BODY IMAGE EXPERIENCES AMONG MEN IN MIDLIFE:
TEST OF AN INTEGRATED MODEL

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# BODY IMAGE EXPERIENCES AMONG MEN IN MIDLIFE

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Literature review:
A Review of men’s body image in early adulthood and later life

Abstract

The current literature review evaluates the literature on men’s body image in order to inform a need for understanding experiences of men in midlife, a group who are not part of the demographic portrayed in existing literature. The present review will consider gendered sociocultural body ideals, the extent of body dissatisfaction and its correlates, and theoretical models of men’s body image in young adulthood. This will be followed by considerations into body image experiences of women in midlife in order to identify a set of factors that may potentially contribute to experiences of midlife men. Finally, an integrated model of body image developed for men in mid-life and recommendations for future studies will be discussed.
CHAPTER ONE:

Men’s Body Image in Early Adulthood and Later Life

This review covers the existing literature on men’s body image in young adulthood and later life in order to facilitate efforts to understanding body image experiences of men in mid-life and propose an integrated model of body image for this population. The chapter begins with a consideration of gendered sociocultural body ideals in Western societies and reviews the sources of pressure that communicate the message to conform to the ideals. The chapter moves on to the examination of body dissatisfaction and its correlates in young adult men and describes theoretical models of men’s body image. These theoretical models include the Tripartite Influence Model (Thompson, Coovert, & Stormer, 1999), objectification theory (Fredrickson & Roberts, 1997) and social identity theory of masculinity (Connell & Messerschmidt, 2005; Tajfel & Turner, 1979). This is followed by literature review on body dissatisfaction in women and men in midlife in order to identify factors that are potentially relevant to experiences of men in midlife. Finally, an integrated theoretical model for men in midlife will be introduced. This proposed model was developed within the overarching theoretical framework of the social identity theory of masculinity and brings together elements of the Tripartite Influence Model and objectification theory. The model is enhanced with additional factors identified based on the review of literature that are likely relevant to body image experiences of men in midlife.

Definition of Body Image

The following definitions are offered for the major constructs listed below. Additional terms and definitions are provided throughout the current literature review based on their relevancy to the discussion.

Body image is a multidimensional construct that refers to a person’s perceptions,
thoughts, feelings and behaviors about their body (Grogan, 2008; Tiggemann, 2004). It reflects the subjective experience of one’s body that is influenced by interactions between psychological and sociological factors.

The term, body image disturbances, refers to disruptions in one’s perceptions, thoughts, feelings and behaviors about one’s body. Body image disturbance is considered a risk factor for the development of psychological distress, disordered eating attitudes and behaviors, and eating disorders (Delinsky, 2011).

The current review was conducted with attention to terms and operational definitions of constructs in order to provide a precise picture of relations among constructs in the field of men’s body image. The review process however revealed variability in terms and definitions used to describe constructs across extant studies in the literature. With this in mind, the current literature review provided an overview of the relationships that have been documented with a looser operationalization of some of the concepts.

**Gendered Sociocultural Ideals and Sources of Pressure**

In the last decade, effort to understanding men’s body image has increased and research has begun to identify sociocultural, behavioral and psychological correlates and theoretical models that could potentially inform men’s experiences of body image (McCabe & Ricciardelli, 2004; Tylka, 2011). The salience of body image concerns in women and men in Western societies is intimately tied to sociocultural body ideals. Individuals are exposed to the ideals in everyday-life from a variety of sources including family, friends and romantic partners, as well as, fitness and beauty industries (Cramblitt & Pritchard, 2013; Curtis & Loomans, 2014; Dwarkin & Wachs, 2009; Grogan, 2008; Murnen, Poinsatte, Huntsman, Goldfarb, & Glaser, 2015). However, with its ability to target society as a whole, the mass media is the most
influential outlet used to communicate the sociocultural body ideals through depiction of body images that are unattainable and unrealistic (Grogan, 2008; Tiggemann, 2003). Various formats of the mass media ranging from magazines to internet utilizes body images that represent the ideals to set the standard for attractiveness. Exposure to such images, in turn, increases the pressure to conform to the ideals.

The standard of female attractiveness in the media is a pervasive ideal of thinness (Thompson & Stice, 2001) and associated characteristics, such as self-control and youthfulness, which pressure women to conform to this ideal. The media images of women who represent thin-ideal are approximately 15% below the average female weight and are framed within a context that equates attainment of thin-ideal with positive life outcomes of happiness, success, and popularity (Evans, 2003; Hawkins, Richards, Granley, & Stein, 2004; Tiggemann, Polivy, & Hargreaves, 2009). Meta-analysis of experimental and correlational studies has showed that exposure to thin-ideal media image is related to women’s body dissatisfaction and eating attitudes and behaviors, with strength of effect sizes ranging from small to moderate (Grabe, Ward, & Hyde, 2008; Groesz, Levine, & Murnen, 2002).

In contrast to the thin-ideal upheld for women, the standard of male attractiveness depicted in the media images is becoming increasingly lean and muscular (Barlett, Vowells, & Saucier, 2008; Ridgeway & Tylka, 2005; Smolak & Murnen, 2008; Tiggemann, Martins, & Kirkbride, 2007). An analysis of male bodies in popular magazines over a 30-year time period showed models progressively becoming more muscular and lean over time (Law & Labre, 2002; Leit, Pope, & Gray, 2001). At the same time, male bodies in media are becoming more objectified and sexualized, as portrayals of a shirtless model with the idealized lean and muscular body continue to increase in promotions of consumer products (Olivardia, Pope, Borowiecki, &
Similar to the representation of the thin-ideal for women, male models in media images are framed within a context that equates attainment of lean and muscular ideals with happiness, success, and desirability (Tiggemann, 2011). Furthermore, these media images communicate that attainment of the male body ideals is associated with the successful embodiment of masculine gender norms, such as avoidance of femininity, competition, self-reliance, and risk-taking, which represent a set of behaviors and attitudes that reinforce culturally defined expectations for men to conform to (De Jesus et al., 2015; Tylka, 2015). Meta-analyses of correlational and experimental studies have shown that exposure to media images of the muscular ideal was significantly related to men’s body dissatisfaction, low self-esteem, psychological disorders, and behavioral outcomes such as engagement in excessive exercising, with strength of effect sizes ranging from small to moderate (Barlett et al., 2008; Blond, 2008). Thus, pressure from media images representing sociocultural body ideals affect men, resulting in experiences of body dissatisfaction, negative psychological and behavioral outcomes.

Sociocultural body ideals are also reified through other sources of influence such as family. A study conducted by Smolak, Murnen, and Thompson (2005) with adolescent boys showed that boys with parents who teased them and commented about their body size engaged in a wider range of adverse techniques to enhance their muscularity. In addition, pressure from family to gain more muscle was linked to adolescent boys’ negative eating attitude and behavior (Ata, Ludden, & Lally, 2007). Furthermore, a study conducted by Rodgers, Faure, and Chabrol (2009) showed that negative comments from fathers were associated with boys’ body dissatisfaction and negative comments from mothers were associated with boys’ desire to pursue the ideal of thinness.

Friends are another important source of influence that pressures men to conform to the
social ideals of leanness and muscularity. For example, a study conducted by Lawler and Nixon (2011) with adolescents showed that frequent engagement in conversations with friends about their bodies contributed to boys’ experience of body dissatisfaction. The study also found that receiving criticism from peers about their appearance was the strongest predictor for boys’ body dissatisfaction. In addition, study conducted by Engeln, Sladek, and Waldron (2013) with college men also showed that engagement in negative appearance conversations with friends was strongly associated with their wish to enhance muscularity, and negative attitudes and behaviors towards eating. This study further found that college men who were exposed to other men having conversations about their dissatisfaction with muscularity and body fat showed decreases in their appearance self-esteem and body satisfaction.

Although investigated to a lesser extent as compared to influences of family and friends, previous studies point to partners as another important source of influence of sociocultural ideals on men’s body image. Previous studies have shown that some men receive comments from their partners that could potentially influence their body image concerns. For example, college men in a study conducted by Sheets and Ajmere (2005) reported receiving comments from their female partners to gain more weight (20%) and lose weight (4%). The study found that receiving comments to gain more weight was associated with men’s lower satisfaction with relationship. Another study conducted by McCabe and McGreevy (2010) with adult men in a steady heterosexual relationship revealed that men had received comments from their partners to build muscles (37%), lose weight (37%) and change shape of their bodies (26%). Furthermore, a study conducted by Tylka (2011) among college men found that pressure from female partners to obtain a mesomorphic physique was directly associated with men’s unhealthy eating attitude and behavior.
Consistent with the effect of media images, men also experience negative impacts from messages from family, friends and relationship partners that reflect the sociocultural body ideals of leanness and muscularity. Review of literature also highlights that socialization with the sociocultural ideals start as early as adolescence years continuing into young adulthood. However, a limited number of studies exist on men’s experiences of the sociocultural body ideals beyond early adulthood, suggesting a need for extending a consideration of impacts of these ideals on men’s body image across the lifespan.

**Body Dissatisfaction in Men**

Body dissatisfaction is the subjective experience that results from an individual’s negative evaluation of their body shape, weight, body parts or overall appearance (Presnell, Bearman, & Stice, 2004). Although body dissatisfaction is an internal process, it is influenced by external factors that transmit the sociocultural ideals of leanness and muscularity. These external factors, as mentioned earlier, range from the family, friends to the mass media. Body dissatisfaction resulting from pressures to conform to lean and muscular body ideals involve two specific components including weight and muscularity since an increase in muscle and loss of body fat are required in order to make the muscle definition visible (Rodgers, Ganchou, Franko, & Chabrol, 2012). Various strategies have been utilized by researchers to assess men’s body dissatisfaction. These include quantitative measures of silhouette technique and validated Likert-type measures of body dissatisfaction, and qualitative interviews (Grogan, 2008). The most popular measure has been the silhouette technique in which participants are presented with several body silhouettes of men ranging in degrees of body fat and muscularity and are asked to select a silhouette that reflects their current size and ideal size with a respect to body fat and muscularity (Fredrick et al., 2007; Grogan, 2008).

Previous studies have reported high rates of body dissatisfaction among men in young
adulthood in the United States ranging from 68 to 96% (Frederick et al., 2007; Galioto & Crowther, 2013; Lever, Frederick, & Peplau, 2006). Consistent with the presence of pervasive sociocultural pressures to achieving lean and muscular physique, a study that utilized silhouette technique revealed that more than 90% of college men in US reported dissatisfaction with their muscularity and 65% reported dissatisfaction with body fat (Frederick et al., 2007). The same study further found that the major reasons reported by men for desiring enhanced muscularity consisted of a wish for sense of dominance, self-confidence, and feeling sexier and attractiveness to women, all of which appear to be consistent with masculine gender norms. Another study that investigated body dissatisfaction using the silhouette technique found that men from Austria, France, and the United States identified on average 28lbs. more muscular physique than their current body as their ideal (Pope, Phillips, & Olivardia, 2002). Furthermore, a large-scale survey conducted in the US showed that 48% of adult men reported dissatisfaction with their weight (Frederick et al., 2007). These findings suggest the extent to which body dissatisfaction has become normative experience in young men.

In addition to dissatisfaction with muscularity, body fat and weight, a study among young adult men in Australia identified a range of elements that participated in body dissatisfaction including height, weight, head and body hair and penis size (Tiggeman, Martins, & Churchett, 2008). Findings from previous studies suggest that although leanness and muscularity are considered primary aspects of men’s body dissatisfaction, other facets of appearance also require careful consideration. Furthermore, given that previous studies on body dissatisfaction were primarily conducted among young adult men, a consideration beyond young adulthood is likely to provide important information about the extent to which body dissatisfaction is experienced among men in mid- and later life.
Body Dissatisfaction and Body Change Attitudes in Men

Research on men’s body dissatisfaction has identified its association with attitudinal, behavioral and psychological factors. Dissatisfaction with muscularity in young adult men is likely to be tightly associated with a desire to improve this dimension, that is drive for muscularity, defined as men’s perception that they are not muscular enough and the degree to which they wish to increase their muscularity (McCreary, 2007; Smolak & Stein, 2006). Consistent with this theory, a study conducted by Bergeron and Tylka (2007) among college men explored the relationship between body dissatisfaction and measures developed to assess drive for muscularity. The study found that men’s body dissatisfaction was significantly associated with their drive for muscularity. Their findings are consistent with those from studies conducted among both adolescent boys and adult men (Bucchianeri, Serrano, Pastula, & Corning, 2014; Jones & Crawford, 2005).

In addition to enhancing muscularity, men are also pressured to achieve the lean physique portrayed in sociocultural ideals. Dissatisfaction with leanness, therefore, is likely to be strongly associated with a desire to improve this dimension, which is drive for leanness, defined as a desire to attain physique characterized by low in body fat and with toned muscles (Smolak & Murnen, 2008). Consistent with this prediction, a study conducted by Smolak and Murnen (2011) among college students showed that men scored significantly higher than women in drive for leanness, suggesting that a desire to attain lean physique is a salient concern in men.

Furthermore, men’s body dissatisfaction with weight is likely to be closely related to a desire to improve this dimension, that is, drive for thinness, defined as men’s perception that they are not thin enough and the degree to which they wish to be thinner and fear weight gain (Garner, 2004). Kelley, Neufeld, and Musher-Eizenman (2010) examined drive for muscularity and thinness and associated body image attitudes in college students. Consistent with
sociocultural theory, they found that men’s body dissatisfaction predicted their high drive for thinness. Additional studies that have explored body image and disordered eating in non-clinical samples of adolescents and college students have revealed a significant association between body dissatisfaction and high drive for thinness in both boys and college men (Ricciardelli & McCabe, 2001; Spillane, Boerner, Anderson, & Smith, 2004). Drive for thinness is also likely very relevant to men in later life as weight gain is associated with an increase in age, which in turn, may contribute to their body dissatisfaction and drive for thinness.

Although studies on body image among men in early adulthood have primarily focused on dissatisfaction with muscularity and drive for muscularity, review of literature has shown that it is necessary to also consider their body dissatisfaction with leanness and weight, and associated drives for these dimensions. Additional studies among men beyond young adulthood are needed to explore if body dissatisfaction related to muscularity, leanness and thinness are also linked to their desires to improve these dimensions among men across the lifespan.

**Body Dissatisfaction and Behavioral Correlates in Men**

Pressure to conform to sociocultural body ideals contributes to men’s body dissatisfaction and their body change attitudes. Research has shown that, both men’s body dissatisfaction and body change attitudes are linked to the pursuit of the ideals through engagement in various behavioral strategies that could potentially compromise physical well-being (e.g., Cafri, van den Berg, Thompson, 2006; Heywood & McCabe, 2006; McCreary, Saucier, & Courtenay, 2005). In the following, a brief review of the prevalent concerns related to disordered eating, defined as a behavioral practice associated with subclinical eating disorders, is presented.

Men are increasingly engaging in dieting behaviors for the purpose of changing their physical appearance. Studies conducted with college men, for example, showed 30% had taken dietary supplements to build muscle, 15% had taken dietary supplements to burn fat, and 33%
skipped a meal if they did not exercise on a particular day (Hatoum & Belle, 2004). In addition, drive for muscularity was strongly associated with a weekly use of more than five dietary supplements in college men (Lieberman et al., 2015).

Men’s body dissatisfaction with weight has also been linked to unhealthy dieting behaviors. Markey and Markey (2005), for example, explored body image and dieting behaviors in young adults and found that men’s body dissatisfaction was strongly associated with dieting behaviors such as use of a weight loss pills, special diets, and purging, and that 36% of men reported having participated in unhealthy dieting behavior to lose weight at least once during the past year. Additional studies conducted among college men also showed that dissatisfaction with body fat served as a significant predictor for their preoccupations with body fat and engagement in excessive dieting to lose weight (Smith, Hawkeswood, Bodell, & Joiner, 2011; Tylka, 2011).

In addition to dieting to lose weight, men engage in dieting for the purpose of enhancing leanness and muscularity. A large-scale survey conducted by Eisenberg, Wall, and Neumark-Sztainer (2012) with adolescents found that 69% of boys reported changing their eating to tone or increase their muscle size and 35% of boys reported having protein powder/shake to tone or increase their muscle size. A study with college men also showed a positive association between drive for muscularity and consumption of protein bars and supplements to increase muscles (Morrison, Morrison, Hopkins, & Rowan, 2004).

Furthermore, a review of men’s dieting techniques suggested an increase in boys and young adult men adopting diets such as, cyclical ketogenic diets and anabolic-catabolic cycling, as strategies to enhance both leanness and muscularity (Cafri et al., 2005; Cook, Russell, & Barker, 2014). Cyclical ketogenic diet requires consumption of protein and fat for a week, followed by a carbohydrate rich diet while maintaining moderate level of consumption of protein.
and limited fat (Cafri et al., 2005). Anabolic-catabolic cycling is a two-phase diet. In the first phase, men are required to have high caloric intake through consumptions of large amounts of food together with dietary supplements to enhance muscle mass. This is followed by the second phase consisted of restrictions on caloric intake and strict adherence to exercises designed to maintain muscle mass and reduce body fat (Cafri et al., 2005). The cycle is repeated until a desired result is attained. Potential health implications resulting from these diets include but are not limited to obesity, slowed metabolism, renal failure and high blood pressure (Cafri et al., 2005). Therefore, the increase in popularity of these diets and associated health risks are a significant public health concern.

Men’s body dissatisfaction and body change attitudes are also likely to be associated with men’s engagement in exercising. While exercise is an important component of improvement and maintenance of health, men are increasingly engaging in exercise, often combined with dieting, to achieve sociocultural body ideals of leanness and muscularity. Excessive exercising, defined as an extent to which men’s engagement in exercise becomes maladaptive and interferes with their daily functioning and social relationships, is likely to bring adverse consequences on health. A large-scale survey conducted with adolescents revealed that more than 90% of adolescent boys reported engaging in exercise more during the last year to tone or increase muscle size and 41% of those boys reported doing so often (Eisenberg et al., 2012). In addition, studies conducted with college students showed that 31% of men reported engaging in at least one episode of excessive exercising in the past four weeks, 34% reported feeling distressed when they could not engage in exercise as much as they wanted, and 27% reported following strict rules about exercising (Lavender, De Young & Anderson, 2010; O’Dea & Abraham, 2002). Adverse health effects of excessive exercising range from muscle strains to irregular heartbeats, decreased
appetite, chronic fatigue, and sleep disorders (Brooks & Carter, 2013; Jenkins, 2005). High percentage of boys and men engaging in excessive exercising in pursuit of sociocultural ideals is alarming given that excessive exercising is linked to a strong desire to continue exercising despite physical injuries and other symptoms of health concerns (Hausenblas & Downs, 2002).

