal distribution, while for the Food questionnaire and the Social Physique Anxiety scale (-.417 and -.614, respectively) their negative number represent a flatter than normal distribution. None of the skew or kurtosis measures were outside the commonly accepted guideline of plus or minus 1. All measures demonstrated acceptable internal consistency reliabilities in the current sample (Cronbach's alphas of .87 for masculinity; .84 for the food habits measure, and .91 for social physique anxiety).

As can be seen on Table 1, adherence to a traditional set of masculine norms was not related to healthy food habits (i.e., higher intake of healthy nutrients, and a lower intake of sugar, sodium, and fats). Adherence to traditional masculine norms was also not correlated with social physique anxiety. Social physique anxiety was negatively

correlated with healthy food habits. Masculinity is viewed as a multidimensional construct (Courtenay, 2000, 2009; Kivel & Johnson, 2009; Levant, 1996), although in the literature researchers have scored it both as a total score and as separate subscales (Levant & Richmond, 2007; Owen, 2011; Parent & Moradi, 2009). Since the aggregate score of adherence to masculine norms was not significantly correlated with either social physique anxiety or healthy eating scores, nor predictive of healthy eating, I examined the correlations between the individual scales assessing masculinity constructs and dietary choices. Two scales assessing aspects of masculinity (Risk-Taking and Self-Reliance) were correlated with the measure of social physique anxiety. Endorsement of Risk-Taking was correlated with greater social physique anxiety and a lower score on the food habits questionnaire. Scores on the Self-Reliance scale were significantly correlated with higher scores on social physique anxiety. Following the planned analysis using the total masculinity score, I conducted additional analyses that included Risk-Taking and Self-Reliance scales as possible indirect predictors of dietary choices.

Table 1

Summary of Correlations and Descriptive Statistics for Masculinity Norms, Social Physique Anxiety, and Food Habits, with Risk-Taking and Violence (N=313)

Variable	1	2	3	4	5
1. CMNI-46 Total	--	--			
2. Social Physique	-.01	--			
3. Food Habits	-.03	-.24**	--		
4. Risk-Taking	--	-.16*	.04	--	
5. Self-Reliance	--	.24**	-.09	--	
<i>M</i>	1.19	32.99	34.61	2.56	1.33
<i>SD</i>	.28	5.09	6.68	.29	.57

Note. CMNI-46 = Conformity to Male Norms Inventory-46

* $p < .05$. ** $p < .01$.

Multiple Regression Analyses

Multiple regression analyses were conducted to examine the relationship between adherence to masculine norms and dietary habits and beliefs of American men and whether that relationship was mediated by social physique anxiety. As noted above, educational level was included as a control variable. Additionally, including educational level is important since it is likely to be correlated with dietary habits (Sellaeg & Chapman, 2008).

The INDIRECT SPSS macro was used to calculate the direct and indirect relationships between masculinity and food habits (Preacher & Hayes, 2008). The macro

provides information on the variance in the food habits measure accounted for by the independent variable (adherence to masculine norms) and the mediating variable (social physique anxiety) as well as whether adherence to masculine norms has an indirect effect on the dependent variable of food habits through the mediating variable of social physique anxiety. The macro generates between 1,000 and 20,000 bootstrapped samples with 95% or 99% confidence intervals that can be used to test the significance of the indirect effect. If the confidence interval for the indirect effect does not include 0, that indicates there is a significant indirect (mediating) effect. The current analysis used 5,000 bootstrapped samples at a 95% confidence interval.

The INDIRECT macro indicated that the total masculinity scale score was not significantly related to food choices ($b = -.21, t = -.16, p > .05$) nor was it predictive of social physique anxiety ($b = -.89, t = -.43, p > .05$). Social physique was found to be highly predictive of dietary choices and beliefs ($b = -.12, t = -3.31, p < .001$). Educational level was a significant predictor of healthier and more conscientious food choices. There was no indirect relationship of masculinity on dietary food choices through social physique anxiety. The combined variables accounted for 9.7% of the total variance in food choices ($F(3, 309) = 10.99, p < .001$).

Since the total score of masculinity was not predictive of dietary choices, but the correlation matrix suggested that scales assessing specific traditional male norms might be indirectly related to dietary choice, additional analyses examining the male role norms of risk-taking and self-reliance were conducted. First, the INDIRECT macro was run again with Risk-taking as the independent variable. The output of the macro provides information on the variance in food questionnaire scores accounted for by the

independent variable (Risk-taking) and the mediating variable (social physique anxiety) as well as whether the independent variable has an indirect effect on the dependent variable of food choices through the mediating variable (social physique anxiety). Educational level was included as a control variable.

