The following is an excerpt from my dissertation*, The relationship between body image and marital satisfaction,* which was presented and accepted in April, 2016, in fulfillment of the requirements for a PhD from the University of Missouri. It includes a review of much, but by no means all, of the research regarding the failure of weight loss efforts, the unintended negative consequences of weight loss focus, the arguments against the use of shame as a behavior motivator, the advantages of a weight neutral approach, the ethical concerns regarding interventions targeting weight as an indicator of health, the role of the media in promoting weight stigma, and the effects of body dissatisfaction on quality of life, especially in relationships. It is my hope that other students, researchers, clinicians and activists can use this background information in their own endeavors.

Chapter II, A Review of the Literature

by

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The current widespread concern about obesity has led to increased focus on the manipulation of body size, which has resulted in guilt, shame and anxiety in individuals (Andreyeva, Puhl & Brownell, 2008). Stigma has been used successfully in public health initiatives to reduce behaviors such as smoking or drunk driving (Bayer, 2008; Kim & Shanahan, 2003; Struber, Galea & Link, 2008), but weight stigma has not led to improved health or smaller body size (Muennig, 2008) despite some recommendations to increase weight stigma (Callahan, 2013). Sutin and Terracciaon (2013) found that weight discrimination not only does not motivate people in their weight loss attempts but is, instead, correlated with an increased risk for obesity. Weight stigma has also been shown to result in increased body dissatisfaction, which is correlated with poorer health behaviors and reduced quality of life (Puhl and Heuer, 2010; Tylka, et al., 2014). Internalized weight bias has been shown to be correlated with reduced health related quality of life in individuals with high BMI scores (Latner, Barile, Durso & O'Brien, 2014). Self-compassion interventions, on the other hand, have shown promise in improving eating regulation (Adams & Leary, 2007). Repeated encouragement to lose weight can result in low self-esteem and a constant sense of shame (Lewis, 2015). Body dissatisfaction has become common, especially in women, across the range of Body

Mass Index (BMI) (Ackard, Croll & Kearney-Cooke, 2002). Concerns about the deleterious effects of weight stigma and anti-fat bias usually focus on how it affects those who are overweight or obese (Azétsop & Joy, 2011; Gortmaker, et al., 1993), but the resulting body dissatisfaction impacts individuals of normal weight and their relationships as well. Self-esteem is an integral component in intimate relationships, so the impact of body dissatisfaction on the quality of the marital relationship is worthy of study.

A wealth of documentation exists to support the fact that attempts at individual weight loss generally fail (Bombak, 2014; H. N. Brown, 2015; Campos, 2004; Garner & Wooley, 1991; Leibel, Rosenbaum & Hirsch, 1995; Mann, 2015: Mann, Tomiyama & Ward, 2015; Robison & Carrier, 2004; Stunkard & McLaren-Hume, 1959; Tomiyama, Ahlstrom & Mann, 2013; Troy et al., 1996; Tylka, et al., 2014; Wooley & Wooley, 1982). Indeed, there is evidence that those who attempt to lose weight actually gain more weight over time than those who don't (Bacon & Aphramor, 2011; Bacon, Stern, Van Loan & Keim, 2005; Kater, 2010; Mann, Tomiyama, Westling, Lew, Samuels & Chatman, 2007; Neumark-Sztainer et al., 2006; Tsai & Wadden, 2005). Defining dieting as a voluntary, self-imposed famine, Macpherson-Sánchez (2015) makes a compelling argument that dieting, supported by public policy, the medical community and the $60 billion per year weight-loss industry, is a major cause of the obesity epidemic. Focus on the undesirability of heavier weight is linked to weight stigma in the culture and internalized body dissatisfaction in people of all sizes. Certain ethical issues arise when health educators, medical professionals and public health policy makers continue to

promote an approach that is iatrogenic. Less information is available regarding the impact on internalized weight stigma on interpersonal relationships (Chen and Brown, 2005; Fikkun & Rothblum, 2012; Friedman, et al., 1998).

The failure of weight loss approaches.

As long ago as 1959, Stunkard and McLaren-Hume documented the pervasive lack of success in weight loss treatment programs and pointed out that doctors often dismissed patients who failed to lose weight as uncooperative and gluttonous. They also stated that weight loss treatments were potentially dangerous and should not be undertaken lightly, if at all. In 1982, Wooley & Wooley expressed concerns that eating disordered behavior was being touted as a weight loss approach despite evidence that thin people were not healthier that heavy people, that weight is much more complicated than energy balance, and that the prevailing belief was that thinness is worth any price, including health.

Research from 1995 and earlier documented that the human body will adapt metabolically to maintain weight when intake is restricted in an attempt to lose weight (Garner & Wooley, 1991; Leibel, Rosenbaum & Hirsch, 1995). The human body responds with biological adaptations to maintain weight when intake is restricted (Ochner, Tsai, Kushner & Wadden, 2015). As energy expenditure falls, hunger increases, making sustained weight loss all but impossible (Garner & Wooley, 1991; Leibel, Rosenbaum & Hirsch, 1995; Macpherson-Sánchez, 2015). Individuals with a BMI above 30 rarely can maintain a weight loss of five percent and have an extremely low possibility of achieving normal weight (Fildes, et. al., 2015). Bombak (2014) provides a comprehensive review of the failures of multiple

weight loss interventions to improve health. At the same time, individuals who are attempting to achieve a narrow range of body size in the pursuit of health are valorized even as they engage in disordered eating practices. The iatrogenic effects of health promotion programs that focus on weight loss include body dissatisfaction, disordered eating, discrimination and death (O'Hara & Gregg, 2006). Cognitive impairment associated with restrictive eating in attempted weight loss is well documented (Shaw & Tiggeman, 2004). Dieting appears to increase stress and cortisol levels, which are associated with a list of negative health outcomes, including weight gain, coronary heart disease, hypertension, impaired immune function, cancer and diabetes (Tomiyama, et al., 2010).

Tomiyama, Ahlstrom & Mann (2013) reviewed twenty-one randomized controlled trials of weight loss interventions with at least a two-year follow-up period. They found no clear relationship between health outcomes and weight loss and concluded that weight is not an adequate proxy for health. Psychosocial distress, such as depression, poor body image and low self-esteem are frequently seen in women who perceive themselves as too heavy. This may be reinforced in fitness centers with a focus on weight loss rather than health. An opportunity to exercise in a setting that supports body diversity has been shown to improve psychosocial health when weight does not change (Watkins, Ebbeck & Levy, 2014). However, fitness opportunities tend to focus on people who are already thin and/or fit, discouraging participation by fat people (Schuster & Tealer, 2009).