Men are increasingly reporting binge eating, defined as the consumption of an unusually large quantities of food in a discrete period of time. A large-scale survey conducted by Sehm and Warschburger (2015) with adolescent boys and girls found that 6% of boys reported having at least one binge eating episode in the past four weeks. The study also found that although body dissatisfaction was closely associated with binge eating in both boys and girls, the association was particularly pronounced for the boys. An additional study conducted by Kelly, Cotter, Tanofsky-Kraff, and Mazzeo (2015) with college men showed that 23% reported having at least one episode of binge eating in the past four weeks and that body dissatisfaction was closely tied to engagement in binge eating. The association between body dissatisfaction and binge eating is a concern given that binge eating has detrimental health effects including excess weight gain and metabolic dysfunction that could contribute significantly to public health concerns (Reichborn-Kjennerud, Bulik, Sullivan, Tambs, & Harris, 2004; Wonderlich, Gordon, Mitchell, Crosy, & Engel, 2009).

In addition to behavioral practices associated with disordered eating discussed above, anabolic steroid use is another prevalent concern in men who desire to achieve sociocultural body ideals of leanness and muscularity. Anabolic steroids consist of testosterone and synthetic variations of male hormones that has been used to improve athletic performance, as well as, a treatment option for a range of medical conditions (McCabe, Brower, West, Nelson, & Wechsler, 2007). They have been also widely used by body-builders since steroids enable users to gain
muscle mass more quickly than they would be able to do through weight training alone (Grogan, 2008).

Non-medical use of steroids has become a widespread concern given that steroid use could serve as an option for boys and men who desire to enhance muscularity for the purpose of changing physical appearance (Cafri et al., 2005; Grogan, 2008; Pope et al., 2000). A study conducted by Pope et al. (2014) estimated the lifetime prevalence of steroid use in the general US population at three to four million. In addition, a large-scale survey conducted by Eisenberg et al. (2012) with adolescents found that 6% of adolescent boys reported using steroids during the past year to tone or increase muscle size. It is important to note that this study also found that 11% of boys reported using another muscle enhancing substance, known as “performance-enhancing substances” including human growth hormone, creatine, and hydroxyl methylbutyrate. Furthermore, a study by Berning, Adams, DeBeliso, Stamford, and Newman (2008) with non-athlete college men found that 17% reported using steroids at least once in their lifetime for the purpose of enhancing physical appearance or improving their athletic performance. Another study with college men found that 27% reported using steroids or other performance-enhancing substances to gain muscles at least once in their lifetime and that their body dissatisfaction was positively associated with use of steroids or other performance enhancing substances (Olivardia, Pope, Borowiecki, & Cohane, 2004). These findings from previous studies suggest a strong association between drives for leanness and muscularity and steroid use in boys and college men. Use of steroids and other substances is particularly alarming as it reflects the pervasiveness of pressure experienced by boys and college men to conform to sociocultural body ideals. Use of anabolic steroid however increases health risks associated with coronary heart disease, stroke, kidney and liver diseases, and brain and cognitive abnormalities.
A widespread use of anabolic steroids and its severity of health consequences in boys and young men therefore represent a significant public health concern.

The review of the literature examining the behavioral correlates of men’s body image concerns suggest that boys and men are increasingly turning to body change behaviors associated with disordered eating and anabolic steroid use in pursuit of sociocultural body ideals. However, these strategies have detrimental health effects and are a serious concern, often times overlooked by individuals, friends, families. Additional studies also are needed to consider the relevancy of body change practices to men beyond early adulthood and the extent to which their body image concerns are related to their engagement in these behaviors.

**Body Dissatisfaction and Mental Health in Men**

Pressures to conform to the sociocultural body ideals contribute to men’s body image concerns including body dissatisfaction, drives for leanness and muscularity, and behavioral correlates. Research has suggested that stress associated with body image concerns is likely to be further tied to poor mental health symptoms and overall psychological distress among men (Blashill, 2010; Griffiths et al., 2016; Grogan, 2008, van den Berg, Mond, Eisenberg, Ackard, & Neumark-Sztainer, 2010). For example, previous studies have consistently shown that men’s body image concerns are tightly associated with their self-esteem, defined as one’s feelings of overall self-worth (Rosenberg, 1965). A large-scale survey conducted by van Den Berg et al. (2010) with adolescents examined the cross-sectional association between body dissatisfaction and self-esteem across gender, age cohort, weight status, race/ethnicity, and socioeconomic status. The study found a strong association between body dissatisfaction and low self-esteem in both boys and girls, and for boys, the association did not differ across any of the other variables. The repeated measures analysis between two time points five years apart also showed that the
association between body dissatisfaction and low self-esteem remained stable across time for both boys and girls. Additional studies have found that drive for muscularity and performance enhancing substance use were both also associated with low self-esteem among adolescent boys (Irving, Wall, Neumark-Sztainer, & Story, 2002; MCCreary & Sasse, 2000). Furthermore, studies conducted with college men have shown that each of the various indicators of body dissatisfaction including overall body dissatisfaction, dissatisfaction with muscularity, and dissatisfaction with body fat, was strongly associated with low self-esteem (Bergeron & Tylka, 2007; Olivardia et al., 2004). Findings from the studies reviewed above suggested that body dissatisfaction is one of the important factors related to men’s experience of their low self-esteem.

Symptoms of depression have also been shown to be related to men’s body image concerns. Studies among college men and young adult men have found that various measures of body dissatisfaction were associated with higher symptoms of depression (Bergeron & Tylka, 2007; Eicholzer, Richard, & Rohrmann, 2016; Olivardia et al., 2004.) Men’s body concerns are also associated with social physique anxiety, defined as a form of body-image related social anxiety experienced when people perceive that their bodies are being devalued by others (Hart, Leary, & Rejeski, 1989). For example, a study conducted by Martin, Kliber, Hodges-Kulinna, and Fahlman (2006) among college men found a strong association between body dissatisfaction and higher symptoms of social physique anxiety. In addition, they found that appearance cognitions consisting of body dissatisfaction and appearance orientation served as the strongest predictors of men’s experience of social physique anxiety. An additional study conducted by McCreary and Saucier (2009) with college men found that drive for muscularity was closely linked to higher symptoms of social physique anxiety. Furthermore, a population-level study
conducted by Griffith et al. (2016) with adult men and women in Australia showed that for both men and women, body dissatisfaction was strongly associated with lower quality of mental- and physical health and a greater level of overall psychological distress. The study also found that the negative associations between body dissatisfaction and mental health related quality of life, and between body dissatisfaction and overall psychological distress, were stronger for men as compared to women. The authors concluded that body dissatisfaction represents a significant public health issue that requires population-level interventions to improve quality of life and decrease overall psychological distress.

Eating disorders are an equally important area of concern for men with body dissatisfaction. Men have been historically underdiagnosed and undertreated for eating disorders as a result of a legitimate emphasis on sociocultural influences on eating disorders in women and a lack of adequate instruments designed to capture differences in experiences of eating disorders between women and men (Darcy & Lin, 2012; Strother, Lemberg, Stanford, & Tuberville, 2012). The estimates of eating disorder rate suggest, however, that a large number of men at one point in their lives, suffer from eating disorders. A study conducted by Hudson, Hiripi, Pope, and Kessler (2007) estimated that men represent 25% of individuals struggling with anorexia nervosa or bulimia nervosa, and 36% of individuals suffering from binge eating disorder (Hudson et al., 2007). Mayo and George (2014) examined the relationship between risk for eating disorders and body dissatisfaction based on muscularity and body fat among college students. The study found significant associations between risk for eating disorder and dissatisfaction with muscularity, and between risk for eating disorder and dissatisfaction with body fat among men. The study also revealed that 28% of college men were identified as at risk for an eating disorder. Their findings appear to be consistent with literature on men and eating disorders that identified men’s body
dissatisfaction as one of the core factors of eating disorders among men (Harvey & Robinson, 2003; Ricciardelli & McCabe, 2015; Strother et al., 2012).

A review of body dissatisfaction and mental health clearly suggest that both boys and young men with body image concerns experience mental health symptoms and psychological distress. Thus, men’s body dissatisfaction is likely to have significant implications for men’s mental health well-being at a population level. Additional research is needed to increase the understanding of men’s experiences of body dissatisfaction and associated psychological distress across life-span. Such an approach is likely to contribute to more comprehensive understandings of the association between body image concerns and mental health in men and in identifying appropriate strategies for interventions.

**Theoretical Models of Men’s Body Image Concerns**

Empirical studies have shown that pressure from sources of influences that communicate the body ideals of leanness and muscularity influence men’s body satisfaction, which in turn, is likely to be tightly associated with body change attitudes, unhealthy behavioral practices to psychological distress. Several etiological models have been proposed to explain the development of men’s body image disturbance. Below, three theoretical models that have gained empirical support are presented.

The Tripartite Influence Model of body image and eating disturbance proposes that pressures from sociocultural factors including media, parents, and peers influence the development of body image and eating disturbance through two mediating pathways consisting of the internalization of appearance ideals, defined as agreement and acceptance of the sociocultural body ideals, and appearance comparison, defined as evaluation of one’s physical appearance through comparisons with others who represent the sociocultural body ideals (Thompson, Heinberg, Atlabe, and Tantleff-Dunn, 1999). Although the Tripartite Influence
Model has been tested among various groups of women and has gained strong empirical support, recent empirical support for the model among men has also emerged. Rodgers et al. (2012) developed a sociocultural model of men’s disordered eating. The model posited that pressures to gain more muscle and lose weight perceived from the media, family and peers, influence men’s disordered eating behavior through the mediating effects of internalization and appearance comparison, drive for muscularity, and drive for thinness. They found that internalization of sociocultural body ideals and appearance comparison mediated the relationships between sociocultural pressure to increase muscle and drives for muscularity and thinness. In addition, they found that drives for muscularity and thinness were related to disordered eating.

Tylka (2011) proposed the model that posited pressures from sociocultural factors including media, family, friends, and partners influence the development of men’s muscularity enhancement behaviors and disordered eating behaviors through the mediating effects of the internalization of sociocultural body ideals on dissatisfaction with muscularity and dissatisfaction with body fat. The model tested among 473 college men was supported by the data. The study also showed that internalization of the sociocultural body ideals, dissatisfaction with muscularity, and dissatisfaction with body fat served as key mediational variables that connected pressures from three sources of sociocultural factors including media, family and friends with muscularity enhancement- and disordered eating behaviors. These findings were consistent with those of the study conducted by Tylka and Andorka (2012) that tested the Tripartite Influence Model with 346 gay men. Thus, the existing data support the usefulness of the Tripartite Influence Model and suggest that it might provide a helpful framework for explaining the mechanism that link sociocultural pressures and disordered eating.

Objectification theory (Fredrickson & Roberts, 1997) posits that the pervasive sexual
objectification of girls and women in the media as well as women’s interpersonal experiences socializes girls and women to view their bodies as objects that are constantly observed and evaluated by the male gaze. Self-objectification, defined as internalization of the perspective of observing others, manifests in women’s experiences of persistent body surveillance, defined as vigilant monitoring of one’s appearance. It is theorized that body surveillance contributes to women’s subjective experiences of shame and anxiety related to their appearance, as well as their reduced capacity to experience internal bodily states and fully participate in moments and activities. Furthermore, these negative experiences lead to depression, anxiety, and symptoms of eating disorders (Fredrickson & Roberts, 1997). A review of the empirical studies that tested the objectification theory with women concluded that there was strong support for this theoretical model in explaining women’s body image disturbances (Moradi & Huang, 2008).

Research has begun to test the applicability of objectification theory among men. Daniel and Bridges (2010) tested the mediating effects of self-objectification, body surveillance and body shame in the relationship between internalization of body ideals from media and drive for muscularity among a sample of 244 male college students. Although they found relationships between internalization of media ideals and self-objectification and self-objectification and body surveillance, these relationships were in negative directions in contrary to their hypotheses. Self-objectification was excluded from a subsequent path analysis and they found mediating effect of body surveillance in the relationship between internalization of media ideals and body shame. Internalization of media ideals had a direct effect on drive for muscularity and body shame did not show direct effect on drive for muscularity. Parent and Moradi (2011) also examined mediating effects of body surveillance and body shame in the relationship between internalization of body ideals and drive for muscularity with a sample of 270 male college
students. They found direct relationships among internalization of body ideals, body surveillance
and body shame and mediating effect of body surveillance in the relationship between
internalization of body ideals and body shame. However, body surveillance and body shame had
no direct relations with drive for muscularity. These findings from these studies appear to
suggest some support for tenets of objectification theory with young adult males.

Davids, Watson, and Gere (2018) tested mediating roles of internalization of body ideals,
self-objectification, body surveillance and body shame in the relationships of gender role conflict
and sexual objectification experiences with drive for muscularity with heterosexual males. They
found sexual objectification experiences had significant direct relations with internalization of
body ideals, body shame and drive for muscularity with small effect sizes. However, sexual
objectification experiences did not predict central constructs of objectification theory including
self-objectification and body surveillance. Furthermore, non-significant paths were found
between self-objectification to body shame and drive for muscularity. Internalization of body
ideals, in contrast, showed direct relations to self-objectification, body surveillance, body shame,
and drive for muscularity, suggesting internalization of body ideals is likely to be a better
predictor of variables that constitute objectification theory. In contrast, they found that gender
role conflict was a significant predictor of internalization, self-objectification, body shame, and
drive for muscularity.

Research with gay men, however, has supported the usefulness of the objectification
examined differences on constructs of objectification theory and body dissatisfaction in groups
of gay and heterosexual males aged 16 to 40 in Australia. They found that gay males scored
significantly higher on measures including self-objectification, body surveillance, body shame,
body dissatisfaction, and drive for thinness than did heterosexual males. They also found self-objectification was associated with body shame only for a group of gay males and body shame mediated the relationships of self-objectification with lower body dissatisfaction and drive for thinness.

With a separate sample consisted of groups of gay and heterosexual men aged 57 to 68 in Australia, Martins et al. (2007) experimentally created a sexually objectifying condition designed to induce self-objectification to investigate its impact on body surveillance, body shame and eating behavior. Participants were asked to wear either a speedo swimsuit (self-objectification condition) or a turtleneck sweater (non-self-objectification condition) and look at themselves in the mirror. They found that although both groups of males in the swimsuit condition reported higher body surveillance than in the sweater condition, only gay males in the swimsuit condition reported higher body shame and engaged in restricted eating behavior compared to gay males in sweater condition and heterosexual males in the swimsuit or the sweater condition, respectively. Their findings suggest that experiences with sexually objectifying situations could lead to body surveillance, body shame and restricted eating among gay men.

Wiseman and Moradi (2010) tested mediating effects of internalization of body ideals, body surveillance, and body shame in the relationship between sexual objectification experiences and ED symptoms with sexual minority men aged 17 to 70. Consistent with tenets of objectification theory, they found positive relations among all variables. Results of path analysis showed internalization of body ideals partially mediating the relationship between sexual objectification experiences and body surveillance; body shame partially mediating the relationship between internalization and body shame; and body shame partially mediating the relationship between body surveillance and ED symptoms.
A study conducted by Martins et al. (2007) among 98 gay men and 103 heterosexual men, found that gay men reported higher level of self-objectification, body shame, body dissatisfaction and drive for thinness, as compared to heterosexual men. In addition, correlational and mediational analyses revealed that body shame was associated with self-objectification and mediated the relationships between self-objectification and body dissatisfaction, and between self-objectification and drive for thinness among gay men but not heterosexual men. This study also included an experimental component to examine the impact of increased levels of state self-objectification on increases in individuals’ experiences of consequences of self-objectification. The study found that increased state self-objectification resulted in greater body shame, dissatisfaction and drive for thinness in gay men as compared to heterosexual men. Findings from the study were consistent with those found in a study conducted by Wiseman and Moradi (2010) among 231 sexual minority men. Thus, the existing evidence suggests that although the objectification theory has shown empirical support with gay men, the extent of its applicability with heterosexual populations remains uncertain. However, due to the limited number of studies that have tested the objectification theory with men overall, additional studies are needed to clarify its applications with various populations of men. Findings from previous studies provide empirical support for application of objectification theory with gay and sexual minority males and mixed support with heterosexual men.

The theoretical model of social identity (Tajfel & Turner, 1979) as it pertains to masculinity posits that men attempt to embody masculine gender norms in order to receive acceptance and affirmation from other men, which in turn, contributes to their sense of belonging to a social group of men and an increase in their self-esteem. Hegemonic masculinity, defined as the dominant and idealized stereotypical manhood in a given cultural context (Connell &
Messerschmidt, 2005), sets the normative standards by which all men are to be judged. As such, men compete with each other to reach the standards associated with dominant manhood in order to receive affirmation from other men. Kimmel (2005), for example, identified four specific normative standards of hegemonic masculinity in the US. These included the denigration of contrast others such as women and gay men, collecting evidence for success in areas ranging from status to wealth, holding one’s emotions in check, and engaging in risk-taking behaviors and becoming aggressive. In addition, hegemonic masculinity is increasingly becoming intertwined with sociocultural body ideals of muscularity and leanness where unrealistic and unattainable body ideals are held as a standard by which men’s attainment of manhood is judged. Men who espouse hegemonic masculinity, therefore, are likely to practice control and discipline over their bodies to attain sociocultural ideals to assert their embodiment of the hegemonic masculinity.

Research has begun to test the theoretical model of masculine gender norms in men’s body image disturbances. Gattario et al. (2015) examined men’s conformity to various domains of masculine gender norms and body dissatisfaction in a cross-national sample consisting of college men in Australia, the United Kingdom, the United States, and Sweden. The results from multi-group path analyses showed that increased conformity to masculine gender norms was associated with drives for muscularity, leanness and thinness across the four countries. The study also found variability across countries with a respect to salient dimensions of conformity to masculine gender norms. Conformity to the masculine norm of winning was predictive of men’s desires for increased muscularity, leanness and fitness across all four countries while conformity to the gender norm of risk-taking was strongly associated with men’s body change attitudes in Australia, and conformity to the norm of violence was predictive of body change attitudes for
men in the United Kingdom. The study concluded that the endorsement of conformity to masculine gender norms is critical to understanding men’s body.

Additional study by Griffiths, Murray, and Touyz (2015) considered the associations between gender role conformity, body dissatisfaction, and disordered eating among 246 heterosexual college men in Australia. The findings based on multiple regressions showed that increased conformity to masculine norms served as a predictor for greater dissatisfaction with muscularity and muscularity-oriented disordered eating practice but not dissatisfaction with body fat or thinness-oriented disordered eating. Furthermore, the study found that increased conformity to feminine gender norms in men predicted their dissatisfaction with muscularity and both muscularity- and thinness-oriented disordered eating. The authors concluded that their results supported the theoretical model of masculinity in men’s body image disturbances and highlighted a need to also examine the role of feminine gender norm endorsement and its implications for body dissatisfaction and disordered eating in men. Thus, the empirical data on men’s conformity to gender norms appear to provide support for a theoretical model of social identity theory of masculinity. However, similar to the other theoretical models of men’s body image concerns reviewed above, additional studies with various populations of men are needed to consider the relevancy of conformity to masculine gender norms given that the majority of the data come from college-aged, white men, who constitute a particular social group of men.

