ACCEPTANCE AND COMMITMENT THERAPY FOR THE TREATMENT OF BODY IMAGE DISSATISFACTION AND MALADAPTIVE EATING ATTITUDES AND BEHAVIORS IN GAY MEN: A PILOT STUDY

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Abstract

Acceptance and Commitment Therapy for the Treatment of Body Image Dissatisfaction and Maladaptive Eating Attitudes and Behaviors in Gay Men: A Pilot Study

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Research indicates that many gay men experience more frequent and severe body image dissatisfaction, than straight males, which often results in higher levels of disturbances in dieting (Andersen, 1999; Hospers & Jansen, 2005; Levesque & Vichesky, 2006; Tylka & Andorka, 2012). Much of the current research in the field regarding interventions and treatment of eating pathology involves women. Due to the paucity of treatment outcome research targeting gay males with these struggles, this pilot dissertation study evaluated the effectiveness of a 1-day workshop intervention employing Acceptance and Commitment Therapy (ACT) for adult gay men who struggle with body image dissatisfaction and maladaptive eating attitudes and behaviors. The goals of this pilot intervention were to reduce preoccupation with body image and diet and to broaden these men's lives by improving overall psychological flexibility.

Twenty-four racially diverse gay men between the ages of 22 and 40 (with a mean age of 28) were recruited from the Greater San Francisco Bay Area. Participants completed several outcome and process of change measures prior to starting the intervention, immediately following the workshop, and at the 1-month follow-up. It was hypothesized that the ACT workshop intervention would decrease body image dissatisfaction and maladaptive eating attitudes and behaviors, while also improving

psychological flexibility. Results from the linear mixed-effects regression models revealed that there were overall significant decreases over time in preoccupation in body image dissatisfaction, disordered eating symptomatology, thought suppression, and experiential avoidance. It was also predicted that changes in body image dissatisfaction, maladaptive eating attitudes, and behaviors would be affected by process of change variables of psychological flexibility, as covariates, over time. Results from the conditional change mixed-effects model revealed a significant overall relationship between thought suppression, general experiential acceptance, body image acceptance, and body image dissatisfaction, in addition to a significant relationship between these variables of psychological flexibility and disordered eating symptomatology. Results of this pilot study provide preliminary evidence that an ACT workshop may be effective for treating gay men who struggle with body image dissatisfaction and maladaptive eating attitudes and behaviors.

Dedication

To the many gay men of the world who are struggling with their body image and who feel imprisoned by society's painful message that being aesthetically perfect is the key to love and happiness; may you find some solace through acceptance.

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CHAPTER I

Introduction

Social psychologists have generally argued that sexual preferences in body shape and size are largely learned, and are affected by the value that a particular culture or subculture attaches to that kind of body shape (Grogan, 2008). Like all individualized groups or communities, the gay male subculture has created a unique set of body image ideals that places an elevated importance on the appearance of the body. Body image disturbance has become a form of normative discontent among gay men who, like women, can trace the roots of their body image dissatisfaction and its encumbering effects to gendered power relations instigated and maintained by men (Wood, 2004). Consequently, the body itself has become a crucial site of social struggle, not only between men and women but also between dominant masculinities and subordinate male gender styles that are marginalized and stigmatized. In this introduction, I first put forth a working conceptual definition for body image and body image dissatisfaction. Next, I discuss the origins of beauty in the eyes of the gay community, followed by a discussion of gay men's understanding of their body. I then describe the most current definition and diagnostic criteria for the various eating disorders and briefly illustrate the ubiquity of disordered eating attitudes and behaviors, along with body image disturbances in gay men.

Body Image and Body Image Dissatisfaction: A Conceptual Definition

Although there is no universal definition of body image, it can best be understood as a person's experience of his or her body. According to Grogan (2008), body image is a person's perceptions, thoughts, and feelings about his or her body. Body dissatisfaction

relates to negative evaluations of body size, shape, muscularity/muscle tone, and weight, and usually involves perceived discrepancy between a person's evaluation of his or her body and his or her ideal body (Cash & Szymanski, 1995). Body image is a psychological phenomenon that is significantly affected by social factors, and to understand it fully, it is necessary to not only look at the experiences of individuals vis-à-vis their bodies, but also at the cultural and subcultural milieu in which the individual functions. According to Grogan (2008), only by investigating the psychology and sociology of the body will it be possible to produce an explanation of body image that recognizes the interaction between individual and societal factors.

Body image disturbance, or dissatisfaction, is not only characterized by a negative attitude toward one's body, but can also occur when there is significant discrepancy between one's perception of, or beliefs about, the size or shape of one's body and its actual size and shape. In their developmental contextual theory, Lerner, Skinner, and Sorell (1980) proposed that experience with one's body is influenced by a variety of factors including cultural, developmental, biological and historical. Specifying the relative impact of these contexts on body image satisfaction versus dissatisfaction is complex, and likely varies by individual (Pearson, Heffner, & Follette, 2010).

A Brief History of Gay Beauty

Despite common notions about the self-evident nature of physical beauty, historical and anthropological studies demonstrated that physical attractiveness is a widely variable concept that constantly changes as a direct result of its sociocultural context (Cash & Pruzinsky, 2002). As with women, a number of historians have traced the development of gay ideals of physical beauty. At the end of the 19th century in

England and America, the dominant image of beauty among gay men was that of the dandy: young, soft, aesthetically sensitive, and effeminate. Thus, effeminacy became tied to the newly developed concept of the homosexual person and became greatly stigmatized (Wood, 2004). Subsequently, both homosexual and heterosexual men masked their feminine traits to avoid association with homosexuality, and as a result, the dandy ideal lost its attractiveness.

According to Signorile (1997), the denigration of effeminacy persisted throughout the 20th century, eventually leading to the ascendancy of the hypermasculine iconography of the gay "macho clone" in the 1970s. In the process, the range of acceptable gender styles for sexual object choice was considerably narrowed throughout gay communities, with the result that the effeminate gay man continued to be stigmatized in both gay and straight worlds. With the arrival of the AIDS epidemic in the 1980s, the range of acceptable gender styles narrowed even further, since the "feminine" or "submissive" position in gay sex became identified with death and disease. As a result, gay men felt the desperate need to appear healthy and disease-free (Wood, 2004). In order to do so, gay men signaled their identification as "tops" by upholding traditional signs of masculinity, which above all became emblematized in the form of muscle mass. According to Signorile (1997), because older gay men became associated with sickness and guilt, the ideal body image became increasingly pubescent and clean-cut, resulting in the idealization of the smooth, hairless body.

Regardless of however many subcultural types of masculinity actually existed, the hard, chiseled, worked out man came to represent the only gender style openly marketed as a desirable object choice for gay men. To this day, virtually all others—but especially

effeminate men—have been deemed as unworthy objects of desire by the monolithic iconography of the gay mass media and cultural industry (Signorile, 1997). Signorile (1997) argues that even though there are many different gay communities, there is nonetheless a body-focused subculture that is increasingly dominating the iconography and institutional culture of gay public life, as seen in gyms, bars, sex clubs and advertising. It appears that because of these reasons, gay men are at an increased risk of suffering greater body image dissatisfaction and other forms of psychopathology than straight men.

Gay Men's Understanding of Their Body

Gay men's perceptions of self are shaped by the broader social context in which they live, a context that affords heterosexual individuals more privilege than their homosexual counterparts (Morrison & McCutcheon, 2011). One framework that may be useful in explaining body dissatisfaction in gay men is Meyer's (1995) minority stress model, which speculates that "gay people, like members of other minority groups, are subjected to chronic stress related to this stigmatization" (p. 38), and describes internalized homophobia, expectations of stigma, and prejudicial events such as violence as distal and proximal sources of stress. Some scholars speculate that gay men who internalize homophobic attitudes and have greater expectations of being stigmatized for being gay may desire a powerful physique (i.e., muscular and fit) as a form of defense against the experience of prejudice from others or may develop a negative body image as a result of their own internalized shame (Strelan & Hargreaves, 2005; Williamson, 1999). According to Pope, Phillips, and Olivardia (2000), desiring a powerful physique is often a defensive reaction to the dominant society's stigmatization of them as "unmanly." Thus,

it may be that traditionally masculine gay men are more likely to overconform to cultural norms to be physically powerful, leading to body image concerns (Daniel & Bridges, 2010).

Eating Disorders and Subclinical Eating-Disordered Attitudes and Behaviors

Eating disorders are characterized by persistent disturbances in eating behavior and other behaviors aimed at controlling weight that lead to significant impairment. These behaviors are also associated with serious medical, psychosocial morbidity, and health care costs, where the medical complications of these disorders may be life-threatening (Ogden, 2010; Watkins, 2011). Among the vast number of mental disorders, eating disorders are associated with the highest risk of premature death, both due to medical complications and elevated rates of suicide in this population. In addition to the physical toll, these disorders are also coupled with elevated depression and anxiety, social and occupational impairment, and reduced quality of life (Crowther & Williams, 2011; Delinsky, 2011). The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) describes three types of eating disorders: Anorexia Nervosa, Bulimia Nervosa, and Eating Disorder Not Otherwise Specified (EDNOS), which include Binge Eating Disorder (APA, 2000).

The symptoms of Anorexia Nervosa include a refusal to maintain a minimally healthy body weight (less than 85% of normal weight for height), an intense fear of gaining weight, and in women, amenorrhea (the absence of at least three consecutive menstrual cycles). There are two subtypes of Anorexia Nervosa: restrictive (i.e., very limited food intake) and bulimic (i.e., bingeing and purging) (Grilo, 2006). Bulimia Nervosa involves repeated episodes of binge eating followed by inappropriate

compensatory behaviors. There are two subtypes of bulimia: purging (i.e., self-induced vomiting, misuse of laxatives, diuretics, or other medications) and non-purging (i.e., fasting, excessive exercise). Body image disturbance is a core diagnostic feature of both Anorexia Nervosa and Bulimia Nervosa, and is also a risk factor for the development of these eating disorders.

Although not described in the diagnostic criteria, disordered eating is sometimes associated with repetitive checking and managing of appearance, which can both be categorized as body image avoidance (i.e., any behavior that functions to change or avoid an individual's experience of one's own body; Sandoz, Wilson, & DuFrene, 2010). According to Delinsky (2011), persistence of body image disturbance is associated with relapse in Anorexia Nervosa and Bulimia Nervosa, and yet is less likely to resolve with treatment than other behavioral symptoms of these disorders.

A diagnosis of EDNOS is made if almost all of the criteria for Anorexia Nervosa or Bulimia Nervosa are met, but the patient has regular menses (if female), is of normal weight, or binges less than twice a week or for less than 3 months. The EDNOS category also includes those of normal weight who engage in inappropriate compensatory behaviors without bingeing, and those who repeatedly chew and spit out, but do not swallow, large amounts of food. Binge eating disorder is also a subcategory of the EDNOS diagnosis. The features of binge eating disorder include recurrent episodes of binge eating associated with significant emotional distress during and afterwards (i.e., feelings of guilt and disgust) and subjective and behavioral indicators of impaired control (i.e., eating very rapidly or until uncomfortably full). There is an absence of the inappropriate compensatory behaviors associated with Bulimia Nervosa, and concerns

about weight and shape are not necessarily distorted (Grilo, 2006; Hrabosky, 2011). The diagnosis of EDNOS has increased as clinicians have become more aware of the prevalence of subclinical and sub-threshold eating attitudes and behaviors. Moreover, according to Fairburn and Walsh (2002), atypical eating disorders account for between 20% and 61% of all eating disorders reported in the literature.

Disordered Eating Attitudes and Behaviors and Body Image Disturbances in Gay Men

Recent estimates of mental health morbidity among adults reporting same-gender partners suggest that lesbians, gay men and bisexual individuals in the United States may experience excess risk for some mental disorders as compared with heterosexual individuals (Cochran, Sullivan, & Mays, 2003). Several studies over the last decade have examined body dissatisfaction among gay males, lesbians, straight males and straight females. Of all four groups, gay men report the highest levels of body dissatisfaction or show levels of dissatisfaction comparable to straight women and lesbians. A comprehensive overview of these empirical studies will be presented in the review of literature section of this dissertation.

It is estimated that 10-15% of those meeting the diagnostic criteria for an eating disorder are male; however, an average of 20% of males with eating disorders have a gay sexual orientation (Carlat, Camargo, & Herzog, 1997). This 20% prevalence represents a substantially increased risk for the development of an eating disorder due to sexual orientation. It is also important to state that these statistics do not take into consideration the percentages of gay men suffering from subclinical, or subthreshold eating disordered attitudes and behaviors, which most likely are even higher. The precise prevalence rates

for men are difficult to assess since clinical populations may not represent the epidemiology of the illness. This could be due to a variety of factors including the common perception, in both society and with health care professionals, that eating disorders are an exclusively female disorder. Although estimates of a gay or bisexual orientation in different subgroups of eating disorders vary among studies, the preponderance of evidence supports a fourfold to fivefold increase in the gay or bisexual orientation in males who have an eating disorder compared with the general population, but still a minority of cases of males with eating disorders (Andersen, 1999; Bosley, 2011; Strother, Lemberg, Stanford, & Turberville, 2012).

Relatively little is known about the progression of eating psychopathology over time. Although disordered eating tends to decrease over time, body dissatisfaction remains a problem for a substantial portion of the adult population (Grogan, 2011). This type of pervasive body dissatisfaction among gay men without formal, clinical eating disorders can be referred to as what it has been for women, namely "normative discontent" (Wood, 2004). In the gay subculture where one is often objectified for one's physique, it's not surprising that may gay men suffer from body image dissatisfaction, which often leads to maladaptive attitudes and behaviors centered around eating.

CHAPTER II

Objectification Theory

The following section summarizes Fredrickson and Roberts' (1997) integrative framework for understanding how women's socialization and subjective experiences of sexual objectification are translated into mental health problems, which include eating disorders, depression, and sexual dysfunction. These particular behavioral outcomes were put forth as examples of the various possible consequences to develop as a result of girls and women living in a culture that sexually objectifies the female body (Calogero, Tantleff-Dunn, & Thompson, 2011; Moradi & Huang, 2008; Tiggemann & Lynch, 2001). Although objectification theory was originally proposed to describe and explain the experiences of women living in sexually objectifying societies (Fredrickson & Roberts, 1997), the logic is applicable to other sexually objectified groups, such as gay men, who hold membership in a subculture that objectifies the body and places a tremendous emphasis on physical appearance and attractiveness.

Fredrickson and Roberts propose that growing up in a sexually objectifying culture teaches women that they are constantly being evaluated based on what others see. Self-objectification, therefore, is a socialization of girls and women to internalize an objectifying observer's view of their bodies leading to preoccupation with their physical appearance.

Feminist scholars and psychologists have long recognized the harmful effects of the objectification of women. The goal of objectification theory is to describe a framework to understand the individual intrapsychic consequences of objectifying treatment (Fredrickson & Roberts, 1997). A key consequence of such treatment is that it

leads to vigilance about the body's outward appearance. Body monitoring is a strategy based on culture and socialization rather than on some essential biological component of being female. Self-objectification, in a culture where physical attractiveness is highly regarded, is an adaptive approach for a woman to have an understanding of how she is perceived and valued by others. This subjective experience, however, has serious consequences. Fredrickson and Roberts offer four psychological and experiential consequences of self-objectification, which will be briefly discussed.

The first proposed consequence of self-objectification is the emotion of shame. Individuals experiencing shame tend to attribute their shortcomings globally to the self in its totality (e.g., "I am a bad person") rather than narrowly to their specific actions. Fredrickson and Roberts (1997) suggest that shame results from a fusion of negative self-evaluation with the possibility of social exposure. Anxiety states, predominantly those related to appearance and safety issues from danger or threats to the self, are the second proposed consequence of self-objectification. Being female in a culture that objectifies the female body creates multiple opportunities to experience anxiety along with its accompanying vigilance. It is the not knowing exactly when and how one's body will be looked at and evaluated that can create anxiety about potential exposure. Appearance anxiety then, is often manifested by continuous concerns for checking and adjusting one's appearance.

The third proposed consequence of self-objectification is the disruption of peak motivational states. A peak motivational state occurs when an individual's attentional resources are fully committed to a challenging, enjoyable, and worthwhile task. This state, referred to as "flow," is associated with a subjective experience of mastery and low

self-consciousness (Csikszentmihalyi, 1982). Fredrickson and Roberts (1997) purport that a woman's attentional resources are split between how she looks and how her body functions, and this diversion of resources may, in turn, prevent or derail peak motivational states, which are associated with a positive lived experience.

The fourth and final proposed consequence of self-objectification is the decreased awareness of internal bodily states (Fredrickson & Roberts, 1997), suggesting that perhaps due to a lifetime spent being sensitive to the evaluations from others, women are less capable of tuning into their own internal experience. One suggestion on how women's relative inattention to physiological cues may arise comes from research on dieting and restrained eating. Importantly, dieting and restrained eating require active suppression of hunger cues, and some have argued that it may not be possible to selectively tune out hunger, and that the habits of restrained eaters may lead to a generalized insensitivity to internal bodily cues (Heatherton, Polivy, & Herman, 1989; Polivy, Herman, & Pliner, 1990).

The four consequences of self-objectification—shame, anxiety, the disruption of peak motivational states associated with "flow," and a diminished awareness of internal bodily states—contribute to a variety of mental health risks. Theorists propose three psychological disorders for which women are particularly at risk: Eating disorders, unipolar depression, and sexual dysfunction.

Objectification in Gay Men

Fredrickson and Roberts (1997) acknowledged that, despite their focus on the female experience, men can be treated as sexual objects and this may result in unique consequences.

Although men may not necessarily experience evaluation by the opposite sex to the same degree as women, men are subjected to the same overarching cultural system and ideals perpetuated by the media (Lanzieri & Cook, 2013). Consequently, they are not only likely to adopt the ideal body perpetuated by society as the only type of body to be valued, but also feel sexually objectified and disregard their personhood. Further, McDonald (1982) explains that during the initial states of homosexual identity formation, males do not seem to emphasize emotional attachments to other males but rather may see physical and sexual attractions as more significant to their identification as a gay male. As a result, gay men may suffer more objectification than heterosexual men due to the increased importance of physical attractiveness in same-sex male relationships (Brown & Keel, 2012; Varangis, Lanzieri, Hildebrandt, & Feldman, 2012).

CHAPTER III

Review of Literature

The purpose of this comprehensive literature review is to examine the empirical research in the areas of body image dissatisfaction, eating disorders, and various modes of treatment interventions available for this type of psychopathology. First, I present the current literature around body image dissatisfaction vis-à-vis gay men. Next, I present the current literature regarding maladaptive eating attitudes and behaviors in gay men, followed by a critique of the first- and second-generation cognitive-behavioral therapies used to treat eating disorders. I will then introduce the mindfulness and acceptance-based third-generation behavioral therapies and present the most recent empirical research using the interventions applied to eating and weight pathology. Finally, I describe acceptance and commitment therapy (ACT), another third-generation behavioral therapy, and present the current research as the intervention is applied to treatment of body image dissatisfaction and disordered eating attitudes and behaviors.

Body Image Dissatisfaction and Gay Men

Social psychologists have generally argued that sexual preferences in body shape and size are largely learned, and are affected by the value that a particular culture or subculture attaches to that kind of body shape (Grogan, 2008). The gay male subculture has created a unique set of body image ideals, where there seems to be an elevated importance on the appearance of the body. Padva (2002) stated, “the male body in contemporary gay culture is subordinated to distinct aesthetic and ethical norms that reflect an all-male idolization of the young, muscular, smooth, and transcendent physique” (p. 281). Gay men seek to achieve this ideal body through a variety of

techniques including daily workouts, diet, hair supplement/removal, and tanning. This section of the literature review gives an extensive overview of the empirical research conducted in the field with regards to body image dissatisfaction and gay men.

Drummond (2005) examined the experiences of young gay southern Australian men with respect to their bodies, body image, and masculine identity. The sample included 14 gay male participants, aged between 18 and 25 years. The author conducted 1 to 2-hour in-depth interviews and found that body aesthetics and muscularity played an important part in the notion of "picking up" for the men in the sample. Although participants stated that they were not obsessive with respect to the way in which their physical body was shaped, they were conscious that the first impressions assist in creating the sexual attractiveness required to meet other men. Further, participants shared how muscularity is equated to both physical and emotional strength, and strength of character, which in turn was interpreted as control. A participant in the study explained this as:

> "I started from being really slim and no muscle at all. After one year of working out I can see the difference, tremendous. Like the change and things, people start giving me compliments and you know you look very different. Like, not the friends that I see everyday, but those people I see, like, once in a while and they say, 'Oh my God you've changed tremendously,' and I think, Yeah, like, I have control." (p. 280)

This study's findings illustrate the perceived expectation of Western gay males to adopt a bodily physique that is muscular, athletic, and devoid of fat, and the majority of men who inevitably fail may face body image concerns as a consequence.

Kimmel and Mahalik (2005) explored whether the minority stress model (Meyer, 1995) may be useful in explaining gay men's body image concerns, and whether the model should incorporate if gay men's conformity to masculine norms contribute to their mental health. The participants consisted of 357 gay men. Eighty-seven percent of the men self-identified as White, 6% as Latino, 2% as Asian American, 2% as multiracial, 1% as African American, 0.6% as Native American, and 1% self-identified as other. The mean age of the participants was 34.85 years and their average time of being "out" about their sexual orientation was 11.31 years. Findings revealed that gay men were more likely to report distress from failing to achieve an ideal masculine body if they were younger, reported greater internalized homophobia, had greater expectations of stigma for being gay, and had suffered an antigay physical attack. Results broaden the applicability of the minority stress model to body image concerns in gay men by supporting past research findings that experiences of prejudice, internalized shame, and the desire to feel more powerful against antigay attacks may contribute to gay men's desire for a powerful physique.

Similar to the minority stress model, Wiseman and Moradi (2010) examined relations among sociocultural and psychological correlates of eating disorder symptoms with sexual minority men. Data from 231 participants were analyzed, ranging in age from 17 to 70. About 77% identified as White or Caucasian, 5% as Hispanic or Latino, 4% as Asian American or Pacific Islander, 1% as African American, and 11% as multiracial or other races or ethnicities; 2% did not report their race/ethnicity. Participants self-identified as men (97%) or transgender (2%), and as exclusively gay (66%), mostly gay (20%), bisexual (12%), or mostly heterosexual (2%) on a Kinsey-type

scale (Kinsey et al., 1948). Participants revealed that on average, they reported experiencing eating problems between "rarely" and "sometimes." Path analyses reported that sexual objectification experiences had a significant positive indirect relation with body surveillance through internalization of cultural standards of attractiveness, which in turn had a significant positive indirect relation with body shame through body surveillance; body surveillance had a significant positive indirect relation with eating disorder symptoms through body shame. These findings illustrate the negative relational effects of gay men's internalization of cultural standards of attractiveness. The pressures within the gay subculture have been shown to influence gay men's level of body surveillance and amount of self-experienced body shame.

Marino Carper, Negy, and Tantleff-Dunn (2010) examined the relations among sexual orientation, media influence, and a variety of eating and body image concerns, including eating disorder symptoms, perceived importance of physical attractiveness, and appearance-related anxiety. Thirty-nine males and 39 straight males, with a mean age of 19.31 years, participated in the study. Regarding ethnicity, 71.8% of the men self-identified as non-Hispanic White, 17.9% as Latino or Hispanic, 7.7% African American, and 2.6% Asian American. To assess the degree to which individuals perceive that the media influences their attitudes about body image and their propensity toward developing symptoms of disordered eating, the researchers used four subscales from the Sociocultural Attitudes Towards Appearance Scale-3 (SATAQ-3; Thompson, van den Berg, Roehrig, Guarda, & Heinberg, 2004), which included the following: Information (i.e., viewing the media as a valuable source of information regarding attractiveness), Pressure (i.e., perceived pressure from the media), Internalization-General (i.e.,

internalization of general media ideals), and Internalization-Athlete (i.e., internalization of messages regarding the importance of athletic traits). Results indicated that gay men scored significantly higher than straight men on drive for thinness, physical appearance anxiety, and all four categories of perceived media influence. Further, perceived media influence on attitudes towards appearance significantly mediated the relation between sexual orientation and drive for thinness, as well as physical appearance anxiety. Results from moderation analyses further revealed that sexual orientation was a significant moderator of the relation between the importance of physical attractiveness and perceived pressure to emulate physical appearances promoted by the media, internalization of these ideals as personal standards of attractiveness, and awareness of the importance of muscularity, tone, and the value of exercise in achieving an attractive body. These results suggest that gay men are strikingly vulnerable to pressures to be physically attractive put out by the media, thus increasing the risk of gay men to develop eating-disorder symptoms.

Boroughs and Thompson (2002) as well as Peplau et al. (2009) compared the degree of body dissatisfaction and preoccupation with weight between heterosexual and gay men. Boroughs and Thompson found that gay males had a higher level of disturbance in dieting and restriction than heterosexual males. Further, when compared to heterosexual males, gay male participants believe that their partners preferred a thinner figure. In a similar direction, Peplau et al. found that heterosexual men reported significantly better appearance evaluation, more positive effects of their body image on their quality of life, and less preoccupation with weight than gay men. Further, gay men reported that their feelings about their bodies had a more negative effect on their sex lives

than did heterosexual men. The findings of this study illustrate the importance that gay men place on their figure (i.e., body shape) and how perception of image can influence possible maladaptive thoughts, attitudes, and behaviors, as well as one's sex life.

Levesque and Vichesky (2006) also examined factors that predict body image dissatisfaction in gay men. The authors specifically explored social comparison tendencies with other gay men, involvement in and perceived acceptance within the gay community, and whether body image dissatisfaction was more focused on weight than muscularity. Participants were 64 gay men with an average age of 35.92 from North and South Carolina. The majority of participants earned some college education. Findings revealed that gay men were dissatisfied with respect to overall appearance evaluation. The majority perceived their current body type as a slightly under or overweight; however, the most common ideal body type was muscular with some men choosing average or thin. With respect to the body type judged to be most attractive to other gay men, participants almost uniformly chose a muscular body type. The researchers also found that the tendency to socially compare to other gay men was associated with greater involvement and a heightened concern with appearance. Finally, general body image satisfaction was related to self-esteem and depression, such that greater body image dissatisfaction was associated with lower self-esteem and more depression. Findings from this study are consistent with other studies, where gay men are overall dissatisfied with their bodies, as a result of possible influence from the gay community.

Beren, Hayden, Wilfley, and Grilo (1996) examined how sexual orientation influenced body dissatisfaction and associated psychosocial variables (e.g. self-esteem, social pressures to diet, and physical appearance-related teasing) in adult men and

women. A total of 257 participants were in the study, 58 of them being gay men with an average age of 30.26 years, who were recruited from various organizations in southeastern Connecticut. For gay men, the sample was primarily White and educated at the college level. Gay men reported high levels of body dissatisfaction and more distress on the psychosocial factors than heterosexual men. In fact, gay men in this sample reported similar levels of distress to both groups of women (lesbian and heterosexual) in each of the psychosocial factors, except that gay men indicated significantly more general appearance and weight-specific childhood teasing than the lesbian and heterosexual women. The authors state that since gay men's levels of body dissatisfaction and psychosocial distress were similar to the levels of distress reported by women in this study and in previous studies, these results suggest gay men's propensity for developing eating disorders.

Tiggemann, Martins, and Kirkbride (2007) conducted a study comparing body ideals and corresponding body dissatisfaction of gay men with heterosexual men. Participants consisted of 134 gay men and 119 heterosexual men, ranging in age from 18 to 60 years, and were recruited via advertisements on notice boards and in newsletters of various community groups and organizations at Flinders University and the greater Adelaide community in Australia. The authors assessed participants' ideals and corresponding dissatisfaction in terms of adiposity and muscularity by utilizing separate sets of body figure drawings. The first set of body figure drawings (Fallon & Rozin, 1985; Stunkard, Sorenson, & Schulsinger, 1980) were utilized to determine body perception and weight status, and the second set of body figure drawings (Lynch & Zellner, 1999) to assess aspects of body image particularly pertinent to men. Body

dissatisfaction was calculated as the discrepancy, or difference, between current and ideal figures. Finally, the Rosenberg Self-Esteem Scale (Rosenberg, 1965) was used to assess self-esteem.