In 2005, Bacon, et al., documented that a majority of US women were dieting and engaging in weight control behaviors, and that the inability to maintain weight

loss was associated with a decrease in self-esteem and an increase in depressive symptoms. Bacon & Aphramor (2011) reviewed seven randomized controlled trials and five studies without control groups to compare weight loss groups with weight neutral health interventions. They found that the size acceptance approaches had better outcomes regarding health behaviors, physiological measures, psychological outcomes, self-esteem, eating behaviors and participant retention. They also addressed the ethical concerns of weight loss recommendations that can have iatrogenic consequences, including increased psychological distress. They emphasize that health promotion policies have an ethical responsibility to implement strategies that reduce psychological stress.

The relationship between weight and health is complicated, unclear and highly debated. Many researchers in the obesity field have financial support from the dieting industry (The Center for Consumer Freedom, 2005; Lyons, 2009). Physicians have been targeted by sophisticated advertising campaigns that focus on the supposed dangers of fat, in order to make the dangers of weight loss pharmaceuticals seem acceptable (Mundy, 2002). A review of research raised the concern that the dominant view that weight loss is synonymous with improved health is so widely accepted that publications are immune from scrutiny and accepted without scientific rationale (Aphramor, 2010). The process of reinforcing the view that weight is ideologically neutral, without examining it in the context of accepted standards of evidence based practice, limits new ways of exploring health (Aphramor, 2012). Despite literature that supports weight-neutral interventions in areas of improved metabolic as well as psychological measures (Tylka, Calogero &

Danielsdottir, 2015), research funding is difficult to obtain if it is not couched in terms of "obesity prevention" (Clifford, et al., 2015). Research findings that run counter to the dominant view (Koster-Rasmussen et al., 2016) may have difficulty finding a journal to publish the results (Salomonsen, 2016). Even professionals who work in the field of eating disorder treatment hold negative bias about obese people and often perceive them as non-compliant with treatment recommendations (Puhl, Latner, King & Luedicke, 2014).

Campos, et al. (2006), raise some very important questions about concerns focused on body size, specifically the assumptions that higher than average levels of adiposity cause disease and that long term weight loss is possible and advisable. Given the limited scientific evidence for these assumptions, they posit that concerns are more cultural and political than health related. They point out that most epidemiological studies about weight and health do not control for fitness, weight cycling, use of diet drugs or socioeconomic status. They attribute the increase in mass media attention to obesity as a moral panic related to rapid social change and projection of social anxieties onto a marginalized group. Increased numbers of women in the work force is related to blaming mothers for the rise in children's weight (Boero, 2009). Similarly, Schwartz (1986) draws a parallel between the increased fear of obesity in the early twentieth century with anxieties over an increasing influx of immigrants, especially Jews and Italians.

Concerns about the rising levels of obesity have contributed to decreased trust in individuals regarding dietary choices. Many people, including nutrition experts, believe that some form of external control is necessary to manage adequate

intake. The focus on restriction of caloric intake, especially for overweight individuals, has been incorporated into sociocultural values of thinness and internalized by normal weight people as well. This pressure is greater on women than on men (Brunson, Øverup, Nguyen, Novak & Smith, 2014). A focus on an internal locus of control, as in intuitive eating, however, has been shown to be associated with healthier eating behaviors and greater diversity in food choices (Smith & Hawks, 2006).

The "calories in, calories out" paradigm continues to be widely accepted even though a substantial body of evidence indicates that weight is determined primarily by genetics and that individuals have limited control of size. A study of adoptees and their parents, both adoptive and biological, concluded that genetics play a large role in determining body size while family environment has no impact (Stunkard, Soronsen, Hanis, Teasdale, Chakraborty, Schull & Schulsinger, 1986). The body has a number of ways of compensating for reduced intake or increased output in order to maintain the "set point'" or the genetically determined individual weight. The "calories in, calories out" paradigm is potentially counterproductive, as numerous studies have shown that weight cycling, or yo-yo dieting, is implicated in long term weight gain (Bacon & Aphramor, 2011; Bacon, Stern, Van Loan & Keim, 2005; Kater, 2010; Mann, Tomiyama, Westling, Lew, Samuels & Chatman, 2007; Siahpush et. al., 2015; Tsai & Wadden, 2005). Restrictive eating for weight control is a robust predictor of weight gain, especially in those who are already in the BMI category of normal weight and are trying to avoid gaining weight (Dulloo, Jacquet, Montani & Schultz, 2015). Dieting has also been linked to depression, disordered eating

(including binge eating), increased blood pressure, impaired insulin response, increased mortality, reduced self-esteem, and poor health behaviors (O'Hara & Gregg, 2006; Pietiläinen, Saarni, Kaprio & Rissanen, 2012; Spear, 2006; Tribole, 2012). People unhappy with their weight, regardless of if they are thin or large, are more likely to have health related illnesses (Bacon & Aphramor, 2011; Muennig, 2008; Saguy, 2013).

The unexamined assumption that weight loss equals health affects medical professionals as well, which impacts medical care (Puhl & Brownell, 2006). When weight management is a focus of primary treatment, the attitudes and practices fostered in health care professionals can result in size discrimination (Aphramor, 2012). Women of larger sizes delay cancer screenings, in part because they have experienced negative attitudes and disrespectful treatment from providers and women who have experienced more failed weight loss attempts are more likely to delay screening (Amy, Aalborg, Lyons & Keranen, 2006). Medical professionals may attribute all health problems to weight, which both impacts quality of care and causes individuals to avoid seeking medical attention when appropriate (Aphramor, 2012; Pause, 2014; Wann, 1998). Weight bias in medical professionals may lead to errors in diagnosis and care (deShazo, Hall & Skipworth, 2015). Public health organizations perpetuate stigma when they exaggerate both the risks of overweight and the advisability of weight loss attempts (Gibbs, 2005). Ingram & Mussolino (2010) found that moderate weight loss of more than five percent was associated with increased risk of death regardless of maximum BMI. A correlation has also

been found between dieting for weight loss and reduced bone mass in premenopausal women (Bacon, Stern, Keim & Van Loan, 2004).