**Women’s Experiences of Body Image in Midlife**

The majority of studies investigating body image in adult women and men have been conducted with samples drawn from college student populations (Grogan, 2008; McGuinness & Taylor, 2016; Tiggemann & Slevec, 2012) thereby limiting understandings of experiences of body image among men who are not part of the demographic portrayed by the sociocultural ideals of youth, muscularity, and leanness. The narrow focus on early adulthood as well as
limited diversity in terms of race, ethnicity, class, and sexual orientation provide little information about body image experiences of men in midlife and the adult men’s life span (Tiggermann & Slevec, 2012). Although research has begun to consider body image issues in midlife women, data remain sparse and even less is known about the experiences of body image in midlife men. Therefore, the following section provides a brief review of the major body image related issues identified in previous studies with women in midlife that could potentially better inform understandings of midlife men’s experiences.

Research has shown the presence of body dissatisfaction among midlife women. Theoretical framework informed by sociocultural models of body image, suggests that midlife women are likely to experience high levels of body dissatisfaction. The framework posits that sociocultural appearance ideals for women in Western societies include both thinness and youthfulness (Becker, Diedrichs, Jankowski, & Werchan, 2013; Kilpela, Becker, Wesley, & Stewart, 2015). Pressures to conform to these ideals and a lack of realistic images of midlife women in the mass media contribute to midlife women’s body dissatisfaction through the mediating effect of the internalization of appearance ideals and appearance comparison (Rodgers, Paxton, McLean, & Damiano, 2016). In accordance with this proposal, a study conducted by Gagne et al. (2012) among women aged 50 years or older showed that 71% of women reported dissatisfaction with weight and 84% reported dissatisfaction specifically with their stomach. An additional study that utilized the silhouette technique to assess body dissatisfaction revealed that 90% of women aged between 45 and 64 reported body dissatisfaction (Runfola et al., 2013). Furthermore, a test of a sociocultural model of disordered eating conducted by Slevec and Tiggemann (2011) among women aged 35 to 55 revealed the influence of media exposure on body dissatisfaction through mediating effects of internalization,
appearance comparison, appearance investment and aging anxiety. Findings from these studies support strong presence of body dissatisfaction among midlife women.

Body dissatisfaction among midlife women is also influenced by other factors. With age, women experience changes in physical appearance as a result of inevitable biological and hormonal shifts associated with increase in body mass index, menopause, and childbirth (Marshall, Lengyel, & Utioh, 2012; Rodgers et al., 2016; Slevec & Tigemann, 2011). In addition, research with midlife women in the US has identified cognitive adjustment, defined as cognitive processes engaged by women to adjust their expectations for appearance or accepting changes in their appearance with age, and body-related self-care, defined as attitudinal and behavioral orientation towards looking after one’s body, as important factors that are likely to contribute to decrease in body dissatisfaction (Price, 2010; Liechty & Yarnal, 2010; McLean et al., 2010).

Furthermore, a small number of studies with women in midlife appear to suggest that in this group, similar to younger women, body dissatisfaction is closely associated with symptoms of psychological distress and behavioral outcomes associated with disordered eating. For example, Jackson et al. (2014) examined the association between body dissatisfaction and depression in a sample of African American and Caucasian women aged between 42 and 52. The authors reported that that women who were classified as body dissatisfied were twice as likely to report clinically significant levels of depressive symptoms as compared to women who were body satisfied. No differences based on racial identification emerged however. In addition, previous studies have found that body dissatisfaction among midlife women was associated with disordered eating attitudes and behaviors, aging anxiety, internalization of sociocultural ideals and self-objectification (Hrabosky & Grilo, 2007; McLean, Paxton, & Wertheim, 2010; Midlarsky & Nitzburg, 2008; Slevec & Tiggeman, 2011).
Lodge and Umberson (2013) conducted analyses of in-depth interviews with gay and heterosexual men aged 40 to 60 to examine experiences of changes associated with aging. The study found that both groups of men described their bodies as deteriorating in terms of its functionality, which in turn, resulted in their experience of psychological distress. In addition, the study showed that as compared to heterosexual men, gay men described increased concerns associated with a decline in the appearance of their bodies. Furthermore, both groups of men described their bodies as essentially different from women’s bodies with a respect to sexual needs and desires of their own and other men. The authors concluded that men in midlife experience their bodies as in process of functional decline; gay men experience additional concerns related to bodily appearance; and all men conceptualized their bodies as different from women’s as a response to the threat posed by their aging bodies against their masculine identity. Their findings on decline of physical functionality and the threat to masculine identity are consistent with those from other qualitative studies conducted with midlife men (Baker & Gringart, 2009; Drummond, 2003), suggesting that physical functionality and conformity to perceived masculine norms may be critical elements in understanding midlife men’s experience of body image.

**Development of an Integrated Theoretical Model**

Based on the review of the current literature on men’s body image, the development of an integrated theoretical model of body image among men in midlife is proposed (see Figure 1). The social identity theory as it pertains to masculinity (Connell & Messerschmidt, 2005; Tajfel & Turner, 1979) is used as an overarching framework. As reviewed above, this framework posits that men who espouse hegemonic masculinity are more likely to practice control and discipline over their bodies to attain sociocultural ideals of leanness and muscularity to assert their embodiment of the hegemonic masculinity, which in turn, provides them with a sense of
belonging to a social group of men and increased self-esteem. Within the context of this overarching framework, the elements of the Tripartite Social Influence model (Thompson et al., 1999) and objectification theory (Fredrickson & Roberts, 1997) are brought together to build an integrated model. In addition, drawing from the review of previous studies with women in midlife, our proposed integrated model contains additional variables that are likely relevant to midlife men’s experience of body image. These include, for example, the variables of experience of body image in younger years, sexual objectification, aging anxiety about physical appearance, and invisibility which have been shown to serve as potential variables associated with body dissatisfaction with midlife women (Rodgers et al., 2016). Other relevant variables drawn from the review of previous literature included experiences of embodiment, defined as the conscious experience of engaging with the body in the world (Piran, 2015).

The proposed model hypothesizes that: sociocultural pressures from four sources including friends, family, partner and media, as well as age specific constructs including midlife men’s recollection of body image experiences in their younger years, a sense of invisibility, and aging anxiety about physical appearance, would be associated with body dissatisfaction and embodiment through the mediating effect of internalization and appearance comparison, conformity of masculine norms, and sexual objectification; each body dissatisfaction and embodiment, in turn, would be associated with body change attitudes including muscularity attitudes, drive for muscularity, drive for leanness, drive for thinness and drive for youthfulness; and body change attitudes would be related to the outcomes including engagement in muscle development behaviors, disordered eating and mental health. A test of an integrated model would constitute a significant contribution to the field of body image among men in midlife, the group whose experiences of body image and related disturbances are rarely considered.
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Figure 1. Hypothesized Model: Integrated Model of Body Image Disturbances
Body image experiences among men in midlife: Test of the integrated model

Abstract
To date, little is known about body image experiences of men in midlife, or the extent to which this is associated with engagement in risky body change behaviors and negative mental health. To fill in the gap in literature, body image experiences of men in midlife were examined through a test of an integrated model of body image disturbances, which brought together elements of etiological models of body dissatisfaction and disordered eating that have gained some empirical support with women and men in young adulthood. In addition, an integrated model integrated age specific constructs that were identified as potentially useful in understanding midlife men’s body image disturbances based on literature review. Using a cross-sectional research design, data were gathered from 216 men in midlife, defined as men between the ages of 45 and 60. An integrated model was modified in accordance with results from the Structural equation modeling analyses and the final model revealed an adequate fit to the data. Overall, findings indicate that men in midlife experience interpersonal pressures from friends, family and partners, to conform to the sociocultural ideals of muscular and lean physique and youthful appearance. Such pressures were related to engagement in muscle development and disordered eating behaviors through a number of pathways among key variables including internalization of ideals, appearance comparison, sexual objectification, body dissatisfaction, experiences of embodiment and body change attitudes. Furthermore, responses to open ended questions revealed usefulness of work environment as one of sources of sociocultural pressure. Comments from midlife men also highlighted importance of participation in process of acceptance and meaning making of inevitable changes of body and appearance with age. Furthermore, midlife men prioritized focus on health and comfort in one’s skin as critical elements of their ideals and positive body image
over the sociocultural ideals. These findings from responses to open ended questions suggest listening to midlife men’s experiences serves as an important source of knowledge that could inform identifications of additional constructs related to their body image experiences.
CHAPTER 2

Body image experiences among men in midlife: Test of the Integrated Model

Body dissatisfaction is the subjective experience that results from an individual’s negative evaluation of their body shape, weight, body parts, or overall appearance (Presnell, Bearman, & Stice, 2004). Efforts to understand experiences of body image have led to the description of body dissatisfaction as a “normative” experience for women in Western societies (Grogan, 2008; Matthiasdottir, Jonsson, & Kristjansson, 2012). Women’s body dissatisfaction is intertwined with a pervasive ultra-slender appearance ideal, associated with personal characteristics such as youthfulness and self-control (Bordo, 1993; Darlow & Lobel, 2010). Pressure to conform to unrealistic and unattainable appearance ideals is transmitted through a variety of sociocultural factors including media, family, peers and partners, which in turn, results in women’s experience of body dissatisfaction (Kluck, 2010; Thompso, Coover, & Stormer, 1999; Thompson & Stice, 2001).

More recently, attention to men’s body image experience has begun to increase and research has identified that, similar to women, body dissatisfaction is also prevalent in men as a result of pressure to conform to sociocultural body ideals (Tiggemann, Martins, & Kirkbridge, 2007). In contrast to the cultural ideal of thinness upheld for women, sociocultural appearance ideals promoted for men are becoming leaner and muscular over time, coupled with associated personal characteristics ranging from self-discipline and desirability to successful embodiment of masculine gender norms (Leit, Pope, & Gray, 2001; Ridgeway & Tylka, 2005; Smolak & Murnen, 2008). Similar to women, men are pressured to conform to appearance ideals of masculinity and leanness through a variety of sociocultural factors in daily life, which in turn, contributes to their experience of body dissatisfaction (Barlett, Vowels, & Saucier, 2008; Blond, 2008). As is the case for women, body dissatisfaction has been shown to be strongly associated
with a number of potentially negative consequences including unhealthy dieting, excessive exercising, steroid use, eating pathology, low self-esteem and depression (Bergeron & Tylka, 2007; Cafri et al., 2005; Eichholzer, Richard & Rohrmann, 2016; Olivardia, Pope, Borowiecki, & Cohane, 2004). Empirical findings on men’s experiences of body dissatisfaction have facilitated the development of etiological models designed to explain body dissatisfaction in men. Such efforts are critical in helping to identify relevant constructs and protective factors, as well as the development of interventions.

The majority of previous studies on body image in women and men have been conducted with samples primarily drawn from college student populations (Grogan, 2008; McGuinness & Taylor, 2016; Tiggemann & Slevec, 2012), thereby limiting our understanding of experiences of body image among men who are not part of the demographic depicted in sociocultural appearance ideals of leanness and muscul arity. The narrow focus on early young adulthood as well as limited diversity in terms of race, ethnicity, class and sexual orientation provides little information about body image experiences of women and men in midlife (Tiggemann & Slevec, 2012). While women and men experience significant changes to their physical appearance and functionality with age, data on body image among midlife women remain sparse and even less is known about experiences of body image among men in midlife. The current study, therefore, reviewed two specific areas of relevant literature consisting of body image disturbances among men in young adulthood and body image issues among women in midlife, in order to identify constructs that are likely relevant to midlife men’s body image experiences and propose an integrated model of body image disturbances for men in midlife.

**Experiences of Body Image among Men in Young Adulthood**

Previous studies have reported high rates of body dissatisfaction among men in young adulthood
ranging from 68 to 96% (Frederick et al., 2007; Galioto & Crowther, 2013). Consistent with the
cultural appearance ideals of a lean and muscular physique, studies conducted with college men
have shown that more than 90% reported dissatisfaction with their muscularity, 65% reported
dissatisfaction with body fat and 48% reported dissatisfaction with their weight (Frederick et al.,
2007). In addition to dissatisfaction with muscularity, body fat and weight, a study conducted by
Tiggemann, Martins, and Churchett (2008) revealed a range of other elements that participated in
men’s body dissatisfaction. These included height, weight, head and body hair and penis size.
Thus, findings from previous studies indicate that although leanness and muscularity are primary
aspects of men’s body image concerns associated with their body dissatisfaction, an examination
into various aspects of appearance is equally important to better understand men’s dissatisfaction
with their bodies.

Research on body dissatisfaction among men in young adulthood has identified its strong
association with unhealthy body change attitudes. Dissatisfaction with muscularity is likely to be
related to a desire for self-improvement, that is drive for muscularity or masculinity attitudes,
defined as men’s perception that they are not muscular enough and the degree to which they wish
to increase their muscularity (McCreary, 2007; Smolak & Stein, 2006). Previous studies have
found that body dissatisfaction was significantly associated with drive for muscularity in both
adolescent boys and college men (Bergeron & Tylka, 2007; Jones & Crawford, 2005).
Dissatisfaction with leanness is also likely to be tightly associated with desires for self-
improvement, here drive for leanness, defined as a desire to attain physique characterized by low
body fat and high muscle definition (Smolak & Murnen, 2008). Consistent with this theory, a
study among college women and men found that men’s body dissatisfaction was related to drive
for leanness, and that men scored significantly higher in drive for leanness than women. Finally,
men’s dissatisfaction with weight is likely to be strongly associated with a desire for self-improvement, that is drive for thinness, defined as men’s perception that they are not thin enough and the degree to which they wish to be thinner and fear weight gain (Garner, 2004). Studies that have investigated body image and disordered eating in non-clinical samples consisting of adolescent boys and college men have revealed a significant association between body dissatisfaction and high drive for thinness (Ricciardelli & McCabe, 2001; Spillane & Boerner, Anderson, & Smith, 2004). Empirical findings therefore show that men’s body dissatisfaction is consistently linked to preoccupations to improve these dimensions.

Pressures to conform to sociocultural ideals contribute to men’s body dissatisfaction and their body change attitudes. Research has shown that, both body dissatisfaction and body change attitudes are, in turn, strongly related to men’s engagement in potentially harmful behavioral strategies to change their physical appearance (Cafri, van den Berg, & Thompson, 2006; Heywood & McCabe, 2006; Tylka, 2011). Studies conducted with samples of adolescent boys and college men have shown that body dissatisfaction and body change attitudes were strongly associated with behavioral correlates of disordered eating including unhealthy dieting such as, use of weight loss pills, purging, and adoption of dieting techniques popularized by men’s health magazines, excessive exercising, and binge eating (Cafri et al., 2005; Eisenberg, Wall & Newmark-Sztainer, 2012; Kelly, Cotter, Tanofsky-Kraff, & Mazzeo, 2015; Lavender, De Young, & Anderson, 2010; Morrison, Morrison, Hopkins, & Rowan, 2004; Smith, Hawkeswood, Bodell, & Joiner, 2011). Non-medical use of anabolic steroids and other substances has also become a significant concern since steroids and other “performance-enhancing substances” could be perceived by adolescent boys and college men as a means of enhancing muscularity for appearance purposes (Cafri et al., 2005; Grogan, 2008; Pope et al., 2014). For example, a study
conducted with non-athlete college men found that 27% reported using steroids or other performance-enhancing substances at least once in their lifetime to gain muscle and that their use of such substances was strongly correlated with body dissatisfaction (Olivardia et al., 2004). The empirical findings reviewed above suggest that men are increasingly turning to body change behaviors in pursuit of sociocultural appearance ideals that could increase a variety of health risks ranging from metabolic dysfunction and strokes to kidney and liver diseases (Brooks & Carter, 2013; McCreary & Sasse, 2000; Wonderlich Gordon, Mitchell, Crosby, & Engel, 2009).

The stress associated with body image disturbances has also been shown to be tied to negative mental health outcomes in men (Blashill, 2010; Griffiths et al., 2016). Previous studies conducted with adolescent boys and college men have consistently found a strong association between body dissatisfaction and self-esteem (Bergeron & Tylka, 2007; Irving, Wall, Neumark-Sztainer, & Story, 2002; van den Berg, Mond, Eisenberg, Ackard, & Neumark-Sztainer, 2010). Men’s body dissatisfaction has also been found to be strongly linked to depression and social physique anxiety, as well as increased risk for eating disorders (Blashill, 2010; Grieve, Jackson, Reece, Marklin, & Delaney, 2008; Olivardia et al., 2004). Furthermore, a population-level study conducted by Griffiths et al. (2016) with adult men and women in Australia showed that for both men and women, body dissatisfaction was strongly associated with lower quality of mental- and physical health and a greater level of overall psychological distress. The study also found that the negative associations between body dissatisfaction and mental health related quality of life, and between body dissatisfaction and overall psychological distress, were stronger for men as compared to women. The authors concluded that body dissatisfaction represents a significant public health concern that requires population-level interventions to improve quality of life and decrease overall psychological distress.
The emergence of empirical findings highlighting the extent of body dissatisfaction and its associations with physical- and psychological health has facilitated the development of the etiological models of men’s body image and eating disturbances. One of these models is the sociocultural model as exemplified by the Tripartite Influence Model (Thompson et al., 1999). The model posits that pressures from sociocultural factors including media, parents, and peers influence body image and eating disturbances through two specific mediating pathways consisting of the internalization of appearance ideals, defined as endorsement and acceptance of sociocultural body ideals as their own, and appearance comparison, defined as evaluation of one’s appearance through comparisons of their own appearance with others who represent the sociocultural ideals (Thompson et al., 1999). Empirical evaluations of the Tripartite Influence Model with men have shown strong support for the model in explaining underlying mechanism of the internalization of appearance ideals and appearance comparison that link sociocultural pressures and muscular enhancement and disordered eating behaviors (Tylka, 2011; Tylka & Andorka, 2012).

Objectification theory (Fredrickson & Roberts, 1997) is a second etiological model that was originally developed to explain women’s experiences of body image disturbances. The model posits that the pervasive sexual objectification of women in society socializes them to view their bodies as objects that are constantly monitored and evaluated by the male gaze. The internalization of the perspective of observing others results in women’s engagement in body surveillance, defined as vigilant monitoring of one’s appearance, which in turn, is associated with women’s experiences of shame and anxiety related to their appearance and negative mental health outcomes including anxiety, depression and eating disorders (Fredrickson & Roberts, 1997). Research testing the applicability of objectification theory to men’s experience of body
image has revealed that self-objectification was significantly associated with body shame and
body shame mediated the relationships between self-objectification and body dissatisfaction, and
between self-objectification and drive for thinness among men who self-identified as gay, but not
among heterosexual men (Martins, Tiggemann, & Kirkbridge, 2007). Additional studies
conducted with gay and heterosexual men have shown empirical support for the model among
gay men; however, its applicability with heterosexual men remains uncertain (Daniel & Bridges,
2010; Parent & Moradi, 2011; Wiseman & Moradi, 2010).