Analyses found that both gay and heterosexual men rated their current figure as fatter and less muscular than their ideal or attractive figures. On the adiposity scale, gay men held a thinner ideal and correspondingly found a thinner figure most attractive. On the muscularity scale, gay men saw themselves as less muscular than the heterosexual men. In terms of absolute body dissatisfaction, gay men scored higher on muscle dissatisfaction than heterosexual men, and the difference for absolute adiposity dissatisfaction approached significance. For both sexual orientation groups, body dissatisfaction with adiposity in the direction of wanting to be thinner increased with age. Gay men also scored significantly lower on self-esteem than did the heterosexual men. While absolute adiposity body dissatisfaction was correlated with lower self-esteem for both gay men and heterosexual men, absolute muscularity body dissatisfaction was significantly correlated with lower self-esteem solely with gay men. The findings of this study mirror those with previous studies mentioned above, where both body weight/adiposity and muscularity were the two most salient aspects of body image with which gay men were most concerned.

Kozak, Frankenhauser, and Roberts (2009) examined the influence of male sexual orientation on the objectification of self and others. The sample consisted of 29 participants who self-identified as heterosexual and 30 who self-identified as gay. The ethnic breakdown of the participants was as follows: 67% White, 12% African American, 10% Hispanic, 2% Asian, and 9% mixed race-other. Participants were recruited from the

campus of an urban Midwestern university and at a coffee shop in the university neighborhood, which is known to have a large gay population. The authors used the Self-Other Objectification Questionnaire (Roberts, Goldenberg, Power, & Pyszczynski, 2002) to assess the extent to which participants viewed their own bodies and the bodies of others in body appearance-based, objectified terms versus body competence-based, nonobjectified terms.

The data revealed that gay men engaged in higher levels of self-objectification than heterosexual men, and also objectified other men more than did heterosexual men. The authors also explored the relationship between levels of self-objectification and the objectification of others, in order to determine whether the degree to which a man self-objectifies parallels the extent to which he views others in similar, objectified terms. Among gay participants, self-objectification was positively related to the objectification of men, but virtually unrelated to the objectification of women. The findings of this study support the idea that Objectification Theory is in fact directly applicable to the lives of gay men vis-à-vis body image dissatisfaction and the manifestation of maladaptive eating attitudes and behaviors.

In a similar study, Martins, Tiggemann, and Kirkbride (2007) examined trait differences in self-objectification and body image among gay and heterosexual men. The sample consisted of 98 gay men and 103 heterosexual men, ranging in age from 16 to 40. Independent samples *t* tests revealed that gay men had significantly higher levels of self-objectification and body surveillance than heterosexual men. With respect to the consequences of self-objectification, gay men reported higher levels of body shame, drive for thinness, lower body dissatisfaction, and upper body dissatisfaction. In addition,

among gay men, self-objectification was significantly positively correlated with body surveillance, body shame, drive for thinness, drive for muscularity, and lower body dissatisfaction. The findings from these two studies illustrate that gay men maintain higher levels of self-objectification than heterosexual men and thus are at a greater risk for more severe body image disturbances.

Herzog, Newman, and Warshaw (1991) conducted a study looking weight, body satisfaction, eating attitudes, and eating behaviors in both gay and heterosexual men. Participants were 32 heterosexual men and 43 gay men, with an average age between 24-25 years old; the sample was predominantly White (n = 67). Sexual orientation was determined by scores on the Kinsey-type rating scale (Kinsey et al., 1953). Using a set of 12 male figure drawings (Fallon & Rozin, 1985), ranging from very thin to very heavy body shapes, the authors assessed participants' current figure, their ideal figure, and the figure they felt would be the most attractive to a potential partner. The authors also employed the drive for thinness, bulimia, and body dissatisfaction scales of the Eating Disorders Inventory (EDI; Garner et al., 1983), to assess the various eating disordered thoughts and behaviors.

Results found that 10 of the gay men were underweight and of the men who were not overweight, six of the gay men thought they were overweight. For gay men, the current, ideal, and attractive choices from the male figure drawings were all similar. With regards to choices of current and ideal figures, the gay men's choices of attractive figures were slimmer than the heterosexual men's choices. In addition, the figures that gay men thought most attractive to a potential partner were similar to the figures they personally found most attractive. Thus, when selecting a figure they found most

attractive in a potential partner, gay men chose a slightly thinner build than heterosexual men. On the measures from the EDI, gay men scored higher on the drive for thinness subscale than heterosexual men, although the difference was not statistically significant. These findings are also consistent with previous studies' findings where many gay men find and prefer other men with a thinner build devoid of fat, as more attractive than an average or fat build.

Overall research in this area of body image dissatisfaction suggests that gay men tend to show higher levels of body concern than heterosexual men, especially in terms of levels of adiposity and degree of muscularity. A review of the literature suggests that the gay male subculture possesses narrow parameters of what constitutes an "acceptable" body; messages in the gay community imply that one's value is contingent upon physical appearance (Morrison & McCutcheon, 2011). There seems to be a perceived expectation of Western gay males to adopt a body physique that is muscular, athletic, and devoid of fat, and many men who inevitably fail to attain this romanticized ideal are suffering from body image disturbances. Further, there is evidence to suggest that body image disturbances are linked to mental health challenges, thereby demonstrating gay men's susceptibility for developing maladaptive eating attitudes and behaviors.

Maladaptive Eating Attitudes and Behaviors in Gay Men

Disordered eating occurs when a number of unhealthy attitudes and behaviors related to eating, exercise, and body image coincide. In general, eating disorders occur on a continuum of attitudes and behaviors. Although specific eating disorders such as anorexia nervosa and bulimia nervosa are the most frequent eating disorders referred to in the media, they represent only one extreme of a broad spectrum of disordered eating. In

addition to clinical eating disorders, this continuum also includes subclinical eating disorders, where individuals may diet frequently and exercise compulsively, among other behaviors, in hopes of altering their body shape and size (Ogden, 2010; Patterson, 2004). Although experimenting with these behaviors does not necessarily mean that one will meet the diagnostic criteria for an eating disorder, such behaviors may place one at significant physiological and psychological risk. Multiple sources impact the onset and maintenance of disordered eating attitudes and behaviors. In this section of the literature review, I examine the empirical research conducted in the field which primarily focuses on various disordered, or maladaptive, eating attitudes and behaviors which have been found to be prominent within the gay male subculture.

Body image is now recognized as an important aspect of social and emotional development for adolescent boys which causes many to engage in extreme and unhealthy body change strategies to lose weight (Ricciardelli & McCabe, 2011). French, Story, Remafedi, Resnick, and Blum (1996) examined the relationship between sexual orientation and weight concerns, body dissatisfaction, and disordered eating behaviors from the perspective of adolescents. Results showed that homosexual males were more likely to perceive themselves to be overweight compared to heterosexual males (28.8% vs. 16.8%); however, this effect was marginally statistically significant. Twice as many homosexual as heterosexual males reported having a poor body image (27.8% vs. 12.0%). In terms of disordered eating behaviors, binge eating and purging behaviors were about twice as prevalent in homosexual or bisexual males compared to heterosexual males. Frequent dieting was also much more prevalent in homosexual (8.9%) compared to heterosexual (5.5%) or bisexual (4.6%) males, and was the only body image or dieting

behavior that significantly differed between homosexual and bisexual males ($p < .007$). Homosexual or bisexual males were also more likely than heterosexual males to report binge eating (25.0%, 23.2%, and 10.6%, respectively) or fears of out of control eating (15.6%, 12.8%, and 3.9%, respectively), and approximately 11% of homosexual and bisexual males, but only 4.4% of heterosexual males, reported intentional vomiting after eating.

In a similar study involving adolescents, Wichstrøm (2006) examined whether sexual orientation and other risk factors predicted future bulimic symptoms. Data were received from 2,924 Norwegian high school student participants, 56% female and 44% male. Analyses revealed that physical and global self-worth predicted future bulimic symptoms over and beyond previous bulimic symptoms in both males and females, whereas feminine gender orientation predicted bulimic symptoms among only males. Findings also revealed that male bisexual or homosexual sexual attraction predicted body dissatisfaction. Among men, same-sex sexual experiences were predictive of future bulimic symptoms, as was incidental same-sex attraction.

Schneider, O'Leary, and Jenkins (1995) compared disordered eating attitudes and behaviors of heterosexual men and women in contrast with those of lesbians and gay men, attempting to find whether sexual orientation may contribute to differential risk. A stratified random sample was drawn to include demographically comparable groups of 25 lesbians, 50 gay men, 75 heterosexual women, and 75 heterosexual men, aging around 35 years old. Regarding the specific individual criteria for disordered eating, in all cases gay men were at least as likely as heterosexual women (and both more likely than the other two groups) to report behavior meeting each of the five criteria considered separately.

Gay men more frequently engaged in two of the five criteria (e.g., binge eating and weight control activities, including weight loss medications) and about equally often experienced other three criteria (e.g., lack of eating control, frequency of binge eating, and overconcern with body). ANOVAs revealed an interaction effect for disinhibition ($F(1, 217) = 9.63$; $p < .002$), where both heterosexual women and gay men were significantly higher than the other two groups. Exercise and restraint scores were also more closely related for the heterosexual women ($r = .44$) and gay men ($r = .34$) than for the other two groups.

Blashill (2010) assessed the relative uniqueness of various components of gay male body image (i.e., muscle, body fat, and height dissatisfaction) in the prediction of four indices of psychological distress (i.e., depression, eating restraint, eating concerns, and social sensitivity). Participants were 228 gay men, with a mean age of 31.07 years. Results from hierarchical multiple regression analyses revealed that body fat dissatisfaction significantly predicted depressive symptoms, eating restraint, and eating concerns among the gay men in the sample. These findings are consistent with previous research illustrating the ideals of the gay male subculture, as it places great emphasis and importance on the lean and muscular body.

Hospers and Jansen (2005) investigated the role of gender role orientation, peer pressure, self-esteem, and body dissatisfaction in relation to eating disorder symptoms among both heterosexual and homosexual men. The sample included 70 gay males and 169 heterosexual males who had a mean age of 23.0 years. Education was coded into three hierarchical levels, where 80% had a high education level. Analyses revealed that gay men scored higher on scales of restraint, eating concerns, weight concerns, and shape

concerns, as well as body dissatisfaction and peer pressure than heterosexual men. The simple correlation between body dissatisfaction and eating disorder symptoms was r = .76, indicating that higher eating disorder scores are strongly related to higher body dissatisfaction. These findings confirm previous studies' findings that have described the higher value within the gay community that is placed upon physical attractiveness.

In a study by Duggan and McCreary (2004), the researchers examined the relationship between consumption of and exposure to muscle and fitness magazines, and/or various indices of pornography, and body satisfaction in gay and heterosexual men. There were 96 total participants, 67 who self-identified as gay and 29 as heterosexual. Analyses found a positive correlation between social physique anxiety and pornography exposure in gay men, where gay men reported significantly more consumption as compared to heterosexual men. The researchers also reported that gay men had more negative thinness-oriented eating attitudes and behaviors than did heterosexual men. These findings imply a possibility that gay men are being more exposed to and more affected by unrealistic images of in-shape and attractive bodies, which further illustrates the pervasiveness of exposure to beauty in the subculture. Findings mirror other studies, which reveal that gay men's exposure to sociocultural factors is correlated with an increase in maladaptive eating attitudes and body image dissatisfaction. This article and its findings are also important in illustrating how the media is directly related to Objectification Theory.

Feldman and Meyer (2007) estimated the prevalence of eating disorders in lesbian, gay, and bisexual (LGB) men and women, and examined the association between participation in the gay community and eating disorder prevalence in gay and bisexual

men. The study involved 396 LGB participants and included equal numbers of White (34%), Black (33%), and Latino (33%), as well as equal numbers of men (50%) and women (50%). The heterosexual comparison group consisted of white men (51%) and white women (49%). The mean age of all participants was 32 years. Subjects were recruited in diverse New York City venues and via snowball referrals and were interviewed by the research team.

Both the presence of lifetime and current eating disorders, including full syndrome anorexia, bulimia, and binge eating disorders were assessed via algorithms from Hudson et al.'s study of the prevalence of eating disorders in the National Comorbidity Survey Replication (www.hcp.med.harvard.edu/ncs/eating.php). Analyses revealed that compared with heterosexual men, gay and bisexual men had a significantly higher prevalence of lifetime full syndrome bulimia, subclinical bulimia, and other subclinical eating disorders. Although there were no significant associations between the prevalence of current full-syndrome eating disorders and any of the measures of participation in the gay community, compared with nonparticipants, subjects who participated in a gay recreational organization or group had a significantly higher prevalence of current subclinical eating disorders, including anorexia, bulimia, and/or binge eating disorder. It was also found that the younger gay and bisexual men (18-29 years old) were more likely to have subclinical bulimia compared with the older gay and bisexual men (30-59 years old). These findings indicate the vulnerability gay and bisexual men have towards developing not only clinical eating disorders, but also disorders on the subclinical level.

The pattern of results suggest that gay men are in fact more preoccupied with anxiety about becoming fat, generally less content with their physique, and more concerned with muscular development. These findings indicate that gay men's dissatisfaction is accompanied by unhelpful cognitions about their bodies, in addition to them being more prone to emotional eating, which are consistent with previous research.

Many gay men are presenting with pervasive subclinical eating-disordered attitudes and behaviors. Dietary restraint, characteristic of both anorexia nervosa and bulimia nervosa, and behaviors which are more characteristic of bulimia nervosa and binge eating disorder, such as binge eating and purging, have all been noted in the above research to be insidious among gay men. These maladaptive eating behaviors, in addition to the drive for thinness, especially leanness, and the drive for muscularity, characteristic of body image dissatisfaction, contribute to variations of psychopathology found in the gay male subculture. Because pressures to be physically attractive are influential to many gay men, it is imperative that effective treatment interventions be developed. The next section discusses first- and second-generation behavioral therapies, primarily cognitive-behavioral therapy (CBT). CBT is an evidenced-based treatment of choice that has already been established for eating pathology. Studies have been conducted examining this treatment for disordered eating, but have primarily looked at its efficacy with women.

Second-Generation Cognitive and Behavioral Therapy for Eating Pathology

Behavior therapies are often conceptualized as occurring over the span of three generations. The first-generation therapies, initially developed during the 1950s and 1960s, incorporated stimulus control, reinforcement and punishment, aversion therapy,

exposure therapies, and modeling therapies (Spiegler & Guevremont, 2010). Second-generation therapies emerged in the mid-1960s and introduced cognitive factors as important determinants of problem behaviors; the goal was to modify patients' dysfunctional thoughts and beliefs using specific cognitive change procedures, in addition to first-generation therapy techniques (Hayes, 2004; Spiegler & Guevremont, 2010). Third-generation therapies will be discussed in subsequent sections, while the remainder of this section will focus specifically on cognitive-behavioral therapy (CBT), as a second-generation therapy, as it is applied to the treatment of eating pathology.

A cognitive-behavioral theory of eating disorders. The cognitive-behavioral theory of eating disorders contends that all eating-disordered problems are maintained by the interaction among common processes, including the over-evaluation of body shape and weight, clinical perfectionism (i.e., the obsession-like over-evaluation of reaching personally demanding standards on weight, shape, appearance, and approval from others, despite negative consequences), core low self-esteem, mood intolerance, and interpersonal difficulties (Fairburn, 1981; Fairburn, 1985, p. 160-192; Fairburn, Cooper, & Cooper, 1986, p. 389-404; Fairburn et al., 2003, p. 517; Garner & Bermis, 1982, 1985; Vitousek, 1996; Wendell, 2011). The fusion with these rigid all-or-nothing thoughts is inversely related to self-esteem (Mizes et al., 2000) because people with eating disorders evaluate themselves negatively when failing to meet impossible goals (Fairburn et al., 2003). This pattern of negative self-evaluation can develop into a more enveloping, global negative view of themselves, or "core low self-esteem" which involves negative, autonomous self-judgments that can create a sense of hopelessness about their ability to recover (Fairburn et al., 2003).

There is also the propensity for individuals suffering from disordered eating problems to engage in avoidance, or dysfunctional mood modulatory behaviors in order to modify how they feel, rather than allowing changes in mood and appropriately coping with them (Fairburn et al., 2003; Johnson & Wardle, 2005). According to Fairburn et al. (2003), these avoidance behaviors serve as defense mechanisms and may take the form of self-starvation, bingeing, purging, among other strategies. Lastly, interpersonal difficulties, such as family stressors, environmental settings that place an emphasis on personal appearance and body shape, abusive relationships, etc. may cause individuals to feel the need for a sense of control, which they exhibit by restricting, binging, purging, or other maladaptive eating behaviors (Fairburn et al., 2003).

Efficacy of CBT for eating disorders. CBT was created to apply a scientific lens to the understanding and treatment of psychopathology. Studies have evaluated various cognitive-behavioral theories of psychopathology, and hundreds more have assessed the efficacy of CBT interventions (Herbert & Forman, 2011). Manual-based CBT has the most empirical support and is currently considered to be the most effective treatment for clinical eating disorders, particularly for patients presenting with bulimia nervosa. Research to date has shown CBT to be a useful treatment for bulimia (Wilson, Grilo, & Vitousek, 2007) and it was given a high grade by the National Institute for Clinical Effectiveness (NICE) guidelines, indicating that it is the treatment of choice for the disorder (NICE, 2004). Manual-based CBT has facilitated rapid changes in the eating patterns of patients with bulimia nervosa, and the effects are well maintained over time (Waller et al., 1996). However, a sizeable subset of patients who present for treatment do not achieve clinically significant benefits. A few studies have found that only 30-50% of

patients had stopped binging and purging at 1-year follow-up (Fairburn, 2008; Steinhausen, 2002; Wilson, 2005; Wilson et al., 2007).

In contrast to the treatment available for bulimia nervosa, there has been little controlled treatment research on anorexia nervosa. Long-term outcome studies indicate recovery rates of 25-70% with adolescent patients tending to have higher success rates (Lowe et al., 2001; Steinhausen, 2002). In addition, recovery is usually a prolonged process taking place over the course of 5-6 years and is characterized by a fluctuating course, including high relapse (Guarda, 2008). The various treatment outcome studies of anorexia nervosa have serious methodological issues and limitations, including small sample sizes, less than optimal assessment of disordered eating pathology, absence of control groups, inadequate follow-up, and poorly specified treatments (Gowers et al., 2007; Wilson, 2005). Eating disorder not otherwise specified (EDNOS) is considered a heterogeneous and poorly specified diagnostic category. Besides binge eating disorder, the remaining disorders in this category consist primarily of variations of bulimia nervosa and anorexia nervosa, or "combined" disorders containing features from both eating disorders. Studies from various countries are consistent in showing that the disorders covered by EDNOS are the most common eating disorders encountered in the clinical setting (Fairburn & Bohn, 2005; Thomas, Vartanian, & Brownell, 2009). However, with the exception of binge eating disorder, there have been no published controlled treatment trials of these disorders despite their prevalence. In contrast to bulimia nervosa, relatively few well-controlled studies on the treatment of binge eating disorder have been conducted.

CBT suggests that patients will improve if the appropriate therapeutic strategy is used. Thus, the efficacy of psychotherapeutic interventions seems to be largely based on using the indicated "evidence-based technique" for the presented problem (Vanderlinden, 2008). Even though CBT is the current prevailing standard for the treatment of most eating pathology, important problems remain. Many patients do not improve with the CBT approach; some studies show only 30-50% (or about half) of patients cease disordered eating behavior (Fairburn, 2008; Steinhausen, 2002; Wilson, 2005; Wilson et al., 2007). Furthermore, many patients are not successful at adapting and installing new and more realistic beliefs about themselves and their bodies.

As an outcome-driven therapeutic approach, CBT has proven to be moderately effective with patients who specifically meet criteria for clinical anorexia nervosa, bulimia nervosa and EDNOS (Wilson, 2005). However, the CBT treatment does not target non-clinical patients suffering from maladaptive eating attitudes and behaviors, who comprise the majority of the population. Another important issue is that many patients with eating disorders often do not wish to change and CBT does not explicitly focus its interventions around examining and clarifying the patients' chosen life values, that is, where they learn to connect with what is of great importance to them in relation to their lives. Values are statements about what one wants to be doing with one's life: about what one wants to stand for, and how one wants to behave on an ongoing basis (Harris, 2009). This core process of helping patients re-connect to neglected parts of themselves that have been neglected has been considered instrumental in increasing motivation to make behavioral changes, but is absent in cognitive-behavioral therapeutic interventions.

Failing to clarify patients' life values may lead to a stronger unwillingness towards behavior change particularly when their maladaptive eating behaviors have (or are believed to have) helped them lose substantial amounts of weight, which as a result, brings them closer to their ideal body image despite the potential physical health risks involved (Juarascio, Forman, & Herbert, 2010). Patients may therefore have an aversion to seek out and engage in any treatment with the primary agenda being to modify eating attitudes and behaviors. CBT directly attempts to change the content of cognitions vis-à-vis disordered eating via cognitive restructuring. Cognitive restructuring is a core component of CBT, yet the egosyntonic nature of maladaptive eating-related cognitions often make them particularly resistant to direct modification efforts (Guarda, 2008; Merwin et al., 2011; Vanderlinden, 2008). Gay men's perceptions of self are influenced and shaped by the broader social context in which they live and are therefore subjected to the same overarching cultural system and ideals perpetuated by the media. Because these cultural ideals are constantly changing and evolving, gay men are likely to continually adopt the ideal body perpetuated by society (e.g., the gay subculture) as the only type of body to be valued (Morrison & McCutcheon, 2011).

As a result of the sociocultural milieu to which many gay men belong, cognitive restructuring may have to occur over one's life span and may not be feasible for many gay men. Hence, instead of trying to alter the actual content of one's cognitions about weight, body image, or other aesthetic qualities, it may in fact be advantageous to focus on changing how the individual engages with his or her thoughts and feelings, via mindfulness and acceptance-based strategies. Juarascio, Forman, and Herbert (2010) expressed that "acceptance of distressing thoughts could be particularly useful for

individuals with an eating disorder because many of their distressing thoughts might be true, and therefore difficult to change" (p. 177). This acceptance would thus not only allow patients to be nonjudgmentally aware of their distressing thoughts, but better able to sit with the thoughts and not engage in maladaptive eating attitudes and behaviors as a way of suppressing and ceasing thoughts, which is a type of experiential avoidance. Wilson (1996) has suggested that acceptance-based methods for treating eating pathology deserve increased attention, and several interventions that incorporate mindfulness training and acceptance-based procedures have been introduced. The next section will present the research on the several third-generation cognitive and behavioral therapies, which have been used to treat eating and weight pathology in women.

Third-Generation Cognitive and Behavioral Therapies: Mindfulness and Acceptance-Based Interventions for Disordered Eating and Weight Concerns

In contrast to the first- and second-generation behavioral therapies, whose main goal is to eliminate or reduce patients' problems, the goal of third-generation therapies is for patients to actively accept various forms of psychological discomfort as unavoidable parts of their lives (Shapiro & Carlson, 2009; Spiegler & Guevremont, 2010). Advocates for third-generation behavior therapies argue that they espouse a more contextualistic approach than first- and second-generation behavioral therapies (Hofmann, Sawyer, & Fang, 2010). These therapies share several interrelated central themes: an expanded view of psychological health, a broad view of acceptable outcomes in therapy, acceptance, mindfulness, and the goal of a life worth living. In this section of the literature review, I briefly examine empirical research conducted in the field concerning third-generation behavioral therapies, such as dialectical behavior therapy (DBT), mindfulness-based

stress reduction (MBSR), mindfulness-based eating awareness training (MB-EAT), and mindfulness-based cognitive therapy (MBCT), whose treatment targets women with eating and weight disorders.

Dialectical behavior therapy (DBT). DBT evolved from standard cognitive-behavioral therapy as a treatment for borderline personality disorder (BPD), particularly for recurrently suicidal, severely dysfunctional individuals (Koerner & Dimeff, 2007). The theoretical orientation to treatment is a blend of three theoretical positions: behavioral science, dialectical philosophy, and Zen practice (Koerner & Dimeff, 2007; Shapiro & Carlson, 2009). Behavioral science, the principles of behavior change, is countered by acceptance of the patient (with techniques drawn both from Zen and from Western contemplative practice); these poles are balanced within the dialectical framework (Koerner & Dimeff, 2007; Robins & Rosenthal, 2011). Although developed as a treatment for chronically suicidal patients, many of whom met diagnostic criteria for BPD, the treatment model appears to have even wider applicability, where DBT has been adapted for the treatment of bulimia nervosa and binge eating disorder (Safer, Telch, & Chen, 2009).

Outcome-driven research examining the efficacy of DBT for the treatment of co-morbid borderline personality disorder and impulsive disordered eating behavior has been promising (Chen et al., 2008; Palmer et al., 2003). Consequently, similar research targeting disordered (binge) eating has also been conducted. In two studies where DBT was adapted for binge eating disorder in women, Telch, Agras, and Linehan (2000) found decreases in both binge episodes and binge days from baseline to posttreatment in addition to improvement in self-regulation of negative moods. There was also a

reduction in the urge to eat when experiencing negative moods. Similarly, Telch, Agras, and Linehan (2001) found that 67% of women who completed treatment, including the wait list participants, were abstinent from binging at 3 and 6-month follow-ups.

In addition to binge-eating disorder, DBT has also been applied to women suffering from bulimia nervosa and subclinical bulimia. Both Safer, Telch, and Agras (2001a) and Safer, Telch, and Agras (2001b) examined the application of DBT to the treatment of bulimia nervosa and subclinical bulimia in a 20-session manualized therapy. Safer, Telch, and Agras (2001a) not only found declines in binge eating and purging behaviors posttreatment and at the 6-month follow-up, the participant also denied any dissatisfaction with her weight. In the Safer, Telch, and Agras (2001b) study, several participants were abstinent from binge eating/purging behaviors, and there was also a reduction in objective binge eating episodes (i.e., an amount of food larger than most people would eat in a discrete time period).

Mindfulness-based stress reduction (MBSR) and mindfulness-based eating awareness training (MB-EAT). MBSR is an intensive training program that encourages the development of several core mindfulness skills: paying close and sustained moment-by-moment attention to a specific object of awareness; flexibility of attention in moving from one body region to the next; noticing any sensations, thoughts or feelings arise without trying to change them; returning to the intended focus of awareness when the mind inevitably wanders; and applying mindfulness attitudes of kindness, acceptance, and nonjudging to the subjective personal experience (Salmon, Sephton, & Dreeben, 2011; Shapiro & Carlson, 2009). MB-EAT integrates elements of MBSR and CBT with guided eating meditations. The meditations, which are eating-relevant, address issues

around body shape, weight, and eating-related processes such as appetite and satiety (Shapiro & Carlson, 2009). This type of training is seen as a way to increase awareness of automatic patterns and then to disengage from undesirable behaviors and reactivity.

In an exploratory study, Smith, Shelley, Leahigh, and Vanleit (2006) examined the effectiveness of a modified mindfulness intervention for reducing binge eating. Participants were 25 adult women (80%) and men (20%), with an average age of 47.8 years, who were recruited from an 8-week ongoing Mindfulness-Based Stress Reduction (MBSR) program course. The standard format of the program was modified to include an increased focus on eating. Results showed a small to moderate decrease in binge eating, in addition to a large decrease in depressive symptoms. There was also a moderate decrease in state anxiety, a moderate increase in self-acceptance, and a moderate to large increase in the Mindful Awareness Attention Scale (MAAS). Reduced binge eating was associated with reduced state anxiety and increased self-acceptance. Also, self-acceptance was associated with reduced state anxiety and depressive symptoms, suggesting that self-acceptance may be involved in both improved mental health and binge eating.

Kristeller and Hallett (1999) examined the efficacy of a 6-week meditation-based group intervention (i.e., Mindfulness-Based Eating Awareness Training) for binge eating disorder. Participants included 21 women with an average age of 46.5 years. The results revealed that in addition to decreases in anxiety and depression, the number of binges reported per week dropped significantly over treatment. Perceived levels of eating control, sense of mindfulness, and awareness of hunger cues and satiety cues all increased significantly. A decrease in number of binges was related to an increase in

sense of eating control and sense of mindfulness. Increases in mindfulness and in eating control were also related. Increased awareness of satiety cues was related to a reduction in binges. The findings from this study illustrate how a mindfulness-based intervention can actually help reduce maladaptive behaviors and bring awareness to one's behaviors.