Weight does not equal health (Mann, Tomiyama & Ward, 2015). Use of the BMI as an individual medical screening tool risks misdiagnosis in people of all sizes. Wildman, et al., (2008) evaluated data from the National Health and Nutrition Surveys 1999-2004 for cardiometabolic abnormalities including blood pressure, cholesterol levels, insulin resistance and C-reactive protein. They found that 23.5% of normal weight adults had metabolic abnormalities, while 51.3% of overweight and 31.7% of obese adults were metabolically healthy. Using a guideline of BMI categories as 18.5 to 25 as normal, 25 to 30 as overweight, 30 to 35 as grade one obesity and above 35 as grade two or three obesity, Flegal, Kit, Orpana & Graubard (2013) found that, when compared to normal weight, grade one obesity was not associated with higher all-cause mortality and overweight was associated with significantly lower mortality. Normal weight patients with acute coronary syndrome had a higher mortality rate than the overweight and obese patients (Angeras et. al., 2013). A review of international research raises the question that increased risk of cardiovascular disease associated with higher weights may be a function of societal stigma rather than weight (Ernsberger, 2009).

"Cardiorespiratory fitness (CRF) is a health-related component of physical fitness defined as the ability of the circulatory, respiratory, and muscular systems to supply oxygen during sustained physical activity." (Lee, Artero, Sui & Blair, 2010, p.27). CRF is often overlooked as a risk factor but studies show that it is at least as important as obesity in predicting all-cause mortality(Barry, Baruth, Beets,

Durstine, Lui & Blair, 2104; Wickramasinghe et al., 2014). CRF can be improved through regular physical activity. Blair & La Monte (2006) conclude that measures of obesity-related health risk are over-inflated if CRF is not taken into account and go on to say that a focus on weight loss is often unnecessary, unsuccessful and counterproductive. They encourage an alternate approach of focusing on improved diet and increased physical activity, even if it does not result in weight loss. Studies that have linked fatness with depression did not account for cardiorespiratory fitness. Higher levels of CRF were associated with lower risk of depressive symptoms, regardless of weight (Becofsky, Sui, Lee, Wilcox, Zhang & Blair, 2015). A 7.4 year study suggested that metabolic syndrome in women has a reciprocal relationship with psychological attributes and that interventions that focus on reducing psychological distress may lower the risk of developing metabolic syndrome (Raikkonen, Matthews & Kuller, 2002). Weight discrepancy, the difference between actual weight and an individual's desired weight, is associated with an increase risk of metabolic syndrome (Wirth, Blake, Hebert, Sui & Blair, 2015). Weight dissatisfaction was found to be associated with higher glucose, cholesterol and risk of type 2 diabetes, and fewer positive health behaviors (Wirth, Blake, Hebert, Sui & Blair, 2014).

In 1991, Garner and Wooley documented the failure of weight loss attempts, the growing financial influence of the dieting industry, the bias and stigma directed at people of size, the belief that obesity is caused by personal laziness and lack of self-control, the connection between dieting and increased metabolic efficiency leading to weight gain, the health risks associated with weight cycling, the

controversial nature of the alleged relationship between obesity and health risks, and the use of shaming techniques to motivate weight loss. Despite a quarter of a century of additional research that supports their arguments documented above, the prevailing attitudes about weight remain unchanged.

Weight stigma and psychosocial distress.

> When both the prevalence of BD (body dissatisfaction) and the degree of associated impairment are considered, it is apparent that there is a very substantial public health burden of BD at the population level. Hence, the present findings suggest that greater attention may need to be given to BD as a public health problem in its own right. ... An additional implication of the present findings is that the fact that dissatisfaction with weight or shape is "normative" in industrialized nations should not be taken to infer that it is benign. (Mond, et al., 2013 p. 6)

Austin (1999) addressed the relationship between public health initiatives and the increased self-scrutiny that can result in disordered attitudes toward food and the body. "We are inundated with entreaties to diet, to lose weight, and to keep weight off. Our media is saturated with images of the slender ideal, the fantastical promises of what rewards are bestowed on the thin and warnings of what misery and contempt awaits those who fail to control their weight" (Austin, 1999, p. 245). Thus, obsessive focus on food, body size and diet becomes normalized. Perception of body weight status is based on interaction with others as well as on physiology. Internalized stigma is a result of attribution of discrimination to one's weight. Heavy weight is considered a negative aspect of self-concept. The perception of

mistreatment that is understood to be related to weight is absorbed into the sense of identity. Social relationships and context influence the effect that weight stigma has on health (Schafer & Ferraro, 2011).

Discrimination based on weight, and its negative impact on physical and emotional health as well as social well-being, is widely documented (Schafer & Ferraro, 2011; Sutin, Stephan, Luchetti & Terracciano, 2014; Sutin, Stephan & Terracciano, 2015). Internalized weight stigma has been shown to be related to poorer health related quality of life (Lillis, Levine & Hayes, 2011). Men experience anti-fat discrimination to a lesser extent than women. (Brunson, Øverup, Nguyen, Novak & Smith, 2014; O'Brien et al., 2007).

Women who are or have been in committed relationships or marriage were more likely to perceive themselves as overweight and they were more likely to desire to lose weight than never married women, while relationship status was unrelated to weight perception in men (Klos & Sobal, 2013). Weight bias and associated stigma are increasing (Andreyeva, Puhl & Brownell, 2008) and can have adverse impact on emotional health, which affects relationships. O'Hara (2014) has suggested the term "adipophobicogenic environment" to describe an environment that produces weight stigma and fat hatred.

It is understandable that fatness is seen as something to be avoided, especially by women (Farrell, 2009). In an extensive review of the literature, Fikkun and Rothblum (2012) document the numerous ways that weight bias and discrimination result in deleterious outcomes for women to a much greater extent than men, highlighting the gendered nature of weight based stigma. Average wages

for women decline with increasing size, with very thin women earning more than those in the normal range of BMI. Weight has been shown to affect economic, employment, educational and romantic opportunities, as well as access to health care. The greater price that women pay for being large reflects the cultural value of thinness for women while men are allowed much more deviation from the aesthetic ideal. The resulting cultural pressures for thinness result in body dissatisfaction in almost all women. Women are held to a higher standard of thinness than men, suffering more from weight based discrimination and consuming more weight loss interventions (Saguy & Gruys, 2010). Heavier women do less well in relationships, while men's BMI is usually unrelated to relationship functioning (Boyes & Latner, 2009).