The etiological model of social identity as it pertains to masculinity indicates that men
attempt to embody masculine gender norms in order to receive acceptance and affirmation from
other men, which in turn, contributes to their sense of belonging to a particular social group of
men and increase in their self-esteem (Tajfel & Turner, 1979). Hegemonic masculinity, defined
as the dominant and idealized stereotypical manhood in a given cultural context, sets the
normative standards by which all men are to be judged (Connell & Messerschmidt, 2005). As
such, men compete with each other to reach the standards associated with dominant manhood in
order to receive affirmation from other men. Hegemonic masculinity is increasingly intertwined
with sociocultural body ideals of leanness and masculinity, where unrealistic and unattainable
body ideals are held as standard by which men’s attainment of manhood is judged. Men who
espouse hegemonic masculinity are likely to exercise control and discipline to change their
physical appearance in accordance with the sociocultural ideals to assert their embodiment of the
hegemonic masculinity. A study that examined the relationship between masculine gender norms
and body dissatisfaction in a cross-national sample consisting of college men in Australia, the
United Kingdom, the United States, and Sweden revealed that increased conformity to masculine
gender norms was significantly associated with drive for musculosity, leanness and thinness
across four countries (Gattario et al., 2015). An additional study among college men found that increased conformity to masculine gender norms served as a predictor for greater dissatisfaction with musculature and musculature-oriented disordered eating practices (Griffiths et al., 2015). The existing data on men’s conformity to gender norms appear to provide support for the social identity model of masculinity and men’s body image disturbances. However, similar to the other etiological models discussed above, additional studies with various populations of men are needed to consider the relevancy of conformity to masculine gender norms given that the majority of the data in previous studies come from college-aged, middle class, white men who constitute a particular social group of men.

**Experiences of Body Image among Women in Midlife**

Previous studies conducted with women in midlife have supported the presence of body dissatisfaction in this age group. In addition to the cultural ideal of thinness, women in midlife are pressured to maintain youthfulness and age appropriate appearance (Becker, Diedrichs, Jankowski, & Werchan, 2013; Jankowski, Diedrichs, Williamson, Christopher, & Harcourt, 2016; Kilpela, Becker, Wesley, & Stewart, 2015). Indeed, sociocultural models of body image would suggest that women in midlife are likely to experience body dissatisfaction. Such models posit that pressures to conform to the ideals of thinness and youthfulness and a lack of realistic images of midlife women in the mass media influence midlife women’s body dissatisfaction through internalization of sociocultural ideals and appearance comparison (Rodgers, Paxton, McLean, & Damiano, 2016). Consistent with this theoretical model, a study conducted with women aged between 45 and 64 showed that 90% of women reported dissatisfaction with their body size (Runfola et al., 2013). In addition, a study that tested the sociocultural model of body image and disordered eating with a sample of women aged 35 to 55, showed that exposure to
media images of bodies in magazines that represent sociocultural ideals contributed to midlife women’s body dissatisfaction through mediating effects of internalization of sociocultural ideals, appearance comparison, appearance investment and aging anxiety (Slevec & Tiggermann, 2011).

Theoretical frameworks based on social comparison theory, on the other hand, propose that midlife women would be less likely to experience body dissatisfaction relative to younger women, given that midlife women are likely to consider media images of younger women as inappropriate targets for making appearance comparison (Borland & Akram, 2007; Festinger, 1951). Empirical support for this theoretical proposal has come from previous studies that found lower prevalence rates of body dissatisfaction in midlife women compared to younger women (Borland & Akram, 2007; Rø, Reas, & Rosenvinge, 2012).

Research has also identified additional factors that are likely to influence midlife women’s body dissatisfaction. With age, women may come to invest less in their appearance, as a result of life transitions and changes in goals and priorities (Tiggemann, 2004). Consistent with this, some studies have found a decline in appearance investment with age and its association with lower body image concerns (Pliner, Chaiken & Flett, 1990; Tiggemann & Lynch, 2001). Women in midlife are also likely to experience significant changes in their appearance as a result of biological and hormonal shifts that are related to increase in body mass index, menopause and childbirth (Slevec & Tiggemann, 2011). Furthermore, dimensions such as cognitive adjustment, defined as women’s engagement in cognitive process to adjust their expectations for appearance or accepting changes in their appearance, and body-related self-care, defined as behavioral and attitudinal orientations toward looking after one’s body, have been shown to be critical factors that could contribute to reduction in body dissatisfaction (Liechty & Yarnal, 2010; McLean, Paxton, & Wertheim, 2010; Price, 2010).
In addition, qualitative studies may serve an important source of information in understanding the experiences of body image concerns and dissatisfaction among midlife women. Rodgers et al. (2016) conducted a content analysis of comments posted on the Facebook threads in response to the question “Does the voice in your head get kinder as you get older?” that was posed by a radio program on body image and health among midlife women. The study found that slightly more than half of the comments reflected positive evaluation of body image in midlife, slightly less than half reflected negative evaluation, and a small number reflected both positive and negative evaluations at the same time. The authors identified the following themes from the response shared by midlife women: physical changes associated with aging; the impact of experiences of body dissatisfaction in their younger years on the present; decreased importance of appearance and values on fitness, health, and physical function over appearance; sociocultural influences such as media and family, and women’s desire to serve as a role model for positive body image for their daughters; and the sense of invisibility emerging from the lack of the evaluative gaze of others, and both positive and negative feelings associated with the perceived lack of attention in social situations. The authors concluded that midlife might be a time period where both positive and negative experiences of body image become prevalent for women.

Body image experiences of women in midlife may point to some helpful themes and constructs that are likely relevant for midlife men’s experiences of body image. Similar to women in midlife, men in midlife are likely to experience pressures to conform to the sociocultural ideals of leanness and muscularity. In addition, midlife men are likely to experience pressures to maintain youthfulness as a result of media representation of youthful bodies and its underlying meanings that equate youthfulness as a critical element of embodiment of masculinity.
which signifies vitality for mastery and control over their environment (Lodge & Umberson, 2013). Furthermore, a study conducted with a sample consisting of women and men aged 66 and older revealed that, they are pressured to look age-appropriate, while at the same time, pressured to resist aging (Janowski et al., 2016). However, a limited number of studies to date have considered midlife men’s body image experiences within the sociocultural context that pressures them to conform to the appearance ideals of lean and muscular physique, as well as, maintaining youthfulness. In addition, data on midlife men’s embodied experiences of changes in appearance associated with aging remain very sparse.

To fill the gap in the literature on men’s body image experiences, an integrated model of body image disturbances for men in midlife was developed by drawing relevant themes and constructs from the literature review on body image experiences among men in young adulthood and women in midlife (see Figure 1). The model was developed within an overarching framework of social identity theory as it pertains to masculinity (Connell & Messerschmidt, 2005; Tajfel & Turner, 1979). Critical elements of the Tripartite Influence Model (Thompson et al., 1999) and the objectification theory (Fredrickson & Roberts, 1997) were brought together to build an integrated model that recognize the multiple sources of influences that pressure men to conform to the sociocultural ideals and its impact on body dissatisfaction and body image disturbances. The proposed integrated model further includes constructs that were identified as likely relevant for midlife men’s body image experience. These include, for example, midlife men’s body image experiences in their younger years, a sense of invisibility, aging anxiety about physical appearance and internalization of youthfulness ideal.

**Hypotheses**

The current study tested the integrated model to understand how sociocultural and
additional relevant predictors are related to experiences of body dissatisfaction and embodiment and body image disturbances in midlife men, defined as men between the ages of 45 to 60. The hypotheses are listed below.

1. The integrated model will reveal a good fit to the data.
2. Sociocultural body and appearance ideals communicated through interpersonal pressures (i.e., friends, family and partner) and media, as well as body image in younger selves, invisibility, and aging anxiety will be associated with internalization and comparison, conformity to masculine norms and sexual objectification.
3. Experiences of body dissatisfaction and embodiment will be related to the body change attitudes including drives for musculature, leanness, thinness, and youthfulness.
4. Body change attitudes would be associated with the outcome variables including engagement in muscle development behaviors, disordered eating and mental health.
5. Internalization of ideals, appearance comparison, conformity to masculine norms and sexual objectification will mediate the relationships of interpersonal pressures, media pressure, body image in younger selves, invisibility and aging anxiety with experiences of each body dissatisfaction and embodiment.
6. The strengths of factors and model fit would differ in men of varying sexual orientations and racial/ethnic identifications.

**Methods**

**Participants**

Adult male participants (ages 45 to 60) were recruited for participation via on-line postings on a variety of interest-based groups on social media (i.e., Facebook, Twitter, Reddit
and Craigslist) and flyers posted and handed out in the Boston area community (e.g., barber shops, bars, university campus, gym and community social service agencies). The eligibility criteria to participate in the study were males between the ages of 45 and 60, living in the US and willing to complete an on-line survey via Qualtrics. The informed consent was completed on-line by participants prior to starting the survey.

**Procedure**

Men who were interested in participating in the survey had direct access to the survey through a QR code printed on the flyer or by emailing the author noting their interest to gain access to the survey link. In addition, the survey link was posted on social media sites allowing potential participants a direct access to the survey. Once potential participants visited the survey link, they were prompted to read the consent. Men who provided consent to participate responded to a few questions designed to determine their eligibility. Eligible participants were then presented with a series of questionnaires which consisted of measures of demographic information and relevant psychological measures, as well as, open-ended questions. Upon completion of the survey, participants entered their email address if they wished to enter a raffle to win one of three $50 Visa gift cards. Three participants received a certified letter containing a $50 gift card.

**Measures**

Psychometric properties of the instruments used in the present study have shown support for reliability and validity with samples consisted of adolescent boys and/or men in young adulthood except for the scales developed for the present study. Higher scores on the instruments designed to assess body image in younger selves and experiences of embodiment indicate
positive experiences. For all other instruments, higher scores reflect higher levels of risk and symptoms.

**Demographics**

Participants were asked to complete demographic questions regarding their age, race/ethnicity, sexual orientation, marital status, employment, socioeconomic status and education. Participants were also asked to provide their height and weight.

**Sociocultural Pressure**

The Perceived Sociocultural Pressure Scale (PSPS; Stice & Bearman, 2001) measures the degree to which participants perceive pressure from media, their family, friends and partners, to lose weight and have a thin body. The PSPS contains a total of 10 items and a sample item is “I’ve felt pressure from the media (e.g., TV, magazine) to lose weight.” Items are rated on a scale ranging from 1 (none) to 5 (a lot). In addition to the original version designed to assess pressure for thinness, the PSPS was modified for the current study to assess pressures to attain the muscular- and lean physique, as well as pressure to maintain youthfulness. Items from the original and the modified versions of the PSPS that assess pressure from friends were pulled together to create a scale designed to assess extent to which a respondent experienced pressure from friends. The same procedure was taken to create a scale designed to assess pressure from each of the external sources including family, partner and media. In the current sample, the scales demonstrated excellent internal consistencies with Cronbach alphas ranging from .93 to .96.

**Experience of Body Image in Younger Selves**

A total of seven items were developed for the present study to assess an individual’s recollection of body image experiences in his younger years. These items address satisfaction
with overall body shape and size, muscularity, leanness, thinness, and perceived attractiveness in younger years. These items are rated on a scale ranging from 1 (never) to 5 (always). A sample item is “When I was in my 20s, I was comfortable with the shape of my body.” In the current sample, the scale demonstrated excellent internal consistency with Cronbach alpha of .93.

_Invisibility_

A total of four items were developed to assess men’s experience with perceived lack of evaluating gaze of others which communicates attractiveness and sexual potential. Items are rated on a scale ranging from 1 (definitely disagree) to 5 (definitely agree). Sample item is “I miss getting the ‘second look’ from others.” In the current sample, the scale demonstrated good internal consistency with Cronbach alpha of .85.

_Aging Anxiety associated with Changes in Appearance_

The Physical Appearance subscale of the Aging Anxiety Scale (Lasher & Faulkender, 1993) assesses an individual’s preoccupation and fear associated with changes in appearance as a result of the aging process. The subscale contains a total of five items that are rated on a scale ranging from 1 (strongly disagree) to 5 (strongly agree). A sample item is “It doesn’t bother me at all to imagine myself as being old.” In the current sample, the scale demonstrated good internal consistency with Cronbach alpha of .83.

/Internalization of Sociocultural Ideals_

The subscales from the Sociocultural Attitudes towards Appearance Questionnaire – 4 (SATAQ-4; Thompson et al., 2011) including Thin/Low Body Fat Internalization and Muscular/Athletic Internalization, assess the degree to which men internalize sociocultural body ideals of muscularity, leanness, and thinness. The internalization subscales contain a total of 10 items that are rated on a scale ranging from 1 (Definitely Disagree) to 5 (Definitely Agree). A
sample item is “I think a lot about looking muscular.” With the current sample, the Thin/Low
Body Fat subscale demonstrated good internal consistency with Cronbach alpha of .84 and the
Muscular/Athletic subscale demonstrated a strong internal consistency with Cronbach alpha of
.91. In addition, two items were developed for the current study to assess the degree to which
men internalize sociocultural ideals of youthfulness. A sample item is “I spend a lot of time
doing things to look younger.” Two items showed good internal consistency with Cronbach
alpha of .81 in the current sample.

Appearance Comparison

The Physical Appearance Comparison Scale (PACS; Thompson, Heinberg, & Tantleff,
1991) assesses an individual’s tendency to compare their own appearance to the appearance of
others. The PACS contains a total of five items that are rated on a scale ranging from 1 (never) to
5 (always) and a sample item is “At parties or other social events, I compare my physical
appearance to the physical appearance of others.” The PACS demonstrated acceptable internal
consistency with Cronbach alpha of .73 in the current sample.

Conformity to Masculine Norms

The Conformity to Masculine Norms Inventory – 46 (CMNI – 46; Parent & Moradi,
2009) measures the degree to which men conform to traditional masculine norms endorsed in
dominant US society. The CMNI – 46 contains a total of 46 items that are rated on a scale
ranging from 1 (strongly disagree) to 4 (strongly agree). The sample item is “I enjoy taking
risks.” In the current sample, the entire CMNI showed excellent internal consistency with
Cronbach alpha of .92.

Experiences of Sexual Objectification

The Interpersonal Sexual Objectification Scale (ISOS, Kozee, Tylka, Augustus-Horvath,
& Denchik, 2007) measures the extent of an individual’s experience of sexual objectification. The ISOS contains a total of 15 items and they are rated on a scale ranging from 1 (never) to 5 (almost always). Sample item is “How often have you felt like or known that someone was evaluating your physical appearance?” In the current sample, the ISOS demonstrated strong internal consistency with Cronbach alpha of .94.

Body Dissatisfaction

The Male Body Dissatisfaction Scale (MBDS; Hallsworth, Wade, & Tiggemann, 2005) is a modified version of the Body Dissatisfaction subscale of the Eating Disorder Inventory (Garner & Olmstead, & Polivy, 1983). The MBDS assesses men’s dissatisfaction with an overall body shape and various body parts. The MBDS contains a total of nine items that are rated on a scale ranging from 1 (always) to 6 (never). Sample item is “I think that my biceps are too small.” The MBDS showed good internal consistency with Cronbach alpha of .80 in the current sample.

Dissatisfaction with Changes in Appearance associated with Aging

For the present study, five items were developed to assess men’s dissatisfaction with changes in their appearance related to aging. Specifically, dissatisfaction with the following areas were considered: thinning and loss of hair, thinning and sagging of skin, and presence of wrinkles and age spots. Sample item is “I wish I had a full head of hair.” Items are rated on a scale ranging from 1 (Definitely disagree) to 5 (Definitely agree). In the present sample, the scale showed poor internal consistency with Cronbach alpha of .53. Thus, the scale was excluded from statistical analyses.

Experiences of Embodiment

The Experience of Embodiment Scale (EOE; Piran & Teall, 2006; 2012) is designed to assess the quality of an individual’s experience of mind and body connection as it engages with
world. The EOE contain a total of 34 items that are rated on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample item is “I care more about how my body feels than about how it looks.” In the current sample, the EOE demonstrated a strong internal consistency with Cronbach alpha of .93.

*Drive for Muscularity*

The subscale of the Drive for Muscularity Scale (DMS; McCreary & Sasse, 2000), the DMS Muscularity-Oriented Body Image Attitudes subscale, assesses attitudes that represent excessive concerns related to muscular physique. The subscale contains a total of seven items and they are rated on a scale ranging from 1 (*always*) to 6 (*never*). A sample item is “I wish I were more muscular.” The subscale showed excellent internal consistency with Cronbach alpha of .92 in the current sample.

*Drive for Leanness*

The Drive for Leanness Scale (DLS; Smolak & Murnen, 2008) measures an individual’s attitude towards lean and toned physique. The DLS contains a total of six items that are rated on a scale ranging from 1 (*never*) to 6 (*always*). A sample item is “Having a lean, hard body would make me feel better about myself.” In the current sample, the DLS demonstrated strong internal consistency with Cronbach alpha of .92.

*Drive for Thinness*

The subscale, Drive for Thinness Scale, from the Eating Disorder Inventory (EDI-DT; Garner, Olmstead, & Polivy, 1983) assesses an individual’s preoccupation with concerns related to weight, dieting and wish to be thinner. The EDI-DT contains a total of seven items that are rated on a scale ranging from 1 (*never*) to 6 (*always*). A sample item is “I am terrified of gaining weight.” The EDI-DT showed acceptable internal consistency with Cronbach alpha of .81 in the
current sample.

*Drive for Youthfulness*

Two question items were developed for the current study to assess an individual’s attitudes towards maintenance of youthful appearance. Each item is rated on a scale ranging from 1 (*Definitely disagree*) to 5 (*Definitely agree*). A sample item is “Maintaining youthful appearance would make me feel better about myself.” In the current sample, two items showed acceptable internal consistency with Cronbach alpha of .76.

*Engagement in Muscle Development Behaviors*

The subscale of the Drive for Muscularity Scale (DMS; McCreary & Sasse, 2000), the DMS Muscle Development Behaviors, assesses excessive engagements in behaviors aimed to develop muscular physique. The subscale contains a total of eight items and they are rated on a scale ranging from 1 (*always*) to 6 (*never*). Sample item is “I lift weights to build up muscle.” The subscale showed good internal consistency with Cronbach alpha of .88 in the current sample.

*Disordered Eating*

Items from the Strategies for Appearance Management subscale (SAM) of the Appearance Inventory for Men (Agliata, 2005) were used to create a scale that assesses extent to which an individual engages in behaviors associated with disordered eating. The scale contained a total of six items and they are rated on a scale ranging from 1 (*not at all*) to 5 (*already doing this*). Sample item is “It is likely that I will take supplements to gain weight or mass to manage my appearance.” In the current sample, the scale showed acceptable internal consistency with Cronbach alpha of .63.

*General Mental Health*
The Brief Symptom Inventory – 18 (BSI – 18; Derogatis, 2001) is a widely used instrument designed to measure general psychological distress experienced by individuals. The BSI – 18 contains a total of 18 items that are rated on a scale ranging from 1 (not at all) to 5 (very much). In the current sample, the BSI – 18 demonstrated excellent internal consistency with Cronbach alpha of .93.