Mindfulness-based cognitive therapy (MBCT). Mindfulness-based cognitive therapy (MBCT) is yet another third-generation behavioral therapy that has been modified and used in the treatment of eating pathology. Unlike CBT, there is little emphasis on changing the content of thoughts; rather, the emphasis is on changing awareness of and relationships to thoughts, feelings, and bodily sensations. MBCT is designed to teach patients in remission from recurrent major depression to become more aware of, and relate differently to, their thoughts, feelings, and bodily sensations. The program teaches skills that allow individuals to disengage from habitual dysfunctional cognitive routines, as a way to reduce future risk of relapse and recurrence of depression (Segal, Teasdale, & Williams, 2004).

Baer, Fischer, and Huss (2005) and Baer, Fischer, and Huss (2006) examined the application of MBCT to women with clinically significant binge eating behavior. The results of these studies revealed decreases in body shape concern and preoccupation with eating, where significant reductions in binges were noted. In addition, moderate increases in noticing and attending to thoughts, feelings, sensations, and perceptions, and substantial increases in acceptance of these experiences were found.

The research generated from this section on third-generation behavioral therapies is very promising with regards to the treatment of weight and eating pathology in women. Treatment using DBT resulted in either reductions in or abstinence from binge eating and

purging at treatment termination and follow-up assessments, in addition to reductions in objective binges. The intervention also helped to decrease the vulnerability to negative emotions associated with the experiential avoidant behaviors by increasing mindfulness. DBT enhanced emotion regulation and distress-tolerance skills in order to increase patients' social functioning. Interventions using MBSR and MB-EAT helped to reduce binge eating, but also increased patients' mindfulness and self-acceptance, or the willingness to experience aversive emotions. Finally, interventions focusing on MBCT help to decrease objective binges at treatment termination and at follow-up assessments, decrease preoccupation with maladaptive eating attitudes and behaviors and distress produced by body shape, and increase both mindfulness and acceptance.

All in all, these third-generation behavioral therapies have been successful in increasing mindfulness and acceptance, together with ameliorating social functioning and the overall well-being of patients who suffer from disordered eating attitudes and behaviors. Much like CBT, however, these therapies are more focused on outcomes than *process*. In addition, none of these therapies contain interventions which specifically target cognitive fusion. With cognitive fusion, the content of words, and the events that are associated with them, become one and the same. A type of cognitive fusion, called "thought-shape fusion," is a cognitive distortion hypothesized to exist in people with disordered eating attitudes and behaviors (Shafran & Robinson, 2004). This occurs because in eating disorders there is an over-importance of thoughts about eating, which is almost certainly a direct expression of the over-evaluation of eating, shape, weight, and their control. Cognitive defusion techniques are therefore designed to reduce the functions of thoughts by altering the context in which they occur, rather than attempting

to alter the form, frequency, or situational sensitivity of the thoughts themselves (Masuda, Hayes, Sackett, & Twohig, 2004). These techniques change awareness of and relationship to thoughts, leading to reductions in the believability of negative thoughts.

In addition to the lack of emphasis on confronting and addressing cognitive fusion, the previously discussed third-generation behavioral therapies do not focus their interventions around examining and clarifying the patients' values. Values can be described as chosen concepts linked with patterns of action that provide a sense of meaning and that can coordinate one's behavior over time (Dahl, Plumb, Stewart, & Lundgren, 2009). It is through this practice of examination and clarification of values where patients learn to connect with what is of great importance to them. Work around clarifying values also seeks to discover what it is the patients want their life to symbolize. This process of helping patients to re-connect to neglected parts of themselves has been considered instrumental in increasing motivation to make behavioral changes (Dahl, Plumb, Stewart, & Lundgren, 2009; Hayes, Strosahl, & Wilson, 2011).

Acceptance and commitment therapy (ACT) is a contextual third-generation behavioral therapy whose ultimate goals are to bring verbal cognitive processes under better contextual control and to have patients spend more time in contact with the positive consequences of their actions immediately in the present as part of a valued life path (Hayes, Strosahl, &Wilson, 2011). The next section of the literature review will discuss the theoretical model and the core processes involved in ACT to treat body image dissatisfaction and maladaptive eating attitudes and behaviors in women and men.

Acceptance and Commitment Therapy (ACT) as a Treatment Modality

The philosophical and theoretical foundations of ACT. The treatment modality described in this section is a relatively new third-generation contextual behavioral therapy developed by Steven C. Hayes and colleagues. ACT is seen as an applied extension of a 20-year-long attempt to create a modern form of behavior analysis that could overcome the challenge that was presented with the first- and second-generation behavioral therapies; rather than promoting the changing of psychological events directly, this mode of therapy would attempt to change the function of these events and the individual's relationship to them through mindfulness, acceptance, and cognitive defusion strategies (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). As a process-oriented rather than a procedure-oriented model, ACT focuses on helping people to live more rewarding lives even in the presence of undesirable thoughts, emotions, and sensations.

According to Hayes, Luoma, Bond, Masuda, and Lillis (2006):

> ACT is rooted in the pragmatic philosophy of functional contextualism, a specific variety of contextualism that has as its goal the prediction and influence of events, with precision, scope and depth. Contextualism views psychological events as ongoing actions of the whole organism interacting in and with historically and situationally defined contexts. These actions are whole events that can only be broken up for pragmatic reasons, not ontologically. (p. 4)

Theoretically speaking, ACT is based on a new behavioral account of human language and cognition known as Relational Frame Theory (RFT), which focuses on the capacity humans have for relating events in infinite ways (Blackledge, 2003; Hayes, Barnes-Holmes, & Roche, 2001). Initially, this capacity is learned directly through

modeling and shaping, and can be applied thereafter in innovative and unsystematic ways that are not explicitly taught. According to RFT, the essential core of language and higher cognition is the ability to learn and apply relational frames. From the perspective of RFT, relational framing is the defining central feature of language and higher cognition (Ramnerö & Törneke, 2008).

The ACT model of psychopathology: Psychological inflexibility. The core of the ACT approach to psychological treatment is the idea that human language (i.e., symbolic activity in whatever form it occurs—whether gestures, pictures, written forms, or sounds) gives rise to both human achievement and human suffering. According to Hayes, Strosahl, and Wilson (2011), "The powerful indirect functions of language and higher cognition create the potential for psychological distress in the absence of immediate environmental cues; yet, these are the very cognitive abilities that are most prized and helpful in human advancement" (p. 17). Suffering, or psychological inflexibility, occurs when people very strongly believe the literal content of their mind and become fused with their cognitions. Cognitive fusion refers to the tendency for humans to get 'caught up' in the content of what they are thinking so that it dominates over other useful sources of behavioral regulation (Luoma, Hayes, & Walser, 2007). In a fused state, people are unable to make a distinction between awareness and cognitive narratives since each thought or belief, and its referent, are held closely together. Hayes, Strosahl, and Wilson (2011) state that "People whose cognitions fuse are likely to ignore direct experience and become relatively oblivious to environment influences" (p. 21). It is in this fused state that a suffering person follows the verbal rules that there is a 'right way to be', which is at the core of psychopathology.

In addition to cognitive fusion, ACT also posits that experiential avoidance is yet another salient process in the cycle of human suffering which is at the core of psychopathology. Experiential avoidance, also called experiential control, is the attempt to control or alter the form, frequency, or situational sensitivity or internal experiences (i.e., thoughts, feelings, sensations, or memories), even when doing so causes behavioral harm (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). Experiential avoidance is also said to appear naturally from one's abilities to evaluate, predict, and avoid events. The harm done by both cognitive fusion and experiential avoidance is equally damaging to both one's sense of life's direction and to goal-oriented behavior.

Both cognitive fusion and experiential avoidance have the propensity to draw us out of being in the present moment. The conceptualized past, or future, dominates over the present, and as a result, behavior tends to be dictated by historically programmed thoughts and reactions, resulting in more of the same problematic past behavior. Fusion also has the ability to bind people with their conceptual views of self, which can lead to an attempt to maintain consistency by distorting or reinterpreting events if they seem inconsistent with the self-story. In this way, the conceptualized self cultivates self-deception, which in turn makes it even more resistant to change since confronting that process means confronting the deception (Hayes, Strosahl, & Wilson, 2011). Finally, cognitive fusion and experiential avoidance interfere with one's values, or the chosen qualities of life represented by ongoing patterns of behavior (Luoma, Hayes, & Walser, 2007). To the extent that behavior is occupied by experiential avoidance, people will find it difficult to really get in touch with their personal values.

The core model of psychological flexibility: Six therapeutic processes. ACT targets each of the core problems described above with the general goal of increasing psychological flexibility, defined as the ability to contact the present moment more fully as a conscious human being, and based on what the situation affords, to change or persist in behavior in order to serve valued ends (Hayes & Strosahl, 2004; Luoma, Hayes, & Walser, 2007). ACT also seeks to bring human language and cognition under better contextual control in order to promote a more open, centered, and engaged approach to living. The six core ACT processes all target psychological flexibility, as they overlap and are interrelated (See Figure 1).

In ACT, acceptance of various private events is taught as an alternative to experiential avoidance. Acceptance involves the active and aware embrace of private events without unnecessary attempts to change their frequency or form (Luoma, Hayes, & Walser, 2007). Acceptance is promoted as a method of increasing values-based action. Techniques in ACT encourage rich, flexible interaction with previously avoided experience. Many of the methods resemble exposure exercises, but with the additional purpose of increasing willingness and response flexibility, rather than diminishing emotional responding.

Cognitive defusion techniques attempt to alter the undesirable functions of thoughts and other private events, rather than trying to alter their form, frequency, or situational sensitivity (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). In other words, ACT attempts to change the way one interacts with or relates to thoughts by creating contexts in which their unhelpful functions are weakened. Furthermore, many of the techniques involving cognitive defusion also attempt to reduce the literal quality of the

thought, weakening the tendency to treat the thought as what it refers to rather than what is directly experienced to be. These techniques usually lead to a decrease in believability of, or attachment to, private events rather than an immediate change in their frequency (Hayes, Strosahl, & Wilson, 2011).

Present moment awareness is yet another core therapeutic process fostered in ACT, which promotes ongoing, nonjudgmental contact with psychological and environmental events as they occur (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). The goal is to have patients experience their world more directly so that their behavior becomes more flexible and thus their actions more consistent with their chosen life directions. This is accomplished by allowing workability to exercise more control over behavior, and by using language more as a tool to note and describe events, rather than simply to predict and judge them. Establishing a transcendent sense of self, or an observing self, in ACT called the self-as-context, is a core process which helps in decreasing attachment to particular unhelpful content. This self-as-context is important in part because it is from this standpoint that one is able to be aware of one's own experiences devoid of attachment to them or an investment in which particular experiences occur. In other words, the content of consciousness changes from one moment to the next, while the locus from which we view that content remains constant.

Connection with one's values is the next core process found in ACT. According to Hayes, Strosahl, and Wilson (2011):

> ACT assumes that each patient already possesses everything that is needed to live a rich and meaningful life. For most [patients], however, the ability to see and follow a valued direction has been impaired by verbal fusion and experiential

avoidance. (p. 296)

Values are chosen actions that can never be obtained as an object, but can be instantiated moment by moment. Techniques in ACT revolving around values work help patients choose life directions in various life domains (e.g., health, career, family, relationships) while weakening verbal processes that might lead to choices based on avoidance, social compliance, or fusion (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). For a patient with an eating disorder, for example, the therapist would help clarify patients' personal desires for the way they want to interact with the world, other people and themselves via multiple experiential exercises. The goal is for therapists and patients to examine the workability of the cognitions and behaviors regarding eating, and for patients to begin to realize how these patterns of thoughts and behaviors are interfering with the most important aspects of their lives.

Finally, committed action in ACT advances the development of larger patterns of effective action linked to the patient's chosen values. The ultimate goal is to develop patterns of behavior that work for the patient. Hayes, Strosahl, and Wilson (2011) state, "Committed action consists of particular acts in particular moments, whereas a value involves freely chosen, verbally constructed qualities of ongoing action. Values-based actions are those that are deliberately designed to embody a particular value and are intrinsically reinforced" (p. 328). As part of the committed action work, patients are asked to develop goals and specify actions that can be taken to achieve those goals. In ACT, goals are defined as a specific achievement looked for in the service of a patient's

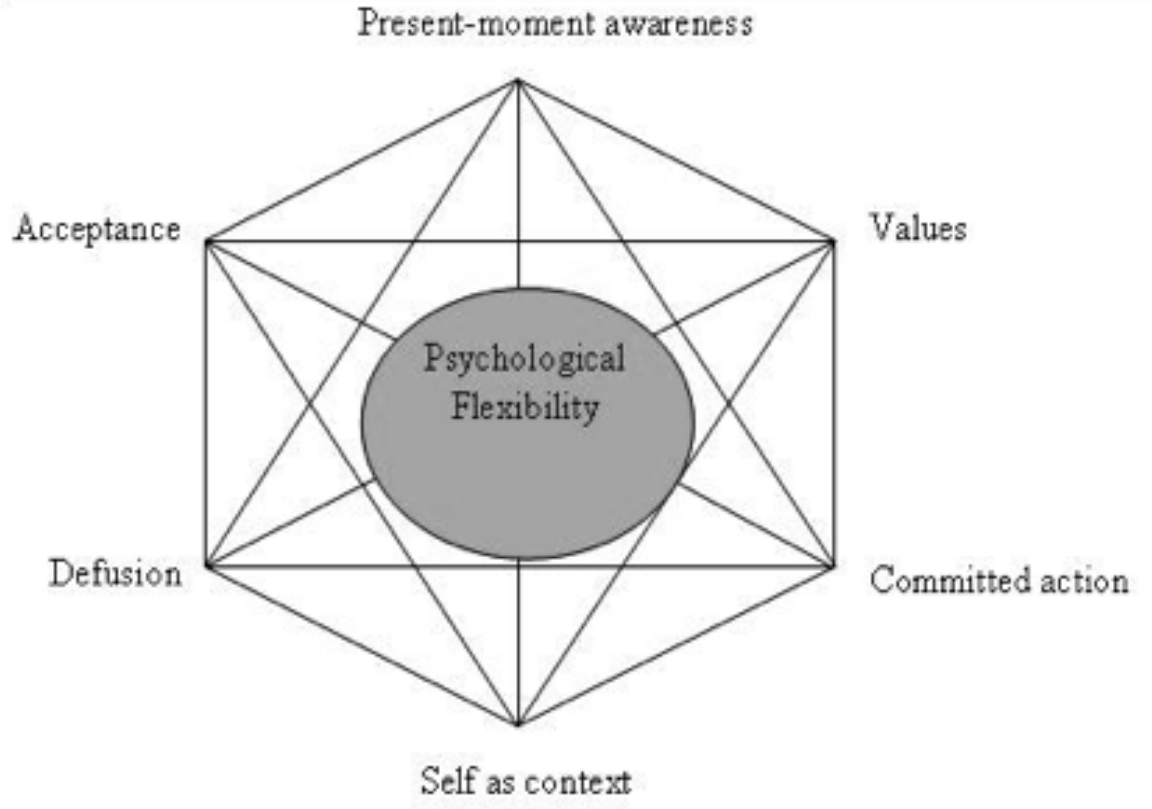

Figure 1. The core model of psychological flexibility in ACT (Hayes et al., 2011).

particular value. For example, with an eating disordered patient who values education and being a quality student, training committed action might involve setting a goal of establishing regular set meal times so that the patient will have the energy and stamina to concentrate and excel in his or her studies.

ACT: Targeting Body Image Dissatisfaction and Maladaptive Eating Attitudes and Behaviors

In this final section, I present the most current empirical research focusing on treatment of body image dissatisfaction and eating psychopathology using the ACT model as a clinical intervention. Heffner, Sperry, Eifert, and Detweiler (2002) examined the efficacy of treatment for an adolescent with anorexia nervosa, restricting type, using

ACT. At intake and follow-up assessment, the patient completed the Eating Disorders Inventory-2 (EDI-2; Garner, 1991) to assess symptoms associated with anorexia nervosa and bulimia nervosa, behaviors and attitudes about eating, weight, and shape, and general constructs and traits related to eating disorders.

Treatment was conducted from an ACT approach to target experiential avoidance by increasing acceptance of weight-related cognitions and redirecting the patient's desire for thinness onto healthier, valued directions and goals. Weight was also assessed at each session. At termination, the patient's weight increased to a healthy level, her menstrual cycle returned, and scores on the drive for thinness and ineffectiveness scales of the EDI-2 dropped to the nonclinical range. This study's findings illustrate that ACT was successful in ameliorating maladaptive eating attitudes and behaviors with this patient, while also increasing her physical health.

Lillis, Hayes, and Levin (2011) examined the impact of binge eating on weight reduction in a workshop using ACT. The researchers first examined whether the workshop impacted binge eating and whether binging might in part account for the impact of the workshop on weight. Analyses revealed that the ACT condition showed significant improvements relative to the control condition on binge eating. A linear regression analysis was then performed to examine the relationship between weight-related experiential avoidance, as measured by the AAQW, and binge eating at baseline. Results indicate that the AAQW was significantly related to self-reported binge eating. The ACT condition also showed significant improvements relative to the control condition on weight-specific experiential avoidance. The findings illustrate that experiential avoidance is related to problems of eating and weight, as it is used as coping

with weight-related problems. Further, this study demonstrates how a brief ACT workshop intervention was able to decrease self-reported binge eating and weight-specific experiential avoidance. Despite the promising findings, the majority of participants were white females, and sexual orientation was neither considered nor controlled. In light of findings in previous sections of this literature review regarding gay males, further research conducted should consider this population as a target for an ACT intervention.

In another small-scale study, Berman, Boutelle, and Crow (2009) evaluated the effectiveness of ACT psychotherapy delivered across 17-19 twice-weekly sessions for adult women with full or subclinical anorexia nervosa with a history of less than satisfactory results from eating disorder treatment programs.

Overall, the participants showed improvement on most psychological measures. At post-treatment, Participant 1 was in the functional range on all scales and the improvements were maintained at follow-up. Participant 1 also reported improvement maintained at follow-up on the BI-AAQ, her total EDE-Q score returned nearly to baseline, and she had no additional psychological or psychiatric treatment following completion of the study protocol. Important life changes were also made following treatment. Participant 2 also showed improvement. She gained a modest amount of weight from baseline to post-treatment, and gained additional weight by follow-up, improving her BMI. When comparing baseline to follow-up, Participant 3 evidenced more modest improvements with regards to self-reported eating disorder symptoms. These findings illustrate that psychotherapy using ACT is viable and well tolerated as a

treatment for adults with chronic anorexia nervosa. Again however, all the participants were women and sexual orientation was not considered.

In a larger study, Juarascio, Forman, and Herbert (2010) investigated the relative effectiveness of ACT and cognitive therapy (CT) (i.e., cognitive behavioral therapy) in improving subclinical eating pathology. A mixed (two assessment occasions by two groups) repeated-measures analysis of variance (ANOVA) was conducted to establish the extent to which eating pathology decreased between baseline and post-treatment, and whether the treatment group moderated this decrease. Results indicated a slight decrease in eating pathology across time for the CT group, but a significantly steeper decrease in eating pathology between baseline and post-treatment in the ACT group. These results, in addition to the effect size calculations, suggest that CT (Cohen's d = .48) had only a relatively modest effect on eating pathology, whereas ACT (Cohen's d = 1.89) evidenced a very large decrease in eating pathology. A similar interaction pattern was found when using only treatment completers in the analysis, with the ACT group again evidencing a significantly steeper decrease in eating pathology between baseline and post-treatment. The findings of this study suggest that ACT is a strong treatment modality for reducing sub-clinical maladaptive eating behavior.

Finally, in a pilot randomized trial study, Pearson, Follette, and Hayes (2012) examined the effectiveness of a 1-day ACT workshop intervention for women suffering from body dissatisfaction and disordered eating attitudes. Participants included 73 women with an average age of 43 years across the entire sample. The age range of the participants was 18-68. The average body mass index (BMI) was on the borderline between overweight (BMI 25-29.9) and obese (BMI > 30). The subjects in the wait-list

control condition completed standardized questionnaires during their first meeting and were instructed on Appetite Awareness monitoring (Craighead, 2006). They then self-monitored hunger, satiety, bingeing, and purging for 1 week. The subjects then returned to receive the treatment 2 weeks later. Participants in the ACT treatment group attended their initial appointment the day of the scheduled 8-hour workshop and completed the initial standardized measures.

Analyses revealed that scores on the EAT-26, measuring eating attitudes, significantly improved to a greater degree across time in the ACT condition than in the control condition. Body anxiety, as measured by scores on the PASTAS, was also reduced in the ACT condition and showed greater improvement than the waitlist control condition. In addition, as evidenced by scores on the PEWS, analyses revealed a significant improvement vis-à-vis preoccupation with eating, weight, and shape in the ACT workshop condition. Finally, scores on the AAQ-W and the AAQ indicated a significant increase in experiential acceptance and psychological flexibility across time in the ACT condition.

The findings of this study provide preliminary support for ACT as a brief intervention model for distress associated with body image dissatisfaction and maladaptive eating attitudes, but again gender was held as a constant excluding men, and sexual orientation was not considered. In this section of the literature review, the findings from the most current research using ACT for treating body image dissatisfaction and disordered eating attitudes and behaviors evidenced that ACT interventions did result in lower levels of psychopathology and other problematic

attitudes and behaviors in addition to helping foster an increase in psychological flexibility; however, important problems still remain.

Statement of the Problem

Much of the research in the field regarding interventions and treatment of eating pathology has been conducted among samples of participants (e.g., women) who meet full criteria for an eating disorder in the DSM. A much more substantial number of people exist who do not have a diagnosable clinical eating disorder, but still suffer from serious cognitive, affective, and behavioral eating-related symptoms, for example, intensely negative body image, obsessive thinking about food, and appearance, dietary restriction, binging, and purging (Fairburn & Bohn, 2005; Juarascio, Forman, & Herbert, 2010). These symptoms are also characteristic of subclinical eating disorders. There is currently a paucity of research concentrating on the gay male population with regards to clinical interventions, such as ACT, which specifically target cognitive fusion and experiential avoidance, and whose goal is to increase psychological flexibility in order to pursue one's values.

ACT is theoretically appropriate as a therapeutic intervention to address the transdiagnostic problem of maladaptive eating attitudes and behaviors, including body image dissatisfaction because it is a functional approach rather than diagnostically driven (Pearson, Follette, & Hayes, 2012). ACT also seems appropriate for gay men struggling with body image disturbances and disordered eating attitudes and behaviors within today's socio-cultural context, since its emphasis is on facing and accepting what is not in one's power to control (Fuchs, Lee, Roemer, & Orsillo, 2013; Kater, 2010). In the gay subculture, messages promoting a thin, lean, and muscular body ideal create and

reinforce the myth that anyone can and should achieve this ideal. ACT could help gay men accept difficult realities and take the steps needed to support a life based on their most deeply held values (Walloch, Cerezo, & Heide, 2012).

Research Questions

1. Will an ACT 1-day workshop pilot intervention reduce body image dissatisfaction and maladaptive eating attitudes and behaviors for a sample of gay men?

2. Will an ACT 1-day workshop pilot intervention improve psychological flexibility by reducing thought suppression and experiential avoidance for a sample of gay men?

3. Will change in body image dissatisfaction and change in maladaptive eating attitudes and behaviors, as the primary outcome measures, be affected by the following covariate, process of change variables of psychological flexibility over time: the White Bear Suppression Inventory (WBSI), as a measure of thought suppression, and the Body Image-Acceptance and Action Questionnaire (BI-AAQ) and the Acceptance and Action Questionnaire-II (AAQ-II), as measures of experiential avoidance/acceptance.

Hypotheses

The following hypotheses were proposed:

1. An ACT workshop intervention will: decrease body image dissatisfaction, as measured by the Male Body Attitudes Scale (MBAS) and decrease maladaptive eating attitudes and behaviors, as measured by the Eating Attitudes Test-26 (EAT-26) over time.

2. An ACT workshop intervention will: improve psychological flexibility by decreasing thought suppression, as measured by the White Bear Suppression Inventory (WBSI), and decreasing experiential avoidance, as measured by the Acceptance and Action

Questionnaire-II (AAQ-II) and the Body Image-Acceptance and Action Questionnaire (BI-AAQ) over time.

3. Change in body image dissatisfaction, as measured by the Male Body Attitudes Scales (MBAS), and change in maladaptive eating attitudes and behaviors, as measured by the Eating Attitudes Test-26 (EAT-26), will be affected by the following covariate, process of change variables of psychological flexibility over time: The White Bear Suppression Inventory (WBSI), the Body Image-Acceptance and Action Questionnaire (BI-AAQ), and the Acceptance and Action Questionnaire-II (AAQ-II).

CHAPTER IV

Method

Purpose

The purpose of this pilot pre-experimental study was to test the effectiveness of a 1-day ACT workshop intervention targeted at adult gay men who struggle with body image dissatisfaction and maladaptive eating attitudes and behaviors. The goal of this intervention was to reduce gay men's preoccupation with body image, weight, and shape. A secondary goal was to broaden gay men's lives by increasing levels of acceptance of thoughts and feelings in order to improve overall psychological flexibility.

Participant Recruitment

Participants who completed the study were between the ages of 22 and 40 with a mean age of 28 ($M = 28.54$, $SD = 5.37$). Participants had to meet the following criteria for inclusion in this study: (a) ability to speak English fluently; (b) self-identification as a gay male; (c) regular struggle with body image dissatisfaction; and (d) endorsement of maladaptive attitudes and engage in maladaptive behaviors centered on diet and exercise.

Individuals under the age of 18 were excluded from this study because of their inability to consent to being research participants without parental consent. Participants who were engaged in individual or group psychotherapy at the time of the study were not excluded; however, those participants in psychotherapy and who were diagnosed with anorexia nervosa, bulimia nervosa, eating disorder N.O.S., or body dysmorphic disorder were excluded from participation since the goal of the study was to address variables associated with subclinical symptomatology.

Gaylesta (Gaylesta, 2012), an online LGBT psychotherapy association of the greater San Francisco Bay Area, which includes a searchable database of over 200 licensed psychotherapists, was used to locate clinicians in the San Francisco area. E-mails were sent to LGBT organizations at large, in addition to the listed clinicians who work with LGBT individuals. The e-mails requested that the interested organizations and clinicians forward the e-mail (See Appendix A) with an attached recruitment flyer (See Appendix B) to potential participants who may have met the minimum criteria for the study. Prospective participants were also recruited via flyer announcements (See Appendix C) from the following: Facebook, gay social networking sites (e.g., Grindr), neighboring colleges and universities, gay bars/nightclubs, and the surrounding metropolitan LGBT community in San Francisco. Recruitment was additionally conducted via snowball sampling.

Interested prospective participants were directed to phone the researcher to be screened for eligibility according to the inclusion/exclusion criteria (See Appendix D). Eligible participants were told about the workshop and its content by phone and any questions or concerns regarding the study were answered; they were also made aware that a complementary lunch would be provided on the day of the workshop. If they agreed to participate, they were screened on the phone during that call and eligible participants were told that they would be contacted shortly once options for workshop dates were secured. The eligible participants were then contacted and provided three workshop dates; they chose one date that worked best with their schedule (See Appendix E). The location, and duration for the workshop intervention were also provided. If unable to attend any of the dates, they were thanked for their interest and told that when future

dates were secured, they would be contacted at a later time. All prospective participants, regardless of eligibility, were asked to promote the study to friends and members of the gay community who might have been both interested and eligible.

Participants

The target sample size for this study was between 50 and 60 men from the San Francisco Bay Area metropolitan area. A total of 49 gay men expressed interest in participating in the study. Of these respondents, 91.84% (n = 45) of respondents were eligible to participate and 8.16% (n = 4) were ineligible to participate. Among the 49 respondents eligible to participate, 24 became participants and completed the study (See Table 1).