The full model accounted for a small but significant amount of the variance in dietary choices ($R^2 = .09$, $F(3, 309) = 10.97$, $p < .001$). Although risk-taking scores were not directly predictive of dietary choices ($b = .02$, $t = .03$, $p > .05$), risk-taking was a significant predictor of social physique anxiety scores. Educational level was also predictive of healthier dietary choices. Risk-taking had an indirect effect on dietary choices. Results of the regression analyses and macro output are presented in Table 2.

Table 2

Direct and Indirect Unstandardized Effects of Risk-taking (IV) on Dietary Choices (DV) through Social Physique Anxiety (M) (N = 313).

Predictor	Social Physique Anx.			Dietary Choices			Boot Estimate
	Coeff.	SE	p	Coeff.	SE	p	
Risk-taking	-3.39	1.27	.008	.02	.81	.976	
Social Physique Anxiety	—	—	—	-.12	.04	.001	
Educational level	—	—	—	.90	.25	.000	
Total Indirect Effect							.42 (.102, .999)

Note. Boot estimate = the bootstrap estimate of the indirect effect. Bias corrected bootstrap confidence intervals are in parentheses.

Table 3 shows the results of the regression with the Self-Reliance masculinity norm scale as the independent variable. The full model accounted for a small, but

significant, amount of variance in dietary choices ($R^2 = .097$, $F(3, 309) = 11.07$, $p < .001$). Similar to the findings with the risk-taking scale, the self-reliance male norm did not directly affect dietary choices, but it did have an indirect effect via social physique anxiety.

Table 3

Direct and Indirect Unstandardized Effects of Self-Reliance on Dietary Choices through Social Physique Anxiety (M) (N = 313)

Predictor	Social Physique Anx.			Dietary Choices			Boot Estimate
	Coeff.	SE	p	Coeff.	SE	p	
Self-Reliance	-3.99	.98	.000	-.33	.65	.612	
Social Physique Anxiety				-.12	.04	.001	
Educational level				.90	.25	.000	
Total Indirect Effect							-.48 (-.987, -.174)

Note. Boot estimate = the bootstrap estimate of the indirect effect. Bias corrected bootstrap confidence intervals are in parentheses.

Chapter 5: Discussion

The purpose of this study was to examine the relationship between American men's endorsement of masculinity norms and dietary choices. Specifically, the goals of the research were to investigate whether or not the internalization of messages about idealized masculinity in American culture (i.e., hegemonic masculinity) would negatively influence how men feel about their physique (i.e., social physique anxiety), and in turn negatively impact dietary choices. The study viewed hegemonic masculinity and social physique anxiety as social constructs that might affect the choices men make about how to eat or take care of themselves.

This chapter discusses the implications of the results presented in chapter 4. First, the findings of the analyses are discussed, along with possible explanations of the findings and how those relate to previous research. Next, theoretical and research implications are discussed. Last, limitations of the study are reviewed alongside suggestions for further research.

Hegemonic Masculinity and Dietary Choices

The results of the main analysis suggested that the current sample did not strongly endorse general beliefs about hegemonic masculinity, and that these general beliefs about masculinity did not have a discernible effect on their dietary choices. There were no significant correlations between endorsement of masculine norms and dietary habits or social physique anxiety, so hypotheses 1 and 2 were not supported. Since there was no relationship between endorsement of overall masculinity and dietary habits, there was no mediation of that relationship by social physique anxiety (hypothesis 3).

Beliefs about masculinity were measured by the Conformity to Male Norms Inventory (CMNI-46), which provides an aggregate score, but can also be scored on the nine distinct subscales. Because the overall mean of the CMNI was not directly or indirectly predictive of social physique anxiety, additional analyses were conducted with the CMNI subscales of Risk-Taking and Self-Reliance as independent variables. Scores on both the Risk-Taking and Self-Reliance subscales were predictive of social physique anxiety, while social physique anxiety was predictive of lower food scores on the food habits measure. Male role norms of risk-taking and self-reliance indirectly affected dietary choices through social physique anxiety.