**Open-Ended Questions**

In addition to quantitative measures, a total of nine open-ended question items were included in the survey. The questions were developed to consider midlife men’s embodied experience of body image in two major domains. The first domain is concerned with midlife men’s embodied experience of changes in appearance associated with aging. A sample question is “With age, have you experienced changes in your appearance? If so, please describe the changes and how you feel and think about the changes?” The second major area is concerned with how midlife men understand positive body image. A sample question is “What are your thoughts about positive body image for men? How does it look like or mean to you?”

**Data Analysis**

A total of 414 men initially provided consent to participate in the survey. Of these participants, 72 men discontinued the survey while answering the initial demographic questions only. Thus, 72 cases were removed from the dataset. The remaining 342 men participated in the survey with varying degrees of survey completion. For example, 342 men completed the PSPS for thinness, the very first instrument in the survey. In contrast, the very last instrument in the survey, the BSI – 18, was completed by 219 participants. All data gathered from 342 were cleaned and missing data were imputed with the mean score calculated from participants’ responses only when less than 20% of the data in an instrument were missing. If there were more
than 20% of missing data in an instrument, the missing data were not inputed and the case was removed from the calculation of the score for that particular instrument. The statistical software program, SPSS Amos (IBM Corp, 2017), required that all the cases have no missing data for the structural equation modeling (SEM). This resulted in the final dataset with 216 cases. There were no statistically significant differences between a sample of men in the final dataset and a group of men who participated but did not complete the entire survey with a respect to demographic characteristics such as age and body mass index, as well as, scores on instruments such as the PSPS, PACS, CMNI and EOE.

The proposed integrated model of body image disturbances among men in midlife was tested using SEM. The SPSS Amos allows for considerations of theoretical models based on hypothesized relationships among observed and latent variables. Prior to conducting analyses, the following assumptions of SEM were considered. One of the assumptions requires that there be a reasonable sample size ranging from 10 to 15 cases per observed variable (Kline, 2011; Stevens, 1996). The final dataset for the present study contained 216 cases with complete data (22 observed variables x 10 = 220). Although this assumption was not met initially due to a shortage of cases, the number of observed variables was expected to decrease as modifications of the model took place to improve an overall model fit. Thus, an initial exploration of a model fit was conducted with 216 cases. Another assumption of SEM requires that both dependent and mediating variables in the model are continuous and normally distributed. The majority of items in the psychological instruments included in the survey were rated on a Likert scale. However, the underlying construct of each instrument represents distribution that is continuous, thus the instruments were used with the SEM. Normal distributions of dependent and mediating variables were assessed using a histogram and all the scales met the assumption of normality.
SEM also assumes model identification, described as existence of a unique solution for each parameter in the model (Kenny, 2011). Before running SEM, correlations among variables in the model were performed to consider bivariate relationships. Known correlations were then incorporated into the model in order to meet this assumption. Furthermore, SEM assumes that there is an explicit theoretical basis for model specification. An integrated model of body image disturbances draws from elements of other theoretical models with empirical evidence. Therefore, this assumption was met.

The model fit was considered using fit indices in testing hypotheses. The fit indices included Goodness of Fit Index (GFI), Comparative Fit Index (CFI) and the Root Mean Square Error of Approximation (RMSEA). A CFI value of .90 or higher is considered to show good model fit (Hair, Black, Babin, & Anderson, 2014). A GFI value of .90 or higher is considered good and a RMSEA value of .08 is considered acceptable and excellent when a value is .05 or lower (Hair et al., 2014). For hypothesis 1, the hypothesized model was evaluated using the fit indices. Modification indices and significance of pathways were examined to modify the model and improve the model fit to the data. For the hypothesis 2, 3 and 4, the final model was used to identify significance of hypothesized direct pathways and their magnitude of the relationships between various variables. Bootstrapping analysis, a resampling method designed to estimate standard errors and create confidence intervals, was performed for hypothesis 5 to test the hypothesized mediation effects of variables. For hypothesis 6, model invariance analysis, designed to test the presence of variations in the model fit and pathways between groups, was initially planned to be conducted based on race-ethnicity and sexual orientation of the participants. However, due to a lack of adequate sample size required for model invariance analysis, multivariate analysis of variance (MANOVA) was performed to consider group
differences, if any, on key variables of an integrated model.

Responses to open ended question items gathered from participants were analyzed using thematic analysis (Braun & Clarke, 2006) with the goal of identification of major themes that emerge from participants’ responses. The thematic analysis involves three major steps: familiarization with the data; creating initial codes; and searching for themes by collating codes. Once themes were generated, specific quotations that best capture the theme were selected.

Results

Descriptive Statistics

The average age of participants was 51.7 years ($SD = 4.9$) ranging from 45 to 60 years old. The majority of participants identified as White (85.6%) and a small proportion of the sample identified as racial-ethnic minorities (14.4%), specifically as Asian (n = 9), Hispanic (n = 1), Bi- or Multiracial (n = 10) and other (n = 10). The majority of participants (73.6%) identified as heterosexual and a small proportion of the sample identified as sexual minorities consisting of gay (16.7%), bisexual (8.8%) and other (1%). More than half of participants (66%) identified as married and reported having at least one child (68%). Close to forty percent (38%) of participants reported that they obtained a Bachelor’s degree and 31.9% reported that they had earned a Master’s degree or higher. The majority (85.6%) of participants reported being currently employed. Among participants who were employed, the most frequently reported field of profession was information technology/computer science (19.5%); management (15.1%); and education/training (11.9%). Fifteen percent (15.3%) of participants reported an annual household income of less than $50,000; 24.5% reported $50,000 to less than $100,000; and 60.2% reported an annual household income of $100,000 or more. The average BMI of participants was 28.1 ($SD = 5.3$), ranging from 17 to 44.
Bivariate Correlations

Bivariate correlations between variables in the integrated model were conducted. The results are presented in Table 1. Overall, the majority of variables showed expected patterns of associations. Consistent with sociocultural theories of body image disturbances, sources of sociocultural pressures including friends, family, partner and media, were positively correlated with each other ranging from $r = .51$ to $.85$. Each source of sociocultural pressure also showed small to moderate, positive correlations with internalization of ideals, appearance comparison, conformity to masculine norms and sexual objectification, ranging from $r = .15$ to $.40$. Each of the additional predictors including invisibility and anxiety about aging exhibited small to moderate correlations with internalization of ideals, appearance comparison and conformity to masculine norms, ranging from $r = .15$ to $.45$. Body image in younger selves showed negative correlations that were non-significant.

In addition, consistent with sociocultural theories, body dissatisfaction was positively associated with muscularity attitudes ($r = .62$), drive for leanness ($r = .20$), and drive for thinness ($r = .37$). Body dissatisfaction was also correlated with drive for youthfulness ($r = .26$). As expected, body dissatisfaction showed a strong, negative correlation with experiences of embodiment ($r = -.57$). Muscularity attitudes were correlated with outcomes including muscle development behaviors ($r = .52$), disordered eating ($r = .31$), and severity of mental health ($r = .28$). Drive for leanness was positively related to muscle development behaviors ($r = .39$) and disordered eating ($r = .45$). Drive for thinness was also positively correlated with muscle development behaviors ($r = .25$), disordered eating ($r = .46$) and severity of mental health ($r = .33$). Furthermore, drive for youthfulness was positively associated with muscle development behaviors ($r = .28$) and disordered eating ($r = .37$) and showed a small, positive correlation with
severity of mental health \( (r = .18) \).

**Evaluation of the Integrated Model**

Prior to testing hypotheses using SEM, a latent variable to represent interpersonal pressure was created because the bivariate correlation analysis yielded strong, positive relationships between pressure from friends and family \( (r = .85) \), pressure from friends and partner \( (r = .79) \), and pressure from family and partner \( (r = .67) \). Similarly, a latent variable that represented internalization of ideals (SATAQ-4: Thin/Low Body Fat subscale, SATAQ-4: Muscular/Athletic subscale, Internalization of Youthfulness) and appearance comparison (PACS) was created because there were moderate to strong, positive correlations among the internalization variables and appearance comparison, ranging from \( r = .36 \) to \( .60 \). Figure 1 presents the hypothesized model with latent variables.

**Hypothesis 1.** It was hypothesized that the integrated model would reveal a good fit to the data. The hypothesized model was tested with SEM on AMOS software. Results showed that the hypothesized model did not reveal a good fit to the data and the model was rejected \( (\chi^2(173) = 1050.63, p < .001, GFI = .648, CFI = .613, RMSEA = .154) \). Non-significant pathways and the variables with a low level of variance explained by the model were removed from the hypothesized model only when such removals were theoretically consistent with the model. Some of the non-significant pathways removed include the paths from body image in younger selves to sexual objectification, embodiment to muscularity attitudes, and muscularity attitudes to disordered eating. In addition, the variables including conformity to masculine norms, drive for youthfulness and mental health were removed due to a low level of variance explained by the hypothesized model. The model modification indices and pathway significances were then explored to consider the possibility of adding additional pathways to the model. Six additional
pathways were added to the model in order to improve the model fit to the data: interpersonal pressure to body dissatisfaction; pressure from media to embodiment; pressure from media to body dissatisfaction; body image in younger selves to body dissatisfaction; internalization of ideals to drive for leanness; and internalization of ideals to muscle development behaviors. This has resulted in the final model (Figure 2) which revealed an adequate fit to the data ($\chi^2 (124) = 279.93, p < .001$, $GFI = .883$, $CFI = .918$, RMSEA = .076).

Hypothesis 2. Given that the variable of conformity to masculine norms was removed from the final model, hypothesis 2 was revised to indicate that each of the independent variables including interpersonal pressure and pressure from media, body image in younger selves, invisibility, and aging anxiety would be significantly associated with dependent variables including internalization of sociocultural ideals, appearance comparison and sexual objectification. In the final model, interpersonal pressure was directly related to internalization of ideals ($\beta = .17, p < .01$), appearance comparison ($\beta = .17, p < .05$) and sexual objectification ($\beta = .32, p < .001$). In contrast, there were no statistically significant direct effects of pressure from media and body image in younger selves to any of the dependent variables. Invisibility was directly related to internalization of ideals ($\beta = .17, p < .05$) and appearance comparison ($\beta = .22, p < .001$), and aging anxiety associated with changes in physical appearance had a direct effect on internalization of ideals ($\beta = .28, p < .001$). The independent variables in the final model explained 21% of the variance in internalization of ideals, 37% of the variance in appearance comparison and 10% of the variance in sexual objectification. Hypothesis 2 was partially confirmed. The additional pathways added to the final model showed that interpersonal pressure directly influenced body dissatisfaction ($\beta = .18, p < .05$) and pressure from media demonstrated a direct effect on experiences of embodiment ($\beta = -.20, p < .001$).
Hypothesis 3. Drive for youthfulness was excluded from the final model and the hypothesis was revised to hold that experiences of body dissatisfaction and embodiment would be significantly associated with each of the body change attitudes including drives for muscularity, leanness and thinness. Body dissatisfaction was associated significantly with muscularity attitudes ($\beta = .56, p < .001$) and drive for leanness ($\beta = .13, p < .05$); however, body dissatisfaction was not directly related to drive for thinness in the current sample. Experiences of embodiment, as expected, was significantly associated with drive for thinness in a negative direction ($\beta = -.46, p < .001$). The pathway from embodiment to drive for leanness was non-significant and embodiment was not directly related to muscularity attitudes. Furthermore, the additional pathway added in the final model indicated that the internalization of ideals variable significantly predicted drive for leanness ($\beta = .69, p < .001$). The final model explained 48% of the variance in muscularity attitudes, 51% of variance in drive for leanness, and 41% of variance in the drive for thinness variable. Hypothesis 3 was partially confirmed.

Hypothesis 4. One of the outcome variables, severity of mental health was removed from the final model. Thus, the hypothesis was revised to propose that body change attitudes including muscularity attitudes, drive for leanness, and drive for thinness, would significantly predict the outcome variables of engagement in muscle development behaviors and disordered eating. In the final model, muscularity attitudes was significantly associated with engagement in muscle development behaviors ($\beta = .36, p < .001$) while the pathway from drive for leanness to muscle development behaviors was non-significant and no direct relationship was found between drive for thinness and engagement in muscle development behaviors. In contrast, drive for leanness and drive for thinness each predicted the disordered eating variable ($\beta = .17, p < .05$, $\beta = .30, p < .001$, respectively) while muscularity attitudes were not directly related to disordered
eating. Thus, hypothesis 4 was partially confirmed. Furthermore, the additional pathways added to the final model showed that internalization of ideals significantly predicted engagement in muscle development behaviors ($\beta = .54, p < .001$). The final model explained 42% of the variance in engagement in muscle development behaviors and 40% of variance in the disordered eating. Hypothesis 4 was partially confirmed.

**Hypothesis 5.** It was hypothesized that the internalization of ideals, appearance comparison, and sexual objectification would mediate the relationships between the predictors consisting of interpersonal pressure, pressure from media, body image in younger selves, invisibility and aging anxiety, and dependent variables consisting of experiences of body dissatisfaction and embodiment. The final model was tested with each of the predictor variables to assess the indirect effect of the internalization of ideals, appearance comparison and sexual objectification on body dissatisfaction and embodiment. Bootstrapping analyses (BS = 500) revealed a statistically significant indirect effect of interpersonal pressure on experiences of embodiment through appearance comparison, $\beta = -.123$, 95% bias-corrected confidence interval (CI): [-.209 - -.033], $p = .010$. In addition, a significant indirect effect of invisibility was found on experiences of embodiment through appearance comparison, $\beta = -.096$, 95% bias-corrected CI: [-.149 - -.049], $p = .006$. Lastly, a significant indirect effect of interpersonal pressure on body dissatisfaction through sexual objectification was revealed, $\beta = -.055$, 95% bias-corrected CI: [-.136 - -.010], $p = .023$. Hypothesis 5 was partially confirmed.

**Hypothesis 6.** It was hypothesized that the strength of the pathways and model fit would differ in men of various racial/ethnic backgrounds and sexual orientation. As aforementioned, a majority of the sample identified as White and heterosexual. A small proportion of men who participated in the survey identified as a racial/ethnic minority (14.4%)}
and a sexual minority (26.5%). Given the underrepresentation of men from diverse racial/ethnic backgrounds and sexual orientation, model invariance analysis was not performed to explore this hypothesis. Thus, the hypothesis was revised to predict that there would be differences in the variables in the final model based on men’s identifications with race/ethnicity and sexual orientation. Two groups were created for each of the identifications. Data gathered from men who identified as a racial/ethnic minority were merged together to create two groups consisting of racial/ethnic minority (N = 31) and White (N = 185). Data gathered from men who identified as a sexual minority were merged together to create two groups consisting of sexual minority (N = 57) and heterosexual (N = 159). To test differences on measures between groups, MANOVA was performed.

Results from MANOVA indicated no significant differences based on men’s racial/ethnic identifications, Wilks’ Lambda = .906, $F\ (20,\ 195) = 1.01$, $p = .451$. Regarding sexual orientation, results from MANOVA indicated that there were statistically significant differences, Wilks’ Lambda = .744, $F\ (20,\ 195) = 3.359$, $p = .000$. The univariate $F$ tests showed a significant difference between sexual minority ($M = 23.75, \ SD = 10.89$) and heterosexual ($M = 19.50, \ SD = 9.63$) men in levels of pressure from media; $F = 7.469$, $df = (1,\ 214)$, $p = .006$. The $F$ test for sexual objectification was also statistically significant; $F = 5.227$, $df = (1,\ 214)$, $p = .023$, which reveals differences between sexual minority ($M = 28.32, \ SD = 7.96$) and heterosexual ($M = 25.13, \ SD = 9.37$) men in levels of experiences of sexual objectification. The $F$ test for pressure from friends was close to significant with $F = 3.453$, $df = (1,\ 214)$, $p = .064$, suggesting a trend towards differences between sexual minority ($M = 19.84, \ SD = 8.62$) and heterosexual ($M = 17.50, \ SD = 8.01$) men in levels of pressure from friends. Lastly, the $F$ tests for pressure from partner was close to significant with $F = 3.764$, $df = (1,\ 214)$, $p = .054$, which suggests a trend
towards differences between sexual minority ($M = 14.12$, $SD = 7.37$) and heterosexual ($M = 12.06$, $SD = 6.70$) men in levels of pressure from partner. The $F$ tests for other variables were not significant. Thus, the hypothesis was not supported for differences based on race/ethnicity identification. In contrast, the hypothesis for differences based on sexual orientation was overall supported.

**Responses to Open Ended Questions**

The results from the responses to open-ended questions are presented in Appendix A. Responses shared by participants in the current study showed that many men endorsed their body and appearance ideals that are consistent with sociocultural ideals. At the same time, it is equally important to note that some men prioritized health, mobility, and confidence over the sociocultural ideals as important components of their ideals. Several men also shared their experiences of strong pressure to conform to the sociocultural ideals within the context of employment, suggesting a need for consideration of various sources of sociocultural pressures in addition to interpersonal pressures.

Comments shared by participants also highlighted various ways in which inevitable changes in body and appearance associated with aging was experienced. Changes in appearance was a difficult reality for some participants while acceptance of changes and participation in meaning making of aging process were critical experiences for other participants. A few men also noted their growing sense of becoming wise with age, while at the same time, recognizing changes in their body and appearance. Furthermore, when asked what positive body image means, some men identified elements of the sociocultural ideals including muscularity and leanness as important aspects of positive body image for men in midlife. At the same time, many
participants consistently noted the importance of comfort in one’s own skin and health as defining features of positive body image for men in midlife.

**Discussion**

The present study tested an integrated model of body image disturbances for men in midlife that brought together the critical elements of the Tripartite Influence Model (Thompson et al, 1999), objectification theory (Frederickson & Roberts, 1997) and social identity theory as it pertains to hegemonic masculinity (Connell & Messerschmidt, 2005; Tajfel & Turner, 1979). The model also incorporated a number of constructs that were identified as potentially relevant to midlife men’s experiences of body image disturbances based on a literature review of body image concerns among men in early adulthood and women in midlife. Currently, a limited number of studies have considered body image experiences of men in midlife. A recent study conducted by Mangweth-Matzek, Kummer, and Pope (2016) has suggested the presence of disordered eating symptoms in men aged 40 to 75 and engagement in excessive exercising and body dissatisfaction with weight and body shape among men who reported symptoms of disordered eating. Such findings highlight the critical importance of investigating body image experiences among men in midlife and beyond. In the present study, data were gathered using an online survey with a sample of midlife men in the US to test an integrated model to better understand midlife men’s experiences of body image. In the following, a brief summary of the 6 hypotheses is outlined as well as interpretations of the findings, limitations of the study and directions for future research and clinical implications.

The first hypothesis of the present study indicated that the hypothesized model would be a good fit to the data. The results showed that the data did not closely match the relationships specified in the hypothesized model. Following this, the model was revised by trimming the non-
significant pathways and constructs that made little contribution to explaining variations in responses. The final model with additional pathways revealed an adequate fit to the data.