Among the 24 total who completed the study and whose data was used in the analysis, a large portion of the participants were White/Caucasian (37.50%, n = 9). African American men comprised 12.50% (n = 3) of the sample, Asian American/Pacific Islander men were 12.50% (n = 3) of the sample, Biracial men were 12.50% (n = 3), and Multiracial men also comprised 12.50% (n = 3) of the sample. Hispanic/Latino men comprised 8.30% (n = 2) of the sample, and one man who self-identified as "Other," accounted for 4.20% (n = 1) of the sample.

With regards to relationship status at the time of the study, the majority of participants were either single and not dating 45.8% (n = 11) or single and dating 41.70% (n = 10). Participants reporting their current involvement in a committed relationship comprised 4.20% (n = 1) and those reporting their current involvement in an open committed relationship accounted for 8.30% (n = 2) of the sample.

Table 1.

Respondents (N = 49)

Respondent Outcomes	Frequency	Percentage
Eligible and completed workshop	24	48.98
Eligible and dropped out before	21	42.86
Ineligible due to phone screen	4	8.16
Reason for Ineligibility to Participate	**Frequency**	**Percentage**
Excluded based on criterion 1[a]	1	25
Excluded based on criterion 2[b]	2	50
Excluded based on criterion 3[c]	1	25

[a]Between the ages of 18 and 40
[b]Struggle with eating behaviors and amount of exercise used to manage weight and body shape
[c]Currently in individual or group psychotherapy with a diagnosis of body dysmorphic disorder, anorexia nervosa, bulimia nervosa, or eating disorder N.O.S.

A large number of the total sample self-identified as Atheist or identified as not having a religion (41.70%, *n* = 10). Men self-identifying as Agnostic comprised 16.70% (*n* = 4) of the sample, 16.70% (*n* = 4) self-identified as Christian, 8.30% (*n* = 2) self-identified as Jewish, 8.30% (*n* = 2) self-identified as Pagan, 4.20% (*n* = 1) self-identified as Buddhist, and 4.20% (*n* = 1) self-identified as Spiritual.

The sample was highly educated overall. With regards to highest level of educational attainment, 8.30% (*n* = 2) reported completion of a graduate or professional degree, 37.50% (*n* = 9) reported completing some graduate or professional school, 16.70% (*n* = 4) reported completion of a bachelor's degree, 16.70% (*n* = 4) reported completion of an associate's degree or trade school, 12.50% (*n* = 3) reported completing some college, and 8.30% (*n* = 2) reported obtaining their high school diploma or G.E.D.

With regards to annual personal income, 50.00% (*n* = 12) reported earning less than $20,000 per year, 20.80% (*n* = 5) reported an income of $20,000-$30,000, 4.20% (*n* = 1) reported earning between $30,000-$40,000, 4.20% (*n* = 1) reported earning between $40,000-$50,000, 12.50% (*n* = 3) reported earning between $50,000-$60,000, and 8.30% (*n* = 2) had an income of $80,000 or greater. In terms of social class, 37.50% (*n* = 9) self-identified as low, 12.50% (*n* = 3) as working class, 37.50% (*n* = 9) as middle, and 12.50% (*n* = 3) self-identified as upper-middle class.

Setting

Each of the ACT workshops and assessments took place in a classroom at Alliant International University in San Francisco, California. Each room had the capability of accommodating approximately 10 adults and was equipped with a computer, a projector, and a screen.

Procedure

Workshop design. The workshop protocol was a day-long (7-hour) workshop using Acceptance and Commitment Training (ACT; the term "training" is used as it has been previously in the ACT literature when ACT is applied to more normal range populations; Pearson, Follette, & Hayes, 2012). ACT is a flexible therapy with six treatment components and six core therapeutic process variables, where the treatment components set a structure for treatment (Pearson, Follette, & Hayes, 2012). The 7-hour workshop was divided into hour-long segments following the standard components of ACT, which included: creative hopelessness, control as the problem/willingness as the solution, values clarification, barriers to values, cognitive defusion, acceptance, and committed action (See Appendix F). Specific therapy exercises, with accompanying worksheets (See Appendix G), and techniques from ACT were developed and tailored for the purpose of the workshop's content and population by the researcher (Joseph Walloch) and a member of the dissertation committee (Dr. Patrícia Zuríta Oña); each workshop segment elicited participation from participants via experiential exercises and discussion. In addition, psychoeducational information around body image and disordered eating was also part of the workshop's content.

Workshop protocol. Upon arrival to the workshop, participants were instructed to read, review, and sign an informed consent (See Appendix H). The facilitator ensured comprehension of the informed consent form by eliciting questions if necessary. Participants were then guided to complete a demographic questionnaire (See Appendix I), and five pretreatment, or baseline, measures (See Appendices J-N). The first part of the hour was devoted to participant consent and introductions, and a half-hour for lunch

(served free of charge) was allotted. Immediately following the workshop, participants were instructed to complete the same five measures for the post-test. They were then informed about the follow-up assessment, which took place approximately 1 month after the workshop. Participants received an e-mail with an internet link from Qualtrics survey software in order to access the same five measures (See Appendix O). The survey software is used frequently to collect survey type responses and is a secure and reliable program. Qualtrics allows for the protection and confidentiality of all collected data.

Facilitator training. Each of the workshops and assessment periods was facilitated by the principal investigator (Joseph Walloch), who is a doctoral level psychological trainee. The facilitator has been trained in and has been using ACT in clinical practica for a year.

Measures

Demographic questionnaire. A demographic background questionnaire was used to obtain basic demographics, such as age, race/ethnicity, and religious affiliation, in addition to personal information such as relationship status, educational attainment, and annual income.

The following primary outcome measures were completed at pretest, posttest and follow-up:

Male Body Attitudes Scale. The Male Body Attitudes Scale (MBAS; Tylka, Bergeron, & Schwartz, 2005) is a 24-item self-report instrument that measures males' attitudes toward their bodies. The MBAS consists of three subscales (i.e., Muscularity, Low Body Fat, and Height). The 24 items are ranked on a 1-to-6 Likert scale (1 = *never* and 6 = *always*). Sample items include, "I think I have too little muscle on my body" for

the muscularity subscale, "I think my body should be leaner" for the body fat subscale, and "I am satisfied with my height" for the height subscale.

After reverse-coding specified items, subscale items are averaged with higher scores indicating greater muscularity, body fat, or height dissatisfaction. Tylka et al. (2005) found an alpha coefficient of .93 for the total score. Additionally, test-retest reliability was assessed (r = .91), as well as evidence of convergent and divergent validity. The MBAS's factor structure has been upheld with samples of gay men (Blashill & Vander Wal, 2009) and predominantly heterosexual men (Tylka et al., 2005). In samples of gay men, all subscales yielded evidence of internal consistency reliability (α = .90 for muscularity, α = .94 for body fat, and (α = .88 for height), and construct validity in their moderate relationships with depressive symptomatology and social sensitivity (Blashill, 2010; Blashill & Vander Wal, 2009). In the current study, the MBAS demonstrated an overall excellent level of internal consistency (α = 0.92). Reliability for the Muscularity subscale was excellent (α = 0.94), the reliability for the Body Fat subscale was excellent (α = 0.90), and the reliability for the Height subscale was good (α = 0.81).

Eating Attitudes Test-26. The Eating Attitudes Test-26 (EAT-26; Garner, Olmsted, Bohr, & Garfinkel, 1982) is a 26-item, self-report measure assessing maladaptive eating attitudes and behaviors in both adolescent and adult populations, including bingeing, purging, calorie restriction, and disordered eating attitudes. This questionnaire is also recommended for use with nonclinical samples (Siever, 1994). The 26 items are rated along a 6-point scale ranging from *always* to *never*. The first 25 items of the scale are coded as follows: *always* = 3, *usually* = 2, and *often* = 1. *Sometimes*,

rarely, and *never* are each coded as 0. The 26th item is coded as follows: *never* = 3, *rarely* = 2, and *sometimes* = 1. *Often*, *usually*, and *always* are each coded as 0 (Garner et al., 1982).

The measure also forms three subscales: (a) dieting, (b) bulimia and food preoccupation, and (c) oral control. The Dieting subscale consists of 13 items to detect negative body image and avoidance of fattening foods. The Bulimia and Food Preoccupation subscale consists of six items, designed to measure obsessive thoughts toward food as well as bulimic behaviors. The Oral Control subscale, which consists of seven items, measures food restriction and pressure felt from others to gain weight. Higher scores in each subscale reflect greater eating psychopathology in the specific symptomatic domain. Garner et al. (1982) established a cutoff score of 20 indicating a high probability of an eating disorder, using a large (N = 160) female anorexic sample.

In the original study by Garner et al. (1982), the EAT-26 showed high internal consistency (α= .90). Orbitello et al. (2006) further specified criteria for different cutoff levels, where a score less than 11 was identified as low, 11 to 19 moderate, and 20 and above high. EAT-26 scores differentiate between individuals with a diagnosable eating disorder and nonclinical controls and are correlated as expected with scores on other measures of disordered eating (Kashubeck-West, Mintz, & Saunders, 2001). Cronbach's alpha for EAT-26 items was .83 (Reilly & Rudd, 2006) and .89 (Russell & Keel, 2002) in prior samples of gay men. This measure takes approximately 2 minutes to complete. For the current study, the EAT-26 demonstrated an overall good level of internal consistency (α = 0.88). Reliability for the Dieting subscale was good (α = 0.87), the reliability for

the Bulimia and Food Preoccupation subscale was acceptable ($\alpha = 0.76$), and the reliability for the Oral Control subscale was questionable ($\alpha = 0.67$).

The following process of change measures, or covariates were completed at pretest, posttest and follow-up:

White Bear Suppression Inventory. The White Bear Suppression Inventory (WBSI; Wegner & Zanakos, 1994) is a 15-item self-report questionnaire designed to measure thought suppression, a variable related to obsessive thinking and negative affect associated with depression and anxiety. As a trait, the concept is related to experiential avoidance and cognitive fusion. Sample items include "There are things I prefer not to think about" and "I often do things to distract myself from my thoughts." The 15 items are ranked on a 1-to-5 Likert scale (1 = *strongly disagree* and 5 = *strongly agree*). The total score is determined by summing the responses provided by the participants, where the total score can range from 15 to 75. Higher scores on the WBSI indicate greater tendencies to suppress thoughts. The WBSI has very good internal consistency, with alphas ranging from .87 to .89 and has also been found to have good stability with a 1-week test-retest correlation of .92, and a 3-week to 3-month test-retest correlation of .69. For the current study, the WBSI demonstrated an overall good level of internal consistency ($\alpha = 0.89$).

Acceptance and Action Questionnaire-II. The Acceptance and Action Questionnaire-II (AAQ-II; Bond et al., 2011) is a 7-item, self-report questionnaire designed to assess a person's acceptance, experiential avoidance, and psychological inflexibility. The 7 items are ranked on a 1-to-7 Likert scale (1 = *never true* and 7 = *always true*). High scores on the AAQ-II are indicative of greater experiential avoidance

and immobility, while low scores reflect greater acceptance and action (i.e., psychological flexibility). Results from 2,816 participants across six samples indicated the satisfactory structure, reliability, and validity of this measure. The mean alpha coefficient was .84 (.78-.88), and the 3- and 12-month test-retest reliability was .81 and .79, respectively. The AAQ-II also demonstrated appropriate discriminant validity. The AAQ-II appears to measure the same concept as the Acceptance and Action Questionnaire (AAQ; Bond & Bunce, 2003) (r = .97), but with better psychometric consistency. For the current study, the AAQ-II demonstrated an excellent level of internal consistency (α = 0.94).

Body Image-Acceptance and Action Questionnaire. The Body Image-Acceptance and Action Questionnaire (BI-AAQ; Sandoz, 2010; Sandoz & Wilson, 2006; Sandoz, Wilson, Merwin, & Kellum, 2013) is a 12-item, self-report questionnaire designed to assess a potential change process in acceptance-based treatments of body image dissatisfaction and disordered eating symptoms. The 12 items are ranked on a 1-to-7 Likert scale (1 = *never true* and 7 = *always true*) regarding feelings about body image, shape, and weight. Example items include, "I don't do things that might make me fat" and "I get on with my life even when I feel bad about my body." All items are reverse-scored to yield a total score for body image acceptance, with higher scores representative of higher body image acceptance.

The BI-AAQ has shown good internal consistency, with Cronbach's alpha = .93, as well as concurrent, criterion-related, and incremental validity in a large undergraduate population (n = 183) (Sandoz, 2010; Sandoz & Wilson, 2006). Construct validity is also good, where scores are significantly negatively correlated with well-established measures

of theoretically related constructs such as body dissatisfaction, bulimia, general eating pathology, and general distress. The BI-AAQ is also significantly positively correlated with well-established measures of theoretically related constructs such as mindfulness skills and general acceptance (Sandoz, 2010; Sandoz & Wilson, 2006). The BI-AAQ is the only established measure of body image acceptance. Research has shown that while the BI-AAQ is a new measure with restricted information, it is also a useful, as well as psychometrically sound instrument that warrants further validation. For the current study, the BI-AAQ demonstrated an excellent level of internal consistency ($\alpha = 0.90$).

Design

This pilot intervention study employed a within-subjects pre-experimental pretest-posttest and follow-up design. The group was the total number of participants who completed the ACT workshop intervention; there was no comparison/control group. Participants completed measures prior to starting the workshop, immediately following the intervention, and at follow-up, which occurred between 4 and 4.5 weeks after the intervention. The independent variable in this study was time: pre-test, immediate post-test, 1-month follow-up assessment. Primary dependent, or outcome variables were: body image dissatisfaction and maladaptive eating attitudes and behaviors. Thought suppression, experiential avoidance, and body image experiential avoidance served as covariates (e.g., process of change variables).

Data Analysis

All data were performed and analyzed using both Statistical Package for the Social Sciences (SPSS) and Statistical Analysis System (SAS). The process for analyzing the data consisted of four total phases. Initially, the demographic data were

tabulated including the number of participants who completed the study. Descriptive statistics on the breakdown of participants by age, race, relationship status, religious affiliation, education level, income, and perceived social class were calculated. The next step of data analysis involved computing correlations of the measures and their corresponding subscales across time. Because there was no control group, the unconditional model analyses involved the within-subjects comparison of pre-test, post-test, and 1-month follow-up scores on all measures using linear mixed-effects regression models. The final step of data analysis was also conducted using linear mixed-effects regression models to examine the conditional change between the primary outcome variables and the process of change variables, which functioned as time-varying covariates.

Main analyses. Data for the unconditional models were analyzed using linear mixed-effects regression models to test unconditional changes in both body image dissatisfaction and maladaptive eating attitudes and behaviors, as outcome variables over time, in addition to the process of change variables of psychological flexibility, as covariates over time. Utilization of linear mixed-effects regression models, or multilevel regression models, can accommodate complex features of longitudinal data whereas traditional methods (e.g., repeated-measures ANOVA) are limited by statistical assumptions. The use of linear mixed-effects models has substantially increased during the last 10 years and offers a flexible framework by which to model the sources of variation and correlation that arise from grouped data (Gueorguieva & Krystal, 2004). This grouping can arise when data-collection is undertaken in a hierarchical manner, when a number of observations are taken on the same observational unit over time, or

when observational units are in some other way related, violating assumptions of independence (Galwey, 2006).

The linear mixed-effects regression model assumes that the observations follow a linear regression where some of the regression parameters are fixed or the same for all subjects, while other parameters are random, or specific to each subject (Field, 2009; Verbeke & Molenberghs, 2009). In this study, the model has a fixed effect of time at pre-test, post-test, and 1-month follow-up, fixed covariates, and a random subject effect. The random subject effect allows proper inference for correlated means. Contrasts were used to estimate changes between each pair of time points.

Conditional change analyses. *Mediation*, or indirect effect, is a causal model that essentially attempts to identify the intermediary process that leads from the independent variable to the dependent variable (Jose, 2013). In a simple meditational model, the independent variable is presumed to cause the mediator, and in turn, the mediator causes the dependent variable (Wu & Zumbo, 2008). Baron and Kenny (1986), outlined the following guidelines to establish a meditational model: (a) there must be a significant correlation between the independent variable and the proposed mediator; (b) there must be a significant association between the independent variable and the dependent variable; (c) there must be a significant association between the proposed mediator and the dependent variable; and (d) the direct association between the independent variable and the dependent variable must be reduced once the mediator is taken into account. Because this study was a single-group design and therefore did not consist of a control or comparison group and a true predictor or independent variable,

which is necessary to demonstrate a causal pathway and to essentially carry out a traditional mediation analysis, alternative analyses were conducted.

A *conditional model* is a model in which individual differences in the level one model parameters are explained by other predictor variables in the level two model, where level one parameter values are conditional on the values of the predictor variables (Singer & Willett, 2003). Whereas unconditional models in longitudinal research look at the average change trajectory over time and estimate how that change is occurring, conditional models examine how the change trajectories differ systematically as a function of differences between individuals. In this study, additional analyses were carried out using linear mixed-effects regression models to test conditional changes with the process variables of psychological flexibility in the model as changing covariates. There are two primary ways that conditional models with changing covariates are estimated. In this study, the models were comprised of the following: (a) a main effects model, where average association is estimated between the changing covariates and the changing dependent variables; and (b) an interaction of time and the covariates, which involves the examination of the association between the covariates and the dependent variables in order to ascertain whether the association itself changes.

For this analysis, the AAQ-II, the BI-AAQ, and the WBSI were added sequentially into the model as covariates. The model was estimated with restricted maximum likelihood. Random effects were modeled as within subject, using a compound symmetric covariance structure. Thus, variances of the outcome variables (e.g., body image dissatisfaction and maladaptive eating attitudes and behaviors) were modeled as equal at each assessment, and covariances for the outcome measures for each

pair of assessments were modeled as equal. Tests of pairwise comparisons for three assessment periods were uncorrected due to a small sample size.

Power analysis. A preliminary power analysis was run apriori using G*Power software (Faul, Erdfelder, Lang, & Buchner, 2007) and resulted in the following: a sample size of approximately 60 to achieve .25 effect size and .95 statistical power for the within-group repeated-measures MANOVA, which initially was the primary analysis to test the effectiveness of the ACT intervention. Due to unforeseen challenges with participant recruitment for the study, 24 participants completed the study. Because patterns over time on the MBAS and the EAT-26 differed, the MANOVA was deemed inappropriate.

Although analyses for this study used linear mixed-effects regression, the statistical power analysis was based on a paired *t* test, which is analogous to the pre-post and post-1-month follow-up contrasts used in the mixed-effects analysis. Tylka et al. (2005) reported a standard deviation of 0.79 for the MBAS overall scale. If it is assumed that the correlation of scores at any two time points is .50, then the *SD* of 0.79 will also apply to the change scores. Table 2 below shows the required sample size (number of pairs) needed to have power of .80 using a two-tailed alpha of 0.05 as a function of the true difference in MBAS scores at any two time points.

Table 2.

Power Analysis

True Difference in MBAS	*N* Pairs for Power of 0.80
0.3	57
0.4	33
0.5	22
0.6	16

Note. For $N = 24$ we have .80 power to detect a difference of 0.48 in MBAS scores.

Research Questions

1. Will an ACT 1-day workshop pilot intervention reduce body image dissatisfaction and maladaptive eating attitudes and behaviors for a sample of gay men?

2. Will an ACT 1-day workshop pilot intervention improve psychological flexibility by reducing thought suppression and experiential avoidance for a sample of gay men?

3. Will change in body image dissatisfaction and change in maladaptive eating attitudes and behaviors, as the primary outcome measures, be affected by the following covariate, process of change variables of psychological flexibility over time: the White Bear Suppression Inventory (WBSI), as a measure of thought suppression, and the Body Image-Acceptance and Action Questionnaire (BI-AAQ), and the Acceptance and Action Questionnaire-II (AAQ-II), as measures of experiential avoidance/acceptance.

Hypotheses

The following hypotheses were proposed:

1. An ACT workshop intervention will: decrease body image dissatisfaction, as measured by the Male Body Attitudes Scale (MBAS) and decrease maladaptive eating attitudes and behaviors, as measured by the Eating Attitudes Test-26 (EAT-26) over time.

2. An ACT workshop intervention will: improve psychological flexibility by decreasing thought suppression, as measured by the White Bear Suppression Inventory (WBSI), and

decreasing experiential avoidance, as measured by the Acceptance and Action Questionnaire-II (AAQ-II) and the Body Image-Acceptance and Action Questionnaire (BI-AAQ) over time.

3. Change in body image dissatisfaction, as measured by the Male Body Attitudes Scales (MBAS), and change in maladaptive eating attitudes and behaviors, as measured by the Eating Attitudes Test-26 (EAT-26), will be affected by the following covariate, process of change variables of psychological flexibility over time: The White Bear Suppression Inventory (WBSI), the Body Image-Acceptance and Action Questionnaire (BI-AAQ), and the Acceptance and Action Questionnaire-II (AAQ-II).

CHAPTER V

Results

The following section first presents descriptive statistics for each of the measures, followed by an examination of the relationships between the various measures across time. The subsequent subsections examine the effectiveness of the workshop intervention by looking at estimates of change in body image dissatisfaction, disordered eating symptomatology, and characteristics of psychological inflexibility and flexibility across time via linear mixed-effects regression models. Finally, using linear mixed-effects regression models, the findings from a conditional change analysis examining the effects of psychological flexibility on change in body image dissatisfaction and maladaptive eating attitudes and behaviors across time are presented.

Descriptive Statistics

The complete set of means, standard deviations, and range of scores for participant responding on each instrument and corresponding subscale administered at pre-test, post-test, and the 1-month follow-up are listed in Table 3. At the pre-test phase, participants' scores on the MBAS Total ranged from 1.83 to 5.13 with a mean of 3.84 (*SD* = .86), during the post-test phase, scores ranged from 1.50 to 5.08 with a mean of 3.37 (*SD* = .80), and at the 1-month follow-up, scores ranged from 1.25 to 5.25 with a mean of 3.58 (*SD* = 1.03). These scores represent the total degree of male body image dissatisfaction and were similar to other studies involving gay men's body image such as that by Blashill and Vander Wal (2009), who reported a mean of 3.46 (*SD* = .98) for a sample of adult gay men. However, the scores in this study were higher than the sample mean values of 3.18 (*SD* = .79) and 3.05 (*SD* = .83) reported by Tylka et al. (2005). Thus

Table 3.

Summary of Means, Standard Deviations, and Ranges of Scores Obtained on Administered Instruments Across Time

	Pre-Test			Post-Test			Follow-Up		
Measure	*M (SD)*	Minimum	Maximum	*M (SD)*	Minimum	Maximum	*M (SD)*	Minimum	Maximum
MBAS: Total	3.84 (.86)	1.83	5.13	3.37 (.80)	1.50	5.08	3.58 (1.03)	1.25	5.25
MBAS: Muscularity	3.50 (1.28)	1.00	5.90	3.04 (1.13)	1.20	5.10	3.33 (1.43)	1.00	5.90
MBAS: Body Fat	4.34 (1.17)	1.75	6.00	3.76 (1.23)	1.50	6.00	3.93 (1.14)	1.63	5.75
MBAS: Height	2.83 (1.41)	1.00	5.50	2.56 (1.44)	1.00	5.00	2.90 (1.66)	1.00	6.00
EAT-26: Total[a]	.65 (.43)	0.00	1.65	.50 (.38)	0.00	1.62	.47 (.43)	0.00	2.00
EAT-26: Dieting	.93 (.65)	0.00	2.23	.73 (.58)	0.00	2.46	.69 (.57)	0.00	2.38
EAT-26: Bulimia & Food Preoccupation	.39 (.45)	0.00	1.50	.25 (.35)	0.00	1.17	.19 (.43)	0.00	1.83
EAT-26: Oral Control	.36 (.41)	0.00	1.43	.28 (.35)	0.00	1.14	.30 (.40)	0.00	1.43
AAQ-II	3.91 (1.40)	1.43	6.29	3.60 (1.40)	1.57	6.57	3.26 (1.22)	1.14	6.00
BI-AAQ	3.93 (1.29)	1.67	6.25	4.22 (.97)	2.42	5.92	4.61 (1.15)	1.58	6.58
WBSI	3.68 (.56)	2.27	4.73	3.08 (.62)	1.93	4.13	3.49 (.60)	2.00	4.87

Note. MBAS = Male Body Attitudes Test; EAT-26 = Eating Attitudes Test-26; AAQ-II = Acceptance and Action Questionnaire-II; BI—AAQ = Body Image—Acceptance and Action Questionnaire; WBSI = White Bear Suppression Inventory

[a]Scoring for this measure and the accompany subscales was conducted via the traditional method as described by the developer.

the mean scores concerning global body image dissatisfaction suggest that the sample of gay men in the current study reported experiencing similar levels to more psychological distress about their bodies than what has been found in previous studies.

At the pre-test phase, scores on the MBAS Muscularity subscale ranged from 1.00 to 5.90 with a mean of 3.50 (*SD* = 1.28), during the post-test phase, scores ranged from 1.20 to 5.10 with a mean of 3.04 (*SD* = 1.13), and at the 1-month follow-up, scores ranged from 1.00 to 5.90 with a mean of 3.33 (*SD* = 1.43). These scores represent the specific dissatisfaction with degree of muscularity and are consistent with the mean score of 3.50 (*SD* = 1.18) reported by Tylka and Andorka (2012), consistent with the mean score of 3.33 (*SD* = 1.14) reported by Blashill (2010), and rather similar to the mean values of 3.23 (*SD* = .94) and 3.35 (*SD* = .94) reported by Tylka et al. (2005). Due to sample size, however, mean scores from this study were lower than the mean score of 31.96 (*SD* = 9.13) reported by Smith, Hawkeswood, Bodell, and Joiner (2011).

At the pre-test phase, scores on the MBAS Body Fat subscale ranged from 1.75 to 6.00 with a mean of 4.34 (*SD* = 1.17), during the post-test phase, scores ranged from 1.50 to 6.00 with a mean of 3.76 (*SD* = 1.23), and at the 1-month follow-up, scores ranged from 1.63 to 5.75 with a mean of 3.93 (*SD* = 1.14). These scores represent the specific dissatisfaction with levels of body fat and are similar to the mean score of 3.76 (*SD* = 1.41) reported by Blashill (2010) and the mean score of 3.67 (*SD* = 1.25) reported by Tylka and Andorka (2012). In addition, the mean scores in this study were higher than the sample mean values of 2.75 (*SD* = 1.19) and 2.81 (*SD* = 1.20) reported by Tylka et al. (2005), but lower than the mean score of 29.08 (*SD* = 10.34) as reported by Smith et al. (2011), due to sample size differences.

At the pre-test phase, scores on the MBAS Height subscale ranged from 1.00 to 5.50 with a mean of 2.83 (*SD* = 1.41), during the post-test phase scores ranged from 1.00 to 5.00 with a mean of 2.56 (*SD* = 1.44), and at the 1-month follow-up, scores ranged from 1.00 to 6.00 with a mean of 2.90 (*SD* = 1.66). These scores represent the specific dissatisfaction with one's height and are similar to the mean score of 2.53 (*SD* = 1.46) as reported by Blashill (2010), but lower than the mean values of 3.13 (*SD* = 1.56) and 3.13 (*SD* = 1.76) reported by Tylka et al. (2005).

At the pre-test phase, scores on the EAT-26 total ranged from 0.00 to 1.65 with a mean of .65 (*SD* = .43), during the post-test phase, scores ranged from 0.00 to 1.62 with a mean of .50 (*SD* = .38), and at the 1-month follow-up, scores ranged from 0.00 to 2.00 with a mean of .47 (*SD* = .43). These scores represent the total degree of disordered eating symptomatology and are consistently lower than the mean score of 2.35 (*SD* = .70) reported by Wiseman and Moradi (2010), the mean score of 1.18 (*SD* = 1.35) reported by Blashill and Vander Wal (2009), the mean value of 2.01 (*SD* = .52) reported by Tylka et al. (2005), and the mean score of 2.59 (*SD* = .57) reported by Duggan and McCreary (2004). Because several additional studies using the EAT-26 with samples of gay men employed alternative scoring methods from the traditional scoring system as published, further comparisons could not be equally made.

Correlations Among Measures and Subscales Across Time

Pearson Coefficient Correlation Matrices were constructed to show the relationships among variables included in the study across time. Table 4 presents relationships found among measures and corresponding subscales at pre-test. Table 5 presents relationships found among measures and corresponding subscales at post-test,

Table 4.