While the original hypothesis regarding generalized masculinity was not supported, there was a connection between endorsement of specific masculine norms and lower dietary scores. However, the two male role norms did not function in the same way. It was expected that higher scores on masculinity (and the individual male role norms) would be related to higher social physique anxiety. Thus, the negative correlation between risk-taking and social physique anxiety was unexpected. There may be many explanations for this, but one possibility might be that men who feel more positive about their physical bodies (less physique anxiety) also feel more positive about their abilities to accomplish physical feats – thus, they may be more prone to taking risks. Those can be overt physical risks (i.e., cliff diving), or less overt ways of not taking precautions (i.e., not getting physicals, or not going to the doctor at all). Alternatively, men who do not feel as confident about their bodies may be less likely to push their bodies in ways that feel threatening, unsafe, or just risky.

The male role norm of self-reliance could be seen as a positive characteristic; however, it was positively related to social physique anxiety in the current sample. The Self-Reliance scale on the CMNI-46 assesses how averse one is to asking for help (an item example is “I hate asking for help.”). Asking for help may be seen or thought of as weak and the person who avoids asking for assistance because of how others might see him may also use that external frame of reference regarding the appearance of his body.

The focus on social physique anxiety is an important one. This study found that social physique anxiety does have a direct correlation to poorer dietary choices and habits. Much like women who have been internalizing negative messages and impossible standards about their bodies for decades, men are starting to do the same, in ever increasing numbers. Considering that roughly 25-30% of anorexia nervosa and bulimia nervosa cases now occur in men, this represents a real problem for both men and society at large (Greenberg & Schoen, 2008). Since the participants who did not identify as heterosexual had higher scores on the social physique anxiety measure, the association between physique anxiety and poorer dietary choices might be especially relevant for them.

Education was included as a control variable and it was a significant predictor of food habits. The mean age of respondents in this study was 28 years, and 62.6% of respondents had at least a 4-year college degree, including 24.3% of respondents who had a master's, doctoral, or professional degree (i.e., JD, MD). Previous research on dietary choices among men has largely focused on college students or older men once they are diagnosed with a chronic illness such as prostate cancer (Baker & Wardle, 2003; Courtenay et al, 2002; Mroz et al., 2010; Wardle et al., 2004), and some studies have

suggested that having more education can lead to more conscientious eating and lifestyle choices (Sellaeg & Chapman, 2008). This study found this significant relationship between educational level and dietary choices even in a younger and generally healthy sample.

Limitations

Due to the placement of the survey on the social media site Reddit within a sub-Reddit specifically geared toward gay men, 229 of the 313 participants identified as Gay, Bisexual, Pansexual, or Other. There is no official number about how many men in the United States identify as something other than heterosexual, but through census reports, Gallup polls, and collected aggregate data from sites like Facebook or Match.com, and through internet searches, it is estimated that anywhere from 2-10% of the male population identifies as gay (excluding specific identifications such as bisexual or pansexual, which could make the percentages higher) (Stephens-Davidowitz, 2013). Considering almost 72% of the respondents to my survey identified as non-straight, it is in no way representative of the general male population. In particular, there is evidence suggesting that gay men may be more body conscious (Carper, Negy, & Tantleff-Dunn, 2010), and this was borne out by the significantly higher scores on the social physique anxiety measure for the non-heterosexual men.

Objectification theory argues that individuals socialized in a sexually objectifying environment may adopt the observer's perspective and begin to base judgments about themselves on how well they believe they live up to cultural sexual and body ideals (Fredrickson & Roberts, 1997). Martins, Tiggemann, and Kirkbride (2007) found that gay men demonstrated more body shame, muscle and body dissatisfaction, body

surveillance, self-objectification, and a drive for thinness than did heterosexual men in their study. Because so many gay men are socialized in hyper-sexualized environments of pornography, suggestive advertising, and a focus on idealized appearances, these messages become internalized (Martins et al., 2007). Martins et al. also found that for gay men, similar to heterosexual women, but not heterosexual men, self-objectification predicted body shame. Alterations in individuals' base levels of self-objectification can, and often do, have a direct impact on their judgments of their bodies and their eating behaviors (Martins et al., 2007).

Evidence exists to suggest that gay men may engage in more risky behaviors than straight men as a whole due to an attempt to overcompensate for a perceived lack of masculinity, and to not appear too "feminine" (Hamilton & Mahalik, 2009). This may appear to be contradictory to some common assumptions about gay men having a more open, fluid, or less stereotypical presentation of masculinity, and in many cases, that is probably accurate. However, in the current sample there was no difference between the heterosexual and non-heterosexual men on the overall masculinity score. The only difference between the two groups on any of the specific gender role norms was on heterosexual self-presentation; as would be expected, heterosexual men scored higher on that subscale (means of .84 and .55 for heterosexual and non-heterosexual men respectively) although neither group strongly endorsed this role norm. Indeed, the scores on the total masculinity scale were quite low (Mean = 1.19 of a possible 3, $SD = .27$), suggesting the entire sample was less traditional in conformity to societally defined male role norms. This lower score on the masculinity measure becomes an additional

limitation as the restricted range of variance in the measure might have attenuated the relationships among the variables.