Consistent with previous studies that tested the Tripartite Influence Model of muscularity enhancement and disordered eating behaviors with male college students and gay men (Girard, Chabrol, & Rodgers, 2017; Tylka, 2011; Tylka & Andorka, 2012), the results from the current study provided strong support for the usefulness of the Tripartite Influence Model in understanding midlife men’s body image experiences. Specifically, the results revealed that midlife men experience interpersonal pressure from various sources including friends, family and partner, to attain the sociocultural ideals of a muscular- and lean physique and youthful appearance. Such pressure was related to engagement in muscle development and disordered eating behaviors through pathways between key variables. The results also revealed that each of the age specific, novel constructs including experiences of body image in younger selves, a sense of invisibility and aging anxiety related to changes in physical appearance, was associated, through key variables, with engagement in muscle development and disordered eating behaviors. This finding suggests the importance of including factors that are unique to midlife men’s body image in etiological accounts of these concerns.

The second hypothesis indicated that each of the independent variables including interpersonal pressure, pressure from media, body image in younger selves, invisibility, and aging anxiety would be associated with each of the dependent variables including internalization of ideals, appearance comparison, and sexual objectification. Our findings indicate that men’s experiences of interpersonal pressure is associated with internalization of the sociocultural ideals of muscular- and lean physique and youthful appearance as ideals of their own. Similarly, midlife men who experience interpersonal pressure engage in comparison of their bodies and
appearance with those of men who represent the sociocultural ideals. These two direct pathways between interpersonal pressure and internalization of sociocultural ideals and interpersonal pressure and appearance comparison are consistent with previous studies with adolescent boys and college men in France and the US (Girard et al., 2017; Rodgers et al., 2011; Tylka, 2011). We also found that midlife men who experience interpersonal pressure report higher levels of body dissatisfaction and more frequent experience of sexual objectification in interpersonal contexts. These findings suggest interpersonal pressure is associated with internalization of ideals, appearance comparison, and sexual objectification, that are, in turn, also related to other key factors including body image concerns, body change attitudes and behaviors.

In the current sample, pressure from media was not significantly associated with any of the dependent variables including internalization of ideals, appearance comparison and sexual objectification. A similar finding was reported by Mulgrew and Cragg (2017) with a sample of men aged 17 to 59 in Australia. The authors found that viewing music video clips containing muscular and attractive singers contributed to frequent engagement in appearance comparison and body dissatisfaction in younger men but not older men in their study. This is notable in light of consistent findings from previous studies with younger men that documented a direct pathway from media pressure to each of the internalization of ideals and appearance comparison variables (Barlett et al., 2008; Blond, 2008; Tylka, 2011). For midlife men, it may be that a younger male figure depicted in media images of the sociocultural ideals is considered an inappropriate comparison target, which in turn, may serve as a protective factor from the impact of media pressure on internalization of ideals, appearance comparison and sexual objectification.

The present study also found that midlife men’s experiences of the sense of invisibility emerging from the lack of the evaluative gaze of others in social situations, as well as, their
anxiety about changes in physical appearance associated with aging, were related to internalization of the sociocultural ideals of muscular- and lean physique and youthful appearance. Additional studies are needed to confirm the usefulness of these age specific constructs and their associations with body image disturbances with men in midlife.

In addition to the hypothesized pathways, one of the additional pathways which added to the final model involved another age specific construct, specifically positive body image in younger selves. The results revealed a negative pathway from positive body image in younger selves to body dissatisfaction, meaning that midlife men who experienced positive body image in their younger years reported less current body dissatisfaction with their bodies. This appears to suggest that experiences of positive body image in younger years may be a critical factor that could potentially influence men’s body dissatisfaction in later years.

The third hypothesis of the present study predicted that each of the body dissatisfaction and embodiment variables would be related to each of the body change attitudes including muscul arity attitudes, drive for leanness, and drive for thinness. The results revealed pathways from body dissatisfaction to each of the muscul arity attitude and the drive for leanness variables. This highlights that midlife men who experience body dissatisfaction report greater motivation to enhance their muscul arity and leanness. These findings are consistent with previous studies among younger men showing a strong relationship between body dissatisfaction and each of the muscul arity attitudes and drive for leanness variables (Bergeron & Tylka, 2007; Bucchianeri, Serrano, Patula, & Corning, 2014; Smolak & Murnen, 2011). Interestingly, with the current sample of midlife men, body dissatisfaction was not associated with drive for thinness. This finding is somewhat puzzling given that concerns with thinness was thought to be pronounced in midlife men as age is generally associated with weight gain (McCabe & Riccardelli, 2004). The
results also showed a negative, direct pathway between experiences of embodiment and drive for thinness, meaning that higher levels of integration of one’s self and the body were related to less desire for thinness. As expected, the pathway from embodiment to drive for leanness was non-significant. Furthermore, no relationship was found between embodiment and motivation to enhance muscularity. These results suggest a need for additional studies on experiences of embodiment and its associations with body image disturbances in midlife men since positive embodiment may potentially serve as a protective factor that could modify pathways leading to the development of body image disturbances.

The forth hypothesis indicated that body change attitudes including muscularity attitudes, drive for leanness, and drive for thinness, would be associated with the outcome variables of engagement in muscle development- and disordered eating behaviors. Consistent with connections between body change attitudes and the pursuit of appearance ideals through engagement in risky behavioral strategies found in men of various age groups (Lieberman et al., 2015; Mangweth-Matzek & Hoek, 2017; McReary et al, 2005, Tylka, 2011), midlife men in the present study who reported higher level of internalization of the sociocultural ideals and motivation to enhance their muscularity engaged in muscle development behaviors. Our finding also indicates that men who reported a higher level of motivation to improve leanness and thinness engaged in behaviors associated with disordered eating. In light of these findings, it is possible that midlife men who attempt to attain the lean, muscular and youthful ideal may engage in behaviors associated with both muscle development and disordered eating simultaneously or in an alternate cycle (Lavender, Brown, & Murray, 2017).

The fifth hypothesis indicated that the variables of internalization of ideals, appearance comparison and sexual objectification would mediate the relationships between the independent
variables consisting of interpersonal pressure, pressure from media, body image in younger selves, invisibility and aging anxiety, and experiences of body dissatisfaction and embodiment. The results showed an indirect effect of interpersonal pressure on experiences of embodiment through appearance comparison. In addition, the results revealed invisibility was associated, through appearance comparison, with embodiment, meaning that men who frequently engage in appearance comparison are more vulnerable to a sense of invisibility, which lead them to have less experiences of embodiment. Furthermore, the present study found an indirect effect of interpersonal pressure on body dissatisfaction through sexual objectification; however, in contrast to our expectation, the direction of the pathway from sexual objectification to body dissatisfaction was negative. This suggests that midlife men who experience interpersonal pressure to conform to the sociocultural ideals report frequent experiences of sexual objectification, which in turn, is associated with less body dissatisfaction. For midlife men, it may be that experiences of sexual objectification in their interpersonal contexts serves as a confirmation of their physical attractiveness relative to the sociocultural ideals, which in turn, is related to lower body dissatisfaction. This gender specific finding with the current sample of midlife men stands sharply in contrast to literature that have documented adversities associated with women’s experiences of sexual objectification ranging from self-objectification, body dissatisfaction and eating disorders to negative mental health outcomes (Augustus-Horvath & Tylka, 2009; Frederickson & Roberts, 1997; Miles-McLean et al., 2015).

Equally important to note is the lack of mediating effect of internalization of ideals and appearance comparison in the relationship between interpersonal pressure and body dissatisfaction. Previous studies conducted with adolescent boys, male students in college and gay men have consistently found mediating effects of internalization of ideals and appearance
Additional studies are needed to clarify the role of internalization of ideals and appearance comparison in the relationship between sociocultural pressures and body dissatisfaction among midlife men.

The sixth hypothesis predicted that there would be differences in the variables in the final model based on midlife men’s identifications with race/ethnicity and sexual orientation. The results revealed no race/ethnicity differences on measures of interests between the two groups which consisted of racial/ethnic minority and White. Currently, there are limited data on body image experiences of men from various racial/ethnic groups. A study by Ricciardelli, McCabe, Williams, and Thompson (2007) reviewed previous studies on body image concerns and disordered eating that have included a comparison between males from various racial/ethnic groups with Whites. The authors found that men from racial/ethnic groups, in comparison to Whites, engaged more frequently in binge eating and extreme body change strategies ranging from use of diet pills to vomiting (Ricciardelli, McCabe, Williams, & Thompson, 2007). The authors also identified a lack of a consistent pattern that reflects the nature of concerns related to body image across various racial/ethnic groups.

With the current sample of midlife men, there were no differences between the racial/ethnic minority and White groups on body change attitudes, engagement in muscle development behaviors and disordered eating. Furthermore, the lack of significant findings across the other variables included in the final model appear to suggest that non-White men in midlife also experienced similar levels of interpersonal pressure, pressure from media, body image in younger selves, invisibility, aging anxiety, internalization of sociocultural ideals, appearance comparison, sexual objectification, body dissatisfaction and embodiment, as men
who identified as White. However, it is equally important to note that a lack of significant differences between two groups could be attributed to a lack of statistical power reflected in a small sample size of the racial/ethnic minority in the current study. Additional studies are needed to explore similarities and differences in experiences of body image and related disturbances in men from diverse racial/ethnic identifications as such studies may provide important information regarding culturally-specific clinical implications for the treatment of body image disturbances.

The sixth hypothesis also predicted that there would be differences in measures of variables in the final model based on midlife men’s identifications with sexual orientation. Specifically, the results revealed a statistically significant difference in pressure from media with respect to men in sexual minority groups, who reported higher level of pressure from media to conform to the sociocultural ideals in comparison to heterosexual men. In addition, trend level differences were found between two groups in pressures from friends and partners. We found that sexual minority men, in comparison to heterosexual men, reported higher level of pressure from sources including friends and partners. Consistent with previous study conducted with younger gay men (Tylka & Andorka, 2012), these findings suggest that overall sexual minority men are vulnerable to higher level of sociocultural pressures than heterosexual men. In addition, the present study found a significant difference in frequency of experience of sexual objectification between the two groups. Sexual minority men, in comparison to heterosexual men, reported higher frequency of sexually objectifying experience in their interpersonal contexts. This is particularly concerning given that experiences of sexual objectification in sexual minority men has been linked to higher level of body dissatisfaction and other risky behaviors such as alcohol use (Davids, Watson, Nilsson, & Marszalek, 2015; Souleymanov, Brennan, George, Utama & Ceranto, 2018).
Lastly, one of the key constructs of an integrated model, conformity to masculine norms, was excluded from the final model as the variable demonstrated non-significant pathways and absence of direct relationships to other key variables of interests. This unexpected finding is notable given that previous studies with male students in college in various countries consistently showed increased conformity to masculine gender norms was associated with dissatisfaction with muscularity, muscularity attitudes, drive for leanness, drive for thinness, as well as, disordered eating behaviors (De Jesus et al., 2015; Gattario et al., 2015; Griffith et al., 2015). This may be, in part, due to the use of a total score of the CMNI – 46 (Parent & Moradi, 2009) in the model. Closer examinations into dimensions of gender norms as characterized by each of nine subscales of the CMNI – 46 could have potentially yielded significant associations with the other key variables in the model. It also may be that, for midlife men in the current sample, internal experiences of conformity to masculine gender norms had no salient relations to their body dissatisfaction, body change attitudes and behaviors as they have, with age, attained the dominant standards of masculinity in other domains of their lives. More research is needed to clarify the role of conformity to masculine norms and its relation to body image concerns in midlife men.

The current study has several limitations that require consideration. The cross-sectional design of the current study and the use of SEM prevents causal and temporal interpretations of the associations between the variables. In addition, the current sample of midlife men who participated in the survey was self-selected. It is possible that participants consisted of self-selected individuals with more awareness in the topics related to body image and appearance. Thus, this group of self-selected participants may differ in some ways from other men who chose not to participate in the survey. Furthermore, men who participated in the current study were
very homogenous in nature, with the majority of men self-identifying as being highly educated, White, and of high standing with respect to their socioeconomic status.

With a respect to race/ethnicity, non-White participants were grouped in one group for analyses thereby contributing to a loss of an opportunity to consider potentially meaningful similarities and/or differences among midlife men of various racial/ethnic groups. Similarly, non-heterosexual men were grouped together for analyses and this approach did not allow for consideration of similarities and/or differences across midlife men of various sexual orientation identifications. Thus, generalizability of the findings from the present study is limited and does not extend to diverse men in midlife with a respect to race/ethnicity, sexual orientation, socioeconomic status and education. More research is necessary to understand experiences of body image in diverse groups of men in midlife.

It is equally important to acknowledge the issues with the variety of measurements used in the current study. For the present study, measures of age-specific constructs were developed specifically for midlife men. These included measures to assess body image in younger selves, invisibility and internalization of youthfulness. Although each demonstrated excellent internal consistency with the current sample of midlife men, additional studies on the psychometric properties of these scales with midlife men are needed.

Another limitation related to measurements is the fact that, except for the Physical Appearance subscale of the Aging Anxiety Scale (Lasher & Faulkender, 1993), none of other measures used in the current study have been developed specifically for men in midlife. As demonstrated in the current study, while sociocultural body ideals of muscularity, leanness and youthfulness and pursuit of these ideals are certainly important factors related to body image experiences of men in midlife, the development of a measure grounded in lived experiences of
body image in midlife men is likely to provide information about key factors that may potentially play critical roles in their experiences of their bodies and appearance. For instance, a small number of qualitative studies on body image with men in midlife and beyond have identified functionality of the body as one of the important dimensions related to experiences of body satisfaction among men in midlife and beyond (Drummond, 2003; Lodge & Umberson, 2013; Reddy, 2013). In addition, it has been theorized that social class contributes to ways in which individuals experience their bodies. Lodge and Umberson (2013), for example, discussed about potential salience of aging bodies on employment in working class men as they are more likely than men in white-collar men to rely on their bodies for material survival and social mobility. Additional qualitative studies on body image experiences of midlife men would likely contribute to the identifications of meaningful constructs relevant to the development of a measure.

Despite the aforementioned limitations, findings from the present study contribute to the scant literature exploring body image disturbances among men in midlife. Overall findings indicate that the current sample of men in midlife, similar to men in younger age groups, experienced interpersonal pressures from friends, family and partner, to conform to the ideals of muscular- and lean physique and youthful appearance. Such pressures were associated with engagement in muscle development and disordered eating behaviors through a variety of pathways among variables including internalization of ideals, appearance comparison, sexual objectification, body dissatisfaction, embodiment and body change attitudes. These findings provide support for the usefulness of a sociocultural model of body image disturbances in midlife men. The addition of age-specific constructs including body image in younger selves, invisibility and aging anxiety associated with changes in appearance with age, also demonstrated usefulness of these constructs in understanding pathways to body image disturbances experienced by
A notable finding to emerge from the current study showed a gender specific mediating role of sexual objectification between interpersonal pressure and body dissatisfaction. In contrast to women’s experience of sexual objectification and its adversarial impacts on their body image, data from midlife men in the current study revealed that experiences of sexual objectification served as a buffer against a negative association between interpersonal pressure and body dissatisfaction. In addition, this study found few differences based on men’s sexual orientation in the areas of pressure from media, pressures from friends and partner, and frequency of sexual objectification, while, no differences were found between men from racial/ethnic minorities and White on measures of the variables included in the final model.

Findings from responses to open ended questions also contribute to the understandings of how midlife men experience body ideals and changes in their body and appearance with age, and how they think about what positive body image means for men in their age group. Themes emerged from comments gathered from men showed usefulness for considering work environment as one of critical sources of pressure. Comments from some of the participants were highlighted by their sense of agency in which they articulated their critical awareness of pressures in their work settings, while at the same time, conforming to pressures to maintain their employment. Another important theme that emerged from comments shared by midlife men in the current study reflected the significance of participation in acceptance and meaning making of aging process in response to changes to body and appearance. Additional themes identified comfort in one’s skin and health as critical elements of body ideals and positive body image for men in midlife. This finding on emphasis on health is notable given that engagement in health promoting activities in order to maintain or improve health was consistently noted by many
participants and an improvement in health is intertwined with mental health well-being.

In addition, extant literature has suggested that asking participants to engage in self-assessment of their current thoughts and behaviors could facilitate a decrease in risky behaviors (McCambridge, J., & Kypri, K, 2011; Rodgers, Franko, Gottlieb, & Daynard, 2015). Thus, it is speculated that some midlife men who participated in the current study could have experienced a decrease in negative body image related concerns and behaviors as a result of engagement in self-assessment in the survey.

Lastly, perspectives of critical psychology (Prilleltensky & Nelson, 1997) and the feminist ecological model (Ballou, Matsumoto, & Wagner, 2002) inform a need for recognizing a systemic force that plays a role in body image disturbances. Examining sociocultural pressures from sources including media, family, friends, and partners are important and valuable. It is also critical to recognize that sociocultural body and appearance ideals are created and maintained within the context of a capitalist society that aims to maximize profits. Capitalist system depicts images of unattainable and unrealistic body and appearance ideals by equating attainment of the ideals with happiness, success, and desirability. These images purposefully create insecurities and disturbances within us so that companies could profit from selling of their products (Jankowski, 2016). In recent years, such a capitalist aim for profits appears to be extending to the construct of health and selling of services and products that are designed to make people healthier. This suggests importance of multi-level analysis of body image disturbances and awareness into a critical role of structural force that affects all of us.

The current study explored experiences of body image in midlife men through a test of an integrated model. The study serves as a preliminary investigation into an important area in the field of body image that has gained little attention and remains under-investigated to date. More
research is needed to better understand the experience of body image in midlife men and how their experiences are related to body dissatisfaction and experiences of embodiment, as well as, engagements in behaviors that could potentially compromise health and psychological well-being. Future studies are likely to benefit from identification of age-specific constructs and further testing of an integrated model with a sample that includes midlife men of diverse social identifications.

**Clinical Implications**

The findings from the present study have important clinical implications. Men in midlife experience interpersonal pressure from sources including friends, family members and partners to attain sociocultural ideals of muscular- and lean physique and youthful appearance, as well as, age specific concerns related to invisibility and aging anxiety. Pressures and age specific concerns are related to muscle development and disordered eating behaviors through associations between key body image variables. Given these results, it is important for psychologists and health care professionals to consider implementing interventions at multiple levels.