Focusing on weight loss avoids the real issue that a characteristic does not cause stigma: the attitudes of people cause stigma (Goldberg, 2014). Stigma is a phenomenon based in a social context that changes over time, the product of reactions to a person's membership in a stigmatized group rather than to the characteristics of the person. Internalized stigma is when the individuals blame themselves for discrimination (Escalera, 2009). Weight stigma is considered socially acceptable, leading to internalized weight bias across weight categories (Pearl & Puhl, 2014). Despite evidence that weight loss efforts almost always fail, weight is seen as controllable, which reinforces the internalization of weight stigma (Logel, Stinson & Brochu, 2015: Pearl & Lebowitz, 2014; Wang, Brownell & Wadden, 2004). This personal blame framework associates obesity with sloth, gluttony, lack of self-control, irresponsibility and ignorance, "while slenderness is the embodiment

of virtue." (Saguy, 2013, p. 89). Daníelsdóttir, O'Brien & Ciao (2010) found a paucity of research efforts exploring ways to reduce anti-fat prejudice, which may reflect a tacit acceptance of weight stigma, despite the evidence for the negative effects of anti-fat sentiments on social equality.

When mass media frames obesity as a personal responsibility issue, weight stigma increases (Andreyeva, Puhl & Brownell, 2008; Saguy, 2013). When incidents of weight stigma are seen in television programs, they are more likely to be accepted as normal behavior, which may result in fear of weight gain in normal weight youth, increased disordered eating behaviors, negative body image and poor self-esteem (Eisenberg et al., 2014). The content in popular media, television in particular, conveys social norms and acceptable behavior (Fikkun & Rothblum, 2012). A 2003 study of television characters found that negative characteristics were associated with being overweight or obese. Additionally, characters in television programs were much more likely to be underweight and much less likely to be overweight than in the general population. Larger characters were less likely to have positive interactions, romantic interactions and be judged as attractive while being more likely to be the object of humor (Greenberg, Eastin, Hofschire, Lachlan & Brownell, 2003; Giovanelli & Ostertag, 2009). Shows such as *The Biggest Loser* reinforce negative stereotypes about large people and promote negative depictions of health behaviors such as exercise (Berry, McLeod, Pankratow & Walker, 2013) and increase anti-fat attitude in viewers (Domoff et. al., 2012). As long as the media as well as public health messages promote exercise for weight loss rather than its general health benefits, people become discouraged when their exercise does not

result in weight loss and they give up. A more useful approach would reduce stigma and promote enjoyable physical activity for bodies of all sizes (Meadows, 2015).

Characterizing obesity as "epidemic" reinforces the moral panic and justifies intervention that would not otherwise be tolerated, giving permission for ridicule, harassment and public monitoring (Gard & Wright, 2005). A qualitative review by Saguy & Gruys (2010) examined the way the media frames public discourse about eating and body size, which can influence public policy and individual behavior. Looking at publications in the United States, they draw a comparison between the American ideal of self-reliance and self-sufficiency with the cultural belief that body size is under personal control and a reflection of one's moral fiber. Thus, slenderness is associated with firm character while heaviness is associated with gluttony, sloth and stupidity. They point out that mass media is a barometer of social values. When overweight is blamed on personal choices, then larger people are perceived as unable to make good choices about food and exercise, resulting in educational programs that ignore the social determinants of health. At the same time, anorexia nervosa is framed as a normal consequence in a society that considers watching one's weight as a moral obligation, thus normalizing the culture of dieting. Meanwhile, fatness takes on a negative moral valence while news reports convey disdain and contempt for those unable to achieve thinness.

Public health campaigns that focus on obesity may be a source of stigma as well, given that they may be formulated around the idea that shaming obese people will motivate them to lose weight. Weight stigma does not motivate people to engage in healthy behaviors and is more likely to backfire (H. N. Brown, 2015; Mann,

Tomiyama & Ward, 2015). Puhl, Peterson & Luedicke (2012), found that shame and stigma in public health programs result in poorer health behaviors, including avoidance of exercise, and cause more harm, while an approach that fosters confidence and self-efficacy is more effective. People who feel negatively about themselves because of their size are less likely to engage in healthy behaviors when those behaviors do not lead to sustained weight loss, even if they do lead to improved health (Rosenthal, et al., 2013). Experiences of size discrimination have been linked to exercise avoidance (Aphramor, 2012). At the same time, size and body acceptance have been shown to correlate with improved health outcomes (Bacon, Stern, Van Loan & Keim, 2005; Blake, Hebert, Lee, Adams, Steck, Sui, Kuk & Blair, 2013; Eisenberg, Berge & Neumark-Sztainer, 2013; Kater, Rohwe & Londre, 2002; Kelly, Wall, Eisenberg, Story& Neumark-Sztainer, 2002; Neumark-Sztainer, 2009; Neumark-Sztainer, Paxton, Hannan, Haines & Story, 2006; Neumark-Sztainer, Wall, Guo, Story, Haines & Eisenberg, 2006; Sonneville, Calzo, Horton, Austin, & Field, 2012). Meanwhile, the weight loss industry continues to benefit from weight stigma (Lyons, 2009).

Stigma results in weight-based discrimination (O'Hara, Taylor & Barnes, 2015). Puhl and Heuer (2009) systematically reviewed existing literature regarding weight stigma and anti-fat bias. They found evidence to challenge the concept that stigma positively motivate improved health behavior, that it instead is associated with poor body image, low self-esteem, exercise avoidance, poor eating choices and an increased vulnerability to depression. They observed that weight bias appears to be increasing and that it is very resistant to change in response to new information.

In their review of weight bias in the media, they comment that overweight people continue to be targets of ridicule and humor, being associated with socially disapproved traits in television, movies, cartoons, children's books and reality shows. This perpetuates the social acceptability of weight stigma. Overweight characters are significantly underrepresented in media, such that the only time the two thirds of the population who are overweight or obese see anyone with similar bodies on television it is when they are being bullied into losing weight. Advertisers continue to promote the idea that weight is easily changeable through personal effort. "Given the mass consumption of media in our culture, it is not surprising that stigmatizing attitudes toward overweight people are so common in our society." (Puhl & Heuer, 2009, p. 952).