Summary of Pearson Correlations Between Measures and Subscales at Pre-Test

Measure	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
1. MBAS: Total	-	.74**	.70**	.26	.48*	.54*	.32	-.02	.39	-.64**	.28
2. MBAS: Muscularity		-	.08	.14	.04	.15	-.04	-.23	.30	-.12	.09
3. MBAS: Body Fat			-	-.01	.68**	.64**	.62**	.18	.14	-.82**	.27
4. MBAS: Height				-	-.06	.04	-.26	-.12	.46*	-.17	.19
5. EAT-26: Total					-	.96**	.61**	.51*	.09	-.53*	.37
6. EAT-26: Dieting						-	.49*	.34	.06	-.51*	.23
7. EAT-26: Bulimia & Food Preoccupation							-	.01	.11	-.42*	.34
8. EAT-26: Oral Control								-	.01	-.18	.41
9. AAQ-II									-	-.39	.45*
10. BI-AAQ										-	-.27
11. WBSI											-

Note. MBAS = Male Body Attitudes Test; EAT-26 = Eating Attitudes Test-26; AAQ-II = Acceptance and Action Questionnaire-II; BI—AAQ = Body Image—Acceptance and Action Questionnaire; WBSI = White Bear Suppression Inventory
*$p < .05$. **$p < .01$.

Table 5.

Summary of Pearson Correlations Between Measures and Subscales at Post-Test

Measure	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
1. MBAS: Total	-	.62**	.77**	.18	.55*	.62**	.45*	-.07	.48*	-.65**	.44*
2. MBAS: Muscularity		-	.02	-.14	-.05	-.01	.20	-.35	.33	-.04	.07
3. MBAS: Body Fat			-	.14	.77**	.80**	.52*	.21	.28	-.85**	.55*
4. MBAS: Height				-	-.05	.05	-.29	-.11	.38	-.08	-.13
5. EAT-26: Total					-	.97**	.51	.63**	.22	-.68**	.40
6. EAT-26: Dieting						-	.40	.51*	.30	-.69**	.38
7. EAT-26: Bulimia & Food Preoccupation							-	-.04	.06	-.50*	.47*
8. EAT-26: Oral Control								-	-.08	-.19	.03
9. AAQ-II									-	-.29	.33
10. BI-AAQ										-	-.46*
11. WBSI											-

Note. MBAS = Male Body Attitudes Test; EAT-26 = Eating Attitudes Test-26; AAQ-II = Acceptance and Action Questionnaire-II; BI—AAQ = Body Image—Acceptance and Action Questionnaire; WBSI = White Bear Suppression Inventory
*$p < .05$. **$p < .01$.

and Table 6 presents relationships found among measures and corresponding subscales at the 1-month follow-up assessment, respectively.

Main Analyses of Unconditional Models

Test of hypothesis 1. A linear mixed-effects regression model was conducted to examine the effectiveness of the 1-day ACT workshop intervention in decreasing body image dissatisfaction, as measured by the Male Body Attitudes Scale (MBAS), and decreasing maladaptive eating attitudes and behaviors, as measured by the Eating Attitudes Test-26 (EAT-26) over time.

Body image dissatisfaction. Results from the mixed-effects model revealed that the total score of body image dissatisfaction on the MBAS showed significant differences across the three time points, $F(2, 46) = 5.66$, $p = .006$, indicating an overall decrease in body image dissatisfaction. In order, means (with standard deviations in parentheses) for the three time points were 3.84 (.86), 3.37 (.80), and 3.58 (1.03), respectively. The Muscularity subscale of the MBAS also showed significant differences across the three time points, $F(2, 46) = 5.63$, $p = .006$, indicating that participants experienced a decrease in preoccupation and distress with levels of muscularity and shape. In order, means (with standard deviations in parentheses) for the three time points were 3.50 (1.28), 3.04 (1.13), and 3.33 (1.43), respectively.

The Body Fat subscale of the MBAS additionally showed significant differences across the three time points, $F(2, 46) = 5.06$, $p = .010$, indicating that participants experienced an overall decrease in preoccupation and distress with body fat. In order, means (with standard deviations in parentheses) for the three time points were 4.34 (1.17), 3.76 (1.23), and 3.93 (1.14), respectively. The Height subscale of the MBAS,

Table 6.

Summary of Pearson Correlations Between Measures and Subscales at 1-Month Follow-Up

Measure	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
1. MBAS: Total	-	.81**	.80**	.42*	.20	.30	.17	-.13	.54*	-.39	.48*
2. MBAS: Muscularity		-	.33	.07	-.18	-.11	-.19	-.28	.39	-.05	.25
3. MBAS: Body Fat			-	.45*	.51*	.57**	.48*	.09	.46*	-.56**	.56**
4. MBAS: Height				-	.28	.35*	.25	-.01	.41	-.26	.23
5. EAT-26: Total					-	.97**	.74**	.78**	.36	-.67**	.40
6. EAT-26: Dieting						-	.62**	.67**	.30	-.71**	.39
7. EAT-26: Bulimia & Food Preoccupation							-	.42*	.37	-.49*	.30
8. EAT-26: Oral Control								-	.31	-.36	.30
9. AAQ-II									-	-.46*	.66**
10. BI-AAQ										-	-.62**
11. WBSI											-

Note. MBAS = Male Body Attitudes Test; EAT-26 = Eating Attitudes Test-26; AAQ-II = Acceptance and Action Questionnaire-II; BI—AAQ = Body Image—Acceptance and Action Questionnaire; WBSI = White Bear Suppression Inventory
*$p < .05$. **$p < .01$

however, did not show significant differences across the three time points, $F(2, 46) = 2.29$, $p = .113$, indicating that the participants did not experience any change in their dissatisfaction with their height over time. In order, means (with standard deviations in parentheses) for the three time points were 2.83 (1.41), 2.56 (1.44), and 2.90 (1.66), respectively.

Table 7 presents the complete results of the fixed-effects estimates for body image dissatisfaction over time. Results from these analyses revealed that the total score of male body image dissatisfaction, as measured on the MBAS, showed a significant decrease from Pre-test to Post-test, $b = .47$, $t(46) = 3.36$, $p = .002$. Scores on the Muscularity and Body Fat subscales from the MBAS also showed significant decreases from Pre-Test to Post-test, $b = .45$, $t(46) = 3.32$, $p = .002$ and $b = .58$, $t(46) = 3.10$, $p = .003$, respectively. Additionally, scores on the Body Fat subscale from the MBAS showed significant decreases from Pre-test to 1-month follow-up, $b = .41$, $t(46) = 2.18$, $p = .034$, and scores on the Muscularity subscale showed significant decreases from Post-test to 1-month follow-up, $b = -.29$, $t(46) = -2.10$, $p = .041$. No significant decreases on total MBAS scores were found from Pre-test to 1-month follow-up and Post-test to 1-month follow-up, $b = .26$, $t(46) = 1.84$, $p = .073$ and $b = -.21$, $t(46) = -1.52$, $p = .134$. The complete results for this analysis are illustrated graphically in Figure 2.

Disordered eating symptomatology. Results from the mixed-effects model revealed that the total score of maladaptive eating attitudes and behaviors on the EAT-26 showed significant differences across the three time points, $F(2, 46) = 8.64$, $p = .001$, indicating an overall decrease in disordered eating symptomatology. In order, means (with standard deviations in parentheses) for the three time points were .65 (.43), .50

Table 7.

Summary of Fixed-Effects Estimates of the Change in Male Body Image Dissatisfaction and Disordered Eating Symptomatology Across Time

Measure	Estimated Difference	*SE*	95 % CI	*t*(46)	*p*
MBAS: Total					
Pre-Post	.47	.14	[.19, .75]	3.36	.002
Pre-FU	.26	.14	[-.02, .54]	1.84	.073
Post-FU	-.21	.14	[-.49, .07]	-1.52	.134
MBAS: Muscularity					
Pre-Post	.45	.14	[.18, .73]	3.32	.002
Pre-FU	.17	.14	[-.11, .44]	1.22	.230
Post-FU	-.29	.14	[-.56, -.01]	-2.10	.041
MBAS: Body Fat					
Pre-Post	.58	.19	[.20, .96]	3.10	.003
Pre-FU	.41	.19	[.03, .79]	2.18	.034
Post-FU	-.17	.19	[-.55, .21]	-.91	.366
MBAS: Height					
Pre-Post	.27	.17	[-.06, .60]	1.63	.110
Pre-FU	-.06	.17	[-.40, .27]	-.38	.708
Post-FU	-.33	.17	[-.67, .00]	-2.01	.050
EAT-26: Total					
Pre-Post	.15	.05	[.06, .25]	3.29	.002
Pre-FU	.18	.05	[.09, .27]	3.84	.000
Post-FU	.03	.05	[-.07, .12]	.55	.586
EAT-26: Dieting					
Pre-Post	.20	.07	[.06, .34]	2.83	.007
Pre-FU	.23	.07	[.09, .38]	3.33	.001
Post-FU	.04	.07	[-.11, .18]	.50	.618
EAT-26: Bulimia & Food Preoccupation					
Pre-Post	.14	.07	[.00, .27]	2.08	.044
Pre-FU	.20	.07	[.07, .34]	3.01	.004
Post-FU	.06	.07	[-.07, .20]	.93	.355
EAT-26: Oral Control					
Pre-Post	.08	.05	[-.01, .17]	1.84	.073
Pre-FU	.06	.05	[-.03, .15]	1.31	.197
Post-FU	-.02	.05	[-.12, .07]	-.52	.602

Note. CI = confidence interval; MBAS = Male Body Attitudes Test; EAT-26 = Eating Attitudes Test-26; FU = 1-month follow-up

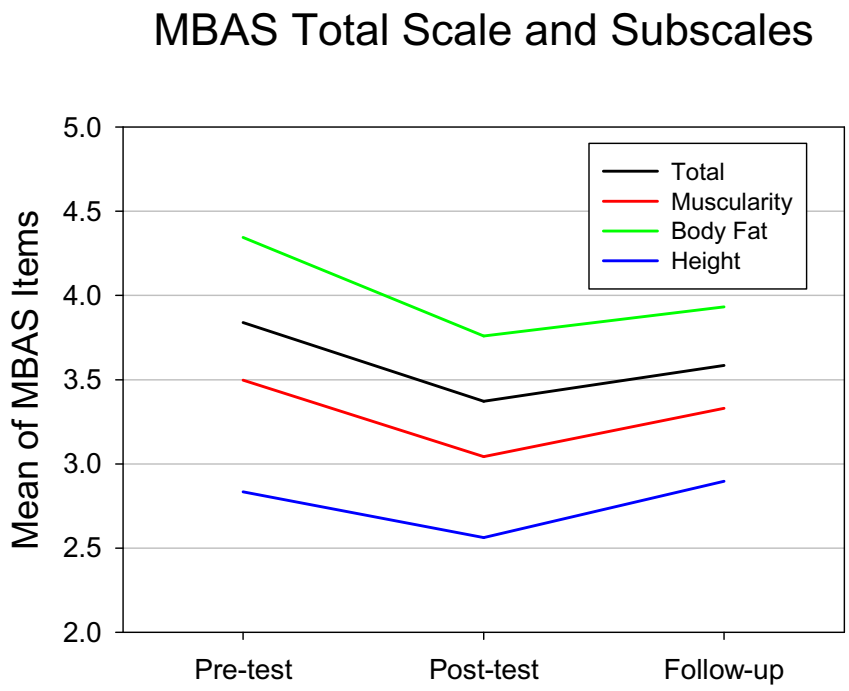

Figure 2. Body image dissatisfaction across time

(.38), and .47 (.43), respectively. The Dieting subscale on the EAT-26 also showed significant differences across the three time points, $F(2, 46) = 6.45$, $p = .003$, indicating that participants' preoccupation with dieting behaviors decreased over time. In order, means (with standard deviations in parentheses) for the three time points were .93 (.65), .73 (.58), and .69 (.57), respectively. The Bulimia and Food Preoccupation subscale on the EAT-26 additionally showed significant differences across the three time points, $F(2, 46) = 4.75$, $p = .013$, indicating a decrease in excessive thought around food and bulimic behaviors. In order, means (with standard deviations in parentheses) for the three time points were .39 (.45), .25 (.35), and .19 (.43). The Oral Control subscale on the EAT-26 however, did not show significant differences across the three time points, $F(2, 46) = 1.79$, $p = .178$. This finding indicates that participants' control and restricting behaviors did not decrease across time. In order, means (with standard deviations in parentheses) for the three time points were .36 (.41), .28 (.35), and .30 (.40), respectively.

Table 7 presents the complete results of the fixed-effects estimates for eating disorder symptomatology over time. Results from these analyses revealed that the total score of disordered symptomatology, as measured on the EAT-26, showed a significant decrease from Pre-test to Post-test, $b = .15$, $t(46) = 3.29$, $p = .001$. Scores from the Dieting and the Bulimia and Food Preoccupation subscales also showed significant decreases from Pre-test to Post-test, $b = .20$, $t(46) = 2.83$, $p = .007$ and $b = .14$, $t(46) = 2.08$, $p = .044$, respectively. From Pre-test to the 1-month follow-up, results from the analyses also revealed significant decreases in disordered eating symptomatology, as measured by the total EAT-26 score, $b = .18$, $t(46) = 3.84$, $p = .000$. Scores from the Dieting subscale and the Bulimia and Food Preoccupation subscales also showed

significant decreases from Pre-test to 1-month follow-up, $b = .23$, $t(46) = 3.33$, $p = .002$ and $b = .20$, $t(46) = 3.01$, $p = .004$, respectively. No significant decreases in disordered eating symptomatology were found for any of the subscales on the EAT-26 from Post-test to the 1-month follow-up. The complete results for this analysis are illustrated graphically in Figure 3.

Test of hypothesis 2. A linear mixed-effects regression model was also conducted to examine the effectiveness of the 1-day ACT workshop intervention in decreasing thought suppression, as measured by the White Bear Suppression Inventory (WBSI), and decreasing experiential avoidance, as measured by the Acceptance and Action Questionnaire-II (AAQ-II) and the Body Image-Acceptance and Action Questionnaire (BI-AAQ) over time.

Thought suppression. Results from the mixed-effects model revealed that the total score of thought suppression, as measured on the WBSI, showed significant differences across three time points, $F(2, 46) = 15.13$, $p < .001$, indicating an overall decrease in avoidance through thought suppression. In order, means (with standard deviations in parentheses) for the three time points were 3.68 (.56), 3.08 (.62), and 3.49 (.60), respectively. Table 8 presents the complete results of the fixed-effects estimates for thought suppression over time. Results from these analyses revealed that the total score of thought suppression, as measured on the WBSI, showed a significant decrease from Pre-test to Post-test, $b = .60$, $t(46) = 5.37$, $p < .001$. From Post-test to the 1-month follow-up, results from the analyses conducted on the WBSI also revealed significant decreases in thought suppression, $b = -.41$, $t(46) = -3.70$, $p = .000$. There was not a

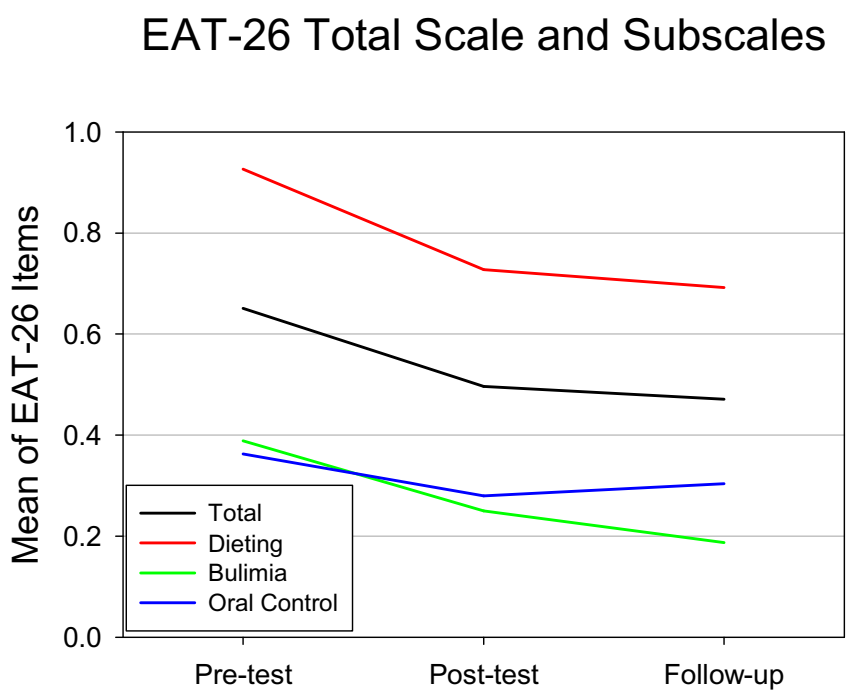

Figure 3. Disordered eating symptomatology across time

Table 8.

Summary of Fixed-Effects Estimates of the Change in Experiential Avoidance and Thought Suppression Across Time

Measure	Estimated Difference	*SE*	95 % CI	*t*(46)	*p*
AAQ-II					
Pre-Post	.32	.23	[-.14, .78]	1.38	.174
Pre-FU	.65	.23	[.19, 1.11]	2.84	.007
Post-FU	.33	.23	[-.13, .79]	1.46	.151
BI-AAQ					
Pre-Post	-.28	.18	[-.65, .08]	-1.55	.128
Pre-FU	-.67	.18	[-1.04, -.31]	-3.71	.000
Post-FU	-.39	.18	[-.76, -.03]	-2.16	.036
WBSI					
Pre-Post	.60	.11	[3.43, 3.92]	5.37	<.000
Pre-FU	.19	.11	[2.84, 3.33]	1.67	.100
Post-FU	-.41	.11	[3.25, 3.74]	-3.70	.000

Note. CI = confidence interval; AAQ-II = Acceptance and Action Questionnaire-II; BI—AAQ = Body Image—Acceptance and Action Questionnaire; WBSI = White Bear Suppression Inventory; FU = 1-month follow-up

significant decrease in thought suppression on the WBSI from Pre-test to the 1-month follow-up.

Global and body image-related experiential avoidance. Results from the mixed-effects model revealed that the total score of general experiential avoidance, as measured by the AAQ-II, showed significant differences across three time points, $F(2, 46) = 4.04$, $p = .024$, indicating a decrease in experiential avoidance and an increase in acceptance. In order, means (with standard deviations in parentheses) for the three time points were 3.91 (1.40), 3.60 (1.40), and 3.26 (1.22), respectively. Results revealed that the total score of experiential avoidance specifically focused on body image experiential avoidance, as measured by the BI-AAQ, also showed significant differences across the three time points, $F(2, 46) = 6.96$, $p = .002$, indicating a decrease in body image experiential avoidance and an increase in body image acceptance. In order, means (with

standard deviations in parentheses) for the three time points were 3.93 (1.29), 4.22 (.97), and 4.61 (1.15), respectively.

Table 8 presents the complete results of the fixed-effects estimates for experiential avoidance over time. Results from these analyses revealed that the total score of general experiential avoidance, as measured by the AAQ-II, showed a significant decrease from Pre-test to the 1-month follow-up, $b = .65$, $t(46) = 2.84$, $p < .007$. Results from the analyses on the BI-AAQ revealed that from Pre-test to the 1-month follow-up, there was a significant decrease in body image experiential avoidance, $b = -.67$, $t(46) = -3.71$, $p = .000$, and from Post-test to the 1-month follow-up, there was also a significant decrease in body image experiential avoidance, $b = -.39$, $t(46) = -2.16$, $p = .036$. There were no significant decreases in general experiential avoidance on the AAQ-II from Pre-test to Post-test and from Post-test to the 1-month follow-up in addition to no significant decreases in body image experiential avoidance from Pre-test to Post-test.

Analyses of Conditional Change with Time-Varying Process Variables

Test of hypothesis 3. Change in body image dissatisfaction, as measured by the Male Body Attitudes Scales (MBAS), and change in maladaptive eating attitudes and behaviors, as measured by the Eating Attitudes Test-26 (EAT-26), will be affected by the following covariate, process of change variables of psychological flexibility over time: The White Bear Suppression Inventory (WBSI), the Body Image-Acceptance and Action Questionnaire (BI-AAQ), and the Acceptance and Action Questionnaire-II (AAQ-II). Linear mixed-effects regression models were conducted to examine the conditional change between the primary outcome variables and the process of change variables,

which functioned as time-varying covariates. The results from both the main effect and the interactions of time with the various covariates will be presented below.

Changes in body image dissatisfaction over time. Table 9 presents the complete results of the effect of measures of psychological flexibility on change in body image dissatisfaction. The main effect from the conditional model revealed that the overall relationship between the AAQ-II, as a measure of experiential avoidance, and the MBAS, measuring body image dissatisfaction, was significant across time, $b = .47$, $t(43) = 4.98$, $p < .000$. On average, a one-unit increase in the AAQ-II predicted a .47 unit increase in the MBAS, collapsing over time. With regards to the specific interactions with time and the covariates, there was a significant increase in the relationship between the Pre-test and the Post-test AAQ-II and the MBAS, $b = .38$, $t(43) = 3.21$, $p = .002$, and a significant decrease in the relationship between the Post-test and the 1-month follow-

Table 9.

The Effect of Psychological Flexibility on Change in Body Image Dissatisfaction

Measures	Estimated Difference	*SE*	95 % CI	*t*(43)	*p*
MBAS and AAQ-II					
Main Effect for AAQ-II	.47	.09	[.28, .66]	4.98	<.000
Pre-Post by AAQ-II	.38	.12	[.14, .63]	3.21	.002
Pre-FU by AAQ-II	.02	.13	[-.24, .27]	.13	.899
Post-FU by AAQ-II	-.37	.12	[-.61, -.12]	-3.04	.004
MBAS and BI-AAQ					
Main Effect for BI-AAQ	-.28	.10	[-.48, -.08]	-2.87	.006
Pre-Post by BI-AAQ	.33	.12	[.09, .57]	2.82	.007
Pre-FU by BI-AAQ	.00	.13	[-.25, .25]	0.00	.100
Post-FU by BI-AAQ	-.33	.12	[-.57, -.09]	-2.75	.009
MBAS and WBSI					
Main Effect for WBSI	.67	.21	[.24, 1.09]	3.15	.003
Pre-Post by WBSI	.29	.17	[-.05, .63]	1.71	.094
Pre-FU by WBSI	.22	.15	[-.07, .51]	1.53	.133
Post-FU by WBSI	-.07	.15	[-.38, .24]	-.42	.673

Note. CI = confidence interval; MBAS = Male Body Attitudes Test; AAQ-II = Acceptance and Action Questionnaire-II; BI—AAQ = Body Image—Acceptance and Action Questionnaire; WBSI = White Bear Suppression Inventory; FU = 1-month follow-up

up, b = -.37, $t(43)$ = -3.04, p = .004, indicating that the overall relationship between experiential avoidance and body image dissatisfaction first increased, then became weaker over time. The change in relationship between to the two variables was not significant from Pre-test to the 1-month follow-up.

The results of the main effect from the conditional model revealed that the overall relationship between the BI-AAQ, as a measure of body image experiential avoidance, and the MBAS, measuring body image dissatisfaction, was significant across time, b = -.28, $t(43)$ = -2.87, p = .006. On average, a one-unit increase in the BI-AAQ predicted a -.28 decrease in the MBAS, collapsing over time. With regards to the specific interactions with time and the covariates, there was a significant increase in the relationship between the Pre-test and the Post-test BI-AAQ and the MBAS, b = .33, $t(43)$ = 2.82, p = .007, and a significant decrease in the relationship between the Post-test and the 1-month follow-up, b = -.33, $t(43)$ = -2.75, p = .009, indicating that the overall relationship between body image experiential avoidance and body image dissatisfaction initially became stronger, then became weaker over time. The change in relationship between to the two variables was not significant from Pre-test to the 1-month follow-up.

The results of the main effect from the conditional model revealed that the overall relationship between the WBSI, as a measure of thought suppression, and the MBAS, measuring body image dissatisfaction, was significant across time, b = .67, $t(43)$ = 3.15, p = .003. On average, a one-unit increase in the WBSI predicted a .67 increase in the MBAS, collapsing over time. There were no significant changes in association between the two variables at each of the assessment times.

Changes in disordered eating symptomatology over time. Table 10 presents the complete results of the effect of measures of psychological flexibility on change in disordered eating symptomatology. The main effect from the conditional model revealed that the overall relationship between the AAQ-II, as a measure of experiential avoidance, and the EAT-26, measuring disordered eating symptomatology, was significant across time, $b = .11$, $t(43) = 2.83$, $p = .007$. On average, a one-unit increase in the AAQ-II predicted a .11 increase in the EAT-26, collapsing over time. With regards to the specific interactions with time and the covariates, there was a significant increase in the relationship between the Pre-test and the Post-test AAQ-II and the EAT-26, $b = .15$, $t(43) = 3.24$, $p = .002$, and a significant increase in the relationship between the Pre-test and the 1-month follow-up AAQ-II and the EAT-26, $b = .14$, $t(43) = 2.86$, $p = .007$. The change in relationship between to the two variables was not significant from Post-test to the 1-month follow-up.

The results of the main effect from the conditional model revealed that the overall relationship between the BI-AAQ, as a measure of body image experiential avoidance, and the EAT-26, measuring disordered eating symptomatology, was significant across time, $b = -.14$, $t(43) = -3.67$, $p = .001$. On average, a one-unit increase in BI-AAQ predicted a -.14 decrease in BI-AAQ, collapsing over time. With regards to the specific interactions with time and the covariates, there was a significant increase in the relationship between the Pre-test and the Post-test BI-AAQ and the EAT-26, $b = .11$, $t(43) = 2.52$, $p = .016$, while changes in the relationship between the two variables during Pre-test to the 1-month follow-up and during Post-test to the 1-month follow-up, were not significant.

Table 10.

The Effect of Psychological Flexibility on Change in Disordered Eating Symptomatology

Measures	Estimated Difference	*SE*	95 % CI	*t*(43)	*p*
EAT-26 and AAQ-II					
Main Effect for AAQ-II	.11	.04	[.03, .18]	2.83	.007
Pre-Post by AAQ-II	.15	.05	[.06, .24]	3.24	.002
Pre-FU by AAQ-II	.14	.05	[.04, .24]	2.86	.007
Post-FU by AAQ-II	-.01	.05	[-.10, .08]	-.21	.835
EAT-26 and BI-AAQ					
Main Effect for BI-AAQ	-.14	.04	[-.22, -.06]	-3.67	.001
Pre-Post by BI-AAQ	.11	.05	[.02, .21]	2.52	.016
Pre-FU by BI-AAQ	.08	.05	[-.02, .18]	1.69	.097
Post-FU by BI-AAQ	-.03	.05	[-.12, .06]	-.66	.511
EAT-26 and WBSI					
Main Effect for WBSI	.16	.08	[.00, .32]	2.07	.045
Pre-Post by WBSI	.10	.06	[-.02, .22]	1.70	.096
Pre-FU by WBSI	.17	.05	[.07, .27]	3.31	.002
Post-FU by WBSI	.07	.05	[-.04, .18]	1.22	.228

Note. CI = confidence interval; EAT-26 = Eating Attitudes Test-26; AAQ-II = Acceptance and Action Questionnaire-II; BI—AAQ = Body Image—Acceptance and Action Questionnaire; WBSI = White Bear Suppression Inventory; FU = 1-month follow-up

The results of the main effect from the conditional model revealed that although the overall relationship between the WBSI, as a measure of thought suppression, and the EAT-26, measuring disordered eating symptomatology was significant across time, b = .16, $t(43) = 2.07$, p = .045. On average, a one-unit increase in WBSI predicted a .16 increase in the EAT-26, collapsing over time. With regards to the specific interactions with time and the covariates, there was a significant increase in the relationship between the Pre-test and the 1-month follow-up WBSI and the EAT-26, b = .17, $t(43) = 3.31$, p = .002, while changes in the relationship between the two variables during Pre-test to Post-test and during Post-test to the 1-month follow-up, were not significant.

CHAPTER VI

Discussion

The following section provides an introduction to the current research in context, followed by a summary and explanation of the findings from this study. Recommendations for clinical practice are also discussed vis-à-vis working with gay men from both dominant and nondominant cultural and racial populations. Various strengths and the limitations of the study are then presented, along with recommendations and directions for future research in the area.