Psychologists, in collaboration with professionals from other disciplines, such as, Public Health, may play a central role in the development and implementation of a large-scale prevention efforts to reduce stigma of men in midlife and beyond who experience body image- and related concerns. Stereotypes of body dissatisfaction and eating concerns as conditions that solely affect females and younger populations place men in midlife and beyond who share the similar concerns in a highly stigmatized position (Reas & Stedal, 2015). For example, the use of media information campaigns that highlight implications of interpersonal pressures on body image- and related concerns in all age groups of men, including men in midlife, may be one approach that could reduce stigma, while at the same time, increasing awareness at population level.
Awareness of body image concerns and associated risky behaviors among midlife men is likely to benefit clinical practice of psychologists and clinicians. Integrating conversations about client’s subjective experience of his body within the context of overall health may potentially serve as an important window for facilitating further discussion about body image concerns. This may communicate clinicians’ awareness of these issues among men in midlife and such attempt is an important first step in creating a safer space for a client to share his concerns. It is also equally important that clinicians are aware of the role of life disrupting stressors that disproportionately affect lives of men in midlife and beyond. These include, but are not limited to, changes in financial and housing situations, career and professional demands, a loss related to divorce or death, and medical conditions, which could lead to the development of body image disturbances and disordered eating behaviors (Reas & Stedal, 2015). In addition, psychologists and clinicians could play a critical role in facilitating the development of partnerships with other professionals in various settings, such as physicians and nurses in primary care settings, where healthcare professionals could integrate psychoeducation on body image concerns in the context of health promotion with their patients.

The present study also found that experiences of interpersonal pressures and age-specific concerns were related to both the internalization of sociocultural ideals and appearance comparison variables, which in turn was associated with other key variables ranging from engagement in muscle development behaviors to experiences of embodiment. This finding has implications for prevention interventions that integrate cognitive dissonance components designed specifically to reduce internalization of sociocultural ideals. Previous studies that evaluated cognitive dissonance based prevention programs with male students in college and sexual minority men have shown some support in improvements of body image concerns
including dissatisfaction with muscularity, body appreciation, internalization and appearance comparison and muscularity enhancement behaviors (Brown, Forney, Pinner, & Keel, 2017; Jankowski et al., 2017; Kilpela et al., 2016). Additional studies on cognitive dissonance based prevention efforts and programs that include men in midlife are needed to discern efficacy of such interventions.

Conclusion

The current research aimed to address body image experiences of men in midlife. Specifically, an integrated model of body image disturbances was developed for the present study that brought together elements of etiological models that have gained empirical support with men in early adulthood. The proposed model also incorporated age specific constructs as men in midlife are likely to experience changes in their bodies and appearance associated with aging. Overall, quantitative findings suggest some support for an integrated model that revealed associations between independent variables including interpersonal pressure, body image in younger selves, a sense of invisibility and aging anxiety associated with changes in physical appearance, and outcome variables including muscle development and disordered eating behaviors through pathways between key variables. In addition, responses to open ended questions shared by participants served to enhance our understandings of various ways in which men in midlife experience inevitable changes in their bodies and appearance. Findings were discussed by setting results within the literature on body image in men and implications for future study and clinical implications were addressed.
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Table 1

Bivariate Correlations between Variables

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*Note:* Significance = *p < .05, **p < .01.
Figure 1. Hypothesized Model: Integrated Model of Body Image Disturbances
Figure 2. Final Model with Standardized Path Coefficients

Note: * p < .05, ** p < .01. [Bolded numbers] indicate the explained variance for each variable, non-bolded numbers indicate the standardized path coefficients, dashed arrows indicate nonsignificant paths and variables in the dashed box indicate constructs removed from the final model.
Appendix A

Results on Responses to Open Ende Questions

Throughout the survey questionnaire, participants were presented with open ended questions. Some of the sample questions include “How would you describe the ideal body and appearance for men?”, “With age, have you experienced changes in your appearance? If so, please describe your reactions to the changes in your appearance?” and “What are your thoughts about positive body image for men? What does positive body image look like and mean to you?” Responses shared by midlife men who participated in the current study served as an important source of knowledge and themes that emerged from their responses are provided below.

Consistent with the sociocultural ideals, midlife men in the present study frequently described their ideal body as “muscular,” “lean,” “fit,” “trim,” “toned” and “mesomorphic” with “little fat,” “no bellies” and “flat abs.” Regarding appearance, themes on appearing “younger,” “well-groomed” and having “full head of hair” emerged as important elements of their ideals. At the same time, some men emphasized health or mobility as elements of their ideals that take priority over the sociocultural ideals. A 46-year-old White gay man offered the following comment regarding ideals: “A focus on health and longevity is what should be the focus. Every body shape is different and should be celebrated as such.” A 52-year-old White heterosexual man offered the following about his ideals for men: “Be healthy no matter what size you are. There is no single ideal body and appearance.” Another participant, a 48-year-old gay Asian male indicated, “If someone moves well, that body is ideal for him/her.” In addition, a 47-year-old White heterosexual man offered the following response concerning body and appearance ideals for men:

I believe the ideal body is one that is lean and healthy, that is representative of good eating habits and adequate physical exercise. A person’s appearance should
Confidence was another theme that emerged in the descriptions of midlife men’s body and appearance ideals. One participant, a 48-year-old White heterosexual man offered the following response about his ideals that captures the importance of confidence, while at the same time, highlighting the complexity of ideals in everyday lives:

The ideal body and appearance for a man is one of utility, and one of confidence. If a man is happy with his body, then it is ideal. I’m not immune to vanity and I don’t think any man is, so I’ve bought cosmetic shampoos to help hair growth/recoloration, and light hair dyes… I’d like to look younger to be more attractive to women. That is ideal… but confidence is most important.

Responses shared by participants indicated that, while men in midlife certainly articulated ideals that are consistent with the sociocultural ideals, themes of health, mobility and confidence emerged as additional elements of their body and appearance ideals.

Some men further elaborated on societal and media pressures of the sociocultural ideals. For example, a 46-year-old White gay man offered the following response regarding sociocultural pressure:

I think society and the media push an unrealistic view. But I think it’s worse in the gay community. So many jokes about age and being past one’s prime… it’s frustrating… I think being toned and active should be enough, but I feel pressured to do more.

Another participant, a 58-year-old White heterosexual man, offered the following reflection of his own:
There is a lot of pressure from the media, and society… to “look good.” I think that this is overemphasized, albeit less for men than for women. Perhaps we need to be a little more accepting about the way we look.

Furthermore, a 53-year-old White heterosexual man provided the following response about his body and appearance ideals and the media pressure:

… People should focus on being healthy, however they define that, and focus less on outward appearance. The mainstream media and advertising [are] tearing apart the fabric of society… Disconnecting from these things will be important to solve much of society’s problems. I fear this won’t happen.

In addition to societal and media pressures, a theme of pressure within the context of employment has emerged in comments shared by some participants. A 54-year-old White bisexual man shared the following response regarding pressure within the context of age discrimination in employment:

I have found that the pressure to look younger and to get thinner comes from prospective employers. There is a lot of age discrimination in business and the pressure to look younger, dress younger and to be in better shape comes from there.

Another participant, 48-year-old White heterosexual man, also discussed pressure in the work setting:

As I’m in my late 40’s, I feel it’s important for me to both look my age, but also “look good for my age,” (i.e. younger). I feel pressure from a professional standpoint to look “good,” both because “look-ism” exists in the corporate world, and because I’m at the age where companies start to weed out the people they
think won’t age well (health problems, low energy, don’t reflect the corporate image, etc.). Stress related to appearance and the working world is an under-reported phenomenon in my opinion. In my 20’s & 30’s, I rarely thought about appearance.

The responses shared by the participants highlighted an importance of considerations into various sources of sociocultural pressures in lives of midlife men.

Men in midlife who participated in the study indicated that a defining moment of realization of changes in their appearance and body with aging was triggered by greying and thinning of hair, wrinkles and sagging of skin, weight gain and increase in body fat. In addition, several men identified changes in functionality of their bodies as an important reminder of their aging process. These changes included getting tired easily, having less energy, endurance and flexibility, longer recovery time, difficulties losing weight or gaining muscles, joint aches and pains, and decrease in eyesight and sexual functioning.

Midlife men provided varied reactions to inevitable changes in appearance and body with aging. For some, changes in appearance was a difficult reality. A 54-year-old White heterosexual male offered the following statements: “[I] noticed grey hair and wrinkles. I hate pictures of me because I look much older and refrain from taking them.” Another participant, a 47-year-old White heterosexual man, identified changes he had noticed and his reaction: “Brown colored age and liver spots on my face… Reaction is dread.” Similarly, a 50-year-old heterosexual male offered the following response: “Gray hair, wrinkles, and loose skin. Reactions? Some sadness and resignation.”

On the other hand, a few men who participated in the study reported that although they have certainly come to notice changes in their appearance, the changes don’t bother them
because appearance is not particularly important to them. There were also some participants who were trying to engage in a meaning making process of aging and changes in their appearance, as exemplified by a response offered by a 46-year-old heterosexual man who self-identified as North African: “My belly is bigger. My skin has changed. It is not shiny like it used to be and not smooth like it used to be. I don’t really mind. I am trying to enjoy growing older.” In addition, responses offered by some men were highlighted by their acceptance of changes as inevitable in the course of aging. A 55-year-old White heterosexual man offered the following response regarding changes in appearance and his reaction: “I can see that I’m getting old. My beard is grey now. I can see wrinkles in my face. I understand that is part of who I am now.” Another participant, 52-year-old Asian heterosexual man indicated the following about changes in appearance and body:

With age I have noticed the following changes: gray hair, facial wrinkles, increased body weight, wider midsection, reduced stamina and a loss of muscular definition. I have fully accepted them as part of the aging process.

Furthermore, few men in the study noted their growing sense of becoming wiser as they also recognized changes in appearance and body with age. A 49-year-old White heterosexual man indicated, “Grey hair, lines on my face, it makes me feel older, wiser, and weathered.” Another participant, a 59-year-old White heterosexual man offered the following responses about his experiences of declines in appearance and body, as well as an increase in his sense of becoming wiser:

Of course, my eyesight is going downhill. With age we lose a lot of athletic ability. I have to take medicine for acid reflex, depression and a hereditary heart condition. My skin looks older. My joints are not what they once were, especially
my knees. Those are negatives… but I do feel I am much wiser than the young me.

Lastly, many midlife men in the study expressed satisfaction with appearance related changes with aging because of positive feedback in their interpersonal relations. Several men commented on appearing more mature with age. For example, a 55-year-old White heterosexual man indicated the following regarding his appearance: “My face is more mature. I get treated with more respect at conferences and in meetings.” Some midlife men also noted their satisfaction with grey hair and beard, that contributed to their experiences of visibility. Responses shared by midlife men in the study, thus, highlighted various ways in which changes in appearance and body associated with aging were experienced.

Comments shared by few participants in response to meanings of positive body image raised a question of whether it is possible to truly imagine what positive body image means or looks like for midlife men given the dominant discourse shaped by the media images of the sociocultural ideals. A comment made by a 52-year-old White heterosexual man exemplified their frustrations: “I cannot have positive body image in the wake of media expectations. You need to change my body, not my image of it.” Consistent with their concern, some participants identified the elements of the sociocultural ideals including musculature, leanness and fitness, as important components of positive body image for men in midlife. At the same time, themes that emerged from many participants’ descriptions of positive body image included a person’s comfort in his own skin and health. A 49-year-old White man who self-identified as queer offered his meaning of positive body image for men in midlife: “People should just be comfortable in their own skin as they go through the various phases of life. Your body will change as you age and you have to embrace that.” Similarly, a 59-year-old heterosexual man,
offered his thoughts on what positive body image means for men in midlife in the following manner: “[It is about] being comfortable in your own skin. That comfort may need some effort. Recognizing there are limits and listening to the way your body feels.” Another participant, a 48-year-old White heterosexual man who practices naturalism offered the following response: “… just shut off the media and learn to accept your body and that of others; probably the biggest thing that trying nudism has brought to me. You’ve only got one body, learn to love it.”

Another important theme related to positive body image for men in midlife was focused on health. Many men identified health promoting practices such as healthy eating and exercising that could potentially contribute to maintenance of overall physical health as an important factor of positive body image. A 57-year-old White heterosexual man offered the following comments about positive body image for men in midlife: “People over [the age of] 50 should concentrate on health over looks… Be healthy and feel healthy. Then [be] happy. After that, if you want to kill yourself at the gym, party on. I’m good.” Another participant, a 47-year-old White heterosexual man further elaborated on importance of the interactions among positive body image, mental- and physical health for men in midlife:

I think men should strive to achieve good mental health and having a positive image of their body is necessary for that. Achieving a healthy body should be for the reason of good physical health and not for the reason to impress others. Having a positive body image means being comfortable with your body and knowing one is doing the best that they can to achieve their physical goals.

Lastly, a 49-year-old White gay man offered his experiences with comfort with his body and health, two important components of positive body image identified by participants:

I think it’s important to be comfortable with yourself and your body first. Being
healthy and working to improve things about your life are important but are
separate from being comfortable with who and where you are now. I wish I had
realized this years earlier.

The comments shared by participants in the present study highlighted the primacy of feeling of
comfort with one’s body and health as defining features of positive body image for men in
midlife.
Appendix B

Survey Instruments

**Demographic Information**

1. What is your age (in years)? ___
2. What is your gender?
   a. Male  
   b. Female  
   c. Transgender  
   d. Other (Specify):
3. Do you reside in the U.S.?
   a. Yes  
   b. No

Individuals who did not meet the eligibility criteria will be directed to a page indicating the message below:

Thank you so much for your interest in the present study. Unfortunately, you did not meet the eligibility criteria to participate in this online survey.

Thank you again.

4. What is our race/ethnicity?
   a. White  
   b. Black or African American  
   c. Asian  
   d. Native Hawaiian or Other Pacific Islander  
   e. Hispanic or Latino  
   f. American Indian or Alaska Native  
   g. Mixed race/ethnicity  
   h. Other: (Specify):  
   i. Prefer not to label

5. Which one of the following do you consider yourself to be?
   a. Straight/heterosexual  
   b. Gay or lesbian  
   c. Bisexual  
   d. Other (Specify):  
   e. Prefer not to label

6. What is your marital status?
   a. Single
   b. Married
c. Divorced or Separated
d. Widowed

7. If other than married was selected: Are you currently dating or in relationship?
   a. Yes
   b. No

8. Do you have children?
   a. Yes
   b. No

9. Are you currently employed?
   a. Yes
   b. No

10. If currently employed: What is your current occupation?
    a. Management
    b. Business and Financial Operations
    c. Business and Mathematical
    d. Architecture and Engineering
    e. Life, Physical and Social Science
    f. Information Technology, Computer Science
    g. Legal, Law
    h. Education, Training and Library
    i. Art, Design, Entertainment, Sports and Media
    j. Healthcare Practitioners and Technical
    k. Healthcare Support
    l. Protective Service (e.g., police, correctional officers, security guards)
    m. Food preparation and service-related occupations
    n. Building and grounds cleaning and maintenance
    o. Personal care and service (e.g., barbers, hairdressers, personal trainers, tour guides)
    p. Sales
    q. Office and Administrative Support
    r. Farming, fishing and forestry
    s. Construction and extraction
    t. Installation, maintenance, and repair
    u. Production
    v. Transportation and material moving
    w. Student
    x. Other (Please specify): ______________________

11. What is your highest level of education?
    a. Never attended
b. Some primary school
c. Some high school
d. 12th grade: High school Diploma
e. Some VOC/TEC Program after high school
f. VOC/TEC Diploma after high school
g. Some college or university
h. Bachelor’s degree
i. Master’s or higher degree

12. What is your annual household income?
   a. Less than $24,999
   b. $25,000 to $49,999
   c. $50,000 to $99,999
   d. $100,000 or more

13. What is your weight (in pounds)?

14. What is your height (in feet and inches)?

The Perceived Sociocultural Pressure Scale

Please circle the response that best captures your own experience.

<table>
<thead>
<tr>
<th></th>
<th>none</th>
<th>some</th>
<th>a lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I’ve felt pressure from my friends to lose weight</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. I’ve noticed a strong message from my friends to have a thin body</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. I’ve felt pressure from my family to lose weight</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. I’ve noticed a strong message from my family to have a thin body</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. I’ve felt pressure from people I’ve dated to lose weight</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. I’ve noticed a strong message from people I’ve dated to have a thin body</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. I’ve felt pressure from the media (e.g., TV, magazine) to lose weight</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. I’ve noticed a strong message from the media to have a thin body</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. Family members tease me about my weight or body shape</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10. Friends tease me about my weight or body shape</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

The Perceived Sociocultural Pressure Scale Muscularity

Please circle the response that best captures your own experience.
<table>
<thead>
<tr>
<th>Question</th>
<th>Definitely Disagree</th>
<th>Mostly Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Mostly Agree</th>
<th>Definitely Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I’ve felt pressure from my friends to be more muscular</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I’ve noticed a strong message from my friends to have a muscular body</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I’ve felt pressure from my family to be more muscular</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I’ve noticed a strong message from my family to have a muscular body</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I’ve felt pressure from people I’ve dated to be more muscular</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I’ve noticed a strong message from people I’ve dated to have a muscular body</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I’ve felt pressure from the media (e.g., TV, magazine) to be more muscular</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I’ve noticed a strong message from the media to have a muscular body</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Family members tease me about not being more muscular</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Friends tease me about not being more muscular</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

The Perceived Sociocultural Pressure Scale Leanness

Please circle the response that best captures your own experience.

<table>
<thead>
<tr>
<th>Question</th>
<th>No pressure</th>
<th>Some pressure</th>
<th>A lot of pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>I’ve felt pressure from my friends to be more lean</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I’ve noticed a strong message from my friends to have a lean body</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I’ve felt pressure from my family to be more lean</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I’ve noticed a strong message from my family to have a lean body</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I’ve felt pressure from people I’ve dated to be more lean</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I’ve noticed a strong message from people I’ve dated to have a lean body</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I’ve felt pressure from the media (e.g., TV, magazine) to be more lean</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I’ve noticed a strong message from the media to have a lean body</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Family members tease me about not having a lean body</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
10. Friends tease me about not having a lean body 1 2 3 4 5

**The Perceived Sociocultural Pressure Scale Youthfulness**

Please circle the response that best captures your own experience.

<table>
<thead>
<tr>
<th>Statement</th>
<th>No pressure</th>
<th>Some pressure</th>
<th>A lot of pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I’ve felt pressure from my friends to look younger</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. I’ve noticed a strong message from my friends to have a younger looking appearance</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. I’ve felt pressure from my family to look younger</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. I’ve noticed a strong message from my family to have a younger looking appearance</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. I’ve felt pressure from people I’ve dated to look younger</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. I’ve noticed a strong message from people I’ve dated to have a younger looking appearance</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. I’ve felt pressure from the media (e.g., TV, magazine) to look younger</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. I’ve noticed a strong message from the media to have a younger looking appearance</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. Family members tease me that I don’t look younger</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10. Friends tease me that I don’t look younger</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**The Perceived Sociocultural Pressure Scale Age-Appropriate Appearance**

Please circle the response that best captures your own experience.