Body image distortion is usually associated with eating disorders, especially anorexia nervosa, but Coker and Abraham (2014) found that women of all weights, with and without eating disorders, have a high prevalence of body dissatisfaction (BD). In developed countries, the majority of women experience BD and even women of normal weight believe they need to lose weight. This dissatisfaction is not simply associated with a perception of oneself as fat, but rather in the divergence from "ideal." The promotion of a thin body ideal, even as average size increases, results in pressure to achieve an unrealistic goal. Mass media provides daily exposure to the ideal beauty as thin, and this plays a role in the development of body dissatisfaction (Munsch, 2014). Media conveys powerful social norms that value a largely unattainable ideal of thinness and beauty, which can undermine competence and body autonomy (Whale, Gillison & Smith, 2014). Stereotypical

portrayals of obesity and obese people in the media focus on derogatory humor and the assumption that overweight is unattractive, making weight bias socially acceptable (Kushner, 2014). Meanwhile, eating disorders are affecting children at younger ages, with a 119% increase in hospitalizations of children under the age of 12 from 1999 to 2006 (Rosen, 2010). Weight bias in children has increased from 1961 to 2001 (Latner & Stunkard, 2003). The slender ideal promulgated by mass media increases negative emotions and the frequency with which women feel badly about their bodies and about themselves (Groesz, Levine & Murnen, 2002). Time spent reading fashion magazines was positively related to anti-fat attitudes (Lin & Reid, 2009). Unavoidable, repeated exposure to the impossible feminine ideal has a fundamental impact on women's feelings of self-worth and value (Gimlin, 2001; Shields, 2002). Weight change does not necessarily resolve the concern. Weight stigma is unique in that it is expressed interpersonally as well as being internalized as blame for having an unacceptable body (Goldberg, 2014, Levine & Schweitzer, 2015; Schafer & Ferraro, 2011). Vartanian, Herman & Polivy (2005) found that most people have internalized negative implicit attitudes toward fatness in response to social and cultural attitudes. A belief that body weight can and should be controlled was related to body dissatisfaction and poor self- esteem. (Laliberte, Newton, McCabe & Mills, 2007). Implicit and internalized weight bias have been found to be related to body image disturbance, depression and binge eating (Carels, Wott, Young, Gumble, Koball & Oehlhof, 2010). Greater levels of internalized weight bias correlated with greater negative impact on depression, anxiety, body image concern and self-esteem, independent of BMI (Durso & Latner, 2008). Internalized

negative stereotypes about weight may result in anticipation of negative treatment, leading to chronic stress and hyper vigilance, which contribute to poor health outcomes (Stuber, Meyer & Link, 2008). Weight stigma results in increased stress, which is related to increased cortisol, resulting in increased eating behavior, creating a feedback loop in which weight stigma results in weight gain and/or difficulty in weight loss (Tomiyama, 2014).

Body dissatisfaction is considered by many to be an effective motivation for weight loss (Heinberg, Thompson & Matzon, 2001) but internalized weight stigma does not lead to improved health behaviors (Puhl, Moss-Racusin & Schwartz, 2007). In fact, lower body satisfaction may lead to poorer self-care in terms of health behaviors such as less physical activity and less healthy eating behaviors (van den Berg & Neumark-Sztainer, 2007). Weight stigma was found to be related to exercise avoidance, even when controlling for BMI and body dissatisfaction (Vartarian & Shaprow, 2008). Weight related peer victimization and bullying in youth is related to non-adherence with physical activity recommendations (Storch, et al., 2007). Jackson, Beeken and Wardle (2014) found that, rather than leading to motivation for weight loss, weight discrimination was associated with weight gain. Public health strategies that embrace weight stigma to address concerns about obesity are based on the two assumptions that body weight is under individual control and that stigma will motivate people to change their behavior. Neither of these assumptions is supported by empirical evidence (Vartanian & Smyth, 2013). Higher body dissatisfaction and lower self-esteem have been linked with weight stigma, even after controlling for BMI (Vartarian & Novak, 2011).

Mond, et al. (2013) used the term "normative discontent," originally coined by Rodin, Silberstein and Striegel-Moore (1985), to describe the pervasiveness of body dissatisfaction among women. They showed a marked impairment in quality of life, physical health status, mental health and psycho-social functioning associated with body dissatisfaction. They suggested that BD should be evaluated as a public health burden in its own right and they emphasize that, just because it is "normative," it should not be considered benign. The pervasiveness of body dissatisfaction was explored by Reba-Harrelson et al. (2009) in a study that found that three out of four women age 25-45 report unhealthy relationships with food or their bodies and that more than half of dieters were already considered to be at a healthy weight. Symptoms of disordered eating were considered normal by many of the respondents. Weight stigma may be more harmful when it comes from family members, according to Puhl, et al., (2008). Weight acceptance messages from friends, parents and romantic partners can lead to improved outcomes, especially among women with high levels of weight concern (Logel, Stinson, Gunn, Wood, Holmes & Cameron, 2014). Perceptions and stereotypes about obesity and stigma were similar regardless of BMI. Puhl and Heuer (2010) identify weight stigma as a social justice issue that poses serious psychological and physical health risks and point out that it is not a useful public health tool for improving health or reducing obesity.

Tylka, et al. (2014), present a number of concerns about the negative outcomes of focusing on weight loss. The societal weight stigma implicit in public and private health settings result in internalized weight stigma that is not related to

body size. Body loathing and shame is associated with lower self-esteem and reduced self-care. Women who experience shame about their bodies have difficulty with self-compassion (Goss & Allan, 2014). An editorial in the Journal of Physical Education, Recreation and Dance (Cardinal, Whitney, Narmatsu, Hubert & Souza, 2014) addresses concerns about obesity bias as it related to social justice and diversity. The ideal body image promoted by social context and the media is increasingly distorted by airbrushing and other image manipulation techniques, resulting in increased body dissatisfaction among both men and women. Rodriguez, Tomiyama and Ward (2015) found that implicit negative weight bias may be greater than was previously thought, showing that stigma can even extend to unrelated sensory judgment.

Muennig (2008) examined the connections among stress, increased body weight, body dissatisfaction, health and public health initiatives that emphasize thinness. He found that body dissatisfaction, as measured by a desire to lose weight, is a stronger predictor of morbidity than actual body weight, as measured by BMI. In a study of college females that controlled for BMI, frequency of dieting behaviors was found to correlate with depression, low self-esteem and problems with interpersonal relationships. Many of the dieters in the study were of normal weight (Ackard, Croll & Kearney-Cooke, 2002). Muennig, Jia, Lee & Lubetkin, (2008) discuss the pervasive weight stigma in social settings, the workplace and home and suggest that the stigma becomes internalized, increasing chronic stress. Negative body image concerns, measured by percentage of desired weight loss, was more highly correlated with unhealthy days than was BMI, especially for women. They go

on to suggest that public health messages should encourage healthy behaviors, such as exercise, without reference to obesity because idealizing certain body types may be harming the target audience. Jackson, Beeken and Wardle (2015) found that a substantial proportion of the impact of obesity on psychological well-being was correlated with weight stigma. They express concern that public health campaigns that focus on volitional control of body weight may inadvertently reinforce weight stigma.