Introduction

Body image dissatisfaction and preoccupation with diet and exercise is a chronic problem among many gay men; this problem is oftentimes insidious (Martins, Tiggemann, & Kirkbride, 2007; Von Ranson & Cassin, 2007). Extant literature indicates that gay men experience more frequent and severe body image dissatisfaction, which often results in higher levels of disturbances in dieting than straight males (Boroughs & Thompson, 2002; Martins, Tiggemann, & Kirkbride, 2007); however, precise prevalence rates for men are often difficult to assess because of the widespread misperception that eating disorders are an exclusively female disorder (Bosley, 2011; Walloch, Cerezo, & Heide, 2012). Despite the fact that disordered eating behaviors can result in a severe reduction in quality of life, many people struggling with this problem are hesitant to stop the maladaptive behaviors for fear of weight gain resulting in increased body image dissatisfaction and anxiety about finding a prospective partner (Bosley, 2011). These people have often found that the behaviors also modulate their negative affect in the short term (Juarascio et al., 2013).

ACT is theoretically appropriate as a therapeutic intervention to address the transdiagnostic problem of unhelpful eating attitudes and behaviors, including dissatisfaction with one's body image, because it is a functional approach rather than diagnostically driven (Pearson, Follette, & Hayes, 2012). ACT also seems appropriate for gay men struggling with body image disturbances and disordered eating attitudes and behaviors within today's socio-cultural context, since its emphasis is on facing and accepting what is not in their power to control and subsequently taking the steps needed to support a life based on their most deeply held values (Kater, 2010; Walloch, Cerezo, & Heide, 2012). Unfortunately, there is scant research concentrating on the gay male population with regards to clinical interventions such as ACT. Therefore, this study's purpose was to test the effectiveness of a 1-day workshop intervention employing ACT, targeted at adult gay men who struggle with body image dissatisfaction and maladaptive eating attitudes and behaviors. This was the first treatment outcome study to apply ACT with gay men struggling with body image dissatisfaction and unhelpful eating.

The goals of this pilot intervention were to reduce gay men's preoccupation with body image, weight, and shape and to broaden their lives by increasing levels of acceptance of thoughts and feelings in order to improve overall psychological flexibility. Results of this dissertation study provide preliminary evidence that an ACT workshop may be effective in treating gay men who struggle with body image dissatisfaction and maladaptive eating attitudes and behaviors. However, because this study lacked a control group, the results cannot be unequivocally attributed to the effectiveness of the ACT workshop and explanations should be reviewed with caution.

Summary of the Findings

Research hypothesis 1. It was predicted that an ACT workshop intervention would decrease both body image dissatisfaction and maladaptive eating attitudes and behaviors over time. This study's data is partially congruent with the hypothesis. Results revealed that participants' overall body image dissatisfaction, as measured by MBAS total, significantly decreased across time, indicating that the participants' overall preoccupation or dissatisfaction with their bodies lessened from the initial treatment assessment to the 1-month follow-up assessment. More specifically, participants experienced the most positive change in their overall body image dissatisfaction from the pre-test to the post-test. Significant decreases were also found across time in participants' dissatisfaction with their levels of muscularity, shape, and body fat, where they experienced the most improvement in their dissatisfaction with these aspects of their bodies from the pre-test to the post-test assessment. In addition, the participants also experienced significant decreases in dissatisfaction with their bodies' musculature from the post-test to the 1-month follow-up; however, this significant decrease was not found for dissatisfaction with body fat. Finally, significant change over time with regards to participants' height dissatisfaction was not found.

In relation to eating disorder symptomatology, results showed that participants' overall engagement in disordered eating attitudes and behaviors, as measured by the EAT-26 total, had significant decreases across time indicating that there was an overall decrease in disordered eating symptomatology. Pearson, Follette, and Hayes (2012) also found similar decreases in total disordered eating attitudes and behaviors across time in their ACT workshop intervention, which employed the EAT-26 as an outcome measure. In the Pearson, Follette, and Hayes (2012) study, participants experienced the most

positive change in their disordered eating symptoms from the pre-test assessment to the post-test assessment. In the current study, this pattern of significant decreases in unhelpful eating attitudes and behaviors over time was also consistent for other scales from the EAT-26, such as participants' dieting attitudes and behaviors, bulimic attitudes and behaviors, and excessive thought about food; however, significant change over time with regards to restrictive behaviors or oral control was not found. Furthermore, no significant changes on the EAT-26 occurred from the post-test to the 1-month follow-up for any of the subscales.

Research hypothesis 2. It was also predicted that an ACT workshop intervention would improve psychological flexibility by decreasing thought suppression and experiential avoidance, over time. This study's data is consistent with the stated hypothesis. Results show that participants experienced an overall decrease in the engagement in thought suppression, general experiential avoidance, and experiential avoidance specifically focused on body image from the pre-test assessment to the 1-month follow-up assessment. Albeit different research designs, the results of this study are consistent with data from other similar research studies employing ACT, such as Berman, Boutelle, and Crow (2009), who also found decreases at follow-up in body image experiential avoidance, and Juarascio et al. (2013) and Pearson, Follette, and Hayes (2012), who found decreases in general experiential avoidance across time, from pre-test to the follow-up.

Research hypothesis 3. Lastly, it was predicted that change in body image dissatisfaction and change in maladaptive eating attitudes and behaviors would be affected by process of change variables of psychological flexibility, as covariates, over

time. This study's data is partially congruent with the hypothesis. There was a significant increase in the relationship between experiential avoidance and body image dissatisfaction between the pre-test and the post-test, and a significant decrease in their relationship between the post-test and after the workshop at the 1-month follow-up. This indicates that the overall relationship between both experiential avoidance and body image dissatisfaction first increased, but then became weaker over time. With regards to body image dissatisfaction and body image experiential acceptance, the results of their relationship were also found to be significant over time and maintained identical relational patterns to those of experiential acceptance and body image dissatisfaction. Although there was a significant relationship between thought suppression and body image dissatisfaction over time in general, there were no significant changes in their association at each of the assessment times.

The overall relationship between general experiential avoidance and disordered eating attitudes and behaviors was found to be significant across time, with a significant increase from the pre-test to the post-test. With regards to disordered eating attitudes and behaviors and body image experiential acceptance, these relations also were found to be significant over time. Specifically, there was a significant increase from the pre-test to the post-test. Finally, although there was a significant relation between thought suppression and disordered eating attitudes and behaviors over time in general, there were no significant changes in their association at each of the assessment times.

Possible Implications of the Findings

Based on the reported results, it appears that the ACT workshop intervention may have been effective in contributing to the decrease in the preoccupation with body image,

especially dissatisfaction with muscularity, shape, and amounts of body fat, in addition to disordered eating symptomatology, such as dieting attitudes and behaviors, bulimic attitudes and behaviors, and excessive thought about food and diet. The ACT workshop intervention also may have contributed to an increase in participants' overall psychological flexibility.

Since most of the decrease in overall body image dissatisfaction and disordered eating attitudes and behaviors was experienced from pre-test to post-test but not at the 1-month follow-up, participants may not have successfully implemented the ACT principles and skills into their lives following the workshop. This lack of practice at the 1-month follow-up may have contributed to an increase in symptoms, especially body image dissatisfaction during the 1-month follow-up assessment, which may explain the slight curvilinear relationship in the data for body image dissatisfaction. It is important to note that this curvilinear pattern following the intervention is not consistent with other similar ACT workshop intervention studies (Lillis, Hayes, & Levin, 2011; Pearson, Follette, & Hayes, 2012).

Hayes, Strosahl, and Wilson (2011) state that "It is *psychologically healthy* to have unpleasant thoughts and feelings as well as pleasant ones, and doing so gives us full access to the richness of our unique personal histories" (p. 23). At the core of ACT is the fundamental understanding that symptom reduction is not a primary goal, but rather it's a means to an end. In effect, rather than promoting the changing of psychological events directly, ACT attempts to modify the function of these events and the individual's relationship to them through mindfulness, acceptance, and cognitive defusion strategies, where the overall goal is be psychologically flexible (Hayes, Luoma, Bond, Masuda, &

Lillis, 2006). To put in another way, ACT attempts to help people live more rewarding and valued lives even in the presence of undesirable thoughts, emotions, and sensations, by specifically assisting them to change the way they interact with or relate to these experiences.

Therefore, when examining the current study's results—namely the change in the relationship between body image, eating symptomatology, and variables of psychological flexibility (e.g., acceptance and absence of thought suppression) over time—it appears they are consistent with ACT's main theoretical principles as stated above. That is, participants may have experienced less distress about or discomfort with their bodies and less distress or preoccupation with diet during and immediately following the workshop intervention, when the relationship with global and body image-specific experiential acceptance of their unwanted thoughts and feelings was stronger. Moreover, the various exercises in the workshop promoting acceptance, or willingness, and defusion, may have contributed to helping participants accept their psychological pain for what it was so that they could shift their attention and focus toward more life-enhancing behaviors in line with their personal values.

Other hypotheses can also be put forth for various dynamics, which could have affected or influenced treatment outcomes. First, it is important to be aware of how gay men's perceptions of themselves are shaped by the broader social context in which they live—a context which affords straight individuals more privilege than their gay counterparts (Morrison & McCutcheon, 2011). Many gay men struggle with these problems in a chronic manner, which are further exacerbated by minority stress and the unrelenting shame associated with being a sexual minority. Due to minority stress, many

gay men, like members of other minority groups, are subjected to chronic stress related to stigmatization which contributes to internalized heterosexism and expectations of stigma and violence as sources of stress (Meyer, 1995). Daniel and Bridges (2010) asserted that gay men who internalize heterosexist attitudes and have greater expectations of being stigmatized for being gay desire a powerful physique (i.e., muscular and tone) as a defensive reaction against the experience of prejudice from others. It may be that unless the prejudice and stigma associated with being from a sexual minority group is lifted, or gay men find more adaptive ways to live within society unaffected by heterosexist rhetoric, engaging in experiential avoidance by transforming one's body may continue to be the way many gay men alter their internal experiences.

Recommendations for Clinical Practice with Gay Men

Based on the present findings, there are a number of implications for mental health clinicians working to address the needs of gay men. Duggan and McCreary (2004) believe that clinicians should begin by assessing for body image dissatisfaction in addition to subclinical disordered eating symptomatology, such as those found in Eating Disorder, Not Otherwise Specified (EDNOS), rather than those of anorexia nervosa and bulimia nervosa. Many gay men with maladaptive eating attitudes and behaviors do not fit into the standard clinical diagnostic categories of eating disorders and consequently may not get the treatment they need. Moreover, many gay men may seek treatment for issues other than dieting behaviors or body image problems despite struggling with these problems. It is therefore important for practitioners to assess for these concerns while simultaneously validating the patients' struggles and maintaining a non-judgmental attitude to avoid shaming. Because of the paucity of specialized consideration for the

struggles with body image dissatisfaction and disordered eating among gay men, Harvey and Robinson (2003) critically advise mental health practitioners to be aware of current trends in body image issues and dieting behaviors. Similarly, Bosley (2011) suggests exploring the extent to which gay male patients self-objectify and how intensely they compare themselves to their peers and other gay men, since much of gay men's dissatisfaction with their bodies is derived from anxiety that their physical appearance will not appeal to prospective partners (Drummond, 2005; Peplau et al., 2009).

Findings from this study demonstrated that the gay men in the ACT workshop intervention experienced a decrease in dissatisfaction with their body image and shape, a decrease in struggle with eating attitudes and behaviors, while also concurrently experiencing an increase in psychological flexibility via acceptance. These findings imply that mindfulness- and acceptance-based therapeutic interventions such as ACT, may be advantageous for gay men confronted with these salient issues. The intervention is brief and can be broadly applied to many settings such as clinics, hospitals, and university health or counseling centers.

Additionally, because the utility of these interventions and strategies appears promising, it may behoove practitioners working with marginalized clinical populations within varied clinical settings to implement these therapeutic modalities into their repertoire of interventions. Researchers have indicated, however, that clinicians must also be aware of potential challenges when working with stigmatized populations, such as promoting acceptance in the face of adversity, acceptability of mindfulness, attending to the difference in the psychotherapist and patients' perspectives, and promoting the pursuit of self-chosen values in time of hardship (Sobczak & West, 2013).

A primary focus of mindfulness- and acceptance-based behavioral treatments is to fully understand the contexts in which patients are experiencing distress and to subsequently validate that experience before encouraging behavioral change that is consistent with the patients' self-chosen values. Fuchs, Lee, Roemer, and Orsillo (2013) state that "this contextualized approach may resonate with clients from nondominant cultural and/or marginalized backgrounds who, due to understandable mistrust of the mental health system, may assume that they will be blamed in therapy for their current circumstances" (p. 3). Many gay men from both dominant and marginalized racial groups have essentially little or no control over many factors (e.g., body shape and weight prejudice, systemic oppression, heterosexist belief systems, etc.). Thus, given this difficult situation, the opportunity of having an individual clinician or a workshop facilitator who is able to validate this reality, while also aiding individuals to identify the actions that are actually within their immediate control and are driven by their self-chosen values, may be exceedingly advantageous.

Strengths of the Study

Several strengths of this study were notable. First, there was no participant attrition and as a result, all 24 of the gay men who participated in the study completed all assessment measures in their entirety at pre-test, post-test, and at the 1-month follow-up. Another significant strength of this study was the racial diversity of the sample. Less than half of the participants self-identified as White/Caucasian, resulting in a substantial number of participants from underrepresented and understudied populations, such as African Americans, Asian American/Pacific Islanders, and Bi- and Multiracial Americans. Because research on the relevance to and acceptability of mindfulness- and

acceptance-based treatments such as ACT with individuals from nondominant and traditionally underserved backgrounds in still in its infancy, the diversity of this study's sample adds to the growing knowledge about the appropriateness and effectiveness of these treatments (Fuchs, Lee, Roemer, & Orsillo, 2013).

Another notable strength of this study was the brevity and flexibility of the ACT intervention. Rather than a procedure-oriented or manualized treatment, ACT is a process-oriented psychotherapy which is comprised of six core interrelated treatment components or therapeutic processes. Because these processes in ACT overlap and together all target psychological flexibility, it is a therapeutic intervention that could be broadly applied by practitioners to many treatment environments, including outpatient clinics, university health and counseling centers, and hospitals which encounter adult gay men.

Limitations of the Study

One of the limitations to this exploratory study was its sample size. Although the target sample size for the study was between 50 and 60 gay men, only 24 participated and completed the study. Therefore, the analysis was conducted with just under half of the total desired number of participants. Several factors may have accounted for a smaller sample size. It was previously noted that a total of 49 gay men expressed interest in participating in the study; however, because of the various exclusion criteria put forth, several of the prospective participants became ineligible. A more substantial number of prospective participants who were deemed eligible following the phone screen dropped out before participating in the workshop. Within this group of prospective participants, several did not answer the researcher's e-mails or phone calls when attempts were made

to schedule workshop dates and times, while others contacted the researcher themselves to state that they were no longer interested in participating in the research study. Many of these prospective participants expressed that other engagements had arisen preventing them from being able to attend and participate.

The difficulty in finding adult gay men within the San Francisco Bay Area who struggle with their body image, diet, and exercise, and who were interested in participating in the study was an unexpected problem. Research supports that a substantially high percentage of gay men are dissatisfied with their bodies and engage in unhelpful dieting behaviors, yet finding willing participants interested in participating was difficult. The motivation to attend a full-day workshop during the weekend may have been part of the issue.

Another limitation relates to the inherent nature of the current study's design and its lack of control for possible threats to internal validity. It should be noted that this type of research design limits the generalizability of the results, as there is an inferential weakness associated with a study conducted as a pre-experimental one-group design (Abbott & McKinney, 2013; Barker, Pistrang, & Elliot, 2002). Therefore, it is not immediately possible to solely attribute change in body image dissatisfaction and maladaptive eating attitudes and behaviors to the ACT workshop intervention. Similarly, because this study was a single-group design and did not include a control or comparison group and a true predictor variable, mediation, as a more sophisticated and causal model of analysis, could not be conducted to determine whether or not the process variables of psychological flexibility mediated change in body image dissatisfaction and maladaptive eating attitudes and behaviors as outcomes variables.

As was also previously noted in the study by Siever (1994), there still remains a need for an alternate method of scoring for the EAT-26, despite the fact that this questionnaire is also recommended for use with nonclinical samples. The original scoring method, employed in the present study, collapsed the three least extreme responses and gave them a score of zero. Thus, because the measure was originally developed and validated on clinical populations with eating disorders, such as anorexia nervosa and bulimia nervosa, men and women who struggle with subclinical symptoms of eating disorders often obtain a more skewed distribution with regards to their scores, making if difficult to analyze more sub-threshold eating psychopathology.

Recommendations and Directions for Future Research

This dissertation study was the first of its kind with respect to treatment outcome research for gay men and thus only serves as an initial step in understanding how ACT may be used to address those gay men who struggle with body image and disordered eating attitudes and behaviors. While the results of this study were encouraging, a number of questions arose over the course of this study, which present opportunities for further investigation of the utilization of ACT with this population. Several of the methodological issues and other factors that were considered limitations of the study could be addressed or corrected in subsequent research studies. This section thus presents those opportunities for improving on the present study, and investigating this topic in greater detail.

As a next step, future studies examining the effectiveness of an ACT workshop intervention will want to develop a more rigorous research design, which would include utilizing a control group or a randomized control group with a substantially larger sample

size than that of the current study. By employing a control group, researchers could then better attribute change in severity of body image dissatisfaction and disordered eating symptomatology to the ACT workshop intervention alone which would result in better control of the study's internal validity. Similarly, by employing a control group, a mediation analysis could then be conducted, as is frequently done in other ACT treatment outcome studies, in order to examine how process of change variables such as acceptance, or variables of psychological flexibility, affect change in body image, weight, and eating attitudes and behaviors (Juarascio et al., 2013; Lillis, Hayes, & Levin, 2011). Future studies examining process of change variables of psychological flexibility, such as cognitive defusion, will also want to consider utilizing a more appropriate or precise measure. The Drexel Defusion Scale (DDS; Forman et al., 2012) is a self-report questionnaire that assesses the extent to which a person is able to distance him/herself from troubling thoughts, feelings, and physiological experiences. This relatively new measure may be an appropriate and feasible option for use.

Finally, because many gay men experience negative attitudes and outright discrimination from contemporary society related to their sexual orientation, many of these men internalize heterosexist beliefs. Meyer and Dean (1998) define this internalized homophobia as "the gay person's direction of negative social attitudes towards the self and resultant internal conflicts and poor self-regard" (p. 161). Therefore, it is reason to assert that some gay men succumb to disordered eating attitudes and behaviors in an effort to realize an idealized male physique that is accepted by greater society and prevents heterosexist attacks (Walloch, Cerezo, & Heide, 2012). Moreover, it seems plausible to implement ACT as a therapeutic intervention, as it is designed to

increase psychological flexibility in the presence of painful experiences, such as self-stigmatizing thoughts that plague many gay men (Yadavaia & Hayes, 2012). Thus, by employing an ACT intervention which simultaneously addresses shame and self-stigma, in addition to body image dissatisfaction and disordered eating, subsequent research would be more comprehensive as it would address the multiple needs of gay men in order to help them live a life worth living.

Conclusion

This 1-day workshop intervention was the first treatment outcome study to apply ACT with adult gay men struggling with body image dissatisfaction and unhelpful eating attitudes and behaviors. The gay male subculture has created a unique set of body image ideals, where there seems to be an elevated importance on the appearance of the body. Gay men hence seek to achieve this ideal body through a variety of image-altering techniques including daily workouts, restrictive diets, hair supplement/removal, and possible tanning. The current results of the study provided preliminary evidence that an ACT workshop may be effective in treating gay men who struggle with body image dissatisfaction and maladaptive eating attitudes and behaviors.

More specifically, the results illustrated how the intervention helped decrease preoccupation with body image and disordered eating behaviors, while simultaneously increasing experiential acceptance by decreasing avoidance and thought suppression. The findings of this study imply that mindfulness- and acceptance-based therapeutic interventions, such as ACT, may be advantageous for gay men who struggle with these clinical issues. This study served as an important contribution to the scarce literature

concerning treatment interventions, not solely for gay men in general, but also for gay men who struggle with disordered eating behaviors and acceptance of their bodies.

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APPENDIX A

Mental Health Clinician Recruitment E-Mail

Mental Health Clinician Recruitment E-mail

Dear **[Mental Health Clinician]:**

My name is Joseph Walloch and I am a third year doctoral student in clinical psychology at the California School of Professional Psychology, at Alliant International University. I am writing my dissertation as a part of my academic requirements and would like to recruit individuals you may know who fit the criteria of my study. I would appreciate you forwarding this e-mail to perspective participants and posting the attached flyer at your center/agency.

The purpose of the study is to test the efficacy of a 1-day group workshop for adult gay men who struggle with body image dissatisfaction and unhealthy eating attitudes and behaviors. The goals of this workshop are to reduce men's preoccupation with body image, weight, and shape.

Participation involves attending a 1-day (7 hour) workshop. A half-hour will be allotted for lunch which will be provided free of charge.

This study has been approved by the Institutional Review Board (IRB) for the protection of human subjects in research at Alliant International University. You may contact them by phone (415) 955-2151 or by e-mail at IRB-SF@alliant.edu. You may also contact my chair, Dr. Alison Cerezo at (415) 955-2070 or by e-mail at acerezo@alliant.edu if you have any questions or concerns about my study.

Respectfully,

Joseph C Walloch

APPENDIX B

Flyer

GAY MEN WHO STRUGGLE WITH DIET AND EXERCISE NEEDED FOR A RESEARCH STUDY

Do you speak English fluently?
Do you self-identify as a gay male?
Are you between the ages of 18 and 40?
Do you feel unhappy about your body?
Do you often worry about what you eat, count calories, or spend a lot of time in the gym?

If you answered ***Yes*** to the above questions, you may be eligible to participate in this research study.

This project involves a 1-day group workshop that will focus on improving gay men's insight about their feelings and behaviors related to diet and exercise. This project will involve approximately 8 hours of time.

** The researcher, Joseph Walloch is a doctoral student in clinical psychology at the California School of Professional Psychology, Alliant International University-San Francisco under the supervisor of Alison Cerezo, Ph.D.*

Please Contact: Joseph Walloch (206) 235-5454
jwalloch@alliant.edu

APPENDIX C

Social Networking Recruitment

Social Networking Recruitment

Dear **[Social Networker]:**

My name is Joseph Walloch and I am a third year doctoral student in clinical psychology at the California School of Professional Psychology, at Alliant International University. I am writing my dissertation as a part of my academic requirements and would like to invite you to participate in my study. If you do not fit the criteria for the study, please forward this message on **[Name of Social Networking Site]** to others who may be interested.

The purpose of the study is to test the efficacy of a 1-day group workshop for adult gay men who struggle with body image dissatisfaction and unhealthy eating attitudes and behaviors. The goals of this workshop are to reduce men's preoccupation with body image, weight, and shape. An individual with a desire to participate in the study must meet the following minimum criteria: Be an adult (18-40 years of age) who self-identifies as a gay man, struggle with body image dissatisfaction, and have unhelpful attitudes and behaviors centered around eating. If you meet the criteria and/or know any individuals who meet the criteria, please forward this message.

Participation involves attending a 1-day (7 hour) workshop. A half-hour will be allotted for lunch which will be provided free of charge.

If you are interested or know someone who may be participating in my study please contact me by phone at 206-235-5454 or by e-mail at jwalloch@alliant.edu.

This study has been approved by the Institutional Review Board (IRB) for the protection of human subjects in research at Alliant International University. You may contact them by phone (415) 955-2151 or by e-mail at IRB-SF@alliant.edu. You may also contact my chair, Dr. Alison Cerezo at (415) 955-2070 or by e-mail at acerezo@alliant.edu if you have any questions or concerns about my study.

Respectfully,

Joseph C Walloch

APPENDIX D

Telephone Screening Script

Telephone Screening Script

[If Voicemail]: You've reached the confidential voicemail of Joseph Walloch. Please leave your name, number, and some good times to reach you and I will return your call as soon as possible.

THEN

[If Calling Back]: Hi can I please speak to *(Potential Participant's Name)*? This is Joseph Walloch returning your call about the research study I am conducting. Maybe you saw my flier at the gym or on campus. I am testing the effectiveness of a group workshop for gay men, on their body image, diet and exercise. Thank you for your interest in my study. Is this a good time to tell you a little bit about the study and to ask you a few questions?

[If No]: Let me know if there are some good times to call you back and I will let you know during which of those times I would be able to call you back.

[If Yes]: Again, my name is Joseph and I'm a doctoral student in clinical psychology and I am conducting this research for my dissertation, as part of the requirements towards the Doctor of Psychology degree. The purpose of this research is to test the efficacy of a 1-day workshop for adult gay men who struggle with body image dissatisfaction and unhealthy eating attitudes and behaviors. Because this is a formal study, I need to ask you a few questions to determine whether you are eligible to attend the workshop. May I ask you these questions now?

[If No]: Let me know if there are some good times to call you back and I will let you know during which of those times I would be able to call you back.

[If Yes]: You can choose not to answer any of the following questions to ensure that you are comfortable, and to protect your privacy. However, if you choose not to answer all of the questions, I cannot adequately insure that your participation would be advisable, so you would be ineligible to participate in this study.

Required Inclusion/Exclusion Questions:

1-Do you speak English fluently?

2-Do you self-identify as a gay man?

3-Are you between the ages of 18 and 40?

4-Are you currently receiving individual or group psychotherapy?

[If Yes]: Have you been given a diagnosis of Body Dysmorphic Disorder, Anorexia Nervosa, Bulimia Nervosa, or Eating Disorder N.O.S.?

5-Are you dissatisfied with your body image, for example, your weight, percentage of body fat, and/or your amount of muscle?

6-Do you currently/ever worry about what and how much you eat?

7-Do you currently/ever struggle with eating behaviors and amount of exercise used to manage your weight and body shape?

[If No to questions 1-3 and Yes to question 4 with the diagnosis in addition to No to questions 5-7]: Unfortunately, you do not meet all the criteria for this study. However, I very much appreciate your interest in this research, your willingness to help and the time this have taken.

[If inclusion criteria are met]: Okay, great; it appears that you are eligible to participate. Now I will tell you what your participation will entail if you decide to participate. The study involves one formal 7 hour group meeting in a workshop format. Approximately one month after the workshop I will contact you via e-mail and/or telephone giving you an internet link where you will complete questionnaires. I will contact you with possible weekend dates from which you can choose to attend the workshop. During the formal meeting (workshop), you will receive a participant consent form to read. The consent form details the procedures involved in this research study including the ways in which your confidentiality will be protected. By signing the consent form, you give your consent to participate and you will continue with the formal meeting by completing a demographic questionnaire and several questionnaires regarding your thoughts and feelings toward your appearance and eating attitudes and behaviors. We will begin at 9:00 A.M. and end at 4:30 P.M. This workshop will take approximately 7 hours. A 30-minute lunch will be provided to you at no charge around 1:00 P.M. At the end of the workshop, you will complete questionnaires, same as you did prior to beginning the workshop. As I mentioned earlier, approximately one month after from the date of the workshop, you will be contacted via phone and/or e-mail and asked to complete a set of questionnaires. The internet link will be provided at that time. Are you still interested in participating?

[If No]: Okay, thank you for taking the time to answer my questions. Goodbye.

[If Yes]: Okay great. I will contact you as soon as possible with the location of the workshop and a variety of dates so that you have some options from which to choose. Also, one more thing…Would you be willing to engage in "snowball sampling," by sharing information about my research and the workshop with guys you know who you think might be eligible? This is of course voluntary and if you choose to decline, your participation in the project will not be compromised, nor will your relationship with myself or my university.

[If No]: Okay, I understand. Thank you so much for your time and I look forward to working with you soon!

[If Yes]: Okay great. I can send you a flier via e-mail so that you can share with others in whichever way you'd like. For example, you can do any of the following: talk to people and show them the flyer, re-post electronic flyers on various social networking websites (e.g., Facebook), or forward the electronic flyer to other potential guys via e-mail. Thank you so much for your time and I look forward to working with you soon!