<table>
<thead>
<tr>
<th>Statement</th>
<th>No pressure</th>
<th>Some pressure</th>
<th>A lot of pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I’ve felt pressure from my friends to look appropriate for my age</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. I’ve noticed a strong message from my friends to look right for my age</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. I’ve felt pressure from my family to look appropriate for my age</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. I’ve noticed a strong message from my family to look right for my age</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. I’ve felt pressure from people I’ve dated to look appropriate for my age</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. I’ve noticed a strong message from people I’ve dated to look right for my age</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. I’ve felt pressure from the media (e.g., TV, magazine) to look appropriate for my age</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
8. I’ve noticed a strong message from the media to look right for my age

9. Family members tease me that I don’t look appropriate for my age

10. Friends tease me that I don’t look appropriate for my age

Open Ended Questions

For the questions listed below, we would like to hear your experiences in your own words. Please write your responses in the space provided below.

01 How would you describe the ideal body and appearance for men?

02 Please tell us about how you think about your body and appearance at this particular time in your life?

Experience of Body Image in Younger Self

The following statements are related to your feelings about your body when you were in our 20s. Please read each of the following items and circle the number that best reflects your agreement with each statement.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When I was in my 20s, I was comfortable with the shape of my body.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. When I was in my 20s, I was comfortable with the size of my body.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. When I was in my 20s, I was comfortable with muscle mass of my body.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. When I was in my 20s, I was comfortable with leanness of my body.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. When I was in my 20s, I was comfortable with my weight.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. When I was in my 20s, I felt that I was attractive.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. When I was in my 20s, other people complimented me about my looks.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Open Ended Question

For the question listed below, we would like to hear your experience in your own words. Please write your response in the space provided below.

07. Now please take a moment and think about your body and appearance in your early 20s and how you felt and thought about it then. How does that affect your current feelings about your appearance?
**Sociocultural Attitudes towards Appearance Questionnaire – 4**

Please read each of the following items carefully and indicate the number that best reflects your agreement with the statement.

<table>
<thead>
<tr>
<th></th>
<th>Definitely Disagree</th>
<th>Mostly Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Mostly Agree</th>
<th>Definitely Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It is important for me to look athletic.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. I think a lot about looking muscular.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I want my body to look very thin.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. I want my body to look like it has little fat.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. I think a lot about looking thin.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. I spend a lot of time doing things to look more athletic.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. I think a lot about looking athletic.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. I want my body to look very lean.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. I think a lot about having very little body fat.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. I spend a lot of time doing things to look more muscular.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**Internalization of sociocultural ideals of younger appearance and age appropriate appearance.**

Please circle the response that indicates your agreement with the statement.

<table>
<thead>
<tr>
<th></th>
<th>Definitely Disagree</th>
<th>Mostly Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Mostly Agree</th>
<th>Definitely Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I spend a lot of time doing things to look younger.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. I want to appear appropriate for my age.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I think a lot about looking younger.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. It is important for me to look my age.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**Open Ended Question**

For the question listed below, we would like to hear your experience in your own words. Please write your response in the space provided below.
08. How important is appearance to you at the moment? Is this different from importance you placed on appearance when you were in your 20s or 30s? If so, how?

**Physical Appearance Comparison Scale**

For each statement, please select a number that comes closest to how you feel.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**Comparison associated with youthfulness and age appropriate appearance.**

Please read each of the following items carefully and select a number that comes closest to how you feel.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**Conformity to Masculine Norms Inventory**

The following statements are designed to measure attitudes, beliefs, and behaviors associated with both traditional and non-traditional masculine gender roles. Thinking about your own actions, feelings and beliefs, please indicate how much you personally agree or disagree with each statement by selecting a number that reflects your actions, feelings and beliefs. It is best if you respond with your first impression when answering.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>In general, I will do anything to win</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2.</td>
<td>If I could, I would frequently change sexual partners</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>3.</td>
<td>I hate asking for help</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4.</td>
<td>I believe that violence is never justified</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5.</td>
<td>Being thought of as gay is not a bad thing</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6.</td>
<td>In general, I do not like risky situations</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7.</td>
<td>Winning is not my first priority</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8.</td>
<td>I enjoy taking risks</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9.</td>
<td>I am disgusted by any type of violence</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10.</td>
<td>I ask for help when I need</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td>11.</td>
<td>My work is the most important part of my life</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>12.</td>
<td>I would only have sex if I was in a committed relationship</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>13.</td>
<td>I bring up my feelings when talking to others</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>14.</td>
<td>I would be furious if someone thought I was gay</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>15.</td>
<td>I don’t mind losing</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>16.</td>
<td>I take risks</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>17.</td>
<td>It would not bother me at all if someone thought I was gay</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>18.</td>
<td>I never share my feelings</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>19.</td>
<td>Sometimes violent action is necessary</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>20.</td>
<td>In general, I control the women in my life</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>21.</td>
<td>I would feel good if I had many sexual partners</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>22.</td>
<td>It is important for me to win</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>23.</td>
<td>I don’t like giving all my attention to my work</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>24.</td>
<td>It would be awful if people thought I was gay</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>25.</td>
<td>I like to talk about my feelings</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td></td>
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</tr>
<tr>
<td><strong>26.</strong> I never ask for help</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>27.</strong> More often than not, losing does not bother me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>28.</strong> I frequently put myself in risky situations</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>29.</strong> Women should be subservient to men</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>30.</strong> I am willing to get into a physical fight if necessary</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>31.</strong> I feel good when my work is my first priority</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>32.</strong> I tend to keep my feelings to myself</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>33.</strong> Winning is not important to me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>34.</strong> Violence is almost never justified</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>35.</strong> I am happiest when I’m risking danger</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>36.</strong> It would be enjoyable to date more than one person at a time</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>37.</strong> I would feel uncomfortable if someone thought I was gay</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>38.</strong> I am not ashamed to ask for help</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>39.</strong> Work comes first</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>40.</strong> I tend to share my feelings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>41.</strong> No matter what the situation I would never act violently</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>42.</strong> Things tend to be better when men are in charge</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>43.</strong> It bothers me when I have to ask for help</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>44.</strong> I love it when men are in charge of women</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>45.</strong> I hate it when people ask me to talk about my feelings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>46.</strong> I try to avoid being perceived as gay</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

*Experience of Embodiment Scale*
Please choose the number next to each statement that best describes how you feel about each of the statements listed below. Indicate your response by selecting a number beside each statement. Please provide responses for how you currently feel (past four weeks).

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Strongly Disagree</th>
<th>Somewhat Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Somewhat Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I feel in tune with my body</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>I feel at one with my body</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>I feel “detached” and separate from my body</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>I feel depressed/anxious/scared in/about my body</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5.</td>
<td>I care more about how my body feels than about how it looks</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6.</td>
<td>I focus more on what my body can do than on its appearance</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7.</td>
<td>My eating habits are a way for me to manage my emotions or how I have felt about myself</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8.</td>
<td>Generally I feel good/comfortable in my body</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9.</td>
<td>I am proud of what my body can do</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10.</td>
<td>I feel dissatisfied, envious and frustrated when I compare my body to other women/men</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11.</td>
<td>I feel joy in my body</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12.</td>
<td>My body reduces my sense of self in the world</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13.</td>
<td>I sometimes tend to blame my body for difficulties I am having</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14.</td>
<td>I am comfortable with my sexual feelings/desires</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15.</td>
<td>I engage in potentially harmful or painful behaviors (e.g., disordered eating, binging, purging, denying physical needs, skin cutting, burning, drug use, excessive alcohol consumption)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16.</td>
<td>I have an eating disorder</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17.</td>
<td>I take good care of, and am respectful of, my body</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18. I ignore the signs my body sends me (e.g., of hunger, stress, fatigue, illness/injury)</td>
<td>1</td>
<td>2</td>
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<td>4</td>
<td>5</td>
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</tr>
<tr>
<td>19. I spend a lot of time/energy/money engaging in activities that I hope make me fit with cultural ideals of beauty (e.g., exercise, clothing, hair color and texture, plastic surgery, skin bleaching)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>20. I am comfortable voicing my views, opinions and beliefs</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>Strongly Disagree</strong></td>
<td><strong>Somewhat Disagree</strong></td>
<td><strong>Neither Agree nor Disagree</strong></td>
<td><strong>Somewhat Agree</strong></td>
<td><strong>Strongly Agree</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. I find it difficult to express my emotions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>22. I am aware of my needs</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>23. It is hard for me to read/identify my feelings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>24. I am comfortable with, and proud of, who I am</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>25. I consider myself to be a powerful man</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>26. I am aware of, and confident in, my strengths and abilities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>27. My dissatisfaction with my body/appearance has a negative effect on my social life</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>28. I feel disconnected from my own sense of sexual desire</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>29. I express what I want and need sexually</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>30. I feel that I cannot express what I want or need in a dating/partnership relationship</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>Strongly Disagree</strong></td>
<td><strong>Somewhat Disagree</strong></td>
<td><strong>Neither Agree nor Disagree</strong></td>
<td><strong>Somewhat Agree</strong></td>
<td><strong>Strongly Agree</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31. I have difficulty asserting myself with others in the world</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>32. I believe in my ability to accomplish what I desire in the world</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>33. I put a priority on listening to my body and its needs (e.g., stress, fatigue, hunger)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>34. I constantly think about the way my body fits with cultural standards of appearance/beauty</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</tr>
</tbody>
</table>

**Open Ended Question**
For the question listed below, we would like to hear your experience in your own words. Please write your response in the space provided below.

09. Please imagine the next 10 years. How do you think your body and appearance will evolve in the next 10 years? What do you think about the potential changes and how do you feel about them?

**Sexual Objectification**

Please read each statement carefully and rate how often you have had the following experiences within the past year:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Frequently</th>
<th>Almost Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How often have you been whistled at while walking down a street?</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. How often have you noticed someone staring at your body when you are talking to them?</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. How often have you felt like or known that someone was evaluating your physical appearance?</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. How often have you felt that someone was staring at your body?</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. How often have you noticed someone leering at your body?</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. How often have you heard a rude, sexual remark made about your body?</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. How often have you been honked at when you were walking down the street?</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. How often have you seen someone stare at one or more of your body parts?</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. How often have you overheard inappropriate sexual comments about your body?</td>
<td>1  2  3  4  5</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. How often have you noticed that someone was not listening to what you were saying, but instead gazing at your body or a body part?</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. How often have you heard someone make sexual comments or innuendos when noticing your body?</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. How often have you been touched or fondled against your will?</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. How often have you experienced sexual harassment (on the job, in school, etc.)?</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. How often has someone grabbed or pinched one of your private body areas against your will?</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. How often has someone made a degrading sexual gesture towards you?</td>
<td>1  2  3  4  5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Invisibility Items

For the next set of questions, please think about your current experience with how others react to your attractiveness and a sexual potential. For each of the statements listed below, please choose the number that describes your agreement with the statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Definitely disagree</th>
<th>Mostly disagree</th>
<th>Neither agree nor disagree</th>
<th>Mostly agree</th>
<th>Definitely agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I miss getting the “second look” from others for my attractiveness.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. I miss getting attention from others in social situations based on my attractiveness.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I miss being evaluated for a sexual potential.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. I enjoy being free from attention related to my appearance and sexual potential.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Aging Anxiety Scale – Subscale on Physical Appearance

The questions listed below ask about your feelings about aging. Please choose the number that describes your agreement with the statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have never lied about my age in order to appear younger.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. It doesn’t bother me at all to imagine myself as being old.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. I have never dreaded the day I would look in the mirror and see gray hairs.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. I have never dreaded looking old.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. When I look in the mirror, it bothers me to see how my looks have changed with age.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Open Ended Questions

For the questions listed below, we would like to hear your experiences in your own words. Please write your responses in the space provided below.

05. With age, have you noticed any changes in your appearance? If so, please describe the changes and your reactions to these changes?

06. With age, have you noticed any changes in the way that people talk to you about your appearance or react to you based on your appearance?
**The Male Body Dissatisfaction Scale**

The following items are related to your feelings about your body. Please read each of the following items and circle the number that best reflects your agreement with each statement.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Not at all</th>
<th>A little bit</th>
<th>Moderately</th>
<th>Quite a bit</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I think my chest is just the right size</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>I think my thighs are just the right size</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>I like the shape of my buttocks</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>I think my stomach is just the right size</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5.</td>
<td>I think my chest is too small</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6.</td>
<td>I feel satisfied with the shape of my body</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7.</td>
<td>I think my biceps are just the right size</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8.</td>
<td>I think my thighs are too small</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9.</td>
<td>I think that my biceps are too small</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**Multidimensional Body-Self Relations Questionnaire – Appearance Evaluation Subscale**

For each statement, please circle the number that best matches your agreement.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Definitely disagree</th>
<th>Mostly disagree</th>
<th>Neither agree nor disagree</th>
<th>Mostly agree</th>
<th>Definitely agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>My body is sexually appealing.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>I like my looks just the way they are.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>Most people would consider me good looking.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>I like the way I look without my clothes.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5.</td>
<td>I like the way my clothes fit me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6.</td>
<td>I dislike my physique.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7.</td>
<td>I’m physically unattractive.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**Men’s dissatisfaction with changes in appearance scale**
Please read each of the following items and circle the number that best reflects your agreement with each statement.

<table>
<thead>
<tr>
<th></th>
<th>Definitely disagree</th>
<th>Mostly disagree</th>
<th>Neither agree nor disagree</th>
<th>Mostly agree</th>
<th>Definitely agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I dislike the sagging of my skin.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. I am satisfied with greying of my hair.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I am dissatisfied with thinning or loss of my hair.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. I dislike the fine lines or wrinkles on my face.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. I am satisfied with function of my body.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**Open Ended Question**

For the question listed below, we would like to hear your experience in your own words. Please write your response in the space provided below.

04. With age, have you noticed any changes in the function of your body? If so, please describe the changes and your reactions to these changes?

**Drive for Muscularity Scale**

Please read each item carefully then, for each one, circle the number that best applies to you.

<table>
<thead>
<tr>
<th></th>
<th>Always</th>
<th>Very often</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I wish that I were more muscular.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>2. I lift weights to build up muscle.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>3. I use protein or energy supplements.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>4. I drink weight gain or protein shakes.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>5. I try to consume as many calories as I can in a day.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>6. I feel guilty if I miss a weight training session.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7. I think I would feel more confident if I had more muscle mass.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>8. Other people think I work out with weights too often.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>9. I think that I would look better if I gained 10 pounds in bulk.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>10. I think about taking anabolic steroids.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
11. I think that I would feel stronger if I gained a little more muscle mass.  
   
<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

12. I think that my weight training schedule interferes with other aspects of my life.  

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

13. I think that my arms are not muscular enough.  

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

14. I think my chest is not muscular enough.  

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

15. I think that my legs are not muscular enough.  

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

**Drive for Leanness Scale**

The following items include statements that may or may not pertain to you and the way you feel about your body. Please rate how often you think or feel each statement by circling the number.

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

1. I think the best looking bodies are well-toned.  

2. When a person’s body is hard and firm, it says they are well-disciplined.  

3. My goal is to have well-toned muscles.  

4. Athletic looking people are the most attractive people.  

5. It is important to have well-defined abs.  

6. People with well-toned muscles look good in clothes.  

**Drive for Thinness Scale**

For each statement below, please decide if the item is true about you by circling the appropriate number.

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

1. I eat sweets and carbohydrates without feeling nervous.  

2. I think about dieting.  

3. I feel extremely guilty after overeating.  

4. I am terrified of gaining weight.  

5. I exaggerate or magnify the importance of my weight.  

6. I am preoccupied with the desire to be thinner.
7. If I gain a pound, I worry that I will keep gaining.  

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
</table>

**Drive for Youthfulness and Age Appropriate Appearance**

For each item listed below, please circle the number that best describes your agreement with the statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Definitely disagree</th>
<th>Mostly disagree</th>
<th>Neither agree nor disagree</th>
<th>Mostly agree</th>
<th>Definitely agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Maintaining youthful appearance would make me feel better about myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. I worry looking “older.”</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. My goal is to appear appropriate for my own age.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Maintaining age appropriate appearance would make me feel better about myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**Strategies for Appearance Management Subscale from the Appearance Inventory for Men**

Please rate how likely you are to use the following techniques to manage your appearance by circling the number that best describes your response.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Not at all likely</th>
<th>Somewhat likely</th>
<th>Fairly likely</th>
<th>Very likely</th>
<th>Already doing it</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lift weights</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Play sports</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Engage in physical training</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Eat healthy, well-balanced meals</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Buy better fitting, trendy clothing</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Use hair care products (gels, mousse)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Rely on my personality</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Use humor or jokes about my imperfections</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. Avoid certain foods</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. Use skin creams/cleansers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
11. Eat more food
12. Diet
13. Taking supplements to gain weight or mass
14. Shave body
15. Restrict intake

**Open Ended Question**

For the question listed below, we would like to hear your experience in your own words. Please write your response in the space provided below.

03. Please describe any ways in which you try to change or maintain your body and appearance and how you feel about these efforts.

**Brief Symptom Inventory (BSI – 18)**

Here is a list of problems that people sometimes have. Please indicate how much that problem has distressed or bothered you during the past 7 days, including today.

<table>
<thead>
<tr>
<th>During the past 7 days, how much were you distressed or bothered by …</th>
<th>Not at all</th>
<th>A little bit</th>
<th>Moderately</th>
<th>Quite a bit</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Faintness or dizziness</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Feeling no interest in things</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Nervousness or shakiness inside</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Pains in heart or chest</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Feeling lonely</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Feeling tense or keyed up</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Nausea or upset stomach</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Feeling blue</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. Suddenly scared for no reason</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. Trouble getting your breath</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. Feelings of worthlessness</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. Spells of terror or panic</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
13. Numbness or tingling in parts of your body
14. Feeling hopeless about the future
15. Feeling so restless you couldn’t sit still
16. Feeling weak in parts of your body
17. Thoughts of ending your life
18. Feeling fearful

Open Ended Question

For the question listed below, we would like to hear your experience in your own words. Please write your response in the space provided below.

10. What are your thoughts about positive body image for men? What does positive body image look like and mean to you?

This is the end of the survey.
THANK YOU SO MUCH for your participation.

RESOURCES

National Suicide Prevention Lifeline
A 24-hour, toll-free, confidential suicide prevention hotline available to anyone in suicidal crisis or emotional distress.
Hotline: 1.800.273.TALK (8255)
Website: www.suicidepreventionlifeline.org

National Eating Disorders Association
Toll-free, confidential helpline for anyone who currently struggles with or feels at risk of developing an eating disorder. Monday – Thursday from 9:00 am – 9:00 pm and Friday from 9:00 am – 5:00 pm (EST)
Helpline: 1.800.931.2237
Website: www.nationaleatingdisorders.org/find-help-support

Project Health
Provide grant funding for people with eating disorders who cannot afford treatment, promote healthy body image and self-esteem, and serve as a testament that full recovery from an eating disorder is possible.
Website: http://theprojectheal.org

Substance Abuse and Mental Health Services Administration
A 24-hour, toll-free, confidential information service in English and Spanish, for individuals and family members facing mental health and/or substance use disorders.
Helpline: 1.800.622.HELP (4357)
Website: www.samhsa.gov/find-help/national-helpline
National Council on Aging
A website with specific advice for helping older adults to maintain healthy eating habits.
Website: www.ncoa.org/healthy-aging/hunger-and-nutrition