According to the U.S. Census Bureau, the United States is approximately 72% White/Caucasian, 12% African American, 5% Asian American, and 16% Latino. The study participants were 86% White/Caucasian ($n = 270$), .3% African American ($n = 1$), 5% Hispanic or Latino ($n = 15$), 5% Asian American ($n = 16$), and 3.5% in other categories ($n = 11$). Racial and ethnic minorities have higher rates of fatal and chronic illness than White men (Courtenay et al., 2002). Additionally, since many racial and ethnic minorities in America belong to a lower socioeconomic status than many White people, they have lower educational attainment, less access to quality healthcare, and potentially less access to quality food choices. The combination of high educational achievement and the larger number of White men in this survey reduces the generalizability of the findings to minority and less well-educated men. As referenced earlier, the mean age of the respondents could have also had effects on the survey outcomes since participants are likely to be healthier and less likely than older men to be under medical care that might require dietary changes.

Implications for Future Research and Clinical Practice

The results of this study, in conjunction with past research about health outcomes in men, further confirm that health variables are complicated, nuanced, and not easily teased out from one another. By attempting to highlight a direct link between internalized masculinity and food choices, I sought to uncover one specific psychological mechanism at play in determining men's health. While this link was not supported when using the aggregated score combining all the male role norms, examining the specific

scales of Risk-Taking and Self-Reliance did suggest that aspects of an internalized masculinity can affect food choices. Specifically, endorsing both self-reliance and risk-taking as important aspects of one's masculinity have an effect on dietary choices via social physique anxiety, but in very different ways.

As noted earlier, endorsing risk-taking as part of a self-definition of masculinity is related to less social physique anxiety, perhaps because a risk-taking orientation translates into less concern about how others perceive their bodies. Of course, it is also possible that endorsing a risk-taking norm is associated with being more physically fit, including healthy eating, in order to be able to successfully meet those risks, but there is no way to test this in the current data set. In contrast, endorsing self-reliance norms was positively related to social physique anxiety. Perhaps discomfort with seeking help, whether that is emotional or medical, speaks to concerns about others' perceptions of weakness and an overall concern about others' perceptions.

Clinically, when working with men, particularly those struggling with health or identity issues, it will be important to assess their own internalized messages about seeking help, and where those messages came from. Much of masculine socialization centers around shame-based messages of autonomy, "strength," and a sense of dominance over others' and men's own "weaknesses." This is certainly evident in the self-reliance male role norm. Finding out how strongly a male client identifies with traditional masculinity can help the clinician find ways to connect with the client that will be meaningful. Traditional modes of therapy, such as asking about feelings, are considered feminine by many men, and may lead to more shame or a sense of inadequacy in many men who may have more trouble identifying or connecting with their feelings

(Good & Brooks, 2005). What will be important is to connect with what brought them into therapy. There is a motivation there – finding what that motivation is will be important to creating an alliance and being successful in therapy.

Psychoeducation about the masculinization social process can be important to help men better understand why they might be confused about their thoughts or feelings, and help reduce shame about help-seeking (Good & Brooks, 2005). Acknowledging that shame or embarrassment can be validating and connecting for the therapist and male client. Some research suggests that all-male therapy groups can be ideal for instilling hope and initiating mutual empowerment by countering men's emotional isolation from men and decentralizing women from men's lives (Good & Brooks, 2005). Additionally, it seems that social physique anxiety is the important variable to pay attention to in regards to some health behaviors.

Acknowledging that men frequently encounter many negative messages growing up about what a man "should" be is often important in working with men therapeutically. As stated previously, research has found that rigid gender roles in men are frequently positive predictors of male body dissatisfaction (Schwartz et al., 2010). How a therapist chooses to talk or not talk about gender role socialization, and how that can predict alexithimia (restriction of emotions) can be crucial to exploring body image issues in men and how men conceptualize their masculinity (Schwartz et al., 2010). Clinicians and researchers might consider adapting literature about women's body image to men, and investigating how both positive and negative body image functions in men's lives.