APPENDIX E

Telephone Workshop Scheduling Script

Telephone Workshop Scheduling Script

Hello **[Participant's Name]**, this Joseph Walloch, the doctoral student in clinical psychology from the California School of Professional Psychology, at Alliant International University. Thank you again for your interest in my research. I'm calling you with some available dates for the workshop. Here are some available days:

XX/XX/XXXX
XX/XX/XXXX
XX/XX/XXXX

Do any of these dates work for you?

[If No]: Ok I understand and I'm sorry these dates don't work for you. At this time you won't be able to participate in this study. If additional workshops are offered, I will be sure to call you back.

[If Yes]: Great. We will begin at 9:00 A.M. and end at 4:30 P.M. This workshop will take approximately 7 hours. A 30-minute lunch will be provided to you at no charge as well around 1:00 P.M. The workshop will take at Alliant International University. It's location right across from Pier 39. The address is 1 Beach Street/San Francisco, CA 94133. In terms of public transportation, the most direct way to get there is by taking the F-line. It will drop you off right in front of Pier 39 and you would just walk across the street. If you're driving, there is a parking lot on the corner of Beach and Stockton that costs $15 per day. I will have signs directing you to the room number inside the building. If you get lost, you can always call my cell at (206) 235-5454. Thanks again and see you on **[Date]**!

APPENDIX F

Workshop Protocol

ACT for the Treatment of Body Image Dissatisfaction and Maladaptive Eating Attitudes and Behaviors in Gay Men: A Pilot Study
WORKSHOP PROTOCOL

This is a general protocol for a one-day, seven-hour workshop (9:00 A.M.-1:00 P.M. and 1:30 P.M.-4:30 P.M.) of Acceptance and Commitment Therapy (ACT) for gay men struggling with body image dissatisfaction and maladaptive eating attitudes and behaviors. Each section of the workshop will have core intervention strategies.

Pretreatment Assessment

Background and Demographic Questionnaire

Ask participants to complete a background and demographic questionnaire.

Confidentiality

Ask participants to complete an informed consent. Explain to participants that everything that occurs in the workshop, including their responses on the various questionnaires, will remain confidential on the part of the researchers. Ask participants to please keep information shared in the workshop private but that I/we cannot ensure this will occur. The only exception where confidentiality must be broken, according to the ethical code of the American Psychological Association (APA), includes the following: if the participant reports sexual abuse, plans of harming themselves or others, or reports harming a child or the elderly.

Measures

Ask participants to complete a packet of measures including the following:

The Male Body Attitudes Scale (MBAS)
The Eating Attitudes Test-26 (EAT-26)
The White Bear Suppression Inventory (WBSI)
The Acceptance and Action Questionnaire-II (AAQ-II)
The Body Image—Acceptance and Action Questionnaire (BI-AAQ)

Orientation to the Workshop Training and Alliance/Rapport Building

Orientation

Facilitators introduce themselves to the group and thank participants for helping with this study, as it will be a vital and special contribution to the research in clinical psychology and gay men. Acknowledge their choice to attend the workshop in hopes of learning how to live a valued life despite their struggles with body image and maladaptive eating attitudes and behaviors.

Alliance/Rapport Building

Workshop facilitators begin to form a working alliance and begin to establish rapport with the participants via metaphors and self-disclosure of struggles with body image dissatisfaction and maladaptive eating attitudes and behaviors.

"The Two Mountains" Metaphor

Facilitators express to participants that many people come to therapy or trainings believing that the therapist or facilitator is some sort of enlightened being, where he/she has resolved all personal issues and has his/her life together. Express that this is not actually how it is at all. Explain the following: It's more like you're climbing your mountain over there, and I'm climbing my mountain over here. And from where I am on my mountain, I can see things on your mountain that you can't see—like there's an avalanche about to happen or there's an alternative pathway you could take, or you're not using your climbing tools effectively. Continue to express that I'd hate for you to think that I'm just relaxing at the top of my mountain. Fact is, I'm still climbing, still making mistakes, and still learning from them. Basically we are all the same as we're all climbing our mountain until the day we die. The thing is that you can get better and better at climbing and better and better at learning to appreciate the journey, so our work here today is going to be just that.

"Sludge in a Glass" Metaphor

Explain to participants that my clinical experience with this approach is that it has the potential to put them on a bit of a "roller coaster," where all kinds of different emotions might emerge, including: interest, boredom, anxiety, sadness, clarity, confusion, shame, and so on. Explain that it's like cleaning out a dirty glass with sludge in the bottom: the only way to do it is to stir up the dirt, so some stuff might get stirred up, and for a while, things may look worse before they look better. Emphasize that it is not that it is overwhelming—it is just that they should be prepared to let show up whatever comes up.

Introduction to Body Image, Body Image Dissatisfaction, and Maladaptive Eating Attitudes and Behaviors

Guided Meditation: "Reflecting on Body Image"

(Sandoz, Wilson, & DuFrene, 2011)

Facilitators guide the mindfulness exercise: Let your eyes gently close, and just notice your own "body image." When do you feel good about your body? You may feel good about your body when your mood is good or when other things are going right. What do you see in the moments you see your body as "good?" Maybe you focus on seeing your visible abs or seeing your clothes hang in a certain way. What do you feel in your body in the moments you feel your body is "good?" Maybe you focus on the tightness in your muscles or in your stomach. When do you feel bad about your body? For example, some people notice when they feel bad about their bodies their mood is bad, or when they see a sexy fit man, or when other things are going wrong. What do you see in the moments you see your body as "fat," "flabby," "too thin," or "ugly?" You may focus on seeing your stomach stick out or seeing your clothes pull in a certain way. What do you feel in your body in the moments you feel your body is "fat," "flabby," "too thin," or "ugly?" Some people tend to focus on a full feeling in their stomachs or the fact that they feel fat around their abs. Please breathe deeply. Pause here and notice the role that your body image has in your life. What else do you feel when you feel bad about your body? What kinds of thoughts come up for you? How do you see yourself as a person

when you're feeling bad about your body? What else do you do differently? When you're ready, allow your eyes to gently open. Now, if you're willing, take a few moments to record what came up for you in the meditation by filling out the "Reflecting on Body Image" worksheet. Discussing and sharing of statements follow.

Body Image and Body Image Dissatisfaction

A didactic presentation follows: Body image is a person's perceptions, thoughts, and feelings about his or her body. Body image is a psychological phenomenon that is significantly affected by social factors, and to understand it fully, it is necessary to not only look at the experiences of individuals vis-à-vis their bodies, but also at the cultural and subcultural milieu in which the individual functions. Social psychologists have generally argued that sexual preferences in body shape and size are largely learned, and are affected by the value that a particular culture or subculture attaches to that kind of body shape. Body image disturbance, or dissatisfaction, is not only characterized by a negative attitude toward one's body, but can also occur when there is significant discrepancy between one's perception of, or beliefs about, the size or shape of one's body and its actual size and shape.

"Eating Disorders and Men" Video Clip

http://www.youtube.com/watch?v=W4Wyduvw5w4&feature=fvwrel

Maladaptive Eating Attitudes and Behaviors

A didactic presentation follows: Disordered eating occurs when a number of unhealthy attitudes and behaviors related to eating, exercise, and body image coincide. Eating disorders are characterized by persistent disturbances in eating behavior and other behaviors aimed at controlling weight that lead to significant impairment and may be life threatening. Among the vast number of mental disorders, eating disorders are associated with the highest risk of premature death, both due to medical complications and elevated rates of suicide in this population. In addition to the physical toll, these disorders are also coupled with elevated depression and anxiety, social and occupational impairment, and reduced quality of life.

In general, eating disorders occur on a continuum of attitudes and behaviors. Although specific eating disorders such as anorexia nervosa and bulimia nervosa are the most frequent eating disorders referred to in the media, they represent only one extreme of a broad spectrum of disordered eating. In addition to clinical eating disorders, this continuum also includes subclinical eating disorders, where individuals may diet frequently, and exercise compulsively, among other behaviors, in hopes of altering their body shape and size. Although experimenting with these behaviors does not necessarily mean that one will meet the diagnostic criteria for an eating disorder, such behaviors may place one at significant physiological and psychological risk.

<u>Gay Men and the Idealized Physique: An Introduction</u>

"The Adonis Factor" Video Clip

http://theadonisfactor.com/index.html

After watching the video clip ask participants for their reactions to it and engage in a group discussion.

Introduction to Body Image, Dissatisfaction, and the Gay Subculture

A didactic presentation follows: Like all individualized groups or communities, the gay male subculture has created a unique set of body image ideals that places an elevated importance on the appearance of the body. Body image disturbance has become a form of normative discontent among gay men who, like women, can trace the roots of their body image dissatisfaction and its encumbering effects to gendered power relations instigated and maintained by men. Consequently, the body itself has become a crucial site of social struggle, not only between men and women but also between dominant masculinities and subordinate male gender styles that are marginalized and stigmatized. In the gay subculture where one is often objectified for one's physique, it's not surprising that may gay men suffer from body image dissatisfaction leading to maladaptive eating attitudes and behaviors.

Creative Hopelessness: Opening to the Reality That Trying Too Hard to Control Gets in the Way of Living a Rich Life

Introduction

The goal of this section is to help the participants identify their struggle with body image, how long this has been ongoing, and the various attempts made to feel better about the body in the form of experiential avoidance behaviors. A brief didactic lecture regarding the conceptualization of human pain and suffering is also presented.

Guided Meditation and Imagery Exercise/Worksheet: "Mirror, Mirror on the Wall"

Facilitators guide the mindfulness exercise: Get as comfortable as possible in your chairs and slowly close your eyes. First, focus on your breathing, taking a few deep breaths. I now invite you to think of a time recently when they were looking at yourself in the mirror and it was very uncomfortable to do so. When thinking about this experience, try to make sure that the image is as vivid as possible, allowing your mind to bring back all the thoughts, feelings, sensations, and emotions that were present at that time. Notice these thoughts, feelings, sensations, and emotions that come up when thinking about this time. Try to stay with those personal experiences as best as possible.

Now, open your eyes and look at the first half of the "Mirror, Mirror on the Wall" worksheet and in that section write down every thought, feeling, sensation, and/or emotion that came up for you. From this point, facilitators ask the participants to put the worksheet aside, and the guided meditation continues: Close your eyes again, and take a deep breath. Bring back that image of you gazing in the mirror again and make it as vivid as possible. Now I want you to notice what you do to get rid of those uncomfortable thoughts, feelings, sensations, and emotions. Focus on that image. Now open your eyes and take out that worksheet again and on the second half of the page, I invite you to write down all the things you do to get rid of those uncomfortable experiences. Facilitators then finally invite participants to put the worksheet aside and state the following: Close your eyes one last time, bringing back that same painful image once again. While focusing and

paying attention to your breathing, I invite you to just let the image of your body in the mirror go. Open your eyes when you're ready to come back to the group.

Following this experiential exercise, facilitators debrief with the entire group while including a brief didactic illustrating primary and secondary pain: Facilitators ask volunteer participants to share both the top and bottom sections of the worksheet and the facilitators write down on the whiteboard various examples. Facilitators label examples as either primary or secondary pain for the participants and ask them for their reactions.

The Conceptualization of Human Pain and Suffering

A brief didactic presentation follows: Pain is universal to humans, and our efforts to avoid emotional pain produce suffering. To illustrate this, the facilitators provides examples such as starving oneself, binge eating, vomiting, and overexercising as ways that we attempt to numb or avoid emotional pain. Next, the point is emphasized again that belonging to, and possibly, living in the gay subculture makes it nearly impossible to change or eliminate the constant messages promoting masculine, muscular, lean, beautiful body. Along with individual factors, it isn't a surprise that so many gay men struggle with body image dissatisfaction.

"Boy, Interrupted: One Man's Struggle with an Eating Disorder" Video Clip

http://www.youtube.com/watch?v=QIPVkS-ie2A&feature=related

After watching the video clip ask participants for their reactions to it and engage in a group discussion.

Exercise: "How Long Have You Been Struggling?"

To facilitate connection with the pain of body image dissatisfaction, an experiential exercise is conducted by the facilitators. The exercise guides the participants in a brief visualization where they imagine themselves at the age they first noticed becoming uncomfortable with their body. Participants are asked to imagine details about their body, size, weight, musculature, and overall appearance at that age. Following the experiential exercise, participants are asked the following: to disclose how long they have been engaged in the struggle with body dissatisfaction and to disclose what "comes up" for them when thinking about this and what they do to get rid of this experience.

Worksheet: "Attempted Short-Term Solutions and Their Long-Term Effects: Body Image"

Facilitators ask participants to complete the worksheet using several examples, serving as a follow-up activity to the previous exercise. The following question is posed to aid participants: "How have you tried in different ways to solve the struggle with body image and eating?" Facilitators then ask the participants to give examples from the worksheet.

Workability

Following the "Attempted Solutions and Their Long-Term Effects: Body Image" worksheet, participants are asked how workable they think their attempted solutions are. The following question is posed to aid participants: "Did that result produce the desired outcome you were looking for in your life?" A discussion follows.

Control Strategies and Experiential Avoidance

A brief didactic presentation follows: The preoccupation with body weight (i.e., leanness) and shape (i.e., muscular) is conceptualized as an avoidance strategy. That is, focusing on something that is perceptively controllable (i.e., the number on the scale, the size of clothing one wears, the weight of the free-weights in the gym) may be easier than addressing less perceptively controllable life issues (i.e., interpersonal relationships and unmet goals). The illusion that changing the external will somehow change other aspects of life is reinforced via social references of being lean and muscular associated with money, love, and success. Therefore, the perpetual struggle of focusing on how the body is unsatisfactory is described as socially acceptable (within the gay subculture) and positively reinforced method of avoidance. Therefore, body image dissatisfaction and maladaptive eating are conceptualized as serving two potential avoidance functions: (a) direct avoidance of discomfort with the body via attempts to change it or to avoid situations where body discomfort may arise and (b) avoidance of other life issues through focus on the body, something that may be perceptively more controllable.

Describing and Explaining ACT

(Sandoz, Wilson, & DuFrene, 2011)

Introduction

A brief didactic presentation follows: The belief is that you can start living a meaningful and sincere life without getting rid of your body image dissatisfaction and maladaptive eating attitudes and behaviors. This belief is based on a certain type of psychotherapy called acceptance and commitment therapy, or ACT. ACT offers an approach to living a rich life with the kinds of experiences we often call "problems," experiences that, when we try to solve them like problems, often leave us stuck. ACT was developed based on the idea that experiences like the ones we often call body image dissatisfaction or eating disorders emerge when we try to fix our experiences, ourselves and the world.

Purpose

ACT isn't about making symptoms of eating disorders or dissatisfaction with your body image disappear. It's about letting go of whatever you're struggling with so you can start building a richer and more meaningful life. Remember, it's not about solving problems, whether the problem of body image dissatisfaction and maladaptive eating attitudes and behaviors, or the problem with you, or the problem of a meaningless life. ACT is about living that meaningful life.

Goal

ACT takes a new and different perspective on psychological health, which involves opening up to your experiences in such a way that you get to take steps toward the things you care about, even when fear, frustration, regret, shame, and/or sadness are present. The idea is to become fully aware of the experiences that get you stuck, to practice letting go of attempts to change them, shifting the focus of your actions to the

things that matter to you. Flexibility matters because being open to difficult experiences means you get to keep moving through and around those experiences, no matter what kind of thoughts, feelings, or emotions show up. Being able to keep moving means being able to keep doing the things that matter to you.

Worksheet: "Basic Components—ACT"

The worksheet is handed out to participants for their own reference.

Accept your thoughts and feelings about yourself, which are essentially not controllable. The idea is to accept what you already have anyway, and end the struggle with unwanted thoughts and feelings by not attempting to change them, not acting upon them, and ultimately letting them go.

Choose a direction in your life, which involves identifying what you value in life and what you want your life to stand for. This is about finding out what is truly important to you.

Take action is the final component, which involves taking steps toward realizing your valued life goals. It is about making a commitment to action and changing what you can change. This step involves learning to behave in a way that moves you forward in the direction of your chosen values.

Clarifying Values: Knowing What Matters

Worksheet: "Life Without Body Image and Eating Concerns"

As an introduction activity to values, and to provide a general idea of what they want in their life, for five to ten minutes participants complete the "Life Without Body Image and Eating Concerns" worksheet, where they are instructed to write about what life would be like if so much time was not spent focusing on eating and/or body image concerns. They are asked to answer questions of what they would spend time doing during the day, and what they imagined life might be like without body image concerns.

Introduction to Values

A didactic presentation follows: Values are personal. Values can be defined as "what is most important"—to you! Values are not what society tells you are important—rather values are what you find important. Once you identify your values, it can never be "done" or crossed of your "to do list." Values are not something we complete-rather the direction we live in, or for, which is guided by who we want to be as a person. For example, some of you may have the value of being a caring boyfriend, partner or friend. This is something you would not cross off a list—this is something you will always live by, right? However, a goal would be to calling your good friends today to spend time with them. You can cross this off, but the fact that you want to be a caring boyfriend, partner or friend is always ongoing.

Facilitators ask members to share one of their values to clarify further, or use another example to solidify the concept.

Worksheet: "Ranking Your Valued Directions"

Facilitators ask participants to clarify specific values with the "Ranking Your Valued Directions" worksheet, where they are asked to first choose 3 from the following 9 values: career, citizenship, education, family, friends, health, leisure, romantic relationships, and spirituality. They are then asked to rank order their chosen values (1 = the most energy spent; 3 = the least energy spent). After the first ranking, participants are asked to make a second ranking of the same domains. This time, the ranking was based on imagining one's ideal life, and participants are instructed to imagine, in an ideal world, how they would be spending their time and energy. Following the ranking activities, participants are asked to notice any discrepancies between the two sets of rankings, and it suggests that these may be areas of life where struggling/suffering exists, and possibly where an over-focus on eating and body image has become a barrier to valued living.

Experiential Exercise: "Establishing the Life Line"

(Adaptation of Dahl, Plumb, Stewart, & Lundgren, 2009)

The following experiential exercise allows the participant to become aware of actual physical behaviors and experiences during the role-play that are similar to physical aspects of his behavior and experiences in his everyday life outside of the workshop. Facilitators explain the exercise as follows: In this exercise we're going to try to both re-create and experience your life as it is now. We'll start off by identifying and getting in touch with some important life directions that are meaningful for you. Unfortunately some things are getting in the way of you living these values.

Facilitators place a scarf/belt/piece of tape on the floor, symbolizing the participant's valued direction, or life line. Facilitators then ask a volunteer participant to choose one of his most important values as an example to use in this experiential exercise. The participant then writes the value on a notecard and places that notecard at one end of the scarf/belt/piece of tape where the facilitator(s) will also be standing. He then is instructed to stand at the other end of the scarf/belt/piece of tape facing the value notecard and the facilitator(s). The facilitator(s) then ask(s) the participant: "What has been getting in the way of living that value and moving along in your life?" The participant then will list various thoughts, feelings, emotions, sensations that have been inhibiting him from living a valued life. The facilitator(s) will encourage and prompt the participant if he has problems coming up with barriers in the moment. The facilitator(s) then precedes ask(s) the participant a follow-up question: "Are you willing to continue living your life, moving closer to what you care about most while still experiencing these painful thoughts, feelings, emotions, sensations?"

A follow-up exercise/worksheet, "Establishing the Life Line" is completed with the rest of the group, asking them to also establish their own life lines. Debriefing of the exercise follows.

Barriers to Values

A didactic presentation follows: Barriers are things that could get in the way of your valued paths in life. Nearly any experience, thought, feeling, behavior, person, societal pressure as a whole, place, thing, or unclear values can function as a barrier to living a valued life. Being able to recognize these barriers can help you move forward with living the life you want to live.

Worksheet: "What Barriers Do You Face?"

Explain that there may be internal (e.g., insecurity, shame, anxiety) barriers and/or external (e.g., lack of money, lack of time, personal conflicts with other people involved).

Facilitators have participants to complete the "What Barriers Do You Face?" worksheet, where they are asked to come up with potential barriers that might get in the way of their measurable goals in each domain. Discussing and sharing of the different barriers follow.

LUNCH BREAK

Revisiting Values

Worksheet: "Your 80th Birthday"

Participants complete the brief worksheet exercise, "Your 80th Birthday" where instructions are as follows: Imagine your 80th birthday party. Two or three people make speeches about what you stand for, what you mean to them, the role you played in their lives. In the "ideal" world, where you have lived your life as the person you want to be, what would you hear them saying? Write a few message you hear your friends saying about you. A brief discussion and sharing of messages occurs.

Defusion & Acceptance: Detangling Yourself From Your Thoughts and Opening Up

Introduction to Fusion and Defusion

A didactic presentation follows: Fusion with thoughts and/or feelings means getting caught up in them and allowing them to dominate our behavior. The problem with fusion is that you end up losing contact with most of what's going on within you and around you, except that thought and/or feeling you're fused with.

Fusion can play an important role in maintaining body image and eating struggles too. Most guys who struggle with body image and eating have rules around beauty, rules about food, and rules about feeling full. Here's an example of how fusion could play out in your lives: You're at the gym doing your routine and feeling good. Then you see a ripped, sexy guy with huge pecs and arms walk up next to you, and a hard thought comes up and takes over your world. It might be an evaluation of your appearance ("fat-ass," "skinny twink," "weakling"), or something you ate earlier ("disgusting," "unhealthy"), or a physical sensation ("full").

Our goals as facilitators are to introduce you to techniques to distance yourselves, or defuse, from your thoughts and/or feelings, letting them come and go instead of being caught up in them.

Exercise: "Writing Thoughts Down"

The facilitators ask the participants to close their eyes if they're willing and to listen to the story that their mind is telling them as they hear the phrase: "When I feel bad about my body, I think…" They are then asked to write down on the provided notecard the thoughts generated by their minds. When finished, facilitators collect the cards, make

a pile called "Our pile of thoughts," and then randomly hand one out to each person. Participants are asked to hold their thought card "lightly." Each participant then reads the thought aloud to the group. Facilitators finally ask the participants to reflect on what they noticed.

Exercise: "Distancing"

To demonstrate how people end up losing contact with what's going on within them and around them due to fusion with thoughts/feelings, have participants use the "Mirror, Mirror on the Wall" worksheet from a previous exercise. With the negative thoughts about body image, have participants place the worksheet in front of their eyes and explain to them that that's what it's like when one is fused with a thought. It disables them from seeing clearly and from participating in life. Next, ask the participants if they'd be willing to not necessarily rid themselves of the thoughts on the worksheet but to place it on their leg, look at it for a minute, and to be ok with that thought just being there. Explain that they still have the ability to act according to their values in the presence of that negative thought.

Exercise: "I'm Having The Thought That…"/"Leaves on a Stream" Metaphor

Facilitators explain to participants that that one way they can learn to gently observe without judgment of a specific event, or an ongoing set of events that occur is through this eye-closed exercise. Facilitators also encourage participants to use this tool when they find themselves caught up in a thought, feeling, sensation, and/or emotion.

Facilitators guide the mindfulness exercise: Close your eyes and picture yourself sitting next to a stream of water. Imagine that leaves are floating down the stream. While you are imagining this, think again, back to when you last looked at yourself in the mirror. Let that moment become vivid right here, right now. Every time a thought, feeling, sensation, and/or emotion comes up, whether positive or negative, say to yourself, "I'm having the thought that…" and place it gently on one of the leaves and watch it pass by. If your thoughts stop, just watch the stream. Sooner or later your thoughts will start up again. Allow the stream to flow at its own rate. Don't speed it up. You're not trying to wash the leaves away—you're allowing them to come and go in their own good time. Whatever it is that your mind says, place that thought on a leaf. If a leaf gets stuck, let it hang around. Don't force it to float away. If a difficult feeling arises, such as anxiety, sadness, shame, simply acknowledge it. Say to yourself, "Here's a feeling of anxiety" or "Here's a feeling of shame." Then place those words on a leaf, and let that leaf float on by. From time to time your thoughts will hook you, and you'll lose track of the exercise. This is normal and natural, and it will keep happening. As soon as you realize it's happened, gently acknowledge it and then start the exercise again.

Facilitators debrief and ask the participants: What sorts of thoughts hooked you? What was it like to let thoughts come and go without holding on? Was it hard to let go of any thoughts in particular? What feelings showed up? Was acknowledging the feeling useful?

Guided Meditation and Exercise: "Noticing Avoidant Eating"

(Sandoz, Wilson, & DuFrene, 2011)

Facilitators guide the mindfulness exercise: Allow your eyes to close. As you breathe, notice how it feels to pull the air in and to release. Call to mind an instance when you were making a specific effort to control your eating. Maybe you counted calories carefully in your head. Maybe you denied yourself a certain treat you wanted. Maybe you made a point to leave a certain amount of food on your plate. Whatever form it took for you, let the scene appear before you. Notice where you were and who was there with you. Notice any smells or sounds in the air. Watch yourself as you navigated this specific act of eating—and breathe. Gently let that scene fade as you return your attention to the here and now. Take three slow, deep breaths, noticing how it feels to breathe in and out. Whenever you're ready, open your eyes.

Facilitators provide a brief didactic presentation: A part of you probably wants to shove that experience as far from your mind as possible. These are not experiences that most people like to think about—and that is just another layer of avoidance. We not only avoid body image concerns or fears of disappointment, but avoid our own avoidance. Take a moment and notice some of the thoughts or feeling you can't stand to have—both ones that showed up in the eating experiences and ones that showed up as you recalled those eating experiences. These are the experiences that you're likely to work to avoid.

"The Unexpected New Gym Member" Metaphor

The facilitators present the metaphor to the participants: Imagine you're at your gym and about to do your normal weekday workout. You've got your cute workout shorts and tank top on and you're feeling good about yourself. All your favorite gym buds are there too, many whom you haven't seen in quite some time because you're on different schedules so you stop and chat for a bit in-between sets. This social time is really important to you because it's really the only time you get because of your demanding career. You're happy and enjoying your time when in walks your ex, with whom you had a bad falling out, and not to mention has an even more amazing body than when you last saw him; a body you used to have when dating him. You think, "Oh damn, not here, not now!" He's still in the front of the gym checking in and you're near the back next to the free-weights so you are able to sort of take a deep breath and keep on working out and chatting. As you're doing a last set of reps on the incline chest, you notice him making his way towards the back where you are, so you get distracted from lifting and chatting with your gym friends and tell them you need to use the bathroom, so you leave the scene in order to avoid your ex. You really don't want him to see how you've gained a little weight. You get back and he's now talking to some of your friends who you really wanted to catch up with but you avoid doing so because "he" is there. You then decide that it's too painful to stay and workout and catch up with your friends so you decide to leave.

Facilitators ask the group: "Who's in control here? Your nemesis has been roaming all around the gym and you've been killing yourself trying to stay away. So who's in charge? You or him? Again, what are the costs of avoiding this guy?" The group as a whole then discusses the costs of avoidance.

Exercise: "The Choice to Feel"

Facilitators say the following to the group, making a connection with the above metaphor: Suppose I could give you a choice—(Option A) you never have to have this painful feeling of being ugly, fat, or weak ever again, but it means that you lose all capacity to love and care. You care about nothing and no one. Nothing matters. No one matters. Life becomes meaningless because you don't care about anything whatsoever; (Option B) you get to love and care. People matter to you. Life matters. You care about what you do, and what happens. You care about friends and family. You get to build loving romantic relationships. Life becomes meaningful. And when there's a gap between what you want and what you've got, painful feelings like these show up. Which option do you choose? Discussion follows.

Exercise: "Allowing and Softening"

Facilitators ask the participants to take another notecard and to write a negative thought they have about some aspect of their body. They are not expected to share this feeling so it can be one of their most hurtful and secretive thoughts. Facilitators then ask the participants to read the thought to themselves, evoke a feeling from that thought, and to close their eyes. Then facilitators ask if they'd be willing to just allow that feeling to be there, emphasizing that they don't have to necessarily like it or want it, but to just allow it to be there. Facilitators then ask participants to open their eyes and to see if they can soften up around the feeling, loosen up, and hold it gently. Discussion follows.