Greenhalgh (2012) raises several important concerns about the current discourse about weight and its effect on the well being of young people. When authority figures, such as parents, teachers, coaches and doctors, routinely berate young people about their weight in the context of expressing concern for the target's health, these comments may be perceived as vicious personal attacks. Abusive fat-talk is considered acceptable and required. Subjects then perceive themselves as "biologically flawed, morally irresponsible or unworthy, or aesthetically unappealing, or some combination of the three" (p. 483). She goes on to say "...the nationwide campaign to banish obesity and make people healthy seems to be producing anything but thinness, health, and happiness....Far from producing thin, fit, happy young people, the war on fat is producing a generation of tormented selves, heart-rending levels of socioemotional suffering, and disordered bodily practices that pose dangers to their health" (p 484).

The goal of health education is higher levels of population health which is seen as a benefit to individuals, society and national prosperity, according to Thompson and Kumar (2011). They go on to express concern about the

pathologizing of weight which leads to ideas of deserving versus undeserving people, with an emphasis on individual responsibility as a moral issue. Stigma is then associated with the appearance of non-compliance. Public health agencies should be aware of the harmful consequences of paternalistic social marketing campaigns that promote feelings of guilt and shame by focusing on body weight as easily changeable (O'Hara, Taylor & Barnes, 2015). The concept that people need education and guidance from professionals about what to eat instead of trusting their own judgment leads to disrupted appetite and food dread (Aphramor & Gingras, 2009).

The concept of "normative discontent" (Rodin, Silberstein, & Striegel-Moore, 1985) regarding body dissatisfaction has far reaching implications. One expression of "normative discontent" has been identified as "fat talk" in which women engage in disparaging comments about their own body shape and weight. This normative discontent affects how women do feel and also dictates how they should feel. In a study of college students, fat talk was found to correlate with increased body dissatisfaction and an internalized thin ideal, but it was not related to actual BMI. Overhearing fat talk also was related to increased body dissatisfaction (Salk & Engeln-Maddox, 2011). The call-and-response of fat talk has become a ritual among American women (H.N. Brown, 2015). While social support is generally considered to contribute to psychological health, fat talk with friends reinforces normative discontent, body dissatisfaction and the internalized thin ideal. Women may have many body related concerns, but weight issues are more likely to be implicated in feelings of guilt and lack of self-control and self-discipline. Engeln and Salk (2014)

surveyed adult women and found fat talk to be common in many ages and body sizes and appeared to peak around a BMI of 25. They go on to address the idea that fat talk and body dysphoria may be considered motivation to lose weight or to maintain a healthy weight but instead is pernicious in its effect of increasing body related distress and other negative psychological consequences. There is a correlation between frequency of fat talk and body dissatisfaction (Engeln-Maddox, Salk & Miller, 2012). Fat talk among family members can even affect academic performance (H. A. Brown, 2015).

Fat talk is often perceived as a desire for reassurance, e.g., "No, you're not fat, I'm fat," but engaging in fat talk increases body dissatisfaction and guilt. At the same time, challenging fat talk, e.g., "I don't like to hear you talk badly about your body," or "I wish women didn't talk badly about their bodies," may be protective against negative consequences (Salk & Engeln-Maddox, 2012). Peer pressure to be thin, even when it is only implicit such as in fat talk, appears to promote body dissatisfaction (Stice, Maxfield & Wells, 2003). Internalization of a thin body ideal is correlated with increased body surveillance (Kim & Jarry, 2014).

Ethical concerns

Weight stigma in society, especially when it appears in health promotion and public health settings, presents certain ethical concerns. The Code of Ethics of the Society for Public Health Education (n.d.) emphasizes the importance of interventions in which benefits outweigh harm as well as accurate communication of potential benefits and consequences. The Code also requires health educators to "do no harm" and to be informed about latest research. The Code of Ethics for the

National Association of Social Workers (1999) affirms the primary responsibility to the well-being of the client, and also the responsibility to work for social justice. Interventions that stress individual weight loss, when considerable evidence contradicts the possibility of success, violate these ethics.

Ethics in health promotion must address the balance between what is good for the individual and what is best for the community. This often involves value judgments about what is important and where resources should be allocated (Levin & Fleischman, 2002). Public health officials have a responsibility to address the way stigma affects the human right to dignity (Bayer, 2008). Public health ethics also involves advocacy for social justice, given the significance of social determinants of health. Public health professionals have more responsibility than other professionals given the legal power available to public health to coerce citizens into behaving in an approved way (Callahan & Jennings, 2002). The tension between civil liberties and the coercive powers of health promotion can be seen in the debates about weight based interventions (Thompson & Kumar, 2011). Promoting one body shape as good tends to imply that other shapes are bad, which can lead to a link between bad body shape and personal, moral badness in general thought (Holm, 2006). The precautionary principle holds that the burden of proof that an intervention is not harmful falls on those taking the action (Wynia, 2005). Stressing individual weight loss can distract from the importance of social determinants of health (Bacon & Aphramor, 2014; Campos, Saguy, Ernsberger, Oliver & Gaesser, 2006). When health professionals and policy makers treat body weight as a barometer of public health, they risk causing immense damage to the people who

are blamed and stigmatized (Campos, et al., 2006). Continuing to promote weight loss in medical care when it has been linked to adverse outcomes raises ethical implications regarding the values of beneficence and nonmaleficence (Aphramor, 2008). Weight stigma diminishes individual agency and damages the sense of identity, violating the bioethical values of justice, autonomy and nonmaleficence (Abu-Odeh, 2014). The importance of the ethical issue of informed consent to treatment is routinely disregarded when medical professionals and public health personnel recommend attempts at weight loss without explaining the lack of success and possible iatrogenic results (Aphramor, 2012). The lack of legal protections that prohibit discrimination based on body size amounts to institutionalized bias, which is a public health issue as well as a social injustice (Puhl, Heuer & Sarda, 2011). Obesity stigma violates the ethical norms of social justice and may increase health inequities (Goldberg & Puhl, 2013). The focus on weight loss dieting to promote health may be an iatrogenic disaster (Burgard, 2009).

Concerns have been expressed about BMI screening in schools, asserting that such screenings increase the belief that having a fat body is unacceptable, that they increase discriminatory attitudes about heavy children, and that they result in concerned parents limiting food intake for both normal weight and overweight children despite anti-diet information included in letters home. This is an example of attempts to improve one aspect of health while harming another (Ikeda, Crawford & Woodward-Lopez, 2006). BMI is easily computed and convenient, making it an appealing measure. However, BMI reporting by schools is questionable in a number

of ways. There are concerns that it will harm children's self-esteem, that it will negatively impact the nutrition that is essential for growth and health, that it is not supported by research, that it could increase disordered eating, that it may lead to increased bullying and teasing, that it places unrealistic expectations on school personnel, and that it perpetuates weight stigma (Cogan, Smith & Maine, 2008). Children who are not fat are sometimes described as "at risk of becoming overweight," a category invented to scare parents (Wann, 2009).