From a social perspective, examining how men relate to one another and how comparison to others forms a man's perception of himself are very important elements to

explore in therapy (Schwartz et al., 2010). Considering the multiple pressures men face to adhere to a hegemonic masculine ideal from media, society, and family, figuring out how to help men form healthy differentiation would also be important (Schwartz et al., 2010). Again, group therapy has shown to be an effective modality to challenging some of those norms, and forming healthy, non-competitive relationships with other men has shown to provide protective factors for body image concerns and to promote healthier decision-making about health factors (Schwartz et al., 2010).

The specific psychological mechanisms behind how men choose to eat is most likely multi-faceted and complex, and owe as much to individual taste, access to fresh food, ability to prepare food, and knowledge of nutrition as to adhering to male norms. For some people, food is personal; for others, it is simply a way to no longer feel hungry. Thus, it makes sense that masculinity and physique anxiety explained only around 10% of the variance in dietary choices. Gaining a better understanding of why people choose to eat the way they do might be better uncovered by speaking to them directly. Qualitative studies could address how endorsement of specific male norms is related to health choices, especially around diet. Future research on this topic could focus on ways to help men adapt more healthful eating habits before illness occurs.

Summary

Food choices, health decisions, and broader, general lifestyle choices individuals make are very personal, idiosyncratic, and based on many factors. In this dissertation, I attempted to capture one primary psychological factor, and one mediating factor, that help determine the food choices that men make. Several conclusions were drawn from this study. Social physique anxiety is a salient factor contributing to male food choice

behavior. Specific aspects of masculinity (risk-taking, self-reliance) were indirectly related to dietary choices through their relationship with social physique anxiety. Future research, as well as clinical services, should address the impact of male socialization and the experience of social physique anxiety in a male population.

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Appendix A

Demographic Questions

Gender (Drop down menu: *Male, Female, Transgender, Female to Male, Male to Female, Gender Queer, Other*)

Age (*Self-Report*)

List the highest level of education completed (Drop down menu: *Less Than High School, High School Degree, Some College, Associate's Degree, Bachelor's Degree, Graduate Degree, Doctoral or Professional Degree, i.e., Law Degree*)

Height (*Self-Report*)

Weight (*Self-Report*)

Waist Circumference (*Pant size*)

Any diagnosed medical problems, (Drop down menu: *cancer, diabetes, high blood pressure, high cholesterol, celiac disease, hypertension, heart disease, thyroid disease, asthma, low testosterone, Other?*)

Sexual Orientation (Drop down menu: *Straight, Gay, Bisexual, Pansexual, Asexual, Other*)

Ethnicity (Drop down menu: *African American/Black, Asian American, Latino, Non-White Hispanic, White, Biracial, Multiracial, Other*)

Relationship Status (Drop down menu: *Single, Married, Living with Significant Other, Domestic Partnership, Have a partner but not living together, Other*)

Do you adhere to a specialized diet, either for medical reasons or your own purposes, i.e., vegetarianism, veganism, Atkins, etc? (*Yes, No, If so, what? – Self Report*)

In what region of the country do you live? (Drop down menu: *West Coast, Pacific Northwest, Plains, Southwest, South, Midwest, Mid-Atlantic, Northeast*)

Appendix B

Conformity to Masculine Norms Inventory (CMNI-46; Parent & Moradi, 2009)

For each item, respondents will respond on a 1-4 scale:

STRONGLY DISAGREE DISAGREE AGREE STRONGLY AGREE

1. In general, I will do anything to win
2. If I could, I would frequently change sexual partners
3. I hate asking for help
4. I believe that violence is never justified
5. Being thought of as gay is not a bad thing
6. In general, I do not like risky situations
7. Winning is not my first priority
8. I enjoy taking risks
9. I am disgusted by any kind of violence
10. I ask for help when I need it
11. My work is the most important part of my life
12. I would only have sex if I was in a committed relationship
13. I bring up my feelings when talking to others
14. I would be furious if someone thought I was gay
15. I don't mind losing
16. I take risks
17. It would not bother me at all if someone thought I was gay
18. I never share my feelings
19. Sometimes violent action is necessary
20. In general, I control the women in my life
21. I would feel good if I had many sexual partners
22. It is important for me to win
23. I don't like giving all my attention to work
24. It would be awful if people thought I was gay
25. I like to talk about my feelings
26. I never ask for help
27. More often than not, losing does not bother me
28. I frequently put myself in risky situations
29. Women should be subservient to men
30. I am willing to get into a physical fight if necessary
31. I feel good when work is my first priority
32. I tend to keep my feelings to myself
33. Winning is not important to me
34. Violence is almost never justified
35. I am happiest when I'm risking danger
36. It would be enjoyable to date more than one person at a time
37. I would feel uncomfortable if someone thought I was gay
38. I am not ashamed to ask for help
39. Work comes first