Introduction to Acceptance as an Alternative to Avoidance

(Sandoz, Wilson, & DuFrene, 2011)

A didactic presentation follows: Individuals struggling with disordered eating and related disturbances describe certain perceptions, thoughts, feelings, urges, or memories as intolerable. These individuals may describe acting in a way to avoid or lessen the frequency or intensity of these experiences. Many people describe body-image avoidance and avoidance of eating-related experiences as particularly common. For many individuals who struggle with disordered eating and body image dissatisfaction, their experiences of their bodies have been aversive and often unreliable. The body image has become dangerous, unpredictable, and incredibly meaningful.

An alternative to avoidance is acceptance. Acceptance or "willingness" means allowing our thoughts and feelings to be as they are, regardless of whether they are pleasant or painful; opening up and making room for them; dropping the struggle with them; and letting them come and go as they naturally do.

Exercise: "Acceptance as Valued Living"

Facilitators briefly ask participants to choose a value and to complete the following phrase: "In service of my value of_____, I commit to accepting_____that comes up when_____.

Committed Action: Doing What It Takes For What Matters

Introduction to Committed Action

(Harris, 2009)

A didactic presentation follows: Committed action means taking larger and larger patterns of effective action, guided and motivated by values. It also means flexible action—readily adapting to the challenges of the situation, and either persisting with or changing behavior as required; doing what it takes to live by our values.

SMART Goals

(Harris, 2009)

A didactic presentation follows: When it comes to setting goals, make sure you set a SMART goal and avoid emotional goals and "dead-person's" goals.

Specific—Specify the actions you will take: when and where you will do so, and who or what is involved.
Meaningful—If this goal is genuinely guided by your values as opposed to following a rigid rule, trying to please others, or trying to avoid some pain, then it will be personally meaningful. If it lacks a sense of meaning or purpose, check in and see if it's really guided by your values.
Adaptive—Does the goal help you head in a direction that, as far as you can predict, is likely to improve, enrich, or enhance your quality of life?
Realistic—The goal should be realistically achievable. Take into account your health, competing demands on your time, financial status, and whether you have the skills to achieve it.
Time-framed—To increase the specificity of your goal, set a day, date, and time for it. If this isn't possible, set as accurate a time frame as you possibly can.

Worksheet: "Setting Values-Based Goals"

Using the "Ranking Your Valued Directions" worksheet as a guide, and the "Setting Values-Based Goals" worksheet, participants are asked to take their top three valued domains from the ideal ranking and make values statements about those domains. Next, using their knowledge of SMART goals, they are asked to identify immediate, short-term, medium-term, and long-term goals for each value.

Facilitators then ask participants to clarify for themselves: "What would be the most positive outcome(s) of achieving your goal? What would be the benefit? Discussing and sharing of statements follow.

"Passengers on the Bus" Metaphor

The facilitators present the metaphor to the participants as a culmination to their work during the workshop. Facilitators ask one volunteer to act the role of the bus driver and asks several other volunteers to play the roles of the passengers. This metaphor contains within it the entire psychological flexibility model: It's as if there is a bus and you're the driver. On this bus we've got a bunch of passengers. The passengers are thoughts, feelings, bodily states, and memories, all about your body image and eating attitudes and behaviors. Some of them are scary, and they're dressed up in black leather jackets and they've got switchblade knives. What happens is, you're driving along and the passengers start threatening you, telling you what you have to do, where you have to go. The threat that they have over you is that, if you don't do what they say, they're going to come up from the back of the bus.

It's as if you've made deals with these passengers, and the deal is, "You sit in the back of the bus and scrunch down so that I can't see you very often, and I'll do what you say, pretty much." Now, what if one day you get tired of that and say, "I don't like this! I'm going to throw those people off the bus!" You stop the bus, and you go back to deal with the mean-looking passengers. Notice that the very first thing you had to do was stop. Notice now, you're not driving anywhere, you're just dealing with these passengers. Plus, they're real strong. They don't intend to leave, and you wrestle with them, but it just doesn't turn out very successfully.

Eventually you go back to placating the passengers, to try and get them to sit way in the back again where you can't see them. The problem with that deal is that you have to do what they ask. Pretty soon, they don't even have to tell you to "Turn left"—you know as soon as you get near a left turn that certain passengers are going to crawl all over you. Eventually you may get good enough that you can almost pretend that they're not on the bus at all. You just tell yourself that left is the only direction in which you want to turn! However, when they eventually do show up, it's with the added power of the deals that you've made with them in the past.

Now, the trick about the whole thing is the following: The power that the passengers have over you is 100% based on this: "If you don't do what we say, we're coming up and we're making you look at us." That's it! It's true that when they come up they look like they could do a whole lot more. They've got knives, chains, etc. It looks like you could be destroyed. The deal you make is to do what they say so they won't come up and stand next to you and make you look at them. You have control of the bus, but you trade away the control in these secret deals with the passengers. In other words, by trying to get control, you've actually given up control! Now notice that, even though your passengers claim they can destroy you if you don't turn left, it has never actually occurred. These passengers can't make you do something against your will.

Facilitators ask the passengers to line up behind the driver, who is then instructed to name a valued life direction of his choice. That direction is then given concrete form (e.g., "So, over here is spending time with your partner and friends even though you feel unattractive and feel the time to spend more time working out"). The driver is then asked by the facilitators to confront passengers one at a time and to note what they pull for. The rest of the group/audience playing the specific thought, feeling, sensation, etc. has often been selected because they understand something about it, and they are coached to express out loud how it is. Passengers are asked to make chatter regarding issues with body image and eating, directed at the driver. Facilitators ask the driver if the passengers need to be confronted and reminds him that each he does this, he must stop the bus. Facilitators then ask the driven if he could make room for the passengers' chatter so that he can continue driving on his path. Debriefing follows the metaphor and exercise.

Worksheet and Exercise: "Dealing With Obstacles and Public Commitments"

Facilitators ask participants to imagine the potential difficulties and obstacles that might stand in the way of achieving their goals, and how they will deal with them if/when they arise, using the "Dealing With Obstacles and Public Commitments" worksheet.

Upon completion of the worksheet, participants were asked to make public commitments to other workshop members, which include the following components:

1.) Assertion of the importance of at least one valued domain
2.) The values statement associated with that domain
3.) A verbal commitment to pursue the stated goals even in the presence of various barriers

Posttreatment Assessment

Measures

Ask participants to again complete a packet of measures including the following: The Male Body Attitudes Scale (MBAS), the Eating Attitudes Test-26 (EAT-26), the White Bear Suppression Inventory (WBSI), the Acceptance and Action Questionnaire-II (AAQ-II), and the Body Image—Acceptance and Action Questionnaire (BI-AAQ).

Explanation of Follow-Up Assessments

Inform participants that they will be contacted via telephone and/or e-mail within approximately 4 weeks. They will be provided with an internet link from Qualtrics where they will be asked to complete the following measures: The Male Body Attitudes Scale (MBAS), the Eating Attitudes Test-26 (EAT-26), the White Bear Suppression Inventory (WBSI), the Acceptance and Action Questionnaire-II (AAQ-II), and the Body Image—Acceptance and Action Questionnaire (BI-AAQ).

Closing Statements

Thank you for your time and participation in this research study. Feel free to contact the primary investigator, Joseph Walloch, if any questions arise. If necessary, you may also contact my supervisor Dr. Alison Cerezo acerezo@alliant.edu.

APPENDIX G

Workshop Worksheets

ATTEMPTED SHORT-TERM SOLUTIONS AND THEIR LONG-TERM EFFECTS: BODY IMAGE

What have you done to avoid or get rid of your problematic thoughts, feelings, memories, emotions, or sensations related to your body image?	*Did your thoughts and feelings go away? Did they return in the long run? Did they worsen?*	*Has this brought you closer to a rich, full, and meaningful life?*	*What has this cost you in terms of wasted time, energy, or money; or negative effects on health, well-being, work, leisure, or relationships?*
1.)			
2.)			
3.)			
4.)			

BASIC COMPONENTS—ACT

A—Accept

C—Choose

T—Take action

Accept your thoughts and feelings about yourself, which are essentially not controllable. The idea is to accept what you already have anyway, and end the struggle with unwanted thoughts and feelings by not attempting to change them, not acting upon them, and ultimately letting them go.

Choose a direction in your life which involves identifying what you value in life and what you want your life to stand for. This is about finding out what is truly important to you.

Take action is the final component which involves taking steps toward realizing your valued life goals. It is about making a commitment to action and changing what you can change. This step involves learning to behave in a way that moves you forward in the direction of your chosen values.

LIFE WITHOUT BODY IMAGE AND EATING CONCERNS

Have you ever wondered what life would be like if you didn't have any concerns about your muscularity, your body shape, or your eating? Use the space below to describe how your life would be different if your time was not consumed by the endless battle to achieve your ideal. If you didn't have to diet, work out, or worry about your body, what would your life be like? What kinds of things would you do differently? If society, including the gay subculture, didn't care what your body looked like, what would your relationships be like? For the next five to ten minutes, write about the life you imagine you'd be living if you let go of your body image and eating concerns.

RANKING YOUR VALUED DIRECTIONS

Instructions: First choose 3 values. Then rate how much time and energy you put into each area or direction of your life now (1 = the most time and energy; 3 = the least time and energy).

Valued Direction	**Ranking**
Career	
Citizenship	
Education	
Family	
Friends	
Health	
Leisure	
Romantic Relationships	
Spirituality	

Instructions: Next rate where your time and energy would be spent in a perfect or ideal life (1 = the most time and energy; 3 = the least time and energy).

Valued Direction	**Ranking**
Career	
Citizenship	
Education	
Family	
Friends	
Health	
Leisure	
Romantic Relationships	
Spirituality	

- *Notice any discrepancies between your first set of rankings and your second set.*
- *What stands between you and living your life as you want to?*

SETTING VALUES-BASED GOALS

Step 1 Instructions: Choose three valued domains of life/three values underlying your goals you choose to work on (these should be the top three valued domains from the ideal ranking and make values statements about those domains from the "Ranking Your Valued Direction" worksheet).

1.)

2.)

3.)

Step 2 Instructions: Remember to take into consideration SMART (Specific/Meaningful/Adaptive/Realistic/Time-framed) goals.

Step 3 Instructions: Write down your values-based goals for a(n):

***Immediate goal**—Something small, simple, and easy that you can do in the next 24 hrs.*
***Short-term goal**—Things you can do over the next few days and weeks.*
***Medium-term goal**—Things you can do over the next few weeks and months.*
***Long-term goal**—Things you can do over the next few months and years.*

Immediate Goal	*Short-term Goal*	*Medium-term Goal*	*Long-term Goal*
1.)			
2.)			
3.)			

WHAT BARRIERS DO YOU FACE?

Think about each of your values and consider what stands in the way or pursuing these values. For each valued domain, make a values statement for that domain, and then list the barriers that prevent you from moving in that values direction.

Career/Citizenship/Education/Family/Friends/Health/Leisure/ Romantic Relationships/Spirituality

Value:

Values statement:_____

Barriers:_____
_____
_____
_____
_____

Value:

Values statement:_____

Barriers:_____
_____
_____
_____
_____

Value:

Values statement:_____

Barriers:_____
_____
_____
_____
_____

REFLECTING ON BODY IMAGE

Take a few moments to record what came up for you in the meditation by writing in the spaces below.

When I feel good about my body, I feel:

When I feel good about my body, I think:

When I feel good about my body, I see myself:

When I feel good about my body, I tend to:

When I feel bad about my body, I feel:

When I feel bad about my body, I think:

When I feel bad about my body, I see myself:

When I feel bad about my body, I tend to:

DEALING WITH OBSTACLES AND PUBLIC COMMITMENTS

Imagine the potential difficulties and obstacles that might stand in the way of you achieving your goals, and how you will deal with them if they arise. Considering the following:

A—What are the possible internal difficulties (difficult thoughts and feelings, such as low motivation, self-doubt, distress, anger, hopelessness, insecurity, anxiety, etc.)?

B—What are the possible external difficulties (things aside from thoughts and feelings that might stop you, e.g., lack of money, lack of time, lack of skills, personal conflicts with other people involved)?

If internal difficulties arise in the form of thoughts and feelings, such

as:_____

_____,

then I will use the following mindfulness skills to unhook, make room and get

present:_____

_____

If external difficulties arise, such as:

1.)_____

2.)_____

3.)

then I will take the following steps to deal with them:

1.) _____

2.) _____

3.) _____

MIRROR, MIRROR ON THE WALL

In this space, write down all of the thoughts, feelings, sensations, and/or emotions that came up for you while thinking about a recent time you gazed at yourself in the mirror:

_____

In this space, write down everything you do to get rid of all those uncomfortable thoughts, feelings, sensations, and/or emotions when looking at yourself in the mirror:

_____

YOUR 80TH BIRTHDAY

Imagine your 80th birthday party. Two or three people make speeches about what you stand for, what you mean to them, the role you played in their lives. In the "ideal" world, where you have lived your life as the person you want to be, what would you hear them saying? Write a few messages you hear your friends saying about you.

ESTABLISHING THE LIFE LINE

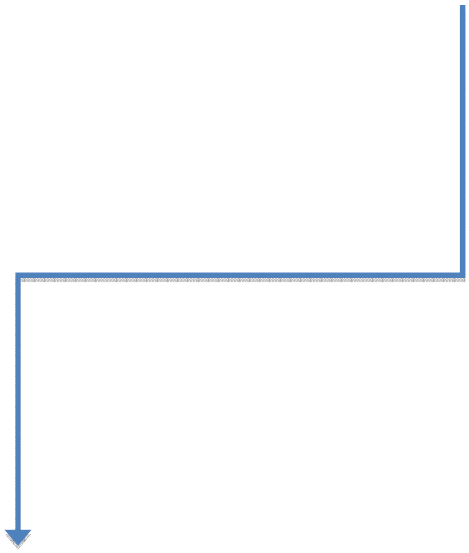
"Are You WILLING?"

Your Value

_____

Your Obstacle

Your Obstacle



Your Obstacle

Your Obstacle

Your Name

_____

APPENDIX H

Informed Consent Agreement Form

Informed Consent Agreement Form

California School of Professional Psychology at Alliant International University,
San Francisco Campus
1 Beach Street
San Francisco, CA 94133
(415) 955-2100

You are being asked to participate in a research study. However, before you give your consent to participate, I'd like you to read the following material to ensure that you are informed of the nature of this research study and of how you will participate in it, if you consent to do so. Signing this form will indicate that you have been so informed and that you give your consent. Federal regulations require written informed consent prior to participation in this research study so that you can know the nature and risks of your participation and can decide to participate or not participate in a free and informed manner.

INVESTIGATOR
The following research is being conducted by Joseph C. Walloch. Mr. Walloch is a doctoral student in clinical psychology at the California School of Professional Psychology at Alliant International University, San Francisco Campus. This research is for Mr. Walloch's dissertation, as part of the requirements toward the Doctor of Psychology degree.

PURPOSE OF THE RESEARCH
The purpose of this study is to test the efficacy of a 1-day workshop targeted at adult gay men who struggle with body image and their eating attitudes and behaviors. The goal of this intervention is to reduce gay men's preoccupation with body image, weight, and shape.

DURATION OF PARTICIPATION IN THE RESEARCH AND NUMBER OF PARTICIPANTS
If you agree to participate, you will be involved in this study for a 1-day (7 hours) workshop and approximately 20 additional minutes 1 month following the termination of the workshop. A total of about 25-60 participants will be involved in this study.

PROCEDURES TO BE FOLLOWED DURING THE RESEARCH
If you choose to participate in this study, you will first complete a demographic questionnaire followed by a series of questionnaires. A few of these questionnaires are asking questions about the ways in which you think, while others are primarily centered around body image and eating attitudes and behaviors. Upon finishing the questionnaires, the official workshop will begin. A brief orientation to the workshop will be provided followed by an introduction by the facilitator(s). You will be participating in a series of exercises, including several brief meditations, and you will be asked to disclose your thoughts throughout the workshop. A 30-minute complimentary lunch will be provided to you at the half-way point of the workshop. The second half of the

workshop will also consist of a series of exercises and brief meditations in which you will be asked to participate. At the end of the workshop, you will again complete several questionnaires and will be given direction of how to complete the 1-month follow-up questionnaires.

RISKS

There are no physical risks and minimal psychological risks associated with participating in this study. However, it is possible, given the content of this study, that emotional reactions might arise. While completing the questionnaires, you will be asked some questions that may make you feel uncomfortable. Similarly, while participating in the workshop, you may experience discomfort talking about issues with body image, food, and exercise in front of the group. You are encouraged to discuss your reactions to the workshop material with the facilitator(s). If participation in this study results in your experiencing any psychological distress or anxiety, Mr. Walloch will provide you with the name of number of a licensed psychotherapist who is available to consult with you, free of charge, for one session.

BENEFITS OF THE RESEARCH

One benefit of participating in this study is that it will allow you to share their experiences of struggling with body image and unhealthy eating attitudes and behaviors, with the hope of helping others who are currently experiencing similar challenges, all within an accepting and empathetic atmosphere. In addition, participation in this study will contribute to your own understanding of how you, as a gay men, feel about your body. Finally, your participation in this study will contribute to the understanding of how best to help gay men who struggle with their body image.

ALTERNATIVES TO THIS RESEARCH

If you choose to participate in this research, there is no other alternative procedure other than what is described.

CONFIDENTIALITY

You have a right to privacy, and all information identifying you will remain confidential and will not be released without your written permission unless compelled by law. Your identity will not be revealed in any publication or release of study results. All records pertaining to this study will be stored in a locked file cabinet and will only be accessible to Mr. Joseph Walloch and his advisor, Alison Cerezo, Ph.D., for a minimum of 5 years after completion of the study and/or publication, whichever comes later. At that time, all materials will be destroyed via shredding of the hard-copy data. The online internet account where follow-up questionnaires are completed will also be deleted after 5 years.

LIMITS TO CONFIDENTIALITY

Questionnaires will not ask for information regarding abuse. However, if at any time during your participation in the workshop the facilitator(s) has/have reasonable cause to believe that you are in danger of harming yourself or identifiable others (e.g., suicidal or homicidal intent or plans), they are ethically obligated to disclose this information to the appropriate authorities without your consent. You will be referred for appropriate

treatment and your participation in the study will end. In addition, if the workshop facilitator(s) has/have a reasonable suspicion of child, dependent, or elder abuse, they are legally mandated to report this information to the proper protective agency without your consent.

COMPENSATION
Although there is no monetary compensation for your participation, lunch will be provided to you free of charge.

PARTICIPANT RIGHTS AND RESEARCH WITHDRAWAL
Your participation in this study is voluntary. You may refuse to participate at any time or withdraw once the study has started without any consequence, and all material collected up to that time will be destroyed.

CONTACT INFORMATION FOR QUESTIONS OR CONCERNS
If you have questions or concerns related to this research, please contact Joseph Walloch at jwalloch@alliant.edu or (206) 235-5454. I am working under the advisement of Alison Cerezo, Ph.D. You can contact her at acerezo@alliant.edu or (415) 955-2070. If you have any questions or concerns about your rights as a research participant in this study, please contact the Institutional Review Board (IRB) at Alliant International University by phone (415) 955-2151 or by e-mail at IRB-SF@alliant.edu.

SIGNATURE AND ACKNOWLEDGEMENT
My signature below indicates that I have read the above information and I have had a chance to ask questions to help me understand what my participation will involve. I agree to participate in this study until I decide otherwise. I acknowledge having received a copy of this agreement to keep for my records. Finally, I have been told that by signing this consent form I am not giving up any of my legal rights.

_____

PRINT NAME OF PARTICIPANT *DATE*

_____

SIGNATURE OF PARTICIPANT *DATE*

_____

SIGNATURE OF INVESTIGATOR *DATE*

- ❑ Yes, I am interested in receiving a written summary of the results of this study when the research is completed. (Please provide an e-mail address OR mailing address below)
- ❑ No, I am not interested in receiving a written summary of the results of this study when the research is completed.

E-MAIL:

STREET ADDRESS:

CITY: *STATE:* *ZIPCODE:*

APPENDIX I

Demographic Questionnaire

Demographic Questionnaire

Please fill out the information below. If you have any questions please ask the researcher. For multiple choice questions, please make a check mark in the space provided before each choice.

Please indicate:

First Name:_____ Last Name:_____

Age:_____

Preferred E-mail:_____

Phone Number(s):_____

Sex:_____

Sexual Orientation:_____

Race/Ethnicity:

____African American
____Asian American/Pacific Islander
____White/Caucasian
____Hispanic/Latino
____Native American
____Other

Relationship Status:

____Single and not dating
____Single and dating
____Committed relationship
____Open Committed relationship
____Civil Union
____Married/Domestic Partnership

What is your religious affiliation?:

_____

Highest level of educational attainment:

____Some high school
____High school diploma/G.E.D.

____Some college
____Associate's degree/Trade school
____Bachelor's degree
____Some graduate school/Professional school
____Graduate/Professional degree

How do you perceive your income levels/social class?:

_____

Annual Income on average:

____less than $20,000
____between $20—30,000
____between $30—40,000
____between $40—50,000
____between $50—60,000
____between $60—70,000
____between $70—80,000
____between $80,000 or greater

APPENDIX J

Male Body Attitudes Scale (MBAS)

MBAS

Please indicate whether each question is true about you always, usually, often, sometimes, rarely, or never.

1. I think I have too little muscle on my body.

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

2. I think that my body should be leaner.

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

3. I wish that my arms were stronger.

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

4. I feel satisfied with the definition in my abs (i.e., stomach muscles).

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

5. I think that my legs are <u>not</u> muscular enough.

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

6. I think my chest should be broader.

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

7. I think my shoulders are too narrow.

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

8. I am concerned that my stomach is too flabby.

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

9. I think that my arms should be larger (i.e., more muscular).

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

10. I feel dissatisfied with my overall body build.

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

11. I think that my calves should be larger (i.e., more muscular).

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

12. I wish I were taller.

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

13. I think that I have too much fat on my body.

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

14. I think that my abs are <u>not</u> thin enough.

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

15. I think my back should be larger and more defined.

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

16. I think my chest should be larger and more defined.

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

17. I feel satisfied with the definition in my arms.

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

18. I feel satisfied with the size and shape of my body.

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

19. I am satisfied with my height.

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

20. Has eating sweets, cakes, or other high calorie food made you feel fat or weak?

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

21. Have you felt excessively large and rounded (i.e., fat)?

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

22. Have you felt ashamed of your body size or shape?

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

23. Has seeing your reflection (e.g., in a mirror or window) made you feel bad about your size or shape?

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

24. Have you been so worried about your body size or shape that you have been feeling that you ought to diet?

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

APPENDIX K

Eating Attitudes Test-26 (EAT-26)

EAT-26

Please indicate whether each question is true about you always, usually, often, sometimes, rarely, or never.

1. Am terrified about being overweight.

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

2. Avoid eating when I am hungry.

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

3. Find myself preoccupied with food.

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

4. Have gone on eating binges where I feel that I may not be able to stop.

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

5. Cut my food into small pieces.

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

6. Aware of the calorie content of foods that I eat.

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

7. Particularly avoid food with a high carbohydrate content (i.e., bread, rice, potatoes, etc.).

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

8. Feel that others would prefer I ate more.

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

9. Vomit after I have eaten.

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

10. Feel extremely guilty after eating.

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

11. Am preoccupied with a desire to be thinner.

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

12. Think about burning up calories when I exercise.

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

13. Other people think I am too thin.

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

14. Am preoccupied with the thought of having fat on my body.

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

15. Take longer than others to eat my meals.

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

16. Avoid foods with sugar in them.

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

17. Eat diet foods.

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

18. Feel that food controls my life.

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

19. Display self-control around food.

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

20. Feel that others pressure me to eat.

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

21. Give too much time and thought to food.

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

22. Feel uncomfortable after eating sweets.

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

23. Engage in dieting behavior.

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

24. Like my stomach to be empty.

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

25. Have the impulse to vomit after meals.

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

26. Enjoy trying new rich foods.

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

APPENDIX L

White Bear Suppression Inventory (WBSI)

WBSI

This survey is about thoughts. There are no right or wrong answers, so please respond honestly to each of the items below. Be sure to answer every item by circling the appropriate letter beside each.

A = Strongly disagree
B = Disagree
C = Neutral or don't know
D = Agree
E = Strongly agree

1.	There are things I prefer not to think about.	A	B	C	D	E
2.	Sometimes I wonder why I have the thoughts I do.	A	B	C	D	E
3.	I have thoughts that I cannot stop.	A	B	C	D	E
4.	There are images that come to mind that I cannot erase.	A	B	C	D	E
5.	My thoughts frequently return to one idea.	A	B	C	D	E
6.	I wish I could stop thinking of certain things.	A	B	C	D	E
7.	Sometimes my mind races so fast I wish I could stop it.	A	B	C	D	E
8.	I always try to put problems out of mind.	A	B	C	D	E
9.	There are thoughts that keep jumping into my head.	A	B	C	D	E
10.	There are things that I try not to think about.	A	B	C	D	E
11.	Sometimes I really wish I could stop thinking.	A	B	C	D	E
12.	I often do things to distract myself from my thoughts.	A	B	C	D	E
13.	I have thoughts that I try to avoid.	A	B	C	D	E
14.	There are many thoughts that I have that I don't tell anyone.	A	B	C	D	E
15.	Sometimes I stay busy just to keep thoughts from intruding on my mind.	A	B	C	D	E

APPENDIX M

Acceptance and Action Questionnaire-II (AAQ-II)

AAQ-II

Below you will find a list of statements. Please rate how true each statement is for you by circling a number next to it. Use the scale below to make your choice.

1	2	3	4	5	6	7
Never true	**Very seldom true**	**Seldom true**	**Sometimes true**	**Frequently true**	**Almost always true**	**Always true**

1. My painful experiences and memories make it difficult for me to live a life that I would value.	1	2	3	4	5	6	7
2. I'm afraid of my feelings.	1	2	3	4	5	6	7
3. I worry about not being able to control my worries and feelings.	1	2	3	4	5	6	7
4. My painful memories prevent me from having a fulfilling life.	1	2	3	4	5	6	7
5. Emotions cause problems in my life.	1	2	3	4	5	6	7
6. It seems like most people are handling their lives better than I am.	1	2	3	4	5	6	7
7. Worries get in the way of my success.	1	2	3	4	5	6	7

APPENDIX N

Body Image-Acceptance and Action Questionnaire (BI-AAQ)

BI-AAQ

Directions: Below you will find a list of statements. Please rate the truth of each statement as it applies to you. Use the following rating scale to make your choices. For instance, if you believe a statement is 'Always True,' you would write a 7 next to that statement.

Never True	Very Seldom True	Seldom True	Sometimes True	Frequently True	Almost Always True	Always True
1	2	3	4	5	6	7

_____1. Worrying about my weight makes it difficult for me to live a life that I value.

_____2. I care too much about my weight and body shape.

_____3. I shut down when I feel bad about my body shape or weight.

_____4. My thoughts and feelings about my body weight and shape must change before I can take important steps in my life.

_____5. Worrying about my body takes up too much of my time.

_____6. If I start to feel fat, I try to think about something else.

_____7. Before I can make any serious plans, I have to feel better about my body.

_____8. I will have better control over my life if I can control my negative thoughts about my body.

_____9. To control my life, I need to control my weight.

_____10. Feeling fat causes problems in my life.

_____11. When I start thinking about the size and shape of my body, it's hard to do anything else.

_____12. My relationships would be better if my body weight and/or shape did not bother me.

APPENDIX O

Workshop Follow-Up Measures Telephone/E-Mail Reminder Script

Workshop Follow-Up Measure Telephone/E-Mail Reminder Script

Hello **[Participant's Name]**, this is Joseph Walloch, the doctoral student in clinical psychology from the California School of Professional Psychology, at Alliant International University. You participated in my workshop for adult gay men who struggle with body image and their eating attitudes and behaviors about a month ago. I am contacting you to give you the internet link so that you can complete the follow-up questionnaires for me.

The internet link is—http://www.XXXXXXXXXXX.com

If you have any questions or problems completing the questionnaires, please don't hesitate to call me at 206-235-5454 or e-mail me back. You may also contact my supervisor, Dr. Alison Cerezo at (415) 955-2070 or by e-mail at acerezo@alliant.edu if you have any questions or concerns about my study. Thank you so much **[Participant's Name]** for participating in my research. I really appreciate it.