Approaches for addressing the concerns about increases in average weight in individuals and in the community are imbedded in different frameworks, such as personal responsibility and blame, societal factors or biology, for understanding the causes of weight and health (Saguy, 2013). Stigma about weight and eating disorders may be related to a belief in a just world where people get what they deserve. This attitude attributes problems to a lack of self-discipline while individuals who attributed obesity to biological causes had less stigmatizing attitudes (Ebneter, Latner & O'Brien, 2011). The pursuit of health in the guise of weight loss has taken on a moralistic tone, despite the fact that health is multi-dimensional, not guaranteed, not entirely within our control, not an obligation and not a barometer of worth (Chastain, 2012). Health educators have an obligation to understand the controversy in this area in order to avoid inadvertently causing harm (Buchanan, 2000; Campos, et al., 2006; Saguy, 2013). This requires a thorough and often uncomfortable examination of personal beliefs and biases (Matz, 2014).

Although public health initiatives that stigmatize the behavior of smoking have been linked with a decrease in the behavior (Kim & Shanahan, 2003) ethical

questions remain. The process of stigmatization raises concerns about human rights issues, especially the human right to dignity (Bayer, 2008; Struber, Galea & Link, 2008). Stigmatization unequally impacts those who are already vulnerable and may erect barriers to access to health care. If the purpose is to stigmatize the behavior of smoking rather than the smoker, it also evades addressing the responsibility of the industry that promotes smoking (Bayer & Stuber, 2006), much as the focus on individual responsibility for weight loss ignores the part played by the dieting industry. The fact that weight is a characteristic rather than a behavior further confuses the conversation (Aphramor, 2008). Employee wellness programs, which ostensibly promote the well being of participants, also risk penalizing those who are most vulnerable, introducing substantial inequity into the health care system. Requirements may be unattainable and not under individual control, and therefore, asking for exceptions may seem humiliating or degrading (Schmidt, Voigt, & Wikler, 2010).

Brown and Allison (2103) highlight several ethical concerns about public health policies regarding obesity and point out that good intentions often have unintended consequences. They recommend that policy be based on high quality evidence that is shared honestly, thoughtful evaluation of possible harm and choosing policies that least compromise ethical values. Well-intentioned policy can have unintended consequences: legislation that increases requirements for dietary education in schools has been linked to increased weight stigma without decreasing obesity rates (Yeh, 2013). Salas (2015) criticizes public health obesity prevention initiatives, saying that they fail to account for the over 300 interconnections of over

100 identified drivers of weight. Obesity prevention policies lack evaluations and scientific evidence, resulting in the unintended consequences of increased body dissatisfaction, discrimination, weight-based bullying and death. She encourages public health practitioners to examine both evidence and ethics, and consider changing the target to healthy behaviors. Unquestioned assumptions about the commonly accepted beliefs that weight is determined by lifestyle choices leads to a policy focus only on evidence that supports the assumption, raising ethical concerns about ignoring potential harm (Aphramor,2015). Once policies and programs are in place, other points of view are silenced or ignored (H. N. Brown, 2015; Gaard & Wright, 2005; Mann, 2015). If health promotion professionals are to uphold its ethical values of commitment to social justice and challenging dominant discourses, critical reflection about evidence-based practice, as well as oppressive power and social structures, is necessary (Tretheway, Taylor, O'Hara &Percival, 2015). In particular, public health initiatives that focus on the "war on obesity" need to be carefully critiqued for possible iatrogenic effects (O'Hara, Taylor & Barnes, 2015). "If stigmatizing fat people worked, it would have done so by now" (Tomiyama & Mann, 2013, p. 4).

Relationship issues.

The benefits of marriage have been widely studied in terms of health and longevity. In particular, having a marriage partner during middle age is especially protective (Siegler, Brummett, Martin & Helms, 2013). The complex, mutual relationship that is marriage is characterized by interdependence of the spouses.

Additionally, there is a correlation between a satisfying sexual relationship and overall relationship satisfaction (Yucel & Gassanov, 2010).

Marital satisfaction and relationship happiness have been shown to be correlated with subjective well-being (Dush & Amato, 2005). Grover & Helliwell (2014) document the positive, protective relationship between marital satisfaction and personal well-being, especially during middle age when most people experience a dip in well-being. Self-esteem, which includes body image, is related to the ability to preserve connection in relationship (Peterson & De Hart, 2013). Individuals with low self-esteem tend to expect their partner's love and regard to be conditional, based on the ability to live up to certain standards (Bellavia & Murray, 2003). Body dissatisfaction involves a sense of not being able to achieve an ideal body shape, which can then lead to an expectation of less acceptance from the partner (Coker & Abraham, 2014). Intimacy is a way for partners to express commitment to each other; when vulnerability is met with emotional validation, intimacy improves (Duba, Hughey, Lara & Burke, 2012).

Optimism, which is linked to perception of partner supportiveness, is associated with increased romantic satisfaction. Expecting the best within a relationship facilitates positive engagement during conflict. Life events and the successful pursuit of goals may influence optimism (Assad, Donnellan & Conger, 2007). Failure at weight loss attempts could impact optimism.

Baumeister and Leary (1995) posit a fundamental human need to belong, characterized by lasting, positive relationships including frequent interaction,

persistent caring and intimacy. This need is often met through marriage, accounting for some of the greater measures of life satisfaction found in married people.

Body dissatisfaction and relationship quality.

Few studies have been done to examine the role of body size, weight stigma or body dissatisfaction in couple relationships. In a study of undergraduate students and their preferences when making a choice of sexual partner, Chen and Brown (2005) found that weight stigma had a significant impact, with men more likely than women to make choices based on weight. A study of marital status, marital satisfaction and body image dissatisfaction in individuals by Friedman, et al. (1998), suggested that increased eating pathology was associated with lower marital satisfaction, and that the relationship between marital status and body dissatisfaction did not differ across weight. Results also suggested that the correlation between marital satisfaction and body dissatisfaction was significant even when controlling for effects of BMI, self-esteem, age and gender. In other words, they found a significant relationship between marital discord and body image disturbance that was unrelated to actual weight.

Fisher, et al., (2014) found that sexual satisfaction and relationship happiness contribute to each other in reciprocal ways. They also comment on the importance of dyadic studies of relationship satisfaction, despite the preponderance of research based on individual responses and information. A dyadic study of attachment style and relationship satisfaction (Butzer & Campbell, 2008) found that individuals with higher levels of anxiety and avoidance and their spouses reported lower levels of sexual satisfaction.