40. I tend to share my feelings
41. No matter what the situation I would never act violently
42. Things tend to be better when men are in charge
43. It bothers me when I have to ask for help
44. I love it when men are in charge of women
45. I hate it when people ask me to talk about my feelings
46. I try to avoid being perceived as gay

Appendix C
Social Physique Anxiety Scale (SPAS; Hart, Leary, & Rejeski, 1989)

Respondents use the following 5-point response scale:

1. Not at all characteristic of me
2. Slightly characteristic of me
3. Moderately characteristic of me
4. Very characteristic of me
5. Extremely characteristic of me

_____ 1. I am comfortable with the appearance of my physique or figure.

_____ 2. I would never worry about wearing clothes that might make me look too thin or overweight.

_____ 3. I wish I wasn't so up-tight about my physique or figure.

_____ 4. There are times when I am bothered by thoughts that other people are evaluating my weight or muscular development negatively.

_____ 5. When I look in the mirror I feel good about my physique or figure.

_____ 6. Unattractive features of my physique or figure make me nervous in certain social settings.

_____ 7. In the presence of others, I feel apprehensive about my physique or figure.

_____ 8. I am comfortable with how fit my body appears to others.

_____ 9. It would make me uncomfortable to know others were evaluating my physique or figure.

_____ 10. When it comes to displaying my physique or figure to others, I am a shy person.

_____ 11. I usually feel relaxed when it's obvious that others are looking at my physique or figure.

_____ 12. When in a bathing suit, I often feel nervous about how well proportioned my body is.

Appendix D

Eating Behavior and Attitude Scale (EBAS; Hong, 2013)

1) NEVER 2) RARELY 3) EVERY ONCE IN A WHILE 4) SOMETIMES 5)
ALMOST ALWAYS

1. Have 5 or more servings of fruits and vegetables a day
2. Include fiber (whole grains) in my diet
3. Eat three meals a day
4. Take active steps to eat a well balanced diet of foods
5. Watch the amount of fat I consume
6. Watch the amount of sugar I consume

1) NOT AT ALL 2) NOT REALLY 3) NEUTRAL 4) SOMEWHAT 5) VERY MUCH

7. Eating healthy is essential to my well-being
8. I enjoy eating healthy
9. I feel great personal satisfaction when I eat healthy

From: Beverly Jacobik (bjacobik)
Sent: Thursday, January 2, 2014 10:26 AM
To: Ryan S Cox (rscox)
Subject: FW: IRB Approval 3051

Hello,

The University of Memphis Institutional Review Board, FWA00006815, has reviewed and approved your submission in accordance with all applicable statuses and regulations as well as ethical principles.

PI NAME: Ryan cox

CO-PI:

PROJECT TITLE: Hegemonic Masculinity and Health Outcomes in Men: A Mediation Study on the Influence of Masculinity on Diet

FACULTY ADVISOR NAME (if applicable):

IRB ID: #3051

APPROVAL DATE: 12/22/2013

EXPIRATION DATE: 12/21/2014

LEVEL OF REVIEW: Exempt

RISK LEVEL DETERMINATION: No more than minimal

Please Note: Modifications do not extend the expiration of the original approval

Approval of this project is given with the following obligations:

- 1. If this IRB approval has an expiration date, an approved renewal must be in effect to continue the project prior to that date. If approval is not obtained, the human consent form(s) and recruiting material(s) are no longer valid and any research activities involving human subjects must stop.**
- 2. When the project is finished or terminated, a completion form must be completed and sent to the board.**
- 3. No change may be made in the approved protocol without prior board approval, whether the approved protocol was reviewed at the Exempt, Exedited or Full Board level.**
- 4. Exempt approval are considered to have no expiration date and no further review is necessary unless the protocol needs modification.**

Approval of this project is given with the following special obligations:

Thank you,

Ronnie Priest, PhD

Institutional Review Board Chair

The University of Memphis.

Note: Review outcomes will be communicated to the email address on file. This email should be considered an official communication from the UM IRB. Consent Forms are no longer being stamped as well. Please contact the IRB at IRB@memphis.edu if a letter on IRB letterhead is required.