Satinsky, et. al. (2012), found a strong connection between positive body appreciation and sexual function for women. Encouraging women to improve body appreciation may improve sexual function while focusing on weight loss may run counter to promoting healthy sexuality. Significant others who communicate unconditional acceptance of appearance instead of encouraging weight loss may help women resist self-objectification (Avalos & Tylka, 2006). An increase of .70 in scores on the Body Assessment Survey, a realistic treatment goal, was related significantly less risky sexual behavior in non-monogamous women (Ramseyer Winter & Satinsky, 2014). All of these findings have relevance for couples counseling.

The sense of shame that results from an internalized feeling of failing to meet cultural expectations impacts relationships and feelings of connection. Shame is a construct with psycho-social-cultural components, often rooted in rigid and unrealistic expectations reinforced by media culture. Women struggle with feelings of shame connected to several categories including body image, appearance, sexuality and family. The feeling of isolation caused by shame is particularly poignant since a woman's sense of worth is often tied to the quality of relationships that she can maintain (Brown, 2006). At the same time, interpersonal relationships are not necessarily impaired for obese people, even though negative attitudes about weight may have been internalized (Carr & Friedman, 2006).

The concept of challenging fat talk (Salk & Engeln-Maddox, 2012) has implications for marital relationships. When a woman says "I'm so fat," a husband might attempt to be helpful by responding with "No, you're not" or "Maybe we could

eat better and go to the gym," when "I don't like to hear you disparage yourself" would be better. Calogero, Herbozo & Thompson (2009) explored the concept that they labeled "complimentary weightism" in which positive comments about appearance and/or weight were related to an increase in body surveillance and body dissatisfaction.

Women with higher levels of body dissatisfaction respond in ambivalent and contradictory ways to feedback from intimate partners. If a woman's partner agrees with a negative comment about her body, she may feel emotionally negative but also understood. If her partner reacts with a positive view of her appearance, she may feel increased positive emotion while simultaneously feeling that her partner does not understand her accurately. This double bind for the partner could have implications for the relationship (Brown, Stukas & Evans, 2013). Compliments from a husband about appearance may counter intuitively contribute to a woman's self-objectification by reinforcing the idea that her worth is based on her appearance and how closely she resembles the thin ideal. Compliments about weight loss reinforce weight stigma. This concept of self-objectification is based on Fredrickson and Roberts (1997) seminal work with objectification theory. They posit that the culture in general and visual media in particular encourages women and girls to internalize an observer's perspective, which leads to habitual body monitoring and its associated anxiety and shame. This self-objectification, shame and anxiety are correlated with poorer sexual functioning, as self-surveillance correlates with increased self-consciousness during sexual activity (Steer & Tiggeman, 2008).

Body dissatisfaction has negative consequences for several important

aspects of women's lives, including social and intimate relationships as well beliefs about their own sexual selves. The ability to be in satisfying intimate relationships is associated with better life satisfaction, and poor body image may restrict the ability to be comfortable in such relationships (Donaghue, 2009). Greater satisfaction with body image has been found to be correlated with higher frequency of sexual behavior, greater comfort in undressing in front of one's partner, leaving the lights on during sex, initiating sexual activity, and giving and receiving pleasure (Ackard, Kearney-Cooke & Peterson, 2000).

Given the interdependence within family relationships, dyadic research is well suited to the study of marital satisfaction and the examination of within-dyad and between-dyad similarities and differences (Wittenborn, Dolbin-MacNab & Keiley, 2013). Dyadic research focuses on the relationship between two people which is acknowledged as complex, involving interdependence, mutuality and reciprocity (Thompson & Walker, 1982). A literature search of "dyadic research" produced over 300 results, most of which were about parenting and attachment, response to illness, trust, sales and marketing, workplace relationships, mentoring, leadership or research methods such as interviewing, response rates or congruence of raters. Only a handful of articles concerned marital or couple relationships and some did not meet the above criteria for dyadic research. Few of them addressed body image issues.

One person's relatedness fulfillment was found to predict the partner's increased satisfaction over time and was mediated by compassion (Hadden, Smith & Knee, 2014). Helms, et al., (2006) used a dyadic approach to capture both the

marital experiences and the individual attributes of each spouse when studying the link between marital quality and gender-typed attributes. Another dyadic study evaluated sexual satisfaction in newlywed couples (Lykins, et al., 2012). A link was found between emotional intelligence and relationship quality using actor-partner interdependence mediation model (Schröder-Abé & Schütz, 2011). A study of over 500 dating couples found that low self esteem was related to lower satisfaction with and commitment to a relationship, but that self esteem had an additive quality, such that the combined self esteem contributed to improved relationship satisfaction (Robinson & Cameron, 2012). Another dyadic study examined leisure time preferences by gender and relationship satisfaction (Berg, Trost, Schneider & Allison, 2001). Dyadic coping was found to be related to relationship satisfaction, with females' dyadic coping strongly related to males relationship satisfaction while males dyadic coping was only related to their own relationship satisfaction (Herzberg, 2013). A dyadic study of midlife couples found that both individual and partner characteristics influenced both sexual satisfaction and relationship happiness which then contributed to each other (Fisher et al., 2015).

Boyes & Latner (2009) studied 57 couples and found that men's body size was not associated with relationship quality, but women's was. They raised concerns about women's internalized weight stigma and how doubt about a partner's regard may limit the ability to commit to a relationship, thus reducing the chances to experience the increases in self esteem that come from being positively perceived by a partner in a satisfying relationship. A study of 53 recently married couples found a relationship between the wife's perception of her own sexual

attractiveness and marital satisfaction for both husband and wife (Meltzer & McNulty, 2010).

Dyadic studies have also been used in the area of promoting safer sexual behavior. Mitchell (2013) used dyadic research to evaluate relationship characteristics in gay couples and the association with agreement to safe sex commitments. Better dyadic sexual communication was related to higher levels of dyadic adjustment for both members of the couple (Pazmany, et al., 2015). Starks, Millar & Parsons (2015) used an online dyadic survey to evaluate aspects of recruitment involved in research with same sex male couples.

When weight stigma is experienced in society, culture and the media, it can become internalized as body dissatisfaction. The concept of body image includes many aspects of living in a body, including actual appearance, perceived appearance, function, history and cultural expectations. Body dissatisfaction, more specifically, reflects the difference between the perception of the body and the ideal. Considering the above research on the relationships among the focus on weight loss, body dissatisfaction, relationship quality, and quality of life, the following study is proposed to explore the relationship of body dissatisfaction and marital satisfaction